

HAB MONITORING REPORT

From: 6/3/2019 To: 6/3/2019

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
HABW190604-038 FDEP EBERS2 6/3/2019	Estero River; upstream	Lee	26.4386 -81.8400	07:20	0.5	30.10	21.98	4.52	7.11		
<p>Analyzed by: KellerAbbe, S. on 6/4/2019</p> <p>Comments: Winds E @ 0 -1 mph, partly cloudy, air temp 24 C, tide outgoing, secchi = 1.7 m, water color green-brown</p>											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia sp.</i>	1,333
										<i>Pyrodinium bahamense</i>	0
HABW190604-039 FDEP EBV001 6/3/2019	Matanzas Pass (Estero Bay)	Lee	26.4577 -81.9532	07:39	0.5	31.40	34.14	4.93	7.85		
<p>Analyzed by: Markley, L. on 6/4/2019</p> <p>Comments: Winds E @ 1 mph, partly cloudy, air temp 26.3 C, tide outgoing, secchi = 1.2 m, water color yellow brown,</p>											
										<i>Karenia brevis</i>	333
										<i>Pseudo-nitzschia spp.</i>	26,667
										<i>Pyrodinium bahamense</i>	0
HABW190604-040 FDEP EBV004 6/3/2019	Carl Johnson Park Boat Ramp (Estero Bay)	Lee	26.3936 -81.8655	05:45	0.5	30.80	34.85	1.87	8.01		
<p>Analyzed by: Markley, L. on 6/4/2019</p> <p>Comments: Winds 2 - 3 mph, sunny, air temp 25 C, , tide high slack, secchi = 1.4 m, water color green</p>											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia spp.</i>	103,377
										<i>Pyrodinium bahamense</i>	0
HABW190604-041 FDEP EBV005 6/3/2019	Pelican Bay Nature Park Pier (Estero Bay)	Lee	26.3584 -81.8375	06:34	0.5	30.00	33.40	1.28	7.66		
<p>Analyzed by: Villac, M.C. on 6/5/2019</p> <p>Comments: Winds SE @ 0 -1 mph, partly cloudy, tide incoming, secchi = 0.9 m, water color yellow-green</p>											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia spp.</i>	113,333
										<i>Pyrodinium bahamense</i>	0
HABW190604-042 FDEP EBV006 6/3/2019	Coon Key; N of (Estero Bay)	Lee	26.4287 -81.8832	06:28	0.5	30.80	33.81	5.20	8.10		
<p>Analyzed by: Villac, M.C. on 6/5/2019</p> <p>Comments: Wind SE @ 2 - 3 mph, partly cloudy, air temp 25.5 C, tide high slack, secchi = 1.25 m, water color green</p>											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia spp.</i>	16,000
										<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
HABW190604-043 FDEP EBV007 6/3/2019	Mound House Dock (Estero Bay)	Lee	26.4462 -81.9272	06:36	0.5	31.50	33.84	4.52	8.15		
Analyzed by: Villac, M.C. on 6/5/2019										<i>Karenia brevis</i>	0
Comments: Winds W @ 4-7 mph, partly cloudy, air temp 27.5, tide incoming, secchi = 1.8 m, water color green-brown										<i>Pseudo-nitzschia spp.</i>	23,667
										<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.



Matanzas Pass

Mound House Dock

Estero River; upstream

Coon Key; N 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 © 2019 TerraMetrics

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