

HAB MONITORING REPORT

From: 12/2/2019 To: 12/2/2019

Fish and Wildlife Research Institute



Collected by: Harshaw, K.

Collecting agency: FDACS

Sample condition: Live

HAB ID	Location	County	Lat/Lon (DD.dddd)	Time	Depth (m)	Temp (C)	Sal (ppt)	DO (mg/L)	pH	Species	cells/liter
HABW191203-001 Original ID Sample Date HABW191203-001 Pine Island Sound (SHA 62) 12/2/2019	Mondongo Island; W of (Pine Island Sound)	Lee	26.6798 -82.2196	11:08	0.2	22.80	29.40	6.71	8.15		
Analyzed by: Markley, L. on 12/3/2019 Comments: Low falling tide, 5% cloud cover, NW wind @ 19 mph										<i>Karenia brevis</i>	44,000
										<i>Pseudo-nitzschia spp.</i>	259,000
										<i>Pyrodinium bahamense</i>	0
HABW191203-002 Original ID Sample Date HABW191203-002 Pine Island Sound (SHA 62) 12/2/2019	Captiva Rocks; SW of (Pine Island Sound)	Lee	26.5992 -82.1846	10:40	0.2	22.90	30.17	7.12	8.12		
Analyzed by: Markley, L. on 12/3/2019 Comments: Low falling tide, 5% cloud cover, NW wind @ 19 mph										<i>Karenia brevis</i>	1,667
										<i>Pseudo-nitzschia spp.</i>	48,667
										<i>Pyrodinium bahamense</i>	0
HABW191203-003 Original ID Sample Date HABW191203-003 Pine Island Sound (SHA 62) 12/2/2019	Redfish Pass; 1.8 mi E of (Pine Island Sound)	Lee	26.5604 -82.1708	11:28	0.2	22.80	30.39	7.71	8.25		
Analyzed by: Henschen, K. on 12/3/2019 Comments: Low falling tide, 5% cloud cover, NW wind @ 19 mph										<i>Karenia brevis</i>	2,667
										<i>Pseudo-nitzschia spp.</i>	139,667
										<i>Pyrodinium bahamense</i>	0
HABW191203-004 Original ID Sample Date HABW191203-004 Pine Island Sound (SHA 62) 12/2/2019	Buck Key; 1.9 mi NE of (Pine Island Sound)	Lee	26.5321 -82.1567	11:37	0.2	23.00	29.12	6.89	8.16		
Analyzed by: Henschen, K. on 12/3/2019 Comments: Low falling tide, 5% cloud cover, NW wind @ 19 mph										<i>Karenia brevis</i>	39,333
										<i>Pseudo-nitzschia spp.</i>	32,000
										<i>Pyrodinium bahamense</i>	0

NOTE: Blank field = not measured

HAB ID	Location	County	Lat/Lon (DD.ddddd)	Time	Depth (m)	Temp (C)	Sal (ppt)	DO (mg/L)	pH	Species	cells/liter
HABW191203-005	Regla Island; W of (Pine Island Sound)	Lee	26.5380 -82.1257	11:44	0.2	23.30	29.78	6.62	8.20		
	Pine Island Sound (SHA 62)										
	SEAS #310										
	12/2/2019										
	Analyzed by: Markley, L. on 12/3/2019									<i>Karenia brevis</i>	35,667
	Comments: Low falling tide, 5% cloud cover, NW wind @ 19 mph									<i>Pseudo-nitzschia spp.</i>	10,000
										<i>Pyrodinium bahamense</i>	0
HABW191203-006	Cork Island; W of (Pine Island Sound)	Lee	26.5767 -82.1347	11:53	0.2	22.80	30.37	6.01	8.23		
	Pine Island Sound (SHA 62)										
	SEAS #302										
	12/2/2019										
	Analyzed by: Markley, L. on 12/3/2019									<i>Karenia brevis</i>	7,333
	Comments: Low falling tide, 5% cloud cover, NW wind @ 19 mph									<i>Pseudo-nitzschia spp.</i>	39,000
										<i>Pyrodinium bahamense</i>	0
HABW191203-007	Hemp Key; S of (Pine Island Sound)	Lee	26.5902 -82.1561	10:31	0.2	22.80	30.38	6.18	7.95		
	Pine Island Sound (SHA 62)										
	CL1										
	12/2/2019										
	Analyzed by: Henschen, K. on 12/3/2019									<i>Karenia brevis</i>	4,667
	Comments: Low falling tide, 5% cloud cover, NW wind @ 19 mph									<i>Pseudo-nitzschia spp.</i>	64,333
										<i>Pyrodinium bahamense</i>	0
HABW191203-008	Little Bokeelia Island; N of (Charlotte Harbor)	Lee	26.7050 -82.1837	11:00	0.2	22.80	28.26	7.60	8.15		
	Gasparilla Sound (SHA 58)										
	SEAS #091/Pine Island										
	Sound (SHA 62) SEAS #091										
	12/2/2019										
	Analyzed by: Henschen, K. on 12/3/2019									<i>Karenia brevis</i>	5,667
	Comments: Low falling tide, 5% cloud cover, NW wind @ 19 mph									<i>Pseudo-nitzschia spp.</i>	230,333
										<i>Pyrodinium bahamense</i>	0

NOTE: Blank field = not measured

HAB MONITORING REPORT

From: 12/2/2019 To: 12/2/2019

Fish and Wildlife Research Institute



Collected by: Volunteer(s)
 Collecting agency: EBAP
 Sample condition: Preserved

HAB ID	Location	County	Lat/Lon (DD.dddd)	Time	Depth (m)	Temp (C)	Sal (ppt)	DO (mg/L)	pH	Species	cells/liter
HABW191203-014 FDEP EBV001 12/2/2019	Matanzas Pass (Estero Bay)	Lee	26.4577 -81.9532	06:30	0.5	23.30	31.96	4.40	7.76		
<p>Analyzed by: Markley, L. on 12/3/2019</p> <p>Comments: Wind W @ 4 - 7 mph, drizzling, air temp 23.7 C, tide outgoing, secchi 1.8 m, water yellow-green</p>											
										<i>Karenia brevis</i>	3,333
										<i>Pseudo-nitzschia spp.</i>	3,667
										<i>Pyrodinium bahamense</i>	0
HABW191203-015 FDEP EBV003 12/2/2019	Estero River; mouth of (Estero Bay)	Lee	26.4294 -81.8580	07:05	0.5	24.00	32.82	7.87	7.76		
<p>Analyzed by: Henschen, K. on 12/3/2019</p> <p>Comments: Wind W @ 8 -12 mph, partly cloudy, air temp 23.9 C, tide high slack, secchi 1.05 m, water med brown</p>											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia spp.</i>	3,333
										<i>Pyrodinium bahamense</i>	0
HABW191203-016 FDEP EBV004 12/2/2019	Carl Johnson Park Boat Ramp (Estero Bay)	Lee	26.3936 -81.8655	06:55	0.5	23.30	33.72	2.54	7.91		
<p>Analyzed by: Henschen, K. on 12/3/2019</p> <p>Comments: Wind W @ 8 - 12 mph, sunny, air temp 22.3 C, tide outgoing, secchi = 1.1 m, water yellow-green</p>											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia spp.</i>	75,000
										<i>Pyrodinium bahamense</i>	0
HABW191203-017 FDEP EBV005 12/2/2019	Pelican Bay Nature Park Pier (Estero Bay)	Lee	26.3584 -81.8375	06:58	0.5	24.30	31.12	5.58	7.74		
<p>Analyzed by: Henschen, K. on 12/3/2019</p> <p>Comments: Wind SW @ 8 - 12 mph, partly cloudy, air temp 23.7 C, water yellow-green</p>											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia spp.</i>	6,333
										<i>Pyrodinium bahamense</i>	0
HABW191203-018 FDEP EBV006 12/2/2019	Coon Key; N of (Estero Bay)	Lee	26.4287 -81.8832	06:52	0.5	23.40	32.49	5.39	7.50		
<p>Analyzed by: Henschen, K. on 12/3/2019</p> <p>Comments: Wind NW @ 8 - 12 mph, rain, air temp 24.5 C, tide outgoing, secchi = 1.05, water color green</p>											
										<i>Karenia brevis</i>	333
										<i>Pseudo-nitzschia spp.</i>	1,333
										<i>Pyrodinium bahamense</i>	0

NOTE: Blank field = not measured

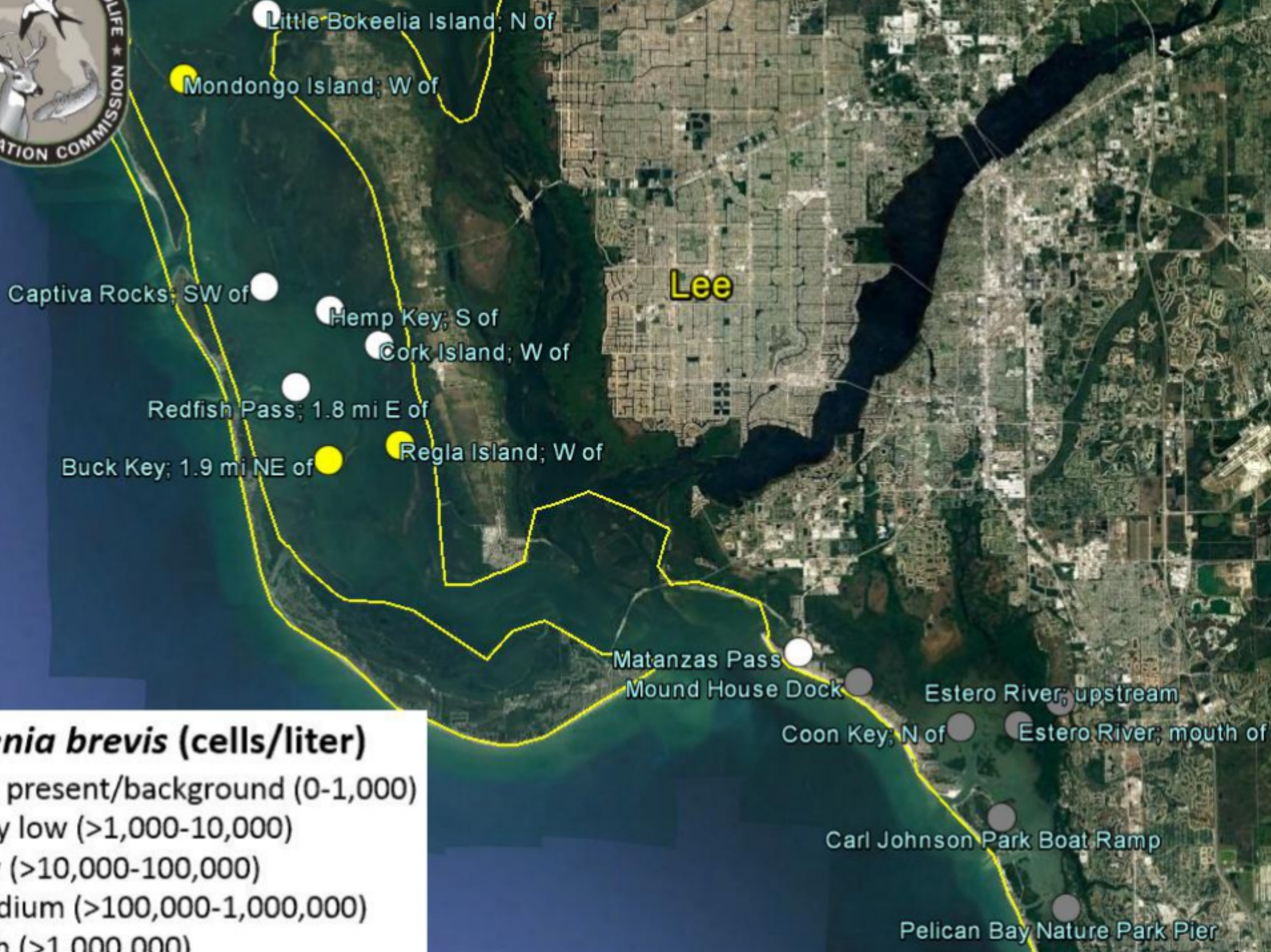
HAB ID	Location	County	Lat/Lon (DD.dddd)	Time	Depth (m)	Temp (C)	Sal (ppt)	DO (mg/L)	pH	Species	cells/liter
HABW191203-019 FDEP EBV007 12/2/2019	Mound House Dock (Estero Bay)	Lee	26.4462 -81.9272	06:16	0.5	23.20	32.34	5.76	7.53		
Analyzed by: Henschen, K. on 12/3/2019										<i>Karenia brevis</i>	0
Comments: Wind W @ 4-7 mph, drizzle, air temp 21.7 C, tide outgoing, secchi = 2.1 m, water yellow-green										<i>Pseudo-nitzschia spp.</i>	2,333
										<i>Pyrodinium bahamense</i>	0
HABW191203-020 FDEP EBERS2 12/2/2019	Estero River; upstream	Lee	26.4386 -81.8400	07:40	0.5	25.20	26.00	5.64	7.50		
Analyzed by: Henschen, K. on 12/3/2019										<i>Karenia brevis</i>	0
Comments: Wind W @ 13 - 18 mph, partly cloudy skies, air temp 23.8 C, tide high slack, secchi = 2.0 m, water green brown; rained a little right before sampling										<i>Pseudo-nitzschia spp.</i>	0
										<i>Pyrodinium bahamense</i>	0

Description	<i>Karenia brevis</i> abundance	Possible effects (<i>Karenia brevis</i> only)
NOT PRESENT - BACKGROUND	0 - 1,000 cells/L	no effects anticipated
VERY LOW	> 1,000 - 10,000 cells/L	possible respiratory irritation; shellfish harvesting closures \geq 5,000 cells/L
LOW	> 10,000 - 100,000 cells/L	respiratory irritation; possible fish kills; probable detection of surface chlorophyll by satellites at upper range of cell abundance
MEDIUM	> 100,000 - 1,000,000 cells/L	respiratory irritation; probable fish kills; detection of surface chlorophyll by satellites
HIGH	> 1,000,000 cells/L	as above, plus water discoloration

The above report is distributed by the Harmful Algal Bloom (HAB) Group at the Fish and Wildlife Research Institute of the Florida Fish and Wildlife Conservation Commission. The report is intended to (1) provide timely information on HABs in Florida waters to partner agencies and (2) facilitate communication among individuals who direct response activities to address public health concerns. We report on the abundance of *Karenia brevis*, *Pyrodinium bahamense* and *Pseudo-nitzschia* species. [Karenia brevis](#), the Florida red tide organism, produces neurotoxins called brevetoxins that can kill fish and other marine life. Brevetoxins may cause respiratory irritation in beachgoers and Neurotoxic Shellfish Poisoning in humans that consume contaminated shellfish. [Pyrodinium bahamense](#) produces saxitoxins that can cause Paralytic Shellfish Poisoning or Saxitoxin Puffer Fish Poisoning in humans if contaminated shellfish or puffer fish are consumed. Some, but not all, species of [Pseudo-nitzschia](#) produce domoic acid, which can cause Amnesic Shellfish Poisoning in humans if contaminated shellfish are consumed. Blooms of *Pseudo-nitzschia* spp. (\geq 1,000,000 cells/L) frequently occur in Florida's marine and estuarine waters. For information on red tide related human health issues, please refer to the [Department of Health Aquatic Toxins Program](#).

[State-wide status reports](#) of *Karenia brevis* abundance including interactive Google Maps are provided weekly by our group. [Shellfish harvesting area status maps](#) are provided by the Division of Aquaculture. Gulf Coast beach conditions can be found at [Mote Marine Laboratory's Beach Conditions Report](#). A full list of red tide related hotlines and information sources can be found [here](#). Data for other species can be requested at any time by sending an inquiry to HABData@MyFWC.com. To learn more about HAB monitoring and research in Florida, please visit MyFWC.com/Research/redtide and Facebook.com/FLHABs.

DISCLAIMER: While every practical step has been taken to provide accurate information in these reports, the need for rapid distribution precludes extensive review. Further, reports are generated with limited interpretation and do not necessarily reflect all scientific observations.



Karenia brevis (cells/liter)

- not present/background (0-1,000)
- very low (>1,000-10,000)
- low (>10,000-100,000)
- medium (>100,000-1,000,000)
- high (>1,000,000)

Google earth

Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Image © 2019 TerraMetrics

10 mi

