From: Dragana Connaughton < draganaconnaughton@gmail.com>

Sent: Wednesday, August 03, 2022 4:59 PM

To: Margaret Zeidman < margaretzeidman@gmail.com >; Kirk Blouin < KBlouin@TownofPalmBeach.com >

Subject: Re: in response to emails

\*\*\*\*\*\*\*Note: This email was sent from a source external to the Town of Palm Beach. Links or attachments should not be accessed unless expected from a trusted source. Additionally, all requests for information or changes to Town records should be verified for authenticity.\*\*\*\*\*\*

questions for Dr Tyndall:

please shed some light on what the effects of these projects have had on the nesting habits of the marine turtles and their hatchlings? According to the BMA a survey is supposed to be done between May 1 and May 15 and a second survey between July 15 and August 1<sup>st.</sup> Were those surveys done and where can one view those surveys? What has the trend been in the last 10 years, 20 years? It is my understanding that the program for dredging is supposed to be reviewed every five years and that a review will occur in August for evaluations and monitoring. Can you please advise where that data can be found. Was there a review from 5 years ago and where can I review it

Is there documentation of why they did not follow the BMA? Who is responsible for monitoring this project to make sure the agreement is upheld?

I would like to know the success rate of the relocated nests and what happened to the first leatherback nest, just south of Merrain Rd., that had been marked, stakes removed, with no sign of life.

Is the data collected accurate? I ask that question because so few nests were marked, and all the stakes within a 3/4 mile north of Merrain Road all disappeared, with the exception of one. In fact, there were approximately 8 nests immediately north of Merrain Rd that were marked, stakes were removed shortly thereafter.

If the majority of the turtle nests are not marked and there are no signs on the beach to alert the public that this is turtle nesting season, how are the town ordinances enforced to protect these endangered species?

Do you have any suggestions and or a plan in place with how to deal with the deluge of sargassum weed that is coming to our shores. How and what should we be doing to protect the turtles from the weed. We are all noticing the hatchlings are getting

trapped in the seaweed. enhanced turtle monitoring after dredging and forepassing; (2) enhanced marking of nests on beaches that are heavily used; (3) How often are the FWC guidelines restudied and is it time to revisit our strategies? thank you Dragana

On Wed, Aug 3, 2022 at 4:11 PM Margaret Zeidman < margaretzeidman@gmail.com > wrote: Dragana,

We have been informed by Dr. Trinndell that all questions must be submitted in writing so that the legal department has a chance to review. it will be helpful if you could submit your questions. You have three good questions above: (1) enhanced turtle monitoring after dredging and forepassing; (2) enhanced marking of nests on beaches that are heavily used; (3) How often are the FWC guidelines restudied and is it time to revisit our strategies?

Let me know if you would like to participate by sending your questions to Kirk.

And thank you for your above responses and questions. Maggie

I am on a zoom call from 4:30-5:30. I sure hope you are doing okay. I get it... it is quite a shock.

On Wed, Aug 3, 2022 at 1:17 PM Dragana Connaughton < <a href="mailto:draganaconnaughton@gmail.com">draganaconnaughton@gmail.com</a> wrote: EMAIL FROM CHRIS TINE PERRETTA:

"The most common reason we mark nests within the Town of Palm Beach is for data collection to be able to provide hatching success data to FWC. This nest marking allows us to be able to track that particular nest throughout incubation, recording any observations for that nest on a daily basis up to the nest hatching. We mark a percentage of nests in certain areas then collect data from those nests as outlined by FWC protocol and authorized under my FWC Marine Turtle Permit."

For some reason the largest area affected by Inlet Dredging and the fore passing in April and May are not being marked. From Merrain Rd north to approximately Mediterranean Rd. I would think this area would be the most important area to be monitoring because it is the area most affected by the heavy machinery compacting the beach and now because of the sargassum weed which is getting trapped in the jetties and clogging the area from the inlet south. How can FWC do any biological assessments without this information? This is precisely the area where I have been witnessing the most false crawls and disoriented hatchlings as well as many dead or stuck hatchlings. This practice of not marking the areas most affected by transferring huge amounts of sand and beaches that are heavily used by tourists needs to be reevaluated.

"We also mark nests for protection for authorized coastal construction activities or other authorized activities that require heavy equipment use on the beach during nesting season. We mark nests for protection in this type of situation typically for a limited period of time until the construction is completed and heavy equipment use is finished or as required for mechanical beach cleaning operations."

I am hearing complaints from different sections of town where nests are not being marked, where leatherbacks have been nesting and not marked and there continues to be mechanical beach cleaning.

It is a common misconception that marine turtle nests left to incubate on the beach without some associated marking are in peril because they not marked in some fashion. This is simply not the case. Perhaps FWC staff can offer further information on this to help reassure the Town residents that have this concern.

There are numerous areas (zones) within the Town that do not have any nest marking occurring for the study nor are there any associated activities that would require marking for marine turtle protection. There are also numerus areas (zones) within the Town that do have specific marking of nests occurring for the study.

The marine turtle nests that are not marked in heavily used beaches are indeed need of protection. There are dogs digging up nests, people digging with real shovels, not kids beach shovels and digging giant 5 to 6 ft holes. Go figure!! People shoving mechanical umbrellas deep into the soil. ATV's zooming around, tractors cleaning the beach. Light pollution. People harassing the nesting turtles. The area between Wells Rd and Sunrise used to be the quietest, best kept secret on the island. About two years ago when the Town did the beach renourishment in the center of town, it looks like those folks found this strip. This has just become a huge problem in terms of the amount of people using the beach, nests not being staked off and a lack of signage with a list of do's and don'ts. This beach area should be reevaluated and should be properly staked off. So whatever FWC protocol is, as the beach use changes I the case of dredging and use and equipment on the beach during turtle season these areas should all be reconsidered and whatever they were doing last year might not be applying to what is currently going on. More nesting seem to be happening in that direction as the north end of the island was severely disturbed.

"Regardless of the designation of the zone as "marking" or "non-marking" the same data collection occurs each day on the morning survey in all zones throughout the Town as required by the BMA and under the Town Contract. The only thing that does not occur in non-marking zones is nests are not I am speculating that the residents in this area are recalling the nest marking activities for marine turtle nest protection that they saw in place during the last Midtown Beach Nourishment Project and are concerned as to why that marking protocol is still not in place. The simple reason is that once the construction activities ended so did the need for that type of protective marking. We returned to the FWC designated study guidelines and strategy that had been in place for several years prior to the last Midtown Beach Nourishment Project construction activities. "

FWC designated study guidelines and strategies should be reevaluated as beach use changes and disturbance of beach

marked to for FWC hatchling success data.

'We have also tried on numerous occasions to educate residents on the work that we are conducting and that they should not take it upon themselves to implement measures that they deem to be appropriate for marine turtle protection as they actually have the opposite affect and can be harmful. This has resulted in my staff being detained to repeatedly address the same concerns over and over again trying to educate residents to not intervene in the nesting survey activities. These repeated slowdowns during the survey diminish our ability to conduct the services for the Town in the most

efficient manner that we can. It also makes it difficult for my staff to complete their required work timely before temperatures on the beach reach dangerous levels for the physically demanding work that we perform. '

Concerned residents just want to see better monitoring and staking particularly where there are too many beach goers and too many infractions on habitat and turtle's

Is Christina the only game in town for turtle monitoring? How much is the Town paying her for this service and are there other people out there that can do this.? I'm wondering if her data is accurate based on the lack of monitoring the most affected areas. Just a question

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# Record levels of seaweed blooms washing into Florida

A look at the likelihood of Sargassum seaweed reaching North Florida



An abundance of decaying Sargassum seaweed along a beach in Ft. Lauderdale, FL clumps on the wrack line. (Mark Collins, WJXT)

This summer is seeing the most seaweed ever on record in the Atlantic basin, and it is blanketing the beaches with numerous problems.

Sargassum seaweed washes up seasonally along our beaches, especially after a period of southeast winds blow it in from the ocean.

The floating brown macroalgae is a beneficial habitat for marine life including crabs, shrimp, sea turtles and fish that seek refuge around the floating clumps.

The concentration has exploded in the tropics and now covers many central and south Florida beaches with piles of smelly decomposing algae. The record abundance this year makes for a dire situation along the coast for beachcombers.



The Florida Department of Health says the seaweed itself cannot harm you, however, tiny sea creatures that live in Sargassum can irritate a person's skin.

Scientists believe the unprecedented amounts of Sargassum are due to both natural and human problems arising from nutrient loading in the Amazon River, warmer ocean temperatures along with African dust all fostering record bloom concentrations.

Historical records show the seaweed begging accumulating in the Central Atlantic at the start of the year before drifting westward in the following months toward the eastern Caribbean Sea.

It didn't take long for it to reach the Gulf. It arrived about one to two months earlier in April this year when it first showed up around the Mississippi River Delta.

The spring accumulations in the northern Gulf surpassed the historical high set in 2018 amassing 14 million tons in April 2022.

But it continued to grow exceeding all previous major bloom years by May and the latest report from the University of South Florida Sargassum Watch System shows 24.2 million tons in the water in June 2022, setting a new historical record.

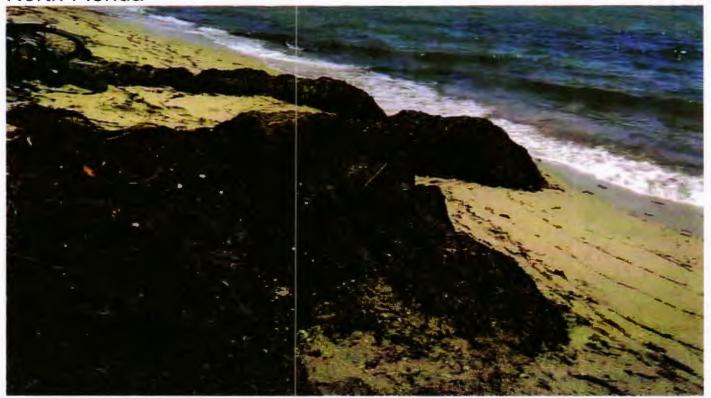
Based on the influx of it in the Florida Current, it could increase this month along North Florida beaches, however, this is unlikely since a prolonged southeast wind direction is not expected over the next couple of weeks which would keep it offshore.

Locally it arrives in abundance when the Bermuda ridge shifts northward or a tropical storm moves through. Winds would need to stay in a southeast direction for several days to force the Sargassum from the Gulf Stream which flows northward about 90 miles offshore.

Historically July is the peak month for the seaweed by oceanographers at USF say more Sargassum may enter the Caribbean Sea and the Gulf of Mexico in the following months following major ocean currents.

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- 8/7/22 Statt & Colleagues,

Dr. Brian haroint grew up here
and knows/studies Sargassum. Bobbie
the visited our weed accomplation in
north-end last week-end.

CLIMATE & ENVIRONMENT

## 'Too much of a good thing': Record amount of seaweed takes hold of South Florida beaches

By Natalia Galicza South Florida Sun Sentinel • Aug 05, 2022 at 2:53 pm







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Seaweed washes ashore as people walk along the beach on Wednesday in Boca Raton. (John McCall /South Florida Sun Sentinel)



Shorelines laced with seaweed are a common summer sight in South Florida. But as a record amount of it washes ashore in the Caribbean, Florida is seeing more than ever before. And it comes with its consequences.

In moderate amounts, seaweed provides essential habitat for fish and invertebrates. The brown algae known formally as Sargassum <u>can even help</u> <u>absorb carbon and clean water</u>. But in excessive amounts it creates oceanic dead zones, stresses and kills coral, releases toxic amounts of hydrogen sulfide that's dangerous to humans and pollutes the Atlantic with nutrients.

When the algae surrounds mangroves in massive volumes, it sucks up all the oxygen around it. Then, when it decomposes, it releases hydrogen sulfide: the main culprit of the rotten egg stench on some beaches.

The Occupational Safety and Health Administration warns of health effects associated with hydrogen sulfide, even in low concentrations. Those health effects range from "mild, headaches or eye irritation, to very serious, unconsciousness and death."

[ RELATED: Record amount of seaweed is choking shores in the Caribbean ]

"It's just too much of a good thing. This is a new record amount of Sargassum in summer 2022 that we're seeing in the Caribbean and beyond," said Brian LaPointe, a principal investigator of ecology and water quality at Florida Atlantic University's Harbor Branch Oceanic Institute.

"It's affecting coastal ecosystems, sea grasses, coral reefs, — they're all being affected by this huge excessive amount of Sargassum."

LaPointe has studied Sargassum for more than three decades, and has yet to see a <u>statewide influx as prolific</u> as the current wave. He said he's received reports of Sargassum globs as thick as 5 feet in the Palm Beach Inlet that are preventing sea turtle hatchlings from getting to the beach. He's also heard of beaches in Key West stained a muddy brown.

"It looks really brown, turbid water, stinky with that hydrogen sulfide smell to the point where a lot of tourists probably don't want to get in the water," LaPointe said.

[ RELATED: Piles of rotting seaweed finally clear off South Florida's beaches, a month earlier than usual ]



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Since 2011, a large belt of Sargassum has built up in the

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Seaweed wasnes asnore in Boca Raton on Wednesday. (John McCall /South Florida Sun Sentinel) Don't even think about using that photo you found online for your website. You might...



Omar I Furone Dolphi

Scientists like LaPointe have deduced that the seaweed is fed nutrients that come from

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deforestation and agricultural runoff. The burning of trees in Africa carries phosphorous over the tropical Atlantic; runoff from rivers like the Congo River and the Amazon River, which also sees deforestation, are responsible for helping funnel nitrogen into that same oceanic region.

"More nitrogen, more Sargassum," LaPointe said.

No city in South Florida is excluded from a possible rise in seaweed. Apart from Palm Beach and Key West, Fort Lauderdale, Delray Beach and Boca Raton have all seen an increase of seaweed on their beaches. Yet however damaging the surplus of Sargassum might be, some cities are devising policies to put the algae to use.



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w months,"

"We have definitely seen an uptick in seaweed over the past few months," said Stephen Gollan, the public information officer for the City of Fort Lauderdale. "We actually turn it into compost."

[ RELATED: Off-season onslaught of seaweed overruns South Florida beaches ]



The Sargassum is collected with a tractor and brought to a barren plot in Snyder Park where it sits on a seaweed hill for 90 to 120 days. After drying out, it gets

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People walk along the beach or plant their umbrellas and beach chairs in Boca Raton on Wednesday, trying to avoid the piles of seaweed. (John McCall /South Florida Sun Sentinel)

hand-sifted and becomes soil used around the city.

In Delray Beach and Boca Raton, Sargassum gets buried.

"We turn over the seaweed every day so that it blends into the sand and provides nutrients for natural dunes," said Gina Carter, director of communications for the City of Delray Beach. "It also helps prevent beach erosion."

Still, recycling Sargassum could be risky. LaPointe said a key issue with repurposing the seaweed is the lack of insurance as to whether or not the seaweed has high levels of arsenic, which could prove toxic for fertilizing food or fiber crops.

"This is global change on an unprecedented scale that we're seeing and it's the human nitrogen footprint," LaPointe said. "This is one of the biggest changes humans have caused to our planet, the increase in reactive nitrogen. It's getting worse. So we do think this is the new normal."

Staff writer Natalia Galicza can be reached at ngalicza@SunSentinel.com







## LATEST

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