

HAB MONITORING REPORT

From: 1/7/2019 To: 1/7/2019

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
HABW190108-001	Regla Island; W of (Pine Island Sound)	Lee	26.5380 -82.1257	10:20	0.2	18.90	22.99	7.96	8.23		
Pine Island Sound (SHA 62) SEAS #310 1/7/2019 Analyzed by: KellerAbbe, S. on 1/8/2019 Comments: Low rising tide, 0% cloud cover, S wind @ 7 mph											
										<i>Karenia brevis</i>	333
										<i>Pseudo-nitzschia spp.</i>	17,667
										<i>Pyrodinium bahamense</i>	0
HABW190108-002	Cork Island; W of (Pine Island Sound)	Lee	26.5767 -82.1347	10:09	0.2	19.90	23.23	7.49	8.06		
Pine Island Sound (SHA 62) SEAS #302 1/7/2019 Analyzed by: KellerAbbe, S. on 1/8/2019 Comments: Low rising tide, 0% cloud cover, S wind @ 7 mph											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia spp.</i>	65,000
										<i>Pyrodinium bahamense</i>	0
HABW190108-003	Hemp Key; S of (Pine Island Sound)	Lee	26.5902 -82.1561	14:32	0.2	21.30	23.67	8.77	8.23		
Pine Island Sound (SHA 62) CL1 1/7/2019 Analyzed by: KellerAbbe, S. on 1/8/2019 Comments: Low rising tide, 0% cloud cover, S wind @ 7 mph											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia spp.</i>	22,333
										<i>Pyrodinium bahamense</i>	0
HABW190108-004	Redfish Pass; 1.8 mi E of (Pine Island Sound)	Lee	26.5604 -82.1708	11:45	0.2	20.50	24.23	8.22	8.10		
Pine Island Sound (SHA 62) 1/7/2019 Analyzed by: Henschen, K. on 1/8/2019 Comments: Low rising tide, 0% cloud cover, S wind @ 7 mph; water was milky white through pass area											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia spp.</i>	77,333
										<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
Original ID HABW190108-005	Buck Key; 1.9 mi NE of (Pine Island Sound)	Lee	26.5321 -82.1567	11:09	0.2	20.40	23.51	8.63	8.17		
Sample Date Pine Island Sound (SHA 62) 1/7/2019											
Analyzed by: Markley, L. on 1/8/2019										<i>Karenia brevis</i>	0
Comments: Low rising tide, 0% cloud cover, S wind @ 7 mph										<i>Pseudo-nitzschia spp.</i>	24,333
										<i>Pyrodinium bahamense</i>	0
HABW190108-006	Captiva Rocks; SW of (Pine Island Sound)	Lee	26.5992 -82.1846	11:53	0.2	21.00	23.91	13.26	8.41		
Sample Date Pine Island Sound (SHA 62) 1/7/2019											
Analyzed by: Markley, L. on 1/8/2019										<i>Karenia brevis</i>	0
Comments: Low rising tide, 0% cloud cover, S wind @ 7 mph										<i>Pseudo-nitzschia spp.</i>	1,333
										<i>Pyrodinium bahamense</i>	0

HAB MONITORING REPORT

From: 1/7/2019 To: 1/7/2019

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
HABW190108-020 FDEP EBV001 1/7/2019	Matanzas Pass (Estero Bay)	Lee	26.4577 -81.9532	07:03	0.5	20.90	31.83	5.75	7.84		
<p>Analyzed by: Villac, M.C. on 1/8/2019</p> <p>Comments: Winds 0-1 mph, partly cloudy, air temp 14.5 C, tide outgoing, secchi = 1.15, water color green</p>											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia spp.</i>	0
										<i>Pyrodinium bahamense</i>	0
HABW190108-021 FDEP EBV003 1/7/2019	Estero River; mouth of (Estero Bay)	Lee	26.4294 -81.8580	07:15	0.2	20.80	26.26	5.22	6.74		
<p>Analyzed by: KellerAbbe, S. on 1/8/2019</p> <p>Comments: Winds NE @ 2-3 mph, sunny, 18.9 C, tide low slack, secchi = .2 m; water color yellow-brown</p>											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia spp.</i>	0
										<i>Pyrodinium bahamense</i>	0
HABW190108-022 FDEP EBV004 1/7/2019	Carl Johnson Park Boat Ramp (Estero Bay)	Lee	26.3936 -81.8655	06:05	0.5	19.80	34.32	3.98	7.95		
<p>Analyzed by: KellerAbbe, S. on 1/8/2019</p> <p>Comments: Winds ENE @ 5-10 mph, fog/haze, air temp 18.5 C, tide outgoing, secchi = 0.8 m; water color yellow-brown; very foggy, very low tide</p>											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia sp.</i>	1,667
										<i>Pyrodinium bahamense</i>	0
HABW190108-023 FDEP EBV005 1/7/2019	Pelican Bay Nature Park Pier (Estero Bay)	Lee	26.3584 -81.8375	07:30	0.4	20.30	32.36	5.30	7.72		
<p>Analyzed by: Villac, M.C. on 1/8/2019</p> <p>Comments: Winds N @ 4-7 mph, fog/haze, air temp 17.1 C, tide outgoing, secchi = 0.4 m, water color yellow-green; very foggy</p>											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia spp.</i>	0
										<i>Pyrodinium bahamense</i>	0
HABW190108-024 FDEP EBV006 1/7/2019	Coon Key; N of (Estero Bay)	Lee	26.4287 -81.8832	07:14	0.5	20.30	33.27	6.24	7.86		
<p>Analyzed by: Villac, M.C. on 1/8/2019</p> <p>Comments: Winds NE @ 8-12 mph, partly cloudy, air temp 17.6 C, tide low slack, secchi = 0.45 m, water color med-brown; sample had little to no Lugol's</p>											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia sp.</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
HABW190108-025	Mound House Dock (Estero Bay)	Lee	26.4462 -81.9272	06:55	0.5	20.80	32.15	6.00	7.64		
FDEP EBV007											
1/7/2019											
Analyzed by: KellerAbbe, S. on 1/8/2019										<i>Karenia brevis</i>	0
Comments: Winds NE @ 4-7 mph, overcast, air temp 14.9 C, incoming tide, secchi = 1.1, water color yellow-brown										<i>Pseudo-nitzschia spp.</i>	2,667
										<i>Pyrodinium bahamense</i>	0
HABW190108-026	Estero River; upstream	Lee	26.4386 -81.8400	07:40	0.5	22.20	21.44	4.02	7.39		
FDEP EBERS2											
1/7/2019											
Analyzed by: KellerAbbe, S. on 1/8/2019										<i>Karenia brevis</i>	0
Comments: Winds E @ 0-1 mph, partly cloudy, air temp 17.3 C, tide outgoing, secchi = 1.7 m, water color green-brown										<i>Pseudo-nitzschia spp.</i>	0
										<i>Pyrodinium bahamense</i>	0

HAB MONITORING REPORT

From: 1/7/2019 To: 1/7/2019

Fish and Wildlife Research Institute



Collected by: Kowitch, L.

Collecting agency: PC

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
HABW190108-041	Big Carlos Pass (Estero Bay)	Lee	26.4052 -81.8832	07:23	0.5	14.00					
1/7/2019											
Analyzed by: KellerAbbe, S. on 1/8/2019										<i>Karenia brevis</i>	0
Comments: Fog, very low tide										<i>Pseudo-nitzschia spp.</i>	18,000
										<i>Pyrodinium bahamense</i>	0
HABW190108-042	Little Hickory Island Beach Park; W of	Lee	26.3583 -81.8739	07:43	0.5	14.00					
1/7/2019											
Analyzed by: KellerAbbe, S. on 1/8/2019										<i>Karenia brevis</i>	0
Comments:										<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/red-tide 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.



Captiva Rocks; SW of

Hemp Key; S of
Cork Island; W of

Redfish Pass; 1.8 mi E of

Buck Key; 1.9 mi NE of
Regla Island; W of

Matanzas Pass
Mound House Dock

Coon Key; N of

Estero River; upstream

Estero River; mouth of

Big Carlos Pass

Carl Johnson Park Boat Ramp

Little Hickory Island Beach Park; W of

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

10 mi

