

# Seaweed invading Florida beaches likely to worsen, could break record for annual bloom

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(Photo: PATRICK DOVE/TCPALM)

This summer's annual seaweed bloom is likely to worsen through fall and could become the worst in history, scientists said of the stuff piling up on Florida beaches and choking nearshore waters.

In June, the bloom was three times larger than the record bloom for that month, set in 2015, according to satellite imagery from a University of South Florida project. But it wasn't large enough to set an annual record because it was smaller than the bloom was in August-September 2015. Blooms peak in late summer-early fall.

"It's a big part of global change we're seeing before our eyes," said Brian LaPointe, research professor with Florida Atlantic University's Harbor Branch Oceanographic Institute in Fort Pierce, who has been studying the seaweed since the 1980s.



**Seaweed is piling up on Atlantic beaches, like Pepper Park on North Hutchinson Island, Fort Pierce. (Photo: PHOTO CONTRIBUTED BY BRIAN LAPOINTE)**

And it's turning the usually beneficial seaweed into "too much of a good thing," he said.

In small amounts, the seaweed prevents beach erosion by capturing windblown sand and provides onshore and offshore food and habitat for myriad life forms — from microscopic to mahi mahi.

But in massive amounts, it smothers sea turtle nests on the beach and kills fish, sea turtles and sea grass in the water by depleting the oxygen as it decomposes.

To the chagrin of beachgoers, it also attracts insects, emits hydrogen sulfide gas that smells like rotten eggs and harbors jellyfish and other small, biting and stinging animals. Among the most prevalent are ["sea lice," which are tiny jellyfish larvae.](#)



**Seaweed is piling up on Atlantic beaches, like Pepper Park on North Hutchinson Island, Fort Pierce. (Photo: PHOTO CONTRIBUTED BY BRIAN LAPOINTE)**

## Local beaches

While Florida beachgoers may be annoyed by it, the seaweed is nowhere near as thick or environmentally destructive here as it is in the Caribbean.

Sunday, there was a 6- to 10-foot-wide ribbon of seaweed up to a half-foot thick at Pepper Park, LaPointe said of his "go-to beach" on North Hutchinson Island in Fort Pierce.

The seaweed "has made a mess of the windward side" of Little Cayman Island, LaPointe said, having spent last week there.

Clearing beaches of seaweed is expensive and endangers turtle nests and markings, Cope said, so most local governments wait until the tide washes it away.



Ribbons of sargassum seaweed washed up on shore run along the coastline at Dollman Beachside as beachgoers enjoy the sun on Friday, July 13, 2018 in St. Lucie County. The seaweed along the shoreline, which is mostly found in the Sargasso Sea in the North Atlantic, can attract insects, crabs, sea lice and trap sea turtles. (Photo: PATRICK DOVE/TCPALM)

## Another form of algae

The seaweed is a form of algae, and the science behind the bloom is similar to what is happening in Lake Okeechobee and Florida's inland lakes — but on a much larger scale, LaPointe said.

The toxic blue-green algae bloom in Lake Okeechobee is fed by nitrogen and phosphorus from agricultural fertilizer and urban development. Similarly, the seaweed bloom — unique to the Atlantic — mostly originates off Africa's west coast and is fed by phosphorus contained in windblown grains of Saharan sand.

The Atlantic's circulating currents push the seaweed east. The Gulf Stream carries it north, preventing much of the seaweed from reaching Florida shores, except when strong easterly winds overpower the Gulf Stream.



An aerial shot of seaweed off Grand Cayman island. (Photo: PHOTO CONTRIBUTED BY BRIAN LAPOINTE)

Strong winds can even push it into the Gulf of Mexico and into the Panhandle.

Researchers have sought nutritional, medicinal or other useful properties. But the federal government thwarted a North Carolina company's attempt to harvest the seaweed from the ocean for use as fertilizer.

The South Atlantic Fishery Management Council outlawed harvesting the seaweed from U.S. offshore waters because it provides habitat for fish.

Now U.S. companies export the harvesting technology they developed to Caribbean nations not bound by the restrictions.

## **Gulfweed**

Early oceanographers named the seaweed “Gulfweed” because they — and many scientists still today — thought it originates in the Gulf of Mexico, where it is fed by nutrients from the Mississippi River discharges, LaPointe said.

The Loop Current carries the seaweed out the Gulf and into the Florida Current, then into the Gulf Stream, then eastward toward Europe, he said.

From there, it travels south to Africa and east into the Equatorial Current, he said.

Much of the seaweed ends up at the bottom of the Sargasso Sea, an area of calm winds and deep blue water so named by Portuguese explorers in the early 15th century.