

7-21-18
Herald

Red tide is still killing sea turtles

TURTLES

By **STEVE REILLY**

STAFF WRITER

Sea turtles continue to nest on Manasota Key and other area barrier islands, but the red tide algae bloom is taking its toll.

Tuesday, sea turtle patrol volunteers discovered on Manasota Key three dead turtles. Two were green turtles and one large loggerhead, that appeared to be struck by a boat, Zoe Bass reported.

Another turtle was trapped alive.

“One was a live stranded nesting female, stuck under the steps in a rock revetment,” said Bass, who is one of the state permit holders overseeing Coastal Wildlife Club sea turtle volunteer patrols.

CWC volunteers reported 10 other previous dead turtles on the key, which brings the total to 13.

Red tide or not, sea turtles continue to nest. As of July 13, the CWC reported 3,266 loggerhead

nests, 13 green nests and one Kemp’s ridley nests on

TURTLES | 10



Sue Drummer measures a small green sea turtle that washed up dead on Manasota Key. Local barrier islands are seeing many dead sea turtles that fell victim to the toxic red tide algae.

PROVIDED BY COASTAL WILDLIFE CLUB

Red tide is still killing sea turtles

TURTLES

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Manasota Key.

Farther south on Knight-Don Pedro Island, three Kemp’s ridley and one loggerhead washed up dead, according to Brenda Bossman, primary permit holder on the barrier islands.

Still, there is a lot of nesting activity.

Officials with the stranding program suspect red tide exposure as the cause of death in six turtle deaths, since there were no obvious signs of injury and the turtles were discovered in areas where red tide has been documented.

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“We’ve had a lot of nests in the first weeks of July,” she said. So far, volunteers reported 277 loggerhead nests and one green turtle nest on Knight-Don Pedro islands.

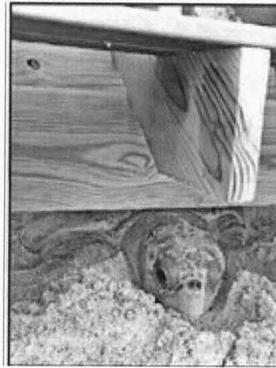
“We may, I guess, have 100 more nests by the end of July,” Bossman said.

Mote Marine Laboratory oversees sea turtle patrols from Longboat Key south to Venice. As of July 7, Mote reported more than 2,200 turtle nests.

Mote’s Stranding Investigations Program is responsible for all reports of stranded sea turtles within Sarasota County.

Dead turtles washed up on Longboat, Nokomis and Caspersen beaches, Mote reported.

So far, Mote recovered 89 stranded sea turtles this year. The season average is about 100.



Coastal Wildlife Club sea turtle patrol volunteers discovered this nesting sea turtle caught between a stairway and rock revetment on Manasota Key. It’s luckier than three other sea turtles that washed up dead on local barrier islands due to the toxic red tide algae.

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Schools, red tide in focus

FORUM

Security, environment among topics of discussion at forum

By Earle Kimel

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NORTH PORT — Sarasota County School Board Member Jane Goodwin and Sarasota County Commission Candidate Wesley Beggs took advantage of a bully pulpit Thursday night at the Englewood Indivisible candidate meet-and-greet at St. Nathaniel's Episcopal Church.

Goodwin, a Republican, and Beggs, a Democrat, are among a slate of seven candidates endorsed by the liberal-leaning activist group that sprung up following the 2016 presidential election.

Sarasota County School Board District 1 candidate Nick Guy, state House District 74 candidate Tony Mowry, and state Senate District 23 candidate Olivia Babis also participated in the forum, arriving late after attending another event.

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Schools, red tide in focus

FORUM

From Page B1

Goodwin has received the group's endorsement. She stressed the importance of improving state funding for education, talked about securing schools and praised the yet-to-be-hired new district police force.

"We're going to put baseball cards out that have the officers names, because all the people we're hiring for our force come to us with at least 20 years of experience," Goodwin told the crowd of roughly 50 gathered for the event.

Goodwin also praised Superintendent Todd Bowden and chided School Board Chairwoman Bridget Ziegler and board member Eric

"We're reaching a crisis of state, whether it's that guacamole in Okeechobee, or the red tide that's out there," Beggs said. "Every time I go out to Venice Beach, every time I go out to Englewood Beach, I'm dodging dead fish."

Beggs followed that up by saying county commissioners can do their part to change that by restricting fertilizers and pesticides.

Babis tied the red tide bloom directly to the toxic algae flow from Lake Okeechobee. She said funds from a voter-approved conservation initiative should be used to buy sugar lands so the water can flow south through the Everglades to Florida Bay, "where they need the fresh water."

Mowry said he was inspired to run for District 74, in part, by one of his elder law clients, a woman named Dorothy, who along with her husband was priced out of living independently because they

Robinson, accusing them of overreaching the board's authority.

"We are micromanaging our superintendent, who has three advanced degrees and is doing a great job," she added.

Beggs touted her support for environmental protection and affordable housing. She mourned the dual environmental catastrophes of red tide and the toxic algae-infested water that's flowing from Lake Okeechobee to both sides of the Florida peninsula.

could not make ends meet on social security and a modest pension.

"They needed a lot more help than to just write a will," said Mowry, who eventually got the clients federal housing assistance.

"If I get to the state House, I could help all of the Dorothys out there," Mowry said.

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Loggerhead turtle deaths spike in Sarasota County

TURTLES

Red tide bloom suspected as hundreds are washing up along Gulf Coast

By Carlos R. Munoz

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SARASOTA — Some of the world's most vulnerable sea turtles are being found dead in Sarasota County with speculation that a toxic red tide bloom lingering along the Southwest Florida coast since October is to blame.

The Florida Fish and Wildlife Conservation Commission has documented 287 sea turtle deaths in the Gulf of Mexico this year, according to the Associated Press. Allen Foley of the commission's Fish and Wildlife Research Institute said that's about double the average number of turtle deaths in those waters each year.

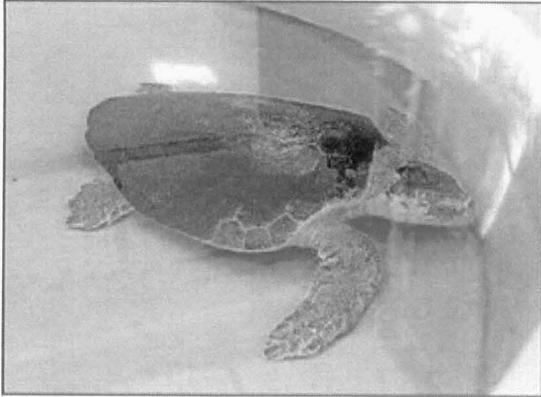
The bloom sometimes stretches from Tampa Bay to the Florida Keys. Foley said turtles become sick and die when their food (seagrasses, algae, and marine animals) is contaminated by the toxins.

Loggerhead and Kemp's ridley sea turtles are the two species primarily affected by the bloom. Both are federally protected.

Gretchen Lovewell, manager for Mote Marine

See TURTLES, B2

Intrepid, a loggerhead that has been under Mote Marine Laboratory's care since June 7, is scheduled to be released today on Lido Beach. [MOTE MARINE LABORATORY / CONOR GOULDING]



Loggerhead turtle deaths spike in Sarasota County

TURTLES

From Page B1

Laboratory's Stranding Investigations Program, says her team has recovered 112 deceased sea turtles in Sarasota County. The yearly average is 100.

Lovewell said this is the most turtle deaths in the nine years she has worked at Mote.

"It can take its toll on you," Lovewell said. "We try to make sure these sea turtles don't die in vain and we can use them to help save the ones who are out there."

In a typical year, Mote recovers about one turtle a day. They have picked up 28 since July 15, and only three were living.

The stranding program is currently rehabbing 11 turtles — four suspected of red tide intoxication — that have a good chance to recover.

Sea turtle conservation programs like Coastal Wildlife Club are instrumental in recovering turtles for rehabilitation, said Lovewell, who asks anyone who finds a dead, sick, or injured sea turtle to call FWC's 24-hour Wildlife Alert Number at 888-404-FWCC (1-888-404-3922).

"If we can get to them, or if they hit the beach and we can get them out of their environment,

we've had a pretty good success rate," Lovewell said. "Unfortunately most of these animals are washing up dead."

Mote conducts necropsies on some of the turtles to determine their cause of death.

"There has been enough previous work done that we base our suspicions on the fact that these

animals are stranding in time and space of red tide and have no other findings that indicate human interaction or disease,” Lovewell said.

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About 40 percent of the turtles recovered are “positive” for human interaction, showing evidence of boat strikes and fishing gear.

While it takes years for sea turtles to mature, this year’s hatchlings have a good chance of avoiding red tide intoxication after they enter the water, and making it to weedlines, where they hide and live as juveniles.

Lovewell says the baby turtles pack their own lunch, living on their yolk sacks, rather than feeding on toxic algal blooms offshore.

“We haven’t been seeing an increase in the number of dead hatchlings on the beach,” Lovewell said.

Reeking Red Tide

STENCH

Miles away, the stench persists

By **BOB MUDGE**

Senior Writer

The public has weighed in and the verdict is unanimous — red tide stinks. Literally.

A post on the *Gondolier Sun* Facebook page at 1:44 p.m. Monday asked if people could smell the effects of the offensive algae wherever they happened to be. A day later, the post had been viewed nearly 21,000 times, with more than 700 people commenting from all over the area that yes indeed, they could.

Even if they didn't know what it was.

"We're new here and this morning I phoned the fire dept to report a gas leak," Miranda Hale wrote. "Nope! Red tide! (Jacaranda & Englewood intersection in Venice by Manasota)."

Others were all too familiar with the signs of red tide: a tickle in the throat; a dry cough; watery eyes; respiratory difficulties; and that odor.

A Twitter user with the handle "Buckscaper" described it most graphically: "Anyone able to hazard a guess as to why the entire neighborhood around my office smells like actual death? If someone showed me a pile of dead bodies by the curb right now, I wouldn't be surprised."

People from Nokomis to Manasota Key were having the same experience, largely thanks to a bloom just off the coast of Venice confirmed by Mote Marine Laboratory to be red tide.

Sue Strasburger: "Close to Pop's Restaurant [in Nokomis] ... it's nasty ... the smell of dead fish is clearly evident."

Donna Soper: "I live in Nokomis, on the east side of 41 & can def detect red tide from here. It's not so much the odor from this distance but it's the air quality or lack of."

to this magnitude."

"I have lived here 37 years and never has it been as bad as it is this year," Jennifer Snow Piehler added.

The perceived intensity of the outbreak and the impact on sea life Hertzog mentioned led some to speculate that this isn't just normally occurring red tide. The near simultaneous appearance and spread of blue-green algae blooms in southern Florida, many linked to discharge from Lake Okeechobee, fueled the debate.

"The red tide is being constantly fed and made demonstrably worse from the Blue-green algae coming from Lake Okeechobee release," Elizabeth Morrison wrote. "All that Mountain Dew gravy is mixing with the red tide, putting Cyanobacteria, phosphorus and nitrogen in the water — what it doesn't kill with the toxin, chokes it to death by removing the oxygen. This is NOT just red tide"

The Lake Okeechobee connection was the one most frequently cited, but Diane McDonald Salhoff shared another theory she'd encountered.

"Been here since 85, it's always been here, but this one is bad;" she wrote. "Someone on another thread made a comment about Irma last summer. Irma pulled all water out and then all came back in. Apparently the bloom starts way out, works its way in and it's been so hot. Not sure but it may explain differences?"

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Storm E Aten: "Triple Diamond area for work and South Venice/home. I can smell it in my home as well."

Joyce Cerny: "We live over 6 miles from Nokomis Beach off Laurel Rd East of 75. Walked out my front door and it smelled like SEWAGE."

Kristen Davidson: "Pinebrook/Hatchett Creek area. Thought there was going to be some respite from the red tide after the rain, but nope! Worse than before. Smells like sewage/ rotting corpses."

Dawn Smith: "I went downtown Venice today and it reeked. I thought my car had run over decaying animals. Then when I got home, 8 miles inland from the beach and it still smelled really bad!"

Cheryl Keenan: "Have a business at the shopping plaza at the roundabout. Was bringing in the stuff I put outside during this day around 4:00. Thought the wind was blowing in the direction from the huge dumpster. It was awful!!! But it was all around the area. That far out RED TIDE was so strong."

Mary Senkowski: "We live @ Jacaranda & Center.

And my throat has been bad for 2 months."

Stephanie Smith: "Venice Gardens. It's noxious and sickening."

Karen Kelly: "Jacaranda West near the Jacaranda Library. I can smell it IN my house and all the windows are closed, AC is running. And I have had a sore throat since yesterday."

Lisa Bale Hekter: "South Venice ... It smells like a stinky hot garbage truck. The worst part is it's seeping into the house and it smells inside too."

Joshalynn Ward: "Venice East!!! Never smelled it all the way out here before!!!"

The consensus among longtimers is that the outbreak this year is as bad as, if not worse than, anyone can remember.

"My family has been in Sarasota for 4 generations," Nicole P Krizen wrote. "We all agree that it has NEVER been this bad!"

"Giving away my age here but I have been here for 50 yrs in Venice," Suzan Shortt Hertzog wrote.



Reader Pat Pearson took this aerial photo of red tide in the Gulf along the beach in Venice. The Venice Fishing Pier is at the top.

PHOTO COURTESY OF PAT PEARSON

“Never had dolphins, sharks, large sea turtles and manatees washing up. Smaller fish yes, but nothing



New resident Miranda Hale reported a gas leak in her neighborhood Monday, not knowing she'd actually just been introduced to red tide.

FACEBOOK PHOTO

Reeking Red Tide

STENCH

FROM PAGE 1

Whatever the cause, the remedy for a red tide outbreak is the same — there isn't one.

Several years ago, Nokomis inventor Bob Rigby tested a solution that killed the algae without harming other sea creatures but he was never able to get funding to manufacture the distribution apparatus.

Until there's a cure, the principle way to cope with red tide is avoidance, especially by anyone with

a pre-existing respiratory problem.

That's Scott Marquardt's plan, though few are likely to emulate it in its entirety.

“Hooking up a boat to my truck and heading to northern Michigan for a few weeks to try to salvage some summer,” he wrote. “Hopefully it's over sooner than later.”

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A blow for sea life and for tourism, too

TOURISM

As red tide bloom worsens, dead fish litter area beaches and business suffers

By Christina Morales

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VENICE — Tourists weren't scattered on Venice Beach Wednesday morning, but hundreds of dead fish were.

Visitors piled into the parking lot, got out of their cars, started hacking, coughing and sneezing, and then quickly left the beach, which had become a tableau of death.

"We came for the shark teeth, but we're going to have to move somewhere else," said Sol Whitten, who came from Hudson in Pasco County with his wife, six grandchildren and his daughter-in-law.

A bloom of red tide algae has swept in from Naples to Tampa, killing marine life and tourism in its path. Respiratory irritation and murky clumps of red drift algae have been reported from Collier to Sarasota counties.

The Florida Fish and Wildlife Commission reports that dead fish have been found in Pinellas, Manatee, Sarasota, Charlotte, Lee, Collier and Monroe counties and include such species as grouper, trout, eel, snook, tarpon, hardhead catfish and assorted baitfish.

Algal blooms can start about 40 miles offshore and come to the surface with rising water. Their movement is dependent upon currents and winds, said Tracy Fanara, a staff scientist and program manager at Mote Marine Laboratory & Aquarium. Currents may push the blooms to shore and chemical conditions on the shoreline can help the algae sustain itself.

The toxin in red tide is dispersed into the air when bubbles in sea foam pop, Fanara said.

Normally clear water at Turtle Beach appears brown on Wednesday. At high concentrations, red tide can cause the water to appear reddish or brown. [HERALD-TRIBUNE STAFF PHOTOS / MIKE LANG]



A group of five friends from Tennessee are the only people on Turtle Beach on Wednesday afternoon. Most of the people who walked to the beach from the parking lot simply turned around and left due to red tide. But this group decided to stay. "We only have three more days, so we're trying to tough it out," one explained.

The toxin affects marine life and causes respiratory irritation in humans and animals.

See **TOURISM, A6**



A blow for sea life and for tourism, too

TOURISM

From Page A1

A noxious precedent

This is not the first time red tide has been so intense. Fanara said there was an 18-month bloom that spanned the state from 2004-2006.

The FWC reports that this recent bloom has been monitored since November.

Since July 1, Mote has recovered 48 turtles affected by the bloom. Only six were alive, said Gretchen Lovewell, the program manager of Mote's standing investigations team.

Turtles affected by red tide are given fluid therapy, food and clean water until they pass the toxins.

"We try very hard to make sure these animals don't die in vain," Lovewell said. "While it's sad, I try really hard to put on a different hat and be able to learn from it."

On Wednesday, the Charlotte County Sheriff's Office found a manatee paralyzed from red tide stuck on a sandbar in Lemon Bay. The sea cow was transported to SeaWorld Orlando for treatment.

Feeling the impact

The bloom also is having an impact on events and businesses.

The Michael O'Donnell Memorial Fish-A-Thon, a celebration in Englewood, was canceled Wednesday morning because of the health risks associated with the toxic algae.

Englewood's Island Jet Ski Tours & Rentals has seen a substantial decline in sales for more than a month.

Owner Craig Hickok said he has gone from renting

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personal watercraft for more than 15 hours per day to only nine hours Wednesday afternoon.

“It’s just killing the business now ... It hit us at a bad time,” said Hickok.

Red tide also has been a big blow to business for the combined Nokomis Beach Bait & Tackle and Casey Key Beach Shop, where owners say that have seen a 15 percent decline in sales since mid-June.

Bait sales are down roughly 50 percent.

Owners Brian and Jennie Frazer say they can’t sell baitfish because the animals die in the water, and people aren’t buying their plethora of beach toys, body boards and snorkels because few are going to the beaches.

“We have inventory for the Fourth of July that’s still in boxes,” Jennie Frazer said. “It’s still sitting in our storage.”



Dead fish litter the shoreline at Turtle Beach in Sarasota. A red tide algal bloom is causing respiratory irritation for many beachgoers and killing marine life. [HERALDTRIBUNE STAFF PHOTO / MIKE LANG]

mystery

the late 1800s, according to the report. Scientists, including Florida

RED TIDE

See **RED TIDE, B6**

The red tide

GateHouse Florida News Services

SQ& A primer explains phenomenon blighting Southwest Florida beaches

Scientists are trying to solve a biological murder mystery on Florida's southwest coast, as a red tide infection endures well past its typical expiration date and leaves a trail of gory evidence.



There's little question thousands of dead fish that fouled area beaches during the weekend and dozens of manatee corpses recovered since the start of the year were victims of red tide, which produces a toxin that attacks the nervous system.

The shoreline at Turtle Beach on Siesta Key teemed with dead fish earlier this week, a result of the red tide algal bloom, which also can cause respiratory irritation for many beachgoers.

But algal bloom experts are scratching their heads over why the deadly menace is still here this deep into summer. The late checkout of *Karenia brevis*, which is usually gone by early spring, means it's overlapping with a blight of blue-green algae on the Caloosahatchee River.

[HERALD-TRIBUNE STAFF PHOTO / MIKE LANG]

The combination is a gut punch to summer tourism.

Q. Is climate change contributing this outbreak?

A. Researchers in their annual State of the Climate report warn that a warming globe could lead to an increase in ecological tragedies. The years 2014 through 2017 were the four warmest years on record for Earth since measurements began in

mystery

lasted this late into the summer, but it's not necessarily widespread, and we've had blooms that have gone all the way up into the Panhandle."

RED TIDE

From Page B1

Atlantic University's J. William Louda, have said algae blooms will worsen with the warmer temperatures and higher rainfall that come with climate change.

Record May rains in Florida are largely to blame for the bluegreen algae that grew this summer in the Caloosahatchee River and St. Lucie Estuary, as high amounts of nutrients were washed in from the watershed. Discharges from Lake Okeechobee exacerbate the problem, adding algae and diluting the brackish waterways.

Q. Where does red tide come from?

A. Red tide grows far offshore in the Gulf of Mexico and can pile up near the coast in the fall as winter wind patterns blow cold fronts into Florida. It prefers ocean water, unlike freshwater blue-green algae, and is usually gone by the end of March, said Richard Stumpf, a scientist with the National Centers for Coastal Ocean Science.

"We don't understand the biology of what's happening," Stumpf said about the lingering red tide. "It wasn't replaced by something else. It didn't die off. We don't know why that is."

It is not unprecedented though. A red tide bloom that began in 2004 lasted for 18 months, said Tracy Fanara, a staff scientist at Mote Marine Laboratory in Sarasota.

Q. Is the red tide outbreak the result of runoff from Lake Okeechobee?

A. Red tide takes advantage of high nutrient levels near the coast to multiply, Fanara said. But it was not Lake Okeechobee discharges that initiated this year's bloom. She also notes that the mouth of the Caloosahatchee is too far south for its water to reach areas such as Venice, which has also suffered bouts of red tide this summer.

"That's the biggest misconception that we hear. Lake O releases did not initiate this bloom," Fanara said. "It is unique that it has

Added Stumpf, "It's important for people to know that while the bloom is extending from Sarasota to Naples, it's very patchy. One beach may be bad and just a little down the road, the other will be OK."

Q. What other factors play a role in moving red tide?

A. Stumpf said the red tide drifted south, then back north this summer. A wind shift is likely what caused thousands of dead fish to wash ashore on normally pristine Sanibel Island this past weekend. Winds play a major role in when and where red tide strikes. Red tide also can get caught in the loop current and carried into the Atlantic, where it typically disperses. That's why it's rare for southeast Florida to get red tide outbreaks, but it has been seen as far north as Delaware.

Q. What has been the toll on high-profile marine animals?

A. This year, 485 manatees died in Florida through July 20. Of those, 29 were red-tide related with another 51 suspected to be from red tide. The 485 is the highest number of manatee deaths for this time of year since 2013, when 694 manatees died through mid-July. Turtles are also suffering. The total number of dead or sick sea turtles in Sarasota, Charlotte, Lee and Collier counties is 404, from Nov. 1 when the red tide event began to Monday. That's double the amount of the five-year average, said Florida Fish and Wildlife Conservation Commission spokeswoman Michelle Kerr.

Check beach conditions, including whether dead fish are present, at visitbeaches.org. The site is run by Mote Marine Laboratory. *This report was created using information from the Palm Beach Post.*

8-4-18
Gondolier

Sea turtle deaths now at 400

TURTLE

By CHAD GILLIS

FORT MYERS NEWS-PRESS

The number of dead manatees and sea turtles continues to climb as red tide strangles the life out of coastal Southwest Florida waters.

Bloom conditions started in November, and 400 stranded and dead sea turtles have been pulled from Lee, Collier, Charlotte and Sarasota county waters.

Lee County leads the way with 165 stranded and dead sea turtles. Collier accounted for 97 of those turtles.

A manatee that likely died due to red tide poisoning

was retrieved from the Cape Coral Yacht Club on Tuesday while hundreds of residents and visitors were expressing their anger with the U.S. Army Corps of Engineers at a meeting nearby.

“There was one dead female manatee,” said Florida Fish and Wildlife Conservation Commission spokeswoman Michelle Kerr. “The cause of death is not determined yet, but it was found in a location with high concentrations of red tide. There was speculation that the manatee had a baby, a calf with her. She did not. She was actually found in a mating herd.”

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Sea turtle deaths now at 400

TURTLE

FROM PAGE 1

The FWC found the manatee, tied a rope to its tail and dragged it to the boat ramp before a truck hauling a trailer was lowered into the water to retrieve the carcass.

Another struggling manatee was removed from Lemon Bay in Charlotte County on Wednesday, but died later that night.

The red tide has been lingering along the coast since November and may persist into 2019, since it's typically broken up by cold fronts.

It's been centered mostly around Sanibel and northern Lee County waters and into Charlotte and Sarasota counties, but at times has reached from the Tampa Bay area to the Florida Keys.

in humans can start when counts reach 10,000 cells per liter, according to the FWC.

A report released by FWC Wednesday shows counts of 1 million cells per liter from Sarasota to Naples.

To the south, in Estero Bay, Florida Gulf Coast University marine researcher Bob Wasno lead a trip of 27 high school students and found varying conditions.

At first, he said, he was seeing baitfish and mullet — fish that had likely died days before and were being washed in with the tide.

Then he captained the boat to the south end of Lover's Key State Park.

“There's lots of dead everything here,” Wasno said. “I'm watching a sea trout die right at my feet. There's mullet, snook, pinfish, seasnakes,

Fish kills were cleaned up in Collier County and on Siesta Key in Sarasota on Tuesday as well.

Counts have ranged from natural background levels to 1 million cells per liter and higher. Fish kills and breathing irritation

small grouper, and there's a lot of it. And it's looking very, very fresh."

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Sand and Surf Festival**FESTIVAL**

Favorable winds keep red tide odor away from new Venice summer bash

By Tim Fanning

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VENICE — Lately, for those who live in Southwest Florida, the words “sand” and “surf” conjure images of dead marine life and noxious beaches. But for those who spent Saturday at the inaugural Sand and Surf Festival along the Intracoastal Waterway, it meant a relief.

See FESTIVAL, B11



Luna, age 3, rises to the occasion with dad Billy Carden at the Sand and Surf Festival Saturday at the Venice Train Depot.

[HERALD-TRIBUNE PHOTO / TOM O'NEILL]



Cameron Czajkowski, 2, is a soft touch for face-painter Victoria Dietz.

Sand and Surf Festival**FESTIVAL**

From Page B1

For weeks Venetians could smell an overpowering stench miles from the shore as dead

Vine said the trail has already been cut and irrigation pipes were recently installed, connecting the city's donated after-use water. Now, over 70 days into the project, his organization has planted about 300 trees.

marine life washed ashore Venice Beach, about 1½ miles from the festival grounds. Some were worried the smell and respiratory irritation caused by the red tide would cause discomfort.

“Lucky for us, there’s a strong breeze headed in the opposite direction, keeping it all away,” said Kathleen Weeden, Venice’s city engineer.

Weeden was one of about 20 vendors at the festival, nestled beneath the overhang of the historic Venice Train Depot.

“Thanks to the wind, we can all enjoy the outdoors and come here to do what we came to do,” she said.

Many of the vendors were on hand to drum up support for outdoor activities. But Weeden and others were there to give updates on ongoing projects in and outside of Venice.

For festival organizer Dorian Hardy, the Sand and Surf Festival served as a gateway for people to stay informed.

“This is a chance for people to enjoy the sunshine and see what the future might look like for the City of Venice,” said Hardy, who is also the program coordinator for Sarasota Parks and Recreation.

That future, Friends of the Legacy Trail board member Darryl Lang hopes, will include a \$65 million extension to the popular Legacy Trail from Payne Park in downtown Sarasota to Venice, with a possible connection to North Port.

The Legacy Trail currently runs from the Venice Train Depot to Culverhouse Nature Park in Sarasota. A referendum on funding the extension will go before voters on the Nov. 6 general election ballot.

Greg Vine, chairman of Venice Area Beautification’s Urban Forest Committee, was talking about the nonprofit’s efforts to create a 20-plus acre urban forest on the east side of the Venetian Waterfront Park. Once finished, thousands of new trees will line a 1½-mile stretch

But Saturday’s Sand and Surf Festival wasn’t just about Venice’s future. It was about the present, Hardy said.

The festival also featured a bounce house, food trucks, face painting and live tunes from the Trinidades.

“It’s a celebration that we live in paradise,” Hardy said.

With only a few hours to spare before going to work, Violette Belskayd, her 3-year-old son Luca, and Napoleon, their charcoal-colored Chihuahua-pinscher, did just that.

Belskayd sat barefoot at a picnic table and watched Luca catch bubbles in his tiny hands. Napoleon, 13, waddled around and sniffed the grass.

“It’s a tragedy that I have to work today,” she said. “So far this summer has been all about red tide, dead fish and work, work, work. I just want to sit and enjoy the sunshine until I turn into a raisin.”



Georgene and Neal Friend tour the Venice Train Depot at the inaugural Sand and Surf Festival.

of the corridor, from just south of Venice Avenue Bridge to Center Road.

“We want to turn it into a forest — not just a tree here and there — but many, many trees,” Vine said.

Vine said the urban forest will provide a sanctuary for neotropical migratory songbirds that are struggling because of the destruction of natural habitat.

“They’re the original snowbirds of Florida,” he said.



The Trinidades, from left, Tom Heiden, Joe Fiorentino and Bob Fieberts, provide a little rhythm at the Sand and Surf Festival.
[HERALD-TRIBUNE PHOTOS / TOM O'NEILL]

Red tide strikes Anna Maria**TIDE****Dead fish begin to wash ashore along Manatee County beaches****By Chris Anderson**chris.anderson@heraldtribune.com

ANNA MARIA ISLAND — The Gulf of Mexico waves, normally a tranquil swirl of green and blue, looked more the color of motor oil Monday morning as they washed ashore an abundance of dead fish and drove families on vacation to their condominium pools.

The red tide bloom that hit Siesta Key especially hard last week has now found its way north to Manatee County, and it was evident for miles, from the north end of Longboat Key through Bradenton Beach to Anna Maria, where Jacob Orlofsky was sidestepping scaly fish rotting in the sun and wondering what happened to his favorite walking spot.

“This beach is so gorgeous and today it is awful,” Orlofsky said. “This is nothing like the beach is supposed to be. Usually this water

is very light green and clear. You can go in up to your shoulders and see your feet.

“It’s very sad.”

The wind on Anna Maria Island was blowing offshore from the southeast, eliminating much of the piercing stench usually associated with red tide that can be particularly irritating to the respiratory system. Even without the smell, the sight of dead fish was enough to keep Kyle Mansfield and his family out of the milk chocolate-colored water.

“There is definitely a

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Red tide strikes Anna Maria**TIDE***From Page A1*

presence,” said Mansfield, who was vacationing on Anna Maria Island from Citrus County.

Mansfield’s 5-year-old son Calyn was hardly deterred by the presence of red tide, however. Wearing a brown camouflaged hat and a Teenage Mutant Ninja Turtles T-shirt, Calyn went about his business of collecting sea shells and building

“I’ve never seen red tide this bad in Florida in my life,” said Woodruff, 27, a lifelong Floridian.

Woodruff said one sign as to the severity of the bloom was that bottomfeeding fish were dying.

“When you start seeing flounder and other bottom feeders, you know there is a problem,” he said.

Woodruff said he thinks the current red tide situation could affect the fish population for several years ahead, depending on how long it hangs around.

sand castles. He couldn't go swimming, but what did he care? He was at the beach anyway.

When asked about all of the dead fish he said, "What dead fish?" And then he looked down and found a shark's tooth to put on the roof of his sandcastle.

On Monday morning Hadleigh Schwartz was one of the few people to venture into the water on Anna Maria Island. She took a paddleboard roughly 100 yards into the Gulf and saw a dolphin swimming around.

"It didn't look too out of character," she said.

Fencing off the effects

One of the worst areas affected by red tide wasn't in the Gulf of Mexico at all, but in the intracoastal waterway at the end of Bridge Street in Bradenton Beach.

It's not often you see a fence built in the water to keep dead fish from coming ashore. But that's exactly what happened. Sunday was particularly bad.

Mike Woodruff, a cook at the Bridge Tender Inn on Bradenton Beach, helped build a wire fence maybe 50 yards off the shoreline. The intent was to keep the dead fish from floating ashore, smelling up the cove and ruining business for the tiki bar.

On Monday there were noticeable amounts of dead fish still blocked by the fence, though Woodruff said it was about "5 percent" of what it was over the weekend. He estimated the small Bradenton Beach cove itself had two tons of dead fish.

"Easily," he said.

Woodruff and other employees put on hip boots and pushed all of the dead fish back out into the waterway with rakes and pitchforks. They then used motors from boats to stir the water up and push the dead fish away and into the current.

"If we have it for 30 days it would take forever for all of the small fish to get to their big size," he said.

Impact on manatees

The red tide has taken a toll on even the Gulf Coast's large marine life.

On Saturday, a deceased juvenile manatee was removed from the water in Venice by a Venice Police Department marine officer.

In a statement, Venice Police reminded people to call the Florida Fish and Wildlife Conservation Commission (1-888-4043922) or Mote Marine Laboratory (941-9880212) if they see any marine animals in distress.

According to the FWC, the number of manatee deaths connected to red tide in Florida during 2017 was 67. This year, from Jan. 1 through July 27, the number already is 80.

On Saturday, about a mile south of the Siesta Key pavilion, two manatees were observed struggling near shore and continued to do so for more than an hour.

A young woman walking the beach said she called Mote but no one was dispatched to the site.

The animals may have escaped danger as no deceased manatees were observed on that part of the beach for the rest of the weekend.



A photo of a red tide-related fish kill near Bridge Tender Inn on Bradenton Beach on Monday. [HERALD-TRIBUNE STAFF PHOTO / CHRIS ANDERSON]

Inventor says he has a red tide cure

By **STEVE REILLY**

STAFF WRITER

Bob Rigby is no stranger to the toxic effects of the red tide algae.

In 1947, Rigby, then a boy of 8, was sent from his Nokomis home to stay with a cousin in St. Petersburg because an intense red tide bloom was making him sick. He recalled the Gulf shorelines black with dead fish and other marine creatures.

Over the years, he has seen red tide return again and again to the West Coast of Florida.

“It’s cost billions,” he said of the impacts red tide blooms have had on the local economy over the decades.

For the last 27 years, Rigby said, he’s been

working on a method to kill red tide, and he believes he’s come up with a way to stem the toxic blooms. He’ll be sharing his ideas with the Southwest Florida Alliance of Homeowner Associations, at 10:15 a.m. Aug. 23 at the Elsie Quirk Library, 100 W. Dearborn St., Englewood.

He’s invented and patented what might be best described as a 1,000-footwide aquatic crop sprayer, pulled by three boats, that would spray a solution of sodium hypochlorite over the bloom. Various sources describe sodium hypochlorite as a chemical used in largescale water purification and disinfection.

Sodium hypochlorite solution is adapted to kill and manage single-cell organisms. Tubes dispense the solution over the surface of the water while sensors determine and

analyze conditions and dispense the fluid at an appropriate rate, Rigby said. He envisions two of his sprayers cruising side by side, dispersing the solution over red tide blooms and killing the algae.

Over the years, Rigby has not received any endorsements from state or other researchers, but he said students in the Venice High School science department offered him some assistance with testing. The state’s Fish and Wildlife Research Institute provided him with water samples tainted with red tide.

According to Rigby, one of the early tests of his solution killed red tide cells within 20 minutes.

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8-8-18
Herald

Red tide's devastating toll

RED

Mote staff race to rescue live sea turtles and manatees — and to examine the dead

By Carlos R. Munoz

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SARASOTA — Mote Marine Laboratory staff on the front lines of Florida's devastating red tide bloom are racing to rescue live sea turtles and manatees and to investigate dead animals washing up on Southwest Florida beaches in the hopes of learning more about the toxic algae.

It's dirty, heart-wrenching work, but they do it for the betterment of the species.

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Gretchen Lovewell, program manager for Mote's Stranding Investigations Program, left, and Mote senior biologist Rebecca Hazelkorn conduct a necropsy on a deceased Kemp's ridley sea turtle at Mote Marine Laboratory on Tuesday. [HERALD-TRIBUNE STAFF PHOTO / CARLOS MUNOZ]

Red tide's devastating toll

RED

From Page A1

Lovewell and Hazelcorn used a truck equipped with a crane to lift the juvenile male out of the water.

The sea cow already had begun to decompose.

Since January, 137 sea turtles have been recovered by the research center's Stranding Investigations Program, a four-person squad that recovers sick, injured and deceased marine animals and sea turtles in Manatee and Sarasota counties.

Since June 1, the team has picked up 86 turtles, including 11 that are rehabbing in Mote's animal hospital.

"By taking the time and doing the smelly, dirty and sometimes heartwarming work, we are doing a lot more for the rest of them (marine animals) out there," SIP Manager Gretchen Lovewell said. "That's why we do what we do."

The work to perform necropsies — medical exams of deceased animals — is vital for research. The dead turtles are among the world's most endangered animals. Their nesting sites are carefully monitored by Mote and its volunteers from May to October in Southwest Florida.

But seeing them on the lab table is agonizing for the scientists working to protect them.

"It sucks," Senior Biologist Rebecca Hazelcorn succinctly described the process of examining turtles killed by red tide, as well as those that die from human impacts such as boat strikes and fishing entanglements. "Those are tough for us," Hazelcorn said. "We always say, the moment we stop caring is the moment we should quit. We say focus on the research — everything we are doing — cleaning the goop off the top of a container like this, it's all for the betterment of the species, and so we can learn more about it."

When a live turtle comes into Mote, they are "dry-docked," Hazelcorn said. The turtle receives water until it is strong enough to lift its head to breathe.

Red tide poisoning causes turtles to become lethargic, uncoordinated and twitchy. Without help, they drown because they cannot surface.

The turtles that wash up on beaches are only a small amount of the affected animals.

Lovewell entered the water that was covered with an oily substance expelled by the manatee and towed it to a dock for recovery.

The sea cow was later taken to the Florida Wildlife Conservation Commission's Marine Mammal Pathobiology Lab in St. Petersburg for examination. It was the sixth recovered in Sarasota-Manatee this year, Lovewell says.

Red tide

Cynthia Heil, a scientist at Bigelow Laboratory for Ocean Sciences and former FWC researcher, has studied red tide since 1996. She oversaw a staff of 25 scientists responsible for conducting research and monitoring the lethal algae blooms in Florida from 2003 to 2010.

The current bloom has been sustained with "regenerated resources," such as nutrients provided by dead fish, estuary and groundwater input into the Gulf of Mexico, she said.

"It's kind of an anomalous year," Heil said.

The researcher said she does not think Lake Okeechobee's algal bloom is affecting red tide. "It's sort of the perfect storm. You have warmer waters and a pre-existing bloom."

Despite the fears from local residents, Heil said the unusual bloom is not unheard of.

Historically, a major red tide bloom occurs about every 15 years. "It can be anywhere from Clearwater to Marco Island," Heil said.

"For years, they thought blooms started near the shore and cells grew explosively. This (red tide) organism divides once every three days. The coastlines are monitored every day. If it starts near the shore it doesn't have time to develop. It's just hard to catch that."

Fish kills could be sustaining the algal bloom, which Heil predicted would return again in September.

"I would expect it's going to be around for a few months," Heil said. "It's the worst bloom some

“We talk to some of our local partners and charter captains we have met over the years and they are saying they see a lot of them out there” at sea, Hazelcorn said. have ever experienced, but it’s not the worst bloom Florida has had.”

The most frequently recovered turtles are female, and the most common breed found are Kemp’s ridley, loggerhead and green turtles. The Gulf of Mexico is home to five known species, including leatherback and Hawksbill.

“Kemp’s, we usually get juveniles to adults,” Hazelcorn said. Loggerheads are usually sub-adults or adults in the 100to 200-pound range.

Kemp’s are considered the world’s rarest sea turtles.

Dead manatee

The Mote team was called out for a manatee rescue at the backyard dock of a home in the 200 block of Trout Lane in Nokomis on Tuesday.



Gretchen Lovewell brings in a deceased juvenile male manatee found in Donna Bay on Tuesday — the sixth recovered in Sarasota-Manatee this year, Lovewell says. [HERALD-TRIBUNE STAFF PHOTO / CARLOS MUNOZ]

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8-8-18
Gondolier

Deaths mount as red tide stays

DEATHS

More manatees dead

By **GREG GILES and DANIEL SUTPHIN**

NEWS EDITOR AND STAFF WRITER More manatee deaths are being reported, with red tide expected as the reason.

On Saturday, Master Police Officer Paul Joyce of the Venice Police Marine Unit had the unfortunate task of removing a juvenile animal out of Venice waters.

Further, a dead manatee was found floating in Placida Harbor Sunday morning. The Placida Harbor carcass was discovered around 9 a.m. by ferry Captain Max Schulze on a trip back from Little Gasparilla.

It's suspected the deaths were caused by the long-lasting red tide that has raised

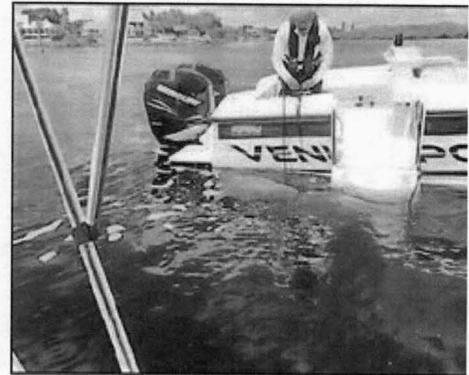
havoc throughout Sarasota County and other nearby counties.

Despite speculation of red tide being the cause, no official cause of death had been determined.

Florida Fish and Wildlife Conservation Commission recovered the carcasses. They will be sent to the FWC Marine Mammal Pathobiology Laboratory in St. Petersburg for testing.

"This year has been a very bad for manatee mortalities due to red tide," Joyce said.

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Another deceased manatee was pulled out of Gulf waters off Venice over the weekend.

PROVIDED PHOTO

Deaths mount as red tide stays

DEATHS

FROM PAGE 1

According to FWCC's 2017 Red Tide report, there were 67 manatee mortalities for the entire year. For just 2018 from Jan. 1 to July 27, there have been 80 manatee mortalities, Joyce said.

"There is no way to tell externally (how it died), so the only way to find out is (to run tests and) to run samples," said Hada Herring,

"Manatees are more likely to be closer to the surface of the water while they try to breathe. Plus with our waters very dark and brackish, it makes it that much more difficult to see a manatee," he said.

If you see any manatee, sea turtle, or dolphin deceased or in distress, call your local marine authority. They can also be reached on your marine VHF radio on channel 16. You can also call the FWC at 888-404-3922 or Mote Marine at 941-988-0212.

FWC marine mammal biologist, when asked if the mammal's death was caused by red tide.

"We will process (the carcass) to the best of our abilities to hopefully find out why it died," said Herring.

No timeline could be determined as to how long the testing will take.

On Sunday alone, Herring said FWC recovered several manatee carcasses in Southwest Florida.

"We have had several in Charlotte County," she said.

Joyce said all boaters should be more cautious while on the water during red tide.



A dead manatee was found floating in Placida Harbor Sunday morning.

PHOTO PROVIDED

8-9-18

Herald

Beach business going dry

BEACH

Persistent red tide takes toll as people postpone, alter Gulf Coast vacation plans

By Laura Finaldi

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Kendra Putnam and her husband, Michael, first came to the Gulf Coast four years ago for their honeymoon. It was a last-minute trip for the high school sweethearts, who got engaged on short notice and were looking to book somewhere affordable.

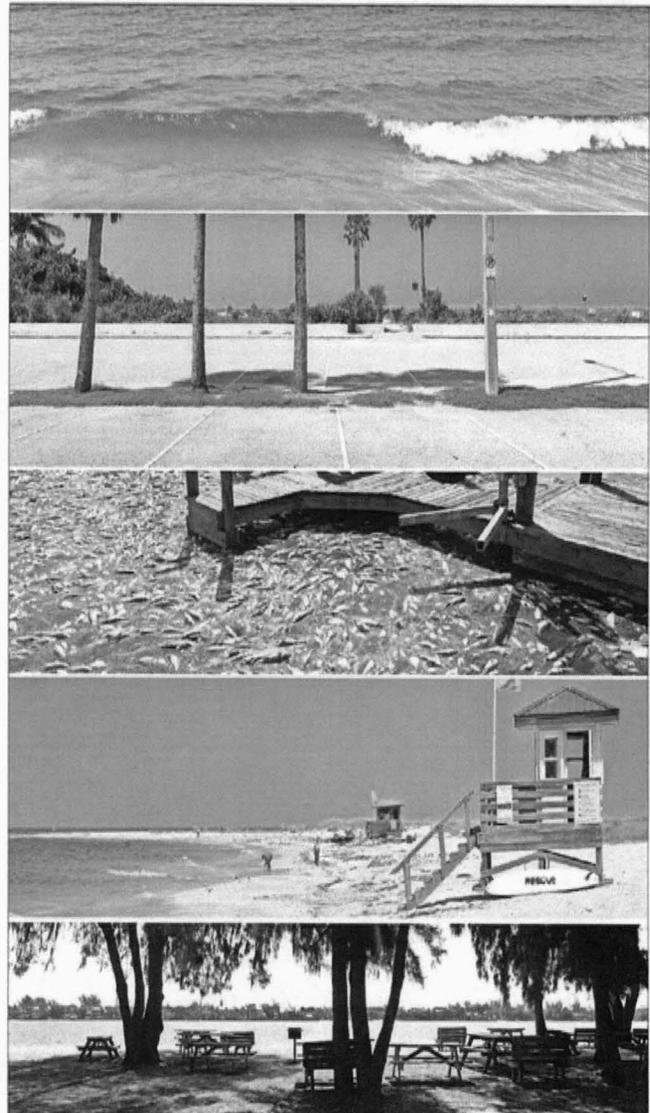
The North Carolina couple found a deal on a place in Siesta Key, right over the bridge from Sarasota. They fell in love with the area, so much so that they came back last year, this time to Manasota Key.

They had a return trip to Manasota planned to celebrate their fourth wedding anniversary with their 3-year-old son starting today, but those plans changed less than a week ago. Putnam was on Instagram searching Manasota Key and saw what conditions at her favorite beach destination were actually like.

Red tide has devastated wildlife on Gulf Coast beaches and left surrounding areas smelly and dirty. In some areas, it has turned the normally aquamarine Gulf water the color of Coca-Cola. As a result, dozens of tourists have changed their accommodations, cancelled their trips altogether or looked for activities away from the water.

Businesses that cater to businesses have taken a hit, and several vacation rental property owners said they have either had cancellations or told people not to bother coming.

But even with the problems, many others want tourists and local residents to know that they're open for business and doing the best they can.



Top to bottom: Gulf of Mexico water has a brown tint due to red tide at Lido Beach; the Lido Beach parking lot sits empty; dead fish collect in a canal along John Ringling Boulevard between St. Armands Key and Lido Key; a nearly vacant Lido Beach; empty picnic tables at South Lido Park. [HERALD-TRIBUNE STAFF PHOTO / MIKE LANG]

“We’re open and we’re happy and we’ve got people here,” Robert Baugh, chief operating officer of the Chiles Restaurant Group, which owns two restaurants on Anna Maria Island

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Beach business going dry

BEACH

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and one on Longboat Key. “We’re not trying to close, we’re not going to close. We’re going to make the best of it and chart through this.”

Water sports

At Island Jet Ski Tours & Rentals in Osprey, owner Brian King said he started to see the effects of red tide about a week ago. The rental company typically does two to three boat rentals, four to five jet ski rentals and three to four kayak rentals a day, but cancellations last week cost the company thousands of dollars.

He said he saw horseshoe crabs floating at the surface of the water, facing up with their tails down. He’s seen dead horseshoe crabs washed up on the beach before, but never floating to the top like that.

“I’ve never seen it last this long, never ever,” King said.

Island Jet Ski Tours even closed last Tuesday and Wednesday because business was so slow. The phone has also been pretty quiet — they’re getting five phone calls a day as opposed to the usual 25 to 30. And many of the calls they are getting are red tide-related.

“I know at the end of the day when the battery on my phone is completely full and it’s normally on half, you’re not getting the normal volume,” he said.

Red tide began to creep near Anna Maria Island business AMI Watersports in just the last few days. Boat rentals at the shop are down 50 percent from last week, and jet ski rentals are down 65 percent, owner Barbara Groves said.

Groves said she hopes to make up for her losses with a new, 44-foot catamaran she purchased last week. She can take the boat farther out, where there's no red tide. She said she feels badly for tourists, many of whom spend a lot of money on their vacations and would like to get out on a boat rather than sit at the pool all day. The city of Holmes Beach, however, has been doing a good job of cleaning the beaches early in the morning, she said.

Painted red with a wide brush

Kelly Clark, director of communications for the Bradenton Area Convention and Visitors Bureau, said Manatee County crews have been working 12 hours a day, combing beaches and cleaning up dead fish to minimize the smell. Some lodging facilities in the area are offering vouchers to guests with respiratory issues so they can come back later.

What's hurting Manatee's tourism more than anything, she said, are the images being shared online. People see pictures of dead fish floating and videos of dead manatees being lifted out of the water, and they assume it's happening in Manatee County because it's the Gulf.

"We seriously feel for all destinations that have been affected, but specifically for Manatee, because we're being mentioned, because we do have signs of red tide, people think that's our beach," she said.

Visit Sarasota County on Wednesday sent out a survey to businesses as a way to gauge how they've been impacted by red tide. As of just after 3 p.m. Wednesday, 93 percent of 46 businesses that responded said they've been affected in some

way. More detailed results should be available Thursday, President Virginia Haley said.

Visit Sarasota County has received several phone calls from business owners wondering if the state is going to provide any sort of emergency relief to companies affected by the red tide. Some legislators are working to figure out what that

might look like, Haley said, but in the meantime business owners should make sure they're keeping records of every penny lost.

"We certainly learned from the BP claims process that they should be documenting, documenting, documenting everything every day. It's worth it just in case. We'll see what happens," she said.

Change of plans

Karen Richards, who owns a quad-plex of apartments on Manasota Key, said she's lost about \$5,000 in rentals over the past two months due to red tide. She turned down a \$1,100 offer Wednesday morning — she doesn't want people to travel there only to find out what the conditions are like. "I'm not going to rent to people when they can't go to the beach and possibly get sick. The water's nasty," she said. "I'm not going to take people's hard-earned money and vacation time they've worked so hard for."

At Siesta Key Oyster Bar, assistant manager Russell Shall said the smell of red tide was palpable in Siesta Key Village last Thursday but that things are better now. Although sales are down slightly from last year, everything's back to normal now, and people shouldn't hesitate to come.

"It's a beautiful day in the Village today," Shall said.

The Putnam family ended up getting a good deal on a different Airbnb closer to Tampa Bay for their 11-day trip. The host gave them a 20 percent discount, so they're paying a total of \$585 for 10 nights.

They want to come back to the area next year. They just hope things will be cleared then.

"We just love coming to Florida — the East Coast doesn't even compare," Kendra Putnam said. "Hopefully, by next year we will be able to come back."

Dolphins found dead near Venice

Staff Report

Six dead dolphins were found in Venice waters this week, and scientists will determine if red tide is to blame.

According to Mote Marine Laboratory, two dead bottlenose dolphins were recovered Tuesday night on a beach in Venice. A third dead dolphin was recovered early Wednesday from the Intracoastal Waterway near Snake Island and a fourth from Caspersen Beach. Later Wednesday, a fifth dolphin was found along North Casey Key Road in Nokomis, and then a sixth, floating off the middle of Casey Key.

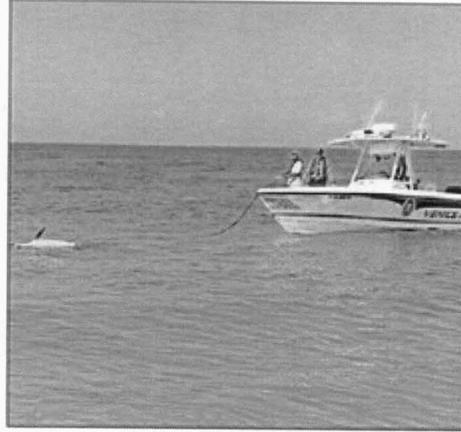
Three of the dolphins recovered were male and three were female.

Mote staff will conduct necropsies on the marine mammals to find out the cause of death. All six were moderately to severely decomposed, which complicates the efforts, Mote says.

These may be the first dead dolphins reported in Sarasota-Manatee since the start of the red tide bloom. More than 80 manatees have died this year from red tide.

Mote thanks the people who reported the dead dolphins, and in some cases helped assist in their recovery. The Venice Police Department, the

Florida Fish and Wildlife Commission and the West Coast Inland Navigation District were credited for helping transport the deceased dolphins to Mote for further investigation.



Venice Police help recover a dead dolphin from Caspersen Beach on Wednesday. A necropsy will be performed to determine if red tide is to blame for the marine mammal's death. [PHOTO BY MOTE MARINE LABORATORY]

8-10-18

Herald

Counting red tide's costs

RED TIDE

A survey of local tourism businesses finds that 90 percent have reported losses related to the outbreak

By Laura Finaldi

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Hotels, restaurants, water sports equipment renters and other tourism businesses have been talking for weeks about the financial hit they've taken as a result of red tide. Now a survey by Visit Sarasota County has put numbers to the damage.

The survey by the county's tourism-promotion group found that 90 percent of the 77 responding tourism businesses said they missed out on sales from Aug. 1-7 because of the toxic algae and resulting dead fish. Companies reported losses of 6 percent or less for those dates compared with the same period last year. The lodging industry — which includes hotels, motels and short-term rentals — accounted for 40 percent of survey respondents, Visit Sarasota County reported.

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Doug Hasselbring and his son, Zeppelin, 11, prepare to launch a rented canoe at Ted Sperling Park in Sarasota. Hasselbring, who traveled from Spain to visit family in Sarasota, was not deterred by the red tide. [HERALD-TRIBUNE STAFF PHOTO / MIKE LANG]



Counting red tide's costs

RED TIDE

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Virginia Haley, the tourism organization's president, said her team is working hard to continue to keep visitors informed about the shifting conditions. She said she encourages tourists to check Mote Marine Laboratory & Aquarium's beach conditions report, which is updated twice a day, to determine where to go.

"If you looked at Mote yesterday afternoon, Siesta Key had no respiratory irritation and there were very few dead fish on the beach," she said Thursday morning. "The message is, 'Sarasota is open for business.' That's the bottom line."

Visit Sarasota County also is directing tourists to local events not on the beach, including movies at Nathan Benderson Park and this weekend's Woodstock Revival at the Sarasota Farmers Market.

There's plenty to do here to round out a vacation, Haley said.

It will probably be at least a month before the full effect on tourism is reflected in county visitor numbers and other data. In the meantime, however, dozens of tourists have said they've had to either cancel their vacations, switch to a different area or readjust to the idea of a beach vacation without the beach. Some restaurants on the water, including Casey Key Fish House in Osprey, had to close for a few days last week because conditions were so bad. Hotels and vacation homeowners have had to deal with cancellations and losses of thousands of dollars in revenue.

At the Ramada Venice by Wyndham Hotel Venezia, director of sales and marketing Jeannie Gomes said business was down 23 percent last Saturday compared with the first Saturday in August 2017. That may sound like a big loss, but

other similar hotels in Venice overall were down 35 percent on the same day, she said. Hotel Venezia's numbers were better because of a prebooked group, Gomes said, but the hotel's transient business — that is, visitors who

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drive in for a weekend from other parts of Florida — is down significantly. Many people who have called to cancel their reservations have specifically cited red tide as the reason.

“It’s one of those things that we just can’t do anything about,” Gomes said.

About 40 miles north of Venice, on Anna Maria Island, Manatee County businesses also are feeling the impact. Anna Maria Island Resorts, which manages four hotels on Bradenton Beach, had a busy July because people were trying to avoid red tide on more southern parts of the Gulf Coast.

The company’s four hotels have had a total of 30 to 35 cancellations in just the past week, general manager Barbara Baker said.

“Right now, it’s touch and go. Some days, it’s really bad, some days, it’s not,” she said.

Julie Hulsey, who owns a condo in Manasota Key near Englewood Beach, said she stands to lose up to \$15,000 this winter if conditions don’t improve. Hulsey, who lives in Illinois, hasn’t rented her condo out this summer because of renovations and is worried the red tide could affect her seasonal business.

She said she’d rather take the loss than mislead someone about what conditions are like.

“I would rather have my name be out there and have it be good on my conscience,” she said.

Early summer numbers

Pre-red tide numbers show growth in visitors and tourist development tax collections during April, May and June in Sarasota County. Visitors to Sarasota County were up 2.2 percent over the

same three-month period last year, and collections from the tourist-development tax — also known as the bed tax — were up 2.6 percent. The total economic impact of visitors increased nearly 4 percent, from about \$508 million in 2017 to \$528 million this year, according to Visit Sarasota County.

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Algal bloom could be worse than we think**ANDERSON**

Nathan Meschelle — a third-generation fisherman from Cortez — has been working near the old Anna Maria City Pier this week and his hauls have been impressive. Of course, he's been fishing with a pitchfork, but impressive nonetheless.

Red tide has the area in its clutches and there is no way of knowing when it will relinquish its killer grip completely. Tons of scaly fish rotting in the sun have dotted the shores like ants on sugar. Cute and whiskery manatees are now being found dead with their guts hanging out, and if that's not sad enough, dolphins are starting to turn belly up. Tourists have been swimming in their condo pools instead of the Gulf, if they bother to stick around at all. Ecologically — and economically — Southwest Florida is being slapped.

There is probably no way of accurately

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Chris Anderson

Algal bloom could be worse than we think**ANDERSON**

From Page A1

knowing how much dead marine life has been removed from area beaches and canals and taken to county landfills. In the town of Longboat Key alone 10,440 pounds — or 5.22 tons — had been removed by Wednesday. Judging from a visual check, Siesta Key had tons more than that at one point. Add the shorelines of Casey Key, Bradenton Beach, Anna Maria Island and the inland bays and you get the picture.

But here's the most disheartening part: The current bloom could be worse than we think, at least in Manatee County, as the severity may

On Tuesday he had to go even farther north — all the way to the Don Cesar Resort in St. Petersburg — before the water was clear. On Wednesday, even farther: up to John's Pass. "He said the fish were moving so fast he couldn't get them in," Meschelle said. "It was like they were freaked out. They were hostile."

The Florida Fish and Wildlife Conservation Commission said red tide blooms have been occurring in Florida since the 1800s. And red tide on occasion — maybe once every five years or so — isn't even a bad thing, Meschelle said. It is nature's way of cleaning out the Gulf of ill fish, kind of like a storm in the woods, or pruning a tree. It also allows bottom feeders like crustaceans to thrive, at least for a while. But this bloom isn't that bloom.

further be judged by how much marine life did not die.

In other words, fish adapt to their surroundings, and it's possible they have grown so accustomed to red tide that they can sense it is coming and then scatter to where it is not, something similar to their seasonal migratory patterns.

At least that's Meschelle's theory. He has not been able to fish this week because of the red tide, so he is being paid by Anna Maria Island to remove dead fish. And through all of his pitchforking he has noticed one interesting thing: "I was kind of surprised by how much fish weren't killed for how red the water was," he said. "The more people I talked to, they shared the same opinion. The fish kill wasn't that detrimental because they migrated north. They're smarter than us if you ask me."

Red tide first struck areas south of here. Fish such as mullet are generally smaller down south, Meschelle said, and when fish in our area start noticing that smaller fish are quickly on the move, they know something is up.

"In general, if you have fish moving, others will follow," Meschelle said. "They work together. That's what they do. It's doesn't matter what species they are."

Slower swimming fish such as flounder, trout — maybe grouper, perhaps mullet — are the types of fish showing up on the shorelines.

Meschelle, who fishes for baitfish, said that on Monday his business partner left Cortez, went six miles out in the Gulf and traveled north. He went about 15 miles to the shipping channel of Tampa Bay before he saw clear water.

Who knows why this is happening in such a ravaging manner? Maybe it's nature. Maybe it's Lake Okeechobee. Maybe it's runoff from farmlands east of us. Meschelle thinks it is overflow sewage from all of the developments that have sprung up over the years.

Whatever the cause, it's been pretty nasty, and some forecasts now have the wind and tide shifting back to the south, leaving everyone to wonder when this will finally end.

Because as of now, at least in certain places, the water's still brown, the air's still rancid and the dolphins are still dying.

The fishing's not bad, though.

They've been catching 'em by the pitchfork. *Contact Chris Anderson at chris.anderson@heraldtribune.com.*



Nathan Meschelle of Cortez mends a seine net at the 2015 Cortez Commercial Fishing Festival. With red tide plaguing the area, Meschelle has not been able to fish, so he is being paid by governments on Anna Maria Island to remove dead fish.

[HERALD-TRIBUNE ARCHIVE / 2015 / THOMAS BENDER]

Friday, 08/10/2018 Pag.A01

8-11-18
Gondolier

Red tide = less green

RED TIDE

By **SUE WADE**

SUN CORRESPONDENT

Joyce Durbin's whole extended Kentucky family had been piling onto Casey Key off Nokomis for vacation together since the '60s. And they always came down to North Jetty Park, with its Fish Camp and beach.

Her dad fished. The kids made sand castles at the beach and ate corn dogs from the camp's old St. Louis trolley.

Her brother-in-law Glenn Francis used to say, "Goin' to the jetty," then plant himself there for the day, fishing, listening to the waves slap against the rocks lining Venice Inlet and shooting the bull with his buddies.

He never really left, either. A memorial table there still displays his name.

Joyce and her husband, Gary, fell so in love with the place themselves that they retired to Venice and later bid for and won the contract for the North Jetty Fish Camp & Beach Park Concession.

They've been operating it for the last four years, serving families like theirs who return for vacation year after year.

But they aren't seeing as many of them this summer. And this week they had a surprise inspection from the health department.

Some Fish Camp visitors had called in a complaint. They smelled dead rats, they said.

It wasn't dead rats, of course. It was the stench of red tide and dead fish.

Gary said, "We've felt the impact of red tide to an extreme degree. We've had days of zero business and others with only \$65 or \$100, at a place that

just in case someone wants a cup of coffee. What does the future hold? I just don't know."

Red tide forced the Casey Key Fish House & Tiki Bar, on the Intracoastal in Osprey, to close its doors on Aug. 3. "It's day to day as of now," they said.

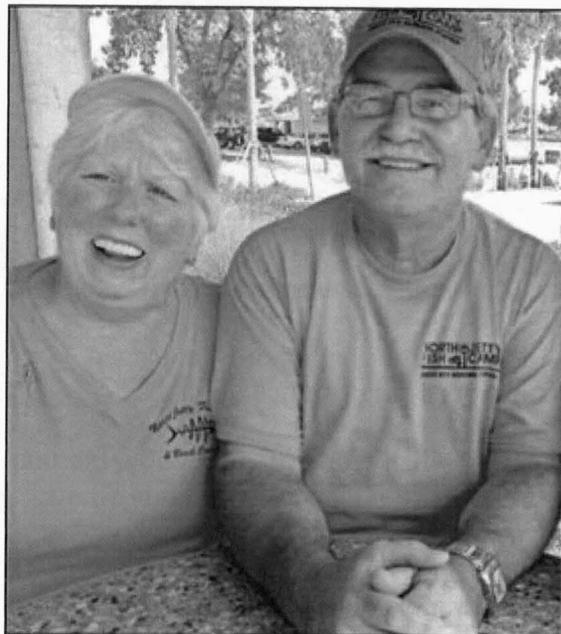
Jay Martin, general manager at the Venice Beach Daiquiri Deck, which is downtown on West Venice Avenue, has customers complaining that it smells. He opened the place six years ago and has never seen things this bad.

"And there's just no clientele coming in off the beach like usual," he said.

Venues that thrive on boat traffic have watched it dwindle to nearly none.

According to Cherie Sawyer at Snook's Bayside Restaurant & Tiki Bar, on the Intracoastal in Englewood, "We have definitely seen a loss of boat traffic. We haven't had the smell of death here, or the same dead fish as the beaches, but you can feel the red tide in the air. The

RED TIDE | 8A



normally does \$500 to \$800 a day in the summertime.

“It’s been devastating for our employees, who aren’t getting many hours. I’m already upside down from payroll, and everyone is hurting.

“Other times we’ve had red tide, people were still coming out because you could still breathe. Now it’s keeping them away. No one’s on the beach. If I didn’t work here, I wouldn’t be here.

“We’re going to keep plugging along as best we can. We still come in at 8:30 every morning,

There were happier times for Joyce and Gary Durbin when they first took over the North Jetty Fish Camp & Beach Park Concession on Casey Key four years ago.

SUN PHOTO BY SUE WADE

Red tide = less green

RED TIDE

FROM PAGE 1A

breeze here keeps it down ... and at times makes it worse.”

General manager Red Wilx at the 42-year-old Crow’s Nest in Venice feels lucky that his sheltered marina and restaurant have no shoreline.

“We had the smell reach here only one day. But I think it’s fair to say that every restaurant that’s on the water is affected.

When you go online and look where you’re going on vacation, the coastline is red from Sarasota to Naples. I know I’d be going somewhere else.”

Farther inland, at NoKoMo’s Sunset Hut on Dona Bay in Nokomis, manager Taylor Rowland reported no physical evidence of red tide, along with a breeze that saves them from the miasma blanketing Venice. He

expected a full house that night.

At Pop’s Sunset Grill in Nokomis, manager Travis Donmoyer didn’t mince words.

“I’ve seen fish kills before, in 2005-2006, but this year the smell’s driving away everybody who’s here for vacation,” he said. “There’s nobody fishing on the opposite side of the Intracoastal, where it’s normally packed every day. There’s no boat traffic, either.

Our business is off 40 or 50 percent.”

But Ed Crocheron, a diehard 18-year Pop's regular, isn't letting *Karenia brevis* get him down.

"I've been supporting Pop's' outside bar, having my usual cocktails every evening," he said proudly. "The last two days have been a little stinky. Not so stinky that I couldn't stay and enjoy it, though!"

8-11-18
Gondolier

Dolphin death count rises to 9

DOLPHINS

By GREG GILES

NEWS EDITOR

Experts say the recent spate of dolphin deaths in and near Venice isn't surprising.

It shows that the prolonged red tide contamination is moving up the food chain, and that's why we're just now seeing apex predators in the Gulf turning up dead.

It's the worst outbreak of red tide in 10 years, according to Mote Marine Laboratory, which is busy conducting necropsies on nine bottlenose dolphins recovered between Tuesday evening through Thursday afternoon.

And the weather isn't helping. Forecasts are predicting westerly winds and that means red tide will be moving back toward the coast this weekend.

9 dolphin deaths

Master Police Officer Paul Joyce, with the Venice Police Marine Unit, assisted Mote Marine Laboratory with the recovery of more than half of the nine reported deceased dolphins. All were found within a 48-hour period. About half were females.

Six dolphins were recovered Tuesday night and Wednesday. Two more were picked up

Thursday morning and a third was reported by Mote Marine Laboratory.

The latter three mammals included a 10-foot adult dolphin recovered from North Casey Key in Nokomis and another at Siesta Key. The third deceased dolphin

DOLPHINS | 4A



PHOTO BY ABC 7 WWSB

Venice Marine Patrol Officer Paul Joyce helps Senior Biologist Rebeccah Hazelkorn pull two dead dolphins into a vehicle for transport to Mote Marine Lab.

Dolphin death count rises to 9

DOLPHINS

FROM PAGE 1

was recovered at 1:30 a.m. Thursday morning from Turtle Beach, according to Mote.

but can't until the state asks for it. Why aren't state leaders asking for help?" Nelson wrote.

Venice Mayor John Holic seemed to agree with that sentiment.

"Putting politics aside, the magnitude of the problem necessitates far better data than we

Two dead dolphins were recovered Tuesday from Gulf waters in Venice.

On Wednesday at 8:30 a.m., a dolphin was recovered in the Intracoastal behind Venice Yacht Club, according to a city of Venice press release. At 9:45 a.m., an adult was found beached on Brohard Beach, south of the Paw Park.

Both of these dolphins were taken to the Marina Park boat ramp off East Venice Avenue. With the assistance of Venice Public Works and SeaTow, the dolphins were loaded into a truck and transported to Mote Marine, according to the release.

Joyce was notified by Mote Wednesday afternoon of a deceased dolphin in the North Casey Key area. As that report came in, Mote received a report of another dolphin off Casey Key.

Joyce and Florida Wildlife Commission officials then went out and recovered both dolphins and proceeded to the Higel Park boat ramp, where they met Mote Marine staff to transport the corpses back to Mote Marine.

Necropsies

Joyce said red tide is more than likely a factor in the dolphin deaths. Mote will conduct necropsies to determine cause of death.

“It is now getting to the point where dolphins who have a very high tolerance to red tide or they have the knowledge and ability to get away from the red tide, it’s now affecting the dolphins at this point,” said Joyce, in an interview with ABC 7 WWSB.

Experts from Mote say it is very unusual to see this many dead dolphins at one time.

“The fact that it is starting to affect our dolphins makes us even more nervous about what is to come,” said Rebeccah Hazelkorn, a senior biologist with Mote. “We suspect that these are (due to) red tide just given what we have seen historically, how these animals are presenting in the location, along with red tide cell counts.”

currently have and a course of action that exceeds the boundaries of any one city or county,” Holic said. “Only with a concerted effort by the federal and state governments will we be able to launch experimental solutions to this problem that has lingered far too long. Only with the cooperation of those two governments will we be able to find out what the near term and long term effects of these algae are to our population.”

On Aug. 3, Scott directed the Wildlife Commission and Department of Environmental Protection to mobilize all available resources to address red tide impacts in Southwest Florida’s coastal communities.

Blue-green algae mixing

Some suspect bluegreen algae — typically an East Coast freshwater problem, which brings along with it another toxin, Cyanobacteria — is now mixing with red tide via the Caloosahatchee River, making red tide worse. FWC’s website, and numerous Mote scientists, however, say that’s not the case.

Mote’s Question and Answer on Red Tide states that freshwater flows from the river are not likely to contribute to the growth of Florida red tide.

The microscopic bluegreen bacteria are found in freshwater lakes, streams, ponds and brackish water ecosystems.

Even if it doesn’t worsen red tide, said Bob Rigby, a Nokomis inventor, the blue-green algae problem is real, has harmful toxic affects and can even be found locally.

“We’ve got it here now. I found it a year ago,” Rigby said. “I called the Department of Environmental Protection last year and told them to stop it. It’s emptying into Lyons Bay from a retention pond on Albee Farm Road.” Rigby is better known for what he calls his red-tide killing machine, which drew attention nearly a decade ago. It’s a sprawling, floating marine rig pulled by a boat that sprays a diluted solution of sodium hypochlorite (used in disinfectants) over the

High concentrations

ABC 7's Chief Meteorologist Bob Harrigan said the weather isn't making things easier.

"The latest red tide report has come in and it is not good news for the Sun Coast as high concentrations — 1 million cells per liter — have been reported all the way through the Sun Coast," he said.

"In seven samples in Manatee, background to high concentrations have been found. In Sarasota County, 40 samples are reporting very low to high concentrations."

"With a steady west wind expected over the next several days, the harmful impacts will be experienced along area beaches through the weekend," Harrigan said.

Calls for state assistance

For months residents have been worried about the harmful effects of

Karenia brevis, the red tide algae.

Last week Sarasota County's Public Works Department collected more than 18 tons of dead fish off Venice and Sarasota beaches. More than 400 deceased sea turtles have also been found along the Sun Coast, and three local manatee deaths have been attributed to red tide.

The latest casualties, the dolphins, are now generating even more pressure on Gov. Rick Scott to declare a state of emergency, as he did in 2016 in response to a massive red tide outbreak.

Politicians are raising a warning flag, too, concerned about the effects on public health.

Sen. Bill Nelson recently reached out with a tweet to constituents.

"I called on the CDC (Centers for Disease Control and Prevention) to help with the algae and red tide crisis here. They just wrote back. Said they are ready to help

bloom. It was never built due to its expense and was never tested on a large scale.

Ozone system to be tested

Meanwhile, Mote Marine scientists will field-test a newly developed method for mitigating Florida red tide in the closed end of a canal in Boca Grande next week.

The method uses ozone to destroy *Karenia brevis* and its toxins inside a mechanical system that releases no ozone into the environment and restores oxygen that is often deficient in Florida red tide areas, according to a press release issued by Mote.

The test takes place next Tuesday.

The ozone treatment system was developed and patented and is currently used, to remove Florida red tide cells and toxins from seawater entering Mote Aquarium and Mote's animal hospitals on City Island, Sarasota, according to Mote.

The system works by oxidizing and destroying the red tide cells, toxins and excessive organic matter, and re-oxygenating the water, while releasing no ozone into the environment.

Mote scientists and facilities staff have already tested the ozone system with red tide algae in a 25,000-gallon pool at Mote's Sarasota campus, completing final tests in June 2018. Results showed that, with one ozone system processing 150 gallons of water per minute, the red tide algae cells in the pool were wiped out rapidly and their toxins cleared in approximately one day, according to Mote.

The canal test in Boca Grande on Tuesday will involve two ozone systems working together to process 300 gallons of water per minute.

ABC 7 WWSB Reporter Rick Adams contributed to this story.

8-11-18
Herald

For red tide, no quick fix

RED

Major storm may be only way to get rid of persistent bloom, expert says

By Nicole Rodriguez

nrodriguez@heraldtribune.com

SARASOTA — The invasion of toxic red tide on Southwest Florida beaches that has slaughtered marine life and sickened humans shows no signs of retreat anytime soon, experts say.

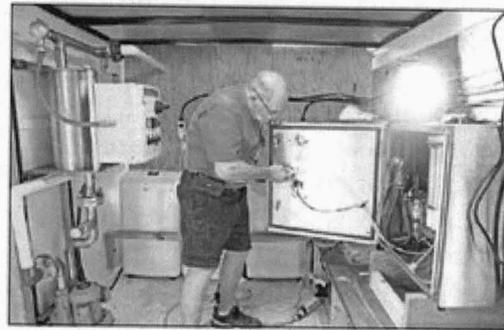
The killer menace, which has turned the emerald green waters of the Gulf of Mexico into a soft-drink brown hue and transformed pristine white sand beaches into ghastly graveyards of rotting sea turtles, manatees, dolphins and whale sharks in recent weeks, doesn't look

See RED, A14

[PROVIDED BY MOTE MARINE]



A significant red tide bloom was visible from the air over Anna Maria Island, Longboat Key and parts of Sarasota Bay on Wednesday.
[HERALD-TRIBUNE ARCHIVE / CARLOS R. MUNOZ]



Mote Marine Laboratory & Aquarium Maintenance Assistant Paul Barricklow prepares Mote's patented ozone treatment system for field testing. Mote scientists will test a newly developed method for mitigating Florida red tide — elevated concentrations of toxic *Karenia brevis* algae — in the closed end of a canal in Boca Grande on Tuesday.

For red tide, no quick fix

RED

From Page A1

wide. Red tide is a higher-than-normal concentration of a microscopic alga that takes advantage of high nutrient levels near the coast to multiply. The species that causes red tide is *Karenia brevis* and is often abbreviated as K.

like it will loosen its grip on the area, scientists say. There is a "but" in the grim forecast, said Vincent Lovko, a staff scientist at Mote Marine Laboratory & Aquarium, an independent research institution in Sarasota that has studied Florida red tide for decades.

A major weather system — such as a hurricane — could potentially rid Southwest Florida of the persistent bloom, which began last October and killed an undetermined amount of marine life, while causing beachgoers to cough, sneeze and experience other respiratory or eye irritation. Sarasota County alone estimates it has removed more than 66 tons of decomposing fish from its beaches since Aug. 1, while the Town of Longboat Key estimates it has cleared 5.22 tons of decaying sea life from its shoreline.

The Florida Fish and Wildlife Conservation Commission reports it has received complaints of respiratory irritation spanning from Manatee to Collier counties.

"Any weather system that significantly stirs up the water column and pushes water away from shore can help disperse the cells, potentially ending the bloom if they are not able to re-aggregate," Lovko said.

The tropics, however, remain quiet, and U.S. forecasters say the Atlantic hurricane season may be less active than they previously predicted, thanks to cooler waters in the Atlantic Ocean, stronger wind shear and drier air — all factors that suppress storms. Forecasters predict a 60 percent chance of seeing a below-normal season and 30 percent chance of a near-normal season. The probability the season will see above-normal activity decreased from 35 percent to 10 percent. An average hurricane season sees 12 named storms, six of which form hurricanes and three of which become major.

Red tide blooms have been occurring in Florida since the 1800s, but there's still no human intervention to stop it. Particularly lethal or long-lasting blooms like this one renew calls for intensified government and scientific interventions to address the problem.

brevis. Red tide grows far offshore in the Gulf of Mexico and can pile up near the coast in the fall as winter wind patterns blow cold fronts into Florida. The harmful algae prefer ocean water, unlike freshwater blue-green algae, and is usually gone by the end of March, although one bloom lasted 18 months, from 2004 through 2005 and into 2006, Lovko said. Winds can carry toxins from red tide up to 2.6 miles inland, Lovko added.

"The sheer size of a red tide along with the complex dynamics of bloom initiation and development makes developing a solution to eliminate red tide an enormous challenge," Lovko said. "Much research is focused on forecasting, prediction and early warning to help stakeholders know where and when a bloom might occur. It is unlikely there will be a magic bullet discovered that will cure red tide."

Still, Mote and other agencies across the state forge ahead with research. Mote scientists on Tuesday will fieldtest a newly developed method for mitigating Florida red tide in the closed end of a canal in Boca Grande.

The method uses ozone to destroy the algae and its toxins inside a special system that releases no ozone into the environment and restores oxygen that is often deficient in Florida red tide areas. The technology is designed for areas of limited size and tidal flow, such as dead-end canals and small embayments, where Florida red tide algae, their toxins, and resulting dead fish can accumulate.

It's still too early to tell when or if the method could be used publicly, Mote scientists said, adding the treatment is designed for smaller bodies of water, such as canals.

"This application is designed for small, restricted-flow environments, such as dead-end canals and small embayments," Rich Pierce, Mote senior scientist and program manager for the lab's ecotoxicology program, said. "We will have to answer the question for how long before it could be used publicly until after the test. This is a

Mote is researching, developing and testing several technologies that could potentially help control red tide, including the use of ozone to remediate red tide in residential canals, the use of filter-feeding organisms to lessen red tide in small-volume environments and the use of natural compounds produced by seaweed.

The current bloom spans nearly 150 miles and is roughly 10 to 20 miles

newly developed technology that may need some time.”

The state has also funded red tide research, which has seen advancements in early detection of the toxic blooms. Since 2013, Mote has received more than \$5.5 million in state funding for red tide research, according to Gov. Rick Scott’s office.

Scott this month directed FWC and the Florida Department of Environmental Protection to mobilize all available resources to address red tide impacts in Southwest Florida.

'All we can do is say our prayers'

RED TIDE

From Anna Maria to Englewood Beach, red tide's toll persists

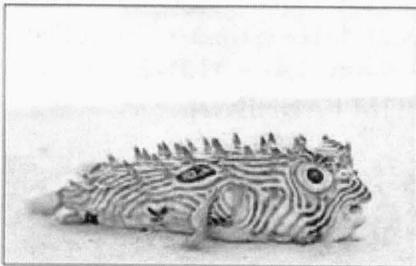
By Tim Fanning

tim.fanning@heraldtribune.com

On the fine white beaches of Anna Maria Island, the putrid corpses of all sorts of sea life are tangled in the seagrass just ahead of the surf.

As thunder rolled in, Matt Nolan, a rusted green metal wagon full of garbage bags of dead fish

See RED TIDE, A6



A pufferfish, presumably felled by red tide, was among the tableau of dead marine life seen Saturday on Siesta Beach. Mote Marine Laboratory reported a strong presence of red tide on all of Sarasota County's beaches on Saturday. [HERALDTRIBUNE STAFF PHOTO / THOMAS BENDER]

'All we can do is say our prayers'

RED TIDE

From Page A1

behind him, dug another glove covered hand into the sand. Nolan dumped a baby flounder, an eel and a Spanish mackerel into the wagon and inched forward to do it all over again.

The 49-year-old life coach from Chicago has been doing it almost every morning of his two-week vacation since tons of death washed up on these shores. Heading about 100 yards in both directions, he estimates he's collected about 300 pounds a day.

A major weather system — such as a hurricane — may be the only thing that could rid Southwest Florida of the noxious bloom any time soon, Vincent Lovko, a staff scientist at Mote, told the Herald-Tribune Friday.

But the tropics remain quiet, and U.S. forecasters say the Atlantic hurricane season may be less active than they previously predicted. Back on Anna Maria Island, Nolan, the tourist from Chicago, said that the red tide has worked its way through the ecosystem. One day it's pinfish. Other days, snook. Today, it's baby flounder.

"It's really sad," Nolan said, "You hear on the news that it's hurting local businesses. My advice as a tourist? Just stick it through. Help out if you can."

He isn't paid and no one asked him to do it. But there's a lot at stake, Nolan said. He's been coming to this beach every year since he was 11 years old. But since his father died, he wanted to keep it the pristine paradise he keeps coming back to.

"It's a magical place. It's a place to remember my dad without being sad," Nolan said. "I'm just trying to create a little bit of happiness."

World-renowned for its long beaches with their soft, white sand, Southwest Florida this summer is under attack by a menacing red tide — an algae confounding scientists with its longevity and overwhelming its coastline with mountains of dead fish, turtles, dolphins and manatees.

Manatee County estimates it has removed more than 40.5 tons of red tide waste from its beaches and waterways since the algae bloom spread north last weekend. Neighboring beaches in Sarasota County have collected about 66 tons of decomposing fish.

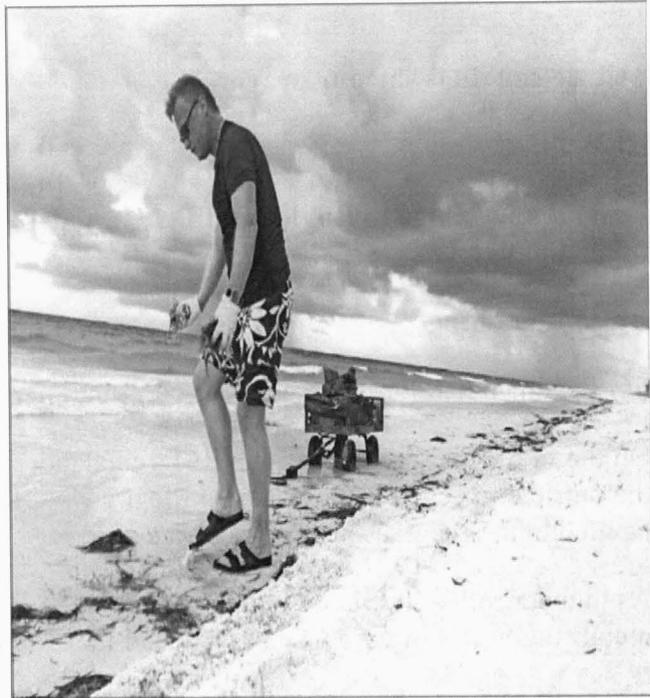
Crews begin early in the morning and return multiple times a day, said Drew Winchester, a spokesman with Sarasota County. The same is true for Manatee County, said Nick Azzara, county spokesman.

But even with the routine, it's a never-ending job, Nolan said. Each incoming wave seems to bring in more dead sea life.

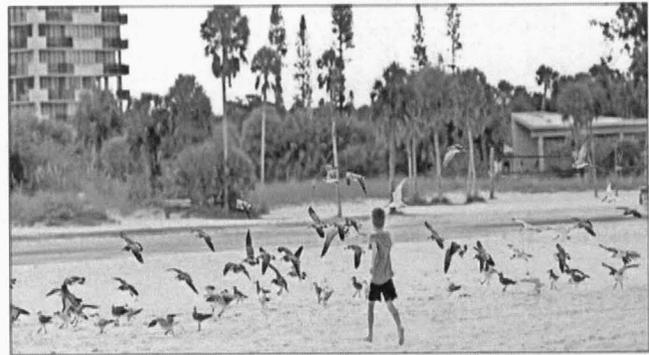
"I feel like it's the trials of Job," Nolan said. "Three steps forward and four steps back."

Mote Marine Laboratory's beach conditions reporting system confirmed the presence of red tide was still strong on Sarasota and Manatee County beaches on Saturday. Varying levels of dark water, red drift, dead fish and respiratory irritation were reported from Anna Maria Island all the way to Manasota Beach.

The National Oceanic and Atmospheric Administration reported Saturday that water samples taken from beaches in Sarasota and Manatee counties continued to contain high



Matt Nolan, 49, has spent just about every day of his two-week vacation cleaning dead sea life off Anna Maria Island. He estimates he collects about 300 pounds a day. [HERALD-TRIBUNE STAFF PHOTO / TIM FANNING]



Shorebirds scatter as a child approaches them Saturday on Siesta Beach. A few people came out despite the red tide, but the beach was far less populated than it would be on a typical summer Saturday. [HERALD-TRIBUNE STAFF PHOTO / THOMAS BENDER]

concentrations of *Karenia brevis*, the red tide organism.

From Anna Maria Island moving south toward Siesta Beach on Saturday, the Gulf waters were murky green and the shift in the east breeze sent red tide scratching down the back of your throat. The smell was strong enough to permeate a car even with the windows up in some spots along Florida State Road 789, the island-hopping main drag that changes names a few times along its path from Anna Maria to St. Armands Key.

In Englewood, the red tide irritation was so bad that Mark Timchula, who operates beach chair rentals at Englewood Beach, refused to go out for his weekly red tide update on his “The Beach Guy” Instagram account.

“It’s not good out here,” he said in the video. “I’m just giving you the straight talk. No lies.”

The incoming thunderstorms and persistent mid-morning rain kept most people off the beach. At Siesta Beach, red no-swim advisory flags whipped in the wind as rain spat down on the shorebirds along the mostly empty beach.

On-duty lifeguards on Siesta Beach declined to comment. A Facebook page called “Scooter of the Beach,” apparently run by a longtime Sarasota County lifeguard, gives daily video red tide updates from Siesta Beach.

“There’s no sign of a light at the end of the tunnel right now,” he said in the Facebook video. “All we can do is say our prayers.”

Scientists statewide and with NOAA are trying to understand the duration of this year’s bloom, which began in October. While unusual and unpleasant, the event is not without precedent — an 18-month bloom befouled local beaches between 2004 and 2006.



A Kemp’s ridley sea turtle is seen on Englewood Beach, one of two specimens of the critically endangered species that washed up there Saturday. [PROVIDED BY SAMANTHA GENTUP]



John Langwig, 65 and recently retired, headed out to Siesta Beach for some exercise on Saturday despite the funk in the air.

[HERALD-TRIBUNE STAFF PHOTO / THOMAS BENDER]

Sunday, 08/12/2018 Pag.A01

Algal bloom deters tourists**BLOOM**

While some visitors avoid the beaches, others head elsewhere for better waters

By Carlos R. Munoz

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SARASOTA — Florida red tide, the dark and mysterious toxic algae known as *Karenia brevis*, continued to consume sea life and irritate visitors Sunday, who said they were headed for better waters.

The toxic algae bloom has overrun Florida's southern Gulf Coast this summer as thousands of dead fish, hundreds of sea turtles, some dolphins and even a whale shark have washed ashore. There is debate over whether pollution worsened the outbreak.

The state is also dealing

See BLOOM, B6



Protesters at Siesta Beach on Sunday joined hands in solidarity with thousands of protesters across the state to demand state leaders stop future red tide outbreaks like the one killing sea life on the state's Gulf Coast.
[PHOTO COURTESY OF YVONNE SHUTT]

Algal bloom deters tourists**BLOOM**

From Page B1

with a freshwater algae outbreak that is clogging canals connected to Lake Okeechobee. It's caused

Beach with his companion who was coughing, but was unaware the red tide was causing the irritation in her lungs.

'I was wondering why all the dead fish were on the beach,' Petty said. 'I was kind of surprised that such a nice beach is so empty and dead right now. I guess I know why, the red tide.'

by fertilizer runoff, according to the Associated Press.

The 10-month outbreak caused thousands to line Florida's beaches to demand state leaders stop future red tide outbreaks like the one killing sea life on the state's Gulf Coast.

Sunday's 'Hands Along the Water' events happened on the Gulf and Atlantic coasts from the St. Petersburg area to Fort Myers to Fort Lauderdale. The stench on some beaches from animals killed by the current red tide outbreak caused protesters to wear breathing masks.

Adrienne Miceli-Trask, who organized the Siesta Key 'Hands Along the Water' protest, said more than 500 people came to the beach that has been dubbed No. 1 in the U.S.

The protest was the effort of about two dozen individuals operating Facebook pages to raise awareness for Florida's water and wildlife. Those rallying locked hands near the old Siesta Key pavilion at 10:15 a.m. in a show of solidarity.

'It made me feel grateful and humbled,' Miceli-Trask said. 'It's so important to all of us. It wasn't anything political; it was something we felt passionate about.'

On Saturday, Manatee County estimated it had removed more than 40.5 tons of red tide waste from its beaches and waterways since the algae bloom spread north last weekend. Sarasota County has collected 66 tons of decomposing fish.

Among the dead are a growing number endangered sea turtles, manatees and dolphins. When the red drift becomes airborne it causes respiratory irritation and coughing in people.

'I want to bring awareness to the fact our sea life and waters are in desperate need of help,' Miceli-Trask said. 'Without our fish and everything in our ecosystem we are pretty much in a no-win situation here. People come here for tourism all across the board — Florida is known for this. If

Petty said they would go back to St. Armands Circle and have dinner instead.

Felipe Saer of Miami and his family erected a tent on North Lido far from shore. They sat in their chairs facing away from the Gulf waters so the effects of red tide weren't as bad.

The family came for a vacation but are going to St. Pete Beach on Monday for better conditions.

'It's not quite the vacation you'd expect,' Saer said. 'It definitely caught me off guard earlier today (Sunday) when I saw all the fish and all the eels laid out on the shoreline like this. I honestly went out to see what was up. There's a bunch of dead animals by the shoreline, which is a little off putting. Not your typical Florida sight.'

Saer said he heard about the red algae, but had never experienced it and didn't know it was occurring in Southwest Florida.

'We are pointed not toward the beach,' Saer said. 'It's a beautiful day out. We are here in Sarasota. We came all the way from Miami. Are we going to stay in a hotel?'

Yesterday, the family did not go to the beach because it rained. After two days in Sarasota they are leaving.

We are just trying to hit up some other spots and see how things are there and make the most out of this couple days,' Saer said. 'When you want to go the beach, you hope that you can get in and it looks really nice and it's beautiful. That wasn't the case today (Sunday).'

Material from the Associated Press was used in this report.

people are aware what's going on hopefully we will get some help.'

Miceli-Trask returned to Florida, where she was raised, four years ago. She now lives between Osprey and Sarasota.

'I wanted to come back to where I feel the happiest,' she said.

What's red tide?

Lido Beach was empty Sunday, except for about a dozen people — mostly from out of town — who had no idea red tide had invaded Sarasota's beaches.

Ray Petty of Tampa said he doesn't watch the news much and came down to Sarasota to explore the area. He started at Lido



Protesters gathered at Siesta Beach on Sunday, joining thousands of protesters across the state to demand state leaders stop future red tide outbreaks like the one killing sea life on the state's Gulf Coast.

[PHOTO COURTESY OF DENNIS GOTTSCHALK]

Turning the tide?**RED TIDE**

Funding will help spur research, but much remains unknown in battle against red tide

By Carlos R. Munoz

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SARASOTA — While U.S. Rep. Vern Buchanan discussed an \$8 million grant to combat red tide at Mote Marine Laboratory on Monday, a senior Mote scientist just down the hall questioned whether the toxic algae paralyzing Southwest Florida beaches actually might be an important part of the ecosystem.

Buchanan and U.S. Rep. Alcee Hastings (D-Fla.) sponsored the bipartisan legislation that was signed into law earlier this year. The funding was distributed to NOAA and will be dispersed to southern Florida researchers.

See **RED TIDE, B3**



Lido Beach was littered with dead fish Sunday, the result of Florida red tide. The harmful algal bloom continues to plague the southern Gulf Coast. [HERALD-TRIBUNE STAFF PHOTO / CARLOS R. MUNOZ]



Congressman Vern Buchanan discusses legislation that will dedicate \$8 million to combat red tide, a toxin-producing algae currently killing fish and impacting Southwest Florida beaches.

[HERALD-TRIBUNE STAFF PHOTO / CARLOS R. MUNOZ]

Turning the tide?**RED TIDE**

One hypothesis suggests that red tide's destructive nature could be similar to the effects of a forest fire, which cleans out underbrush and

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Mote scientists are expected to get a large chunk of the grant money, Buchanan said.

The money will be used to research possible mitigation efforts, such as a field test of a newly developed method for destroying red tide using ozone, patented by Mote scientists. The device will be field tested in a Boca Grande canal today. The patented technology was first used to clean water for sea turtles in a 25,000-gallon tank and has been scaled up to process at least 500,000 gallons of canal water.

Is red tide necessary?

Mote scientist Dr. Vincent Lovko, who works with Mote's Phytoplankton Ecology program, says there isn't enough research to determine what would happen if red tide was eradicated or suppressed from the Gulf.

Researchers must consider three factors when dealing with an aquatic toxin: prevention, control and mitigation, according to Lovko.

"The control (in Lake Okeechobee) is straightforward," he said. "You reduce the nutrients, and you reduce those (blue-green) algae blooms."

The same can't be said for the Gulf, where a *Karenia brevis* bloom currently stretches for 150 miles from Manatee County south to Collier County. Any mitigation system would have to treat 1.5 trillion gallons of water to be effective.

"You might not even get it all if you do that," said Lovko, who pointed out that Mote doesn't have permission to treat the bloom.

"There is no literature to suggest what the ecological function of red tide might be," Lovko said.

Single-cell red tide is a protist cell that takes three days to divide. It consumes organic and inorganic nutrients and has flagella that help it move

is somewhat restorative to a forest ecosystem. But it's difficult to see what the ecological function of the toxic algae might be.

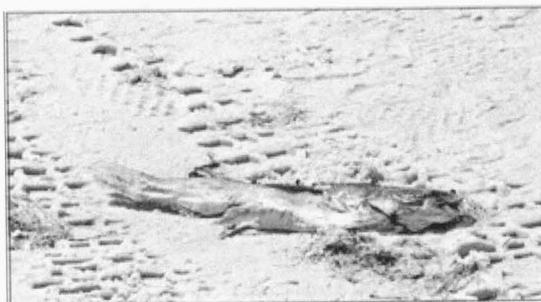
There is little information to determine where *Karenia brevis* ranks on the algal evolutionary scale. There are about 12 known nutrient sources for the harmful algae blooms, which vary based on their location along the southern Florida coastline.

Even if science can identify a course of action that would destroy red tide, there are fears that the death of the organism could release toxins into the water and cause a large-scale marine animal die-off.

A similar incident occurred in Chesapeake Bay, where a nuisance bloom was suppressed with copper sulfate. Toxins released by the dead algal bloom poisoned the water and killed fish.

Lovko says there is only one way to find out what can be done to mitigate red tides effects — research.

"Whether or not trying to control red tide would create a dead zone, probably not, that's something that happens over a long period of time," Lovko said. "It's an interesting thought. All those things we have to consider when we're messing with the ecosystem. We do it all the time. We cure diseases ... We do a lot of things that are otherwise natural, but are a bother to us or a danger to us. There's no reason not to pursue it, but there has to be realistic expectations."



The sight of dead fish, like this one at Siesta Beach, is all too common in Southwest Florida this summer.