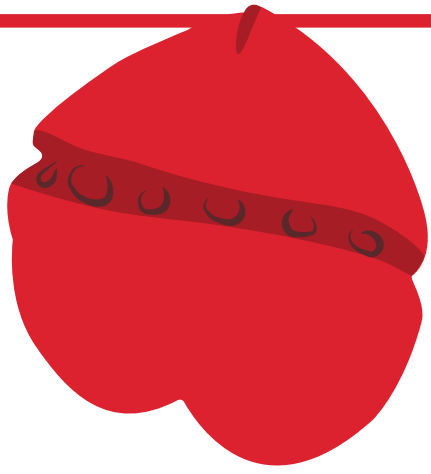


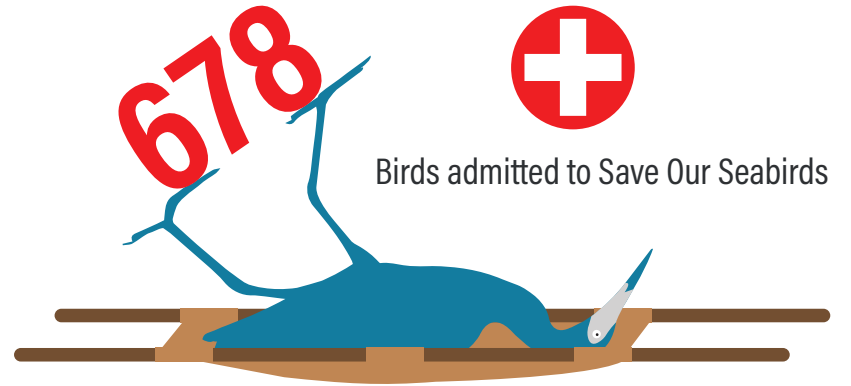
2018 Red Tide Impacts in Sarasota Bay

In 2017-2019, an historically severe red tide bloomed off Southwest Florida's coast. Before it was over, it had spread to the Panhandle and Atlantic Coast. The Sarasota Bay area, including Sarasota and Manatee Counties, experienced environmental, economic, and social impacts in 2018.



What is red tide?

Red tide is caused by a population bloom of the single-celled dinoflagellate *Karenia brevis*. Florida red tides typically originate in the Gulf of Mexico and can be transported inshore by winds and currents, where coastal nutrient pollution can intensify and sustain them. Distribution and abundance of *K. brevis* can be highly variable through time and space.



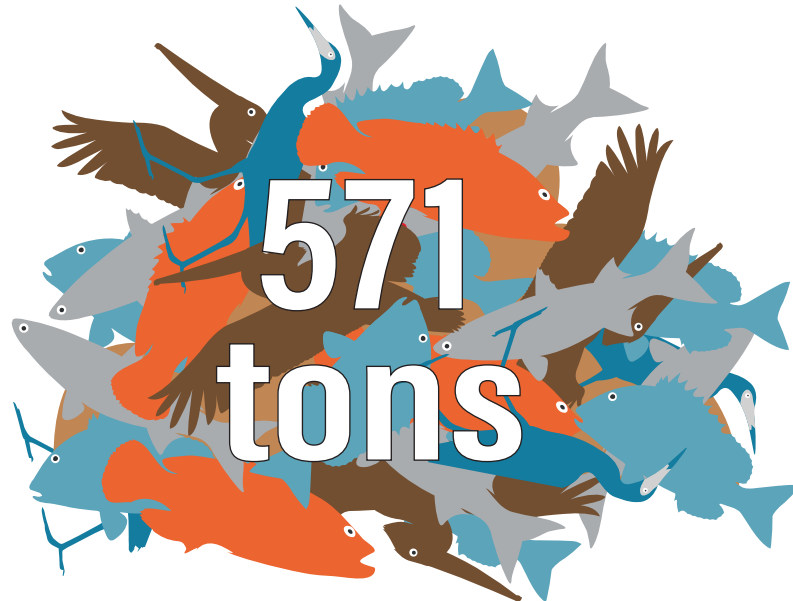
Red tide toxicity

K. brevis produces toxins that can cause respiratory distress and kill sealife. Decomposing sealife robs waters of oxygen necessary for life and releases nutrients that can fuel even more *K. brevis* growth. Airborne toxins can also cause burning eyes and respiratory distress in humans.

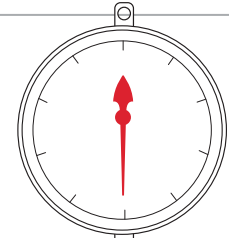
The highest regional cell count each day provides a snapshot of bloom intensity and duration. Note, some days lack data and the number and location of sampling stations varies among days.

- no data
- <10,000 cells/liter
- Above ~10,000 cells/l, fish begin to die and humans experience respiratory irritation
- 10,000-100,000 cells/l
- 100,000-1,000,000 cells/l
- >1,000,000 cells/l
- ★ 90,000,000 cells/l (2018 record high)

		2018						
		S	M	T	W	T	F	S
JUN		3	4	5	6	7	8	9
		10	11	12	13	14	15	16
		17	18	19	20	21	22	23
		24	25	26	27	28	29	30
JUL		1	2	3	4	5	6	7
		8	9	10	11	12	13	14
		15	16	17	18	19	20	21
		22	23	24	25	26	27	28
AUG		29	30	31	1	2	3	4
		5	6	7	8	9	10	11
		12	13	14	15	16	17	18
		19	20	21	22	23	24	25
SEP		26	27	28	29	30	31	1
		2	3	4	5	6	7	8
		9	10	11	12	13	14	15
		16	17	18	19	20	21	22
OCT		23	24	25	26	27	28	29
		30	1	2	3	4	5	6
		7	8	9	10	11	12	13
		14	15	16	17	18	19	20
NOV		21	22	23	24	25	26	27
		28	29	30	31	1	2	3
		4	5	6	7	8	9	10
		11	12	13	14	15	16	17
DEC		18	19	20	21	22	23	24
		25	26	27	28	29	30	1
		2	3	4	5	6	7	8
		9	10	11	12	13	14	15
JAN		16	17	18	19	20	21	22
		23	24	25	26	27	28	29
		30	31	1	2	3	4	5
		6	7	8	9	10	11	12



Dead sealife removed from beaches and waterways



-28%

Sarasota County commercial catch (-32k lbs)

-25%

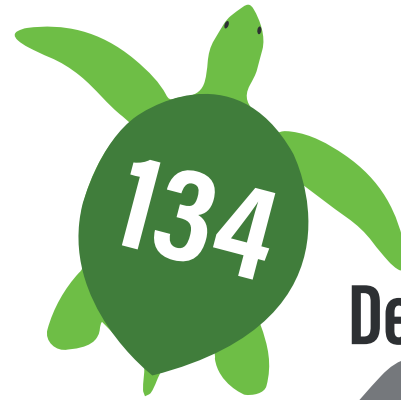
Manatee County commercial catch (-1.9M lbs)



Fish Kill Hotline

+400%

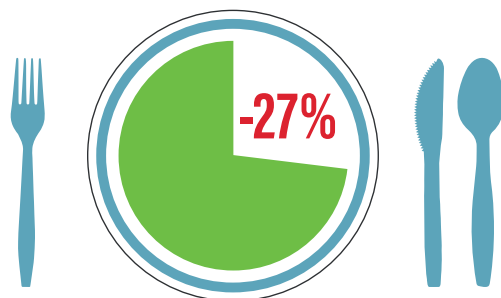
Fish kill reports to Florida Fish and Wildlife Conservation Commission



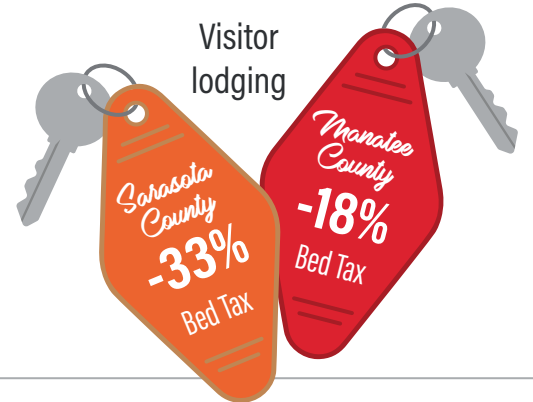
Dead



23



Manatee County Islands restaurant revenue



Visitor lodging

Help!

+322%

2-1-1 Calls for food, housing & utilities assistance in Manatee and Sarasota Counties Oct 2017 vs Oct 2018



Boating in Sarasota County Aug-Nov 2017 vs Aug-Nov 2018

