

# HAB MONITORING REPORT

From: 5/7/2018 To: 5/7/2018

## Fish and Wildlife Research Institute



Collected by: Staff

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
HABW180508-040 FDEP EBV001 5/7/2018	<b>Matanzas Pass (Estero Bay)</b>	Lee	26.4577 -81.9532	06:31	0.5	26.90	33.42	5.71	8.07		
<b>Analyzed by:</b> Markley, L. on 5/9/2018 <b>Comments:</b> Winds N @ 4 - 7 mph, overcast, air temp 23.6 C; Incoming tide, secchi 2.4 m, water color yellow - green; gasoline film on water surface											
										<i>Karenia brevis</i>	15,000
										<i>Pseudo-nitzschia spp.</i>	5,667
										<i>Pyrodinium bahamense</i>	0
HABW180508-041 FDEP EBV003 5/7/2018	<b>Estero River; mouth of (Estero Bay)</b>	Lee	26.4294 -81.8580	06:55	0.5	27.30	35.83	4.10	7.86		
<b>Analyzed by:</b> Henschen, K. on 5/10/2018 <b>Comments:</b> Winds NE @ 4 - 7 mph, partly cloudy, air temp 23.9 C; tide high slack, secchi 1.5 m, water color green - brown											
										<i>Karenia brevis</i>	3,000
										<i>Pseudo-nitzschia spp.</i>	0
										<i>Pyrodinium bahamense</i>	0
HABW180508-042 FDEP EBV004 5/7/2018	<b>Carl Johnson Park Boat Ramp (Estero Bay)</b>	Lee	26.3936 -81.8655	06:25	0.5	27.20	36.65	3.63	8.07		
<b>Analyzed by:</b> Henschen, K. on 5/10/2018 <b>Comments:</b> Winds NNW @ 4 - 7 mph, overcast, air temp 23.3 C; tide outgoing, secchi 1.2, water color green; boats launching, engines/propellers agitated water											
										<i>Karenia brevis</i>	8,667
										<i>Pseudo-nitzschia spp.</i>	59,333
										<i>Pyrodinium bahamense</i>	0
HABW180508-043 FDEP EBV005 5/7/2018	<b>Pelican Bay Nature Park Pier (Estero Bay)</b>	Lee	26.3584 -81.8375	06:45	0.5	26.60	34.82	1.66	8.08		
<b>Analyzed by:</b> Henschen, K. on 5/10/2018 <b>Comments:</b> Winds N @ 8 - 12 mph, partly cloudy, 0.03" precipitation in last 24 hours, air temp 23.3 C; tide incoming, secchi 0.85 m, water color yellow - brown; less bird activity than usual											
										<i>Karenia brevis</i>	42,333
										<i>Pseudo-nitzschia spp.</i>	5,000
										<i>Pyrodinium bahamense</i>	0
HABW180508-044 FDEP EBV006 5/7/2018	<b>Coon Key; N of (Estero Bay)</b>	Lee	26.4287 -81.8832	06:38	0.5	27.70	36.95	5.37	8.11		
<b>Analyzed by:</b> Henschen, K. on 5/10/2018 <b>Comments:</b> Winds NE @ 8 - 12 mph, partly cloudy, air temp 24.3 C; secchi 1.25, tide high slack, water color green											
										<i>Karenia brevis</i>	66,333
										<i>Pseudo-nitzschia spp.</i>	71,667
										<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
HABW180508-045	<b>Mound House Dock (Estero Bay)</b>	Lee	26.4462 -81.9272	06:38	0.5	27.10	34.15	4.20	8.04		
<b>Original ID</b> FDEP EBV007 <b>Sample Date</b> 5/7/2018											
<b>Analyzed by:</b> Henschen, K. on 5/10/2018										<i>Karenia brevis</i>	39,667
<b>Comments:</b> Winds N @ 4 - 7 mph (but gusts 8 - 12 mph), partly cloudy, air temp 22.3 C; tide incoming, secchi 1.7m, water color yellow-green										<i>Pseudo-nitzschia spp.</i>	16,000
										<i>Pyrodinium bahamense</i>	0
HABW180508-046	<b>Estero River; upstream</b>	Lee	26.4386 -81.8400	07:30	0.5	27.50	29.60	2.70	7.56		
<b>Original ID</b> FDEP EBERS2 <b>Sample Date</b> 5/7/2018											
<b>Analyzed by:</b> Henschen, K. on 5/10/2018										<i>Karenia brevis</i>	26,333
<b>Comments:</b> Winds NW @ 2 - 3 mph, partly cloudy, 0.1" precipitation in last 24 hours, air temp 23.5 C; tide incoming, secchi 1.6 m, water color green - brown; new pH probe										<i>Pseudo-nitzschia spp.</i>	11,333
										<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](mailto:HABData@MyFWC.com). To learn more about HAB monitoring and research in Florida, please visit [MyFWC.com/RedTide](http://MyFWC.com/RedTide) and [Facebook.com/FLHABs](https://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.



Matanzas Pass

Mound House Dock

Coon Key; N of

Estero River; mouth of

Lee

Carl Johnson Park Boat Ramp

Pelican Bay Nature Park Pier

### *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 © 2018 TerraMetrics

5 mi

