

















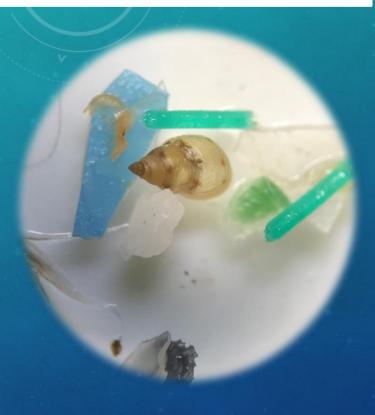








**MICROPLASTICS** IN THE **GALVESTON BAY WATERSHED: THE BIG IMPACTS OF TINY POLLUTION** 























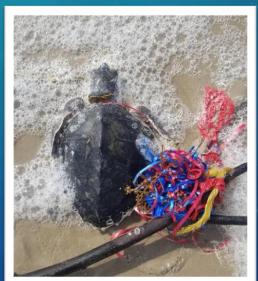
**Theresa Morris Gulf Program Coordinator** 















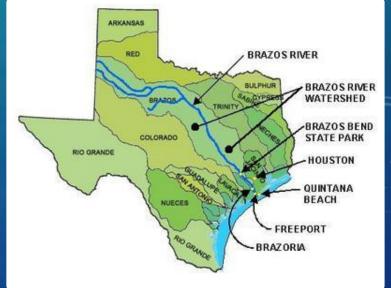






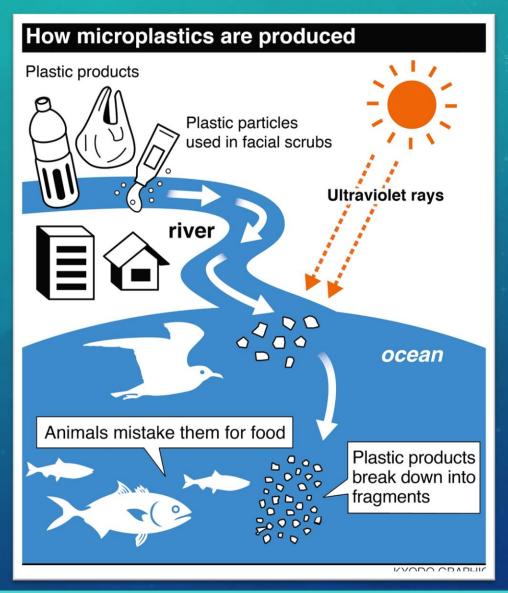








## **PHOTODEGRADATION**







The Biggest Virus On Earth Is Still Human Behavior.

**Troab** 



## MICROPLASTICS



	V
	Size
Macroplastic	> 5 cm
Mesoplastic	5cm-5mm
Microplastic (MP)	5 mm – 0.1 μm
Large MP (LMP)	5mm-1mm
Small MP (SMP)	1 mm – 0.1 µm
Nanoplastic	< 0.1 μm











### **Partners sampling:**

TIRN
UH Clear Lake
Moody Gardens
Ball High
Oppe Elementary
The Ocean School
U.S.G.S.
Flower Garden Banks
Galveston Bay Foundation



























## September 2017

	FIBERS	FRAGMENTS	MICROBEADS	FILM	MONOFILAMENT	NURDLES
	# of plastic FIBERS	•	# of plastic MICROBEADS	# of plastic FILM	# of plastic MONOFILAMENT	# of plastic NURDLES
Water 1	2	7	2	0	0	0
Water 2	4	1	0	0	0	0
Water 3	4	0	0	0	0	0
Sediment 1	23	188	0	8	7	5
Sediment 2	52	80	0	0	7	0
Sediment 3	25	447	0	7	38	7























## April 2018

	FIBERS	FRAGMENTS	MICROBEADS	FILM	MONOFILAMENT	NURDLES
	# of plastic FIBERS	•	# of plastic MICROBEADS	# of plastic FILM	# of plastic MONOFILAMENT	# of plastic NURDLES
Water 1	17	0	0	0	0	0
Water 2	3	0	0	0	0	0
Water 3	7	0	0	0	0	0
Sediment 1	28	185	4	2	1	2
Sediment 2	42	238	2	3	7	3
Sediment 3	92	265	0	0	3	0























## September 2018

	FIBERS	FRAGMENTS	MICROBEADS	FILM	MONOFILAMENT	NURDLES
	# of plastic FIBERS	•	# of plastic	# of plastic FILM	# of plastic MONOFILAMENT	# of plastic NURDLES
Water 1	15	1	0	0	0	0
Water 2	6	8	1	0	0	0
Water 3	8	4	0	0	0	0
Sediment 1	46	117	0	0	1	30
Sediment 2	43	127	3	4	5	1
Sediment 3	71	112	1	0	0	24











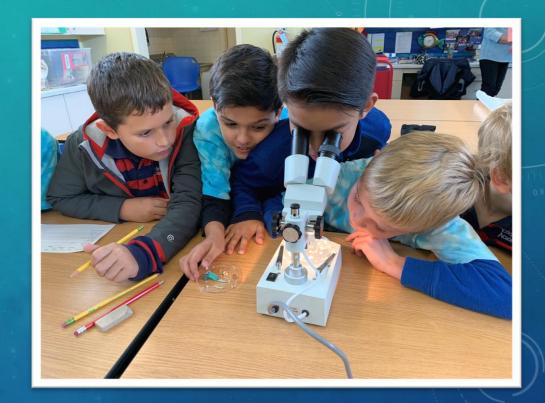






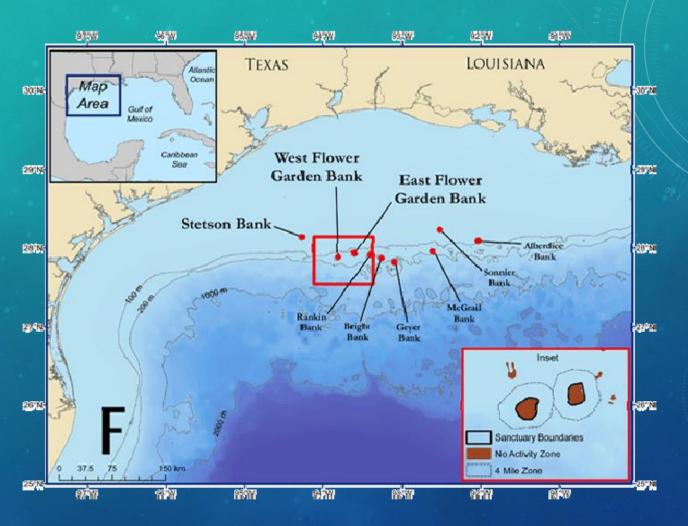




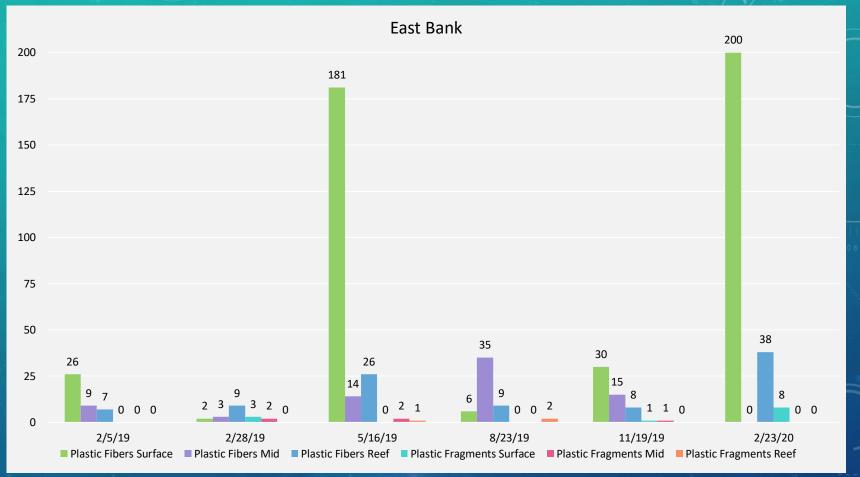




## Flower Garden Banks National Marine Sanctuary

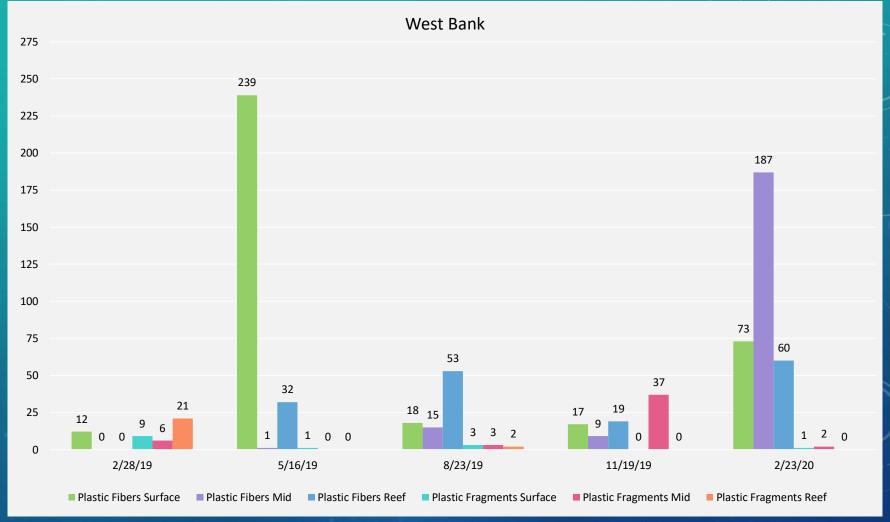






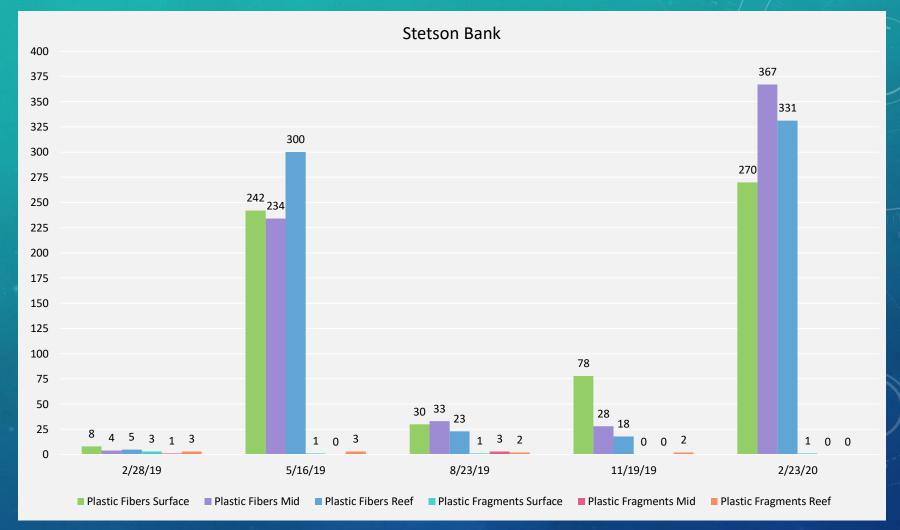
\*Preliminary data, do not share without permission





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\*Preliminary data, do not share without permission



















# GPBA's Balloon Roundup

Report your information for the balloon roundup.

RECORD YOUR DATA





























# # THE FINAL STRAW

GALVESTON



Plastic pollution impacts critically endangered sea turtles at **every** stage of their life.

Straws—which take between 200-500 years to decompose—are now available **by request**.

Take the pledge to end your plastic straw use at www.seaturtles.org/final-straw.



2228 Broadway Ave. J. Calveston, Texas • (409) 795-8426 • info@seaturtles.org











## Protect Sea Turtles, Say No to Balloons

When balloons are released, they blow away, pop or deflate, and fall back to the Earth, usually in the ocean, as marine debris. This debris traps, entangles, suffocates and kills thousands of marine organisms every year.

#### Will you take the pledge to never use balloons?





To prevent helpless sea turtles being entangled, I pledge to never use balloons:

<b>Fmail</b>	Add	ress



#### 5 THINGS YOU CAN DO TO SAVE SEA TURTLES

June 16 is World Sea Turtle Day! Celebrate and protect sea turtles with these 5 easy tips.

#### "NO STRAW, PLEASE. I'M SAVING SEA TURTLES"

Single use products like straws, plastic beverage bottles, cutlery, bags, cups, to-go containers, etc. clog up our oceans and harm sea life. Instead, use reusable products and support ocean friendly policies that promote alternatives.



#### BALLOONS BLOW. DON'T LET THEM GO!

When balloons are released, they eventually find their way back down to Earth and can be a deadly ingestion or entanglement hazard. Please pick up trash wherever you see it!



#### SUPPORT LEGISLATION

Support legislation to protect sea turtles and elect officials who will stand behind eco-friendly initiatives! Check out SeaTurtles.org/BanDeathNets!



#### CHECK YOUR SUNSCREEN

Use natural sunscreens that don't use chemical ingredients like oxybenzone and octinoxate, which kill off some of sea turtles favorite foods found in the crevices of coral. We recommend Stream2Sea products (use the code "seaturtle" and a portion of sales will be donated to our sea turtle protection work.)



#### THAT BETTER NOT BE MADE FROM SEA TURTLES...

Check products to make sure they're not illegally made from sea turtles.



For more ideas on how to live a turtle-friendly life, visit seaturtles.org or follow Turtle Island Restoration Network on social media!











Senate: Vote YES on H.R. 1941 and H.R. 205

#### Block Expanded Offshore Drilling

The US Senate has the opportunity to pass legislation that will effectively block the Trump administration's dangerous offshore drilling plan in nearly ALL US waters, but we need your help!

The U.S. House of Representatives recently voted to permanently ban offshore drilling in the Pacific, Atlantic, and eastern Gulf of Mexico. If passed, this legislation will be an incredible victory for marine wildlife and ocean ecosystems. Offshore drilling causes habitat destruction, ocean acidification, and oil spills, resulting in immense loss of wildlife and damage to coastal communities.

H.R. 1941, the "Coastal and Marine Economies Protection Act of 2019," would *permanently* block offshore oil and gas leasing in the Atlantic Ocean, Straits of Florida and the Pacific Ocean. H.R. 205 would amend the Gulf of Mexico Energy Security Act of 2006 to *permanently* block offshore oil and gas leasing off the Gulf Coast of Florida.

Please, urge your Senators to to vote YES on H.R. 205 and H.R. 1941, and enact a permanent ban on offshore drilling in nearly all U.S. waters. Thank you for taking action. Email Address\* First Name\* Last Name\* Street\* City\* State or Province<sup>\*</sup> Alabama



#### Save the Endangered Species Act!

The Endangered Species Act (ESA) is the United States' single most important piece of legislation for saving plants and animals from extinction, and is responsible for saving 99% of listed species. We are in the midst of an unprecedented global extinction crisis, with the potential for *one million species* to go extinct by the end of the century. Yet the Trump administration just finalized regulations that effectively eviscerate the ESA, threatening the survival of our nation's most imperiled species.

We must act now to save the ESA, a critical lifeline for thousands of species like sea turtles, whales, salmon and sharks. Please write to your Members of Congress using the form below, and urge them to push back against the Trump administration's gutting by passing additional legislation to restore the Endangered Species Act.





