

Water is refreshing in the heat, right? In parts of Florida this past week, not so much

July 29 2023, by MICHAEL PHILLIS, BEATRICE DUPUY and REBECCA BLACKWELL



Graziano La Grasta, a local contractor and standup paddle board enthusiast, rides a small wave off South Beach, Friday, July 28, 2023, in Miami Beach, Fla. Humans naturally look to water for a chance to refresh, but when water temperatures get too high, some of the appeal is lost. Credit: AP Photo/Rebecca Blackwell

In the sweltering summer heat, nobody tries to cool off by jumping into a hot tub. In parts of Florida, however, that's what the ocean has felt like.

Earlier this week, sea surface temperatures reached as high as 101.2 degrees Fahrenheit (38.4 degrees Celsius) around the state's southern tip in Manatee Bay, according to the National Weather Service—although scientists said the context for Monday's reading is complicated.

"It was like there was no difference between humidity of the air and going into the water," said Chelsea Ward of Fort Myers, Florida.

Triple-digit ocean temperatures are stunning even in Florida, where residents are used to the heat and where many retirees find refuge from cold, northern winters. Several other nearby spots reached the mid-90s (about 35 Celsius). A storm finally came through on Wednesday, helping water temperatures drop back down in to the more temperate 80s (about 29 Celsius).

Humans naturally look to water for a chance to refresh. Every summer, millions grab their swimsuits for a day on the beach and a chance to cool off in the water—a break from everyday work and worry. Pools offer the same relief and a place for friends to gather. But when water temperatures get too high, some of the appeal is lost.



Boats are anchored at Manatee Bay off the Florida coast near Key Largo, on Friday, July 28, 2023. Triple-digit ocean temperatures are stunning even in Florida, where residents are used to the heat. Credit: AP Photo/Daniel Kozin

Ward, 47, doesn't keep her beach bag in her car anymore even though she lives minutes away from the beach in Fort Myers. Lately, the water is just too hot. On Sunday, when her friend asked if she wanted to go to the beach, the two decided against it after discovering the water temperature was around 90 degrees (32 degrees Celsius).

When it's hot, the body cools down by sweating, which evaporates and releases heat. Dipping into the ocean is typically so refreshing because heat efficiently transfers from your body into the water. But as water temperatures climb, that effect diminishes and you lose less heat less

quickly, according to Michael Mullins, a Washington University toxicologist and emergency medicine physician at Barnes-Jewish Hospital in St. Louis.

A hot tub—or a stretch of ocean water hotter than body temperature—reverses the transfer of heat into your body. That's not a pleasant experience on a sizzling, humid, Florida day.

"It would feel," Mullins said, "like you are swimming in soup."



Beachgoers wade in the ocean at Crandon Park, Friday, July 28, 2023, in Key Biscayne, Fla. Humans naturally look to water for a chance to refresh, but when water temperatures get too high, some of the appeal is lost. Credit: AP Photo/Rebecca Blackwell

ICE BLOCKS FOR YOUR POOL? WHY NOT

People already tend not to swim that much in the Florida waters that were so extremely hot earlier this week. The water can get muddy and there are alligators and crocodiles in the area, too.

But high temperatures anywhere can make swimming less pleasant. Through Friday, Phoenix endured highs above 110 degrees Fahrenheit (43 degrees Celsius) every day this month. Pools are warm. About 150 miles (240 kilometers) to the northwest in Lake Havasu City, Arizona, Stefanee Lynn Thompson, 50, wanted to keep guests cool for a pool party she hosted Sunday. The heat had raised the pool's temperature to 96 degrees (36 Celsius).

Her friend recommended she go buy ice blocks. She ran to the grocery store, picked up 40 of them and dumped them in the pool. She set up fans, too. All that hard work dropped the pool's temperature a grand total of 4 degrees Fahrenheit (2.2 degrees Celsius).



Beachgoers lounge in Crandon Park, Friday, July 28, 2023, in Key Biscayne, Fla. In the sweltering summer heat, nobody tries to cool off by jumping into a hot tub. In parts of Florida, however, that's what the ocean has felt like. Credit: AP Photo/Rebecca Blackwell

"When it's 120 out, anything helps," Thompson said.

Recently, ocean temperatures off the western coast of Florida have been a few degrees above normal, sitting around 88 to 90 degrees (31-32 degrees Celsius). It's not just humans that suffer when the oceans warm. Sea corals are bleaching. They can be hurt when water temperatures rise above the upper 80s (low 30 degrees Celsius).

July has been so hot that [scientists announced a global heat record even](#)

before the month ended. Climate change is creating a hotter world, warming oceans and making some storms more destructive. Sea surface temperatures are somewhat above average around Florida, but they are far higher in parts of the North Atlantic near Newfoundland where they are as much as 9 degrees Fahrenheit (5 degrees Celsius) hotter than usual.



Maria Argueta, 38, cools off with her son Matthew Pastrana, 2, and niece Aurora Reyes, 10, during a cloudy day respite in the high 80s from an ongoing heat wave, at the aquifer-fed Venetian Pool in Coral Gables, Fla., July 27, 2023. Credit: AP Photo/Rebecca Blackwell, File

The extremely high sea surface temperatures recorded earlier this week

off Florida's southern tip were caused by lots of sun, little wind and no storms.

"I've never seen temperatures 100 degrees in Florida Bay in the 21 years I've been in the Keys," said Andy Devanas, science officer at the National Weather Service in Key West, Florida.

IS THE WATER THAT WARM EVERYWHERE?

And there are some questions about how representative Monday's 101.2-degree reading in Manatee Bay were. Water there is shallow and thus heats up quickly. If there's lots of sediment, that can raise temperatures, too, according to David Roth, a forecaster with the National Oceanic and Atmospheric Administration's Climate Prediction Center.

By contrast, stop by the YMCA pools on the North Shore of Massachusetts near Boston and you'll descend into water that's around 78 to 80 degrees (26 to 27 degrees Celsius). The ocean nearby is cooler, too. Sea surface temperatures off Cape Cod, for example, barely touched the mid-70s (about 24 degrees Celsius) this week.



Galo Felipe Espinoza Sanchez, 5, left, swims with his dad and cousin at Crandon Park beach, during the family's visit to Florida from Ecuador and France, Friday, July 28, 2023, in Key Biscayne, Fla. Humans naturally look to water for a chance to refresh, but when water temperatures get too high, some of the appeal is lost. Credit: AP Photo/Rebecca Blackwell



Residents and tourists enjoy South Beach, Friday, July 28, 2023, in Miami Beach, Fla. Humans naturally look to water for a chance to refresh, but when water temperatures get too high, some of the appeal is lost. Credit: AP Photo/Rebecca Blackwell



A research associate in the Lirman coral lab at University of Miami's Rosenstiel School of Marine, Atmospheric, and Earth Science, carries a tray of baby coral brought in from one of the school's open water Key Biscayne coral nurseries, Friday, July 28, 2023, in Key Biscayne, Fla. The university's coral restoration program is scrambling to save as much of the nursery coral as they have space for, after biologists in the Florida Keys earlier reported bleaching of coral due to high water temperatures. Credit: AP Photo/Rebecca Blackwell



People swim in the ocean off of Crandon Park, Friday, July 28, 2023, in Key Biscayne, Fla. Humans naturally look to water for a chance to refresh, but when water temperatures get too high, some of the appeal is lost. Credit: AP Photo/Rebecca Blackwell



Graziano La Grasta, a local contractor and paddle board enthusiast, rides a small wave off South Beach, Friday, July 28, 2023, in Miami Beach, Fla. Humans naturally look to water for a chance to refresh, but when water temperatures get too high, some of the appeal is lost. Credit: AP Photo/Rebecca Blackwell



Shae Gurdon, 26, an eyelash specialist on vacation from New York City, takes a selfie in the ocean on South Beach, Friday, July 28, 2023, in Miami Beach, Fla. Humans naturally look to water for a chance to refresh, but when water temperatures get too high, some of the appeal is lost. Credit: AP Photo/Rebecca Blackwell



People enjoy the beach in Crandon Park, Friday, July 28, 2023, in Key Biscayne, Fla. Humans naturally look to water for a chance to refresh, but when water temperatures get too high, some of the appeal is lost. Credit: AP Photo/Rebecca Blackwell



Residents and tourists enjoy South Beach, Friday, July 28, 2023, in Miami Beach, Fla. Humans naturally look to water for a chance to refresh, but when water temperatures get too high, some of the appeal is lost. Credit: AP Photo/Rebecca Blackwell

When Maria Argueta, 38, has time off from her job at an open-air decorative plant nursery in Homestead, Florida, she'll go with her family to swim.

"This year, the heat is stronger," she said.

The hot ocean water doesn't bother her, but sometimes she takes her 2-year-old son and other members of the family to the Venetian Pool, a public facility in Coral Gables fed by water from an aquifer that's always

in the 70s. The very cool water, she said, is refreshing.

Florida's humid weather makes it harder for sweat to evaporate and cool the body down. People in south Florida know the ocean doesn't tend to offer real relief from that suffocating heat.

"You aren't getting much cooling at all," Roth said. "Nobody goes into the water in South Florida in the summer really except to swim, because it is comfortable to swim, but it is not refreshing."

© 2023 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed without permission.

Citation: Water is refreshing in the heat, right? In parts of Florida this past week, not so much (2023, July 29) retrieved 9 May 2024 from <https://phys.org/news/2023-07-refreshing-florida-week.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.