

HAB MONITORING REPORT

From: 2/3/2020 To: 2/3/2020

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
Original ID Sample Date											
HABW200204-001	Regla Island; W of (Pine Island Sound)	Lee	26.5380 -82.1257	11:04	0.2	17.50	32.99	7.62	7.97		
Pine Island Sound (SHA 62) SEAS #310 2/3/2020											
Analyzed by: Henschen, K. on 2/4/2020										<i>Karenia brevis</i>	0
Comments: Wind NE @ 8 mph, mid-rising tide, 5% cloud cover, wind calm										<i>Pseudo-nitzschia spp.</i>	0
										<i>Pyrodinium bahamense</i>	0
HABW200204-002	Cork Island; W of (Pine Island Sound)	Lee	26.5767 -82.1347	10:48	0.2	17.60	32.57	7.87	7.83		
Pine Island Sound (SHA 62) SEAS #302 2/3/2020											
Analyzed by: Henschen, K. on 2/4/2020										<i>Karenia brevis</i>	0
Comments: Wind NE @ 8 mph, mid-rising tide, 5% cloud cover, wind calm; 45 clams shelled										<i>Pseudo-nitzschia spp.</i>	2,000
										<i>Pyrodinium bahamense</i>	0
HABW200204-003	Hemp Key; S of (Pine Island Sound)	Lee	26.5902 -82.1561	09:53	0.2	17.20	32.64	8.05	7.48		
Pine Island Sound (SHA 62) CL1 2/3/2020											
Analyzed by: Villac, M.C. on 2/4/2020										<i>Karenia brevis</i>	0
Comments: Wind NE @ 8 mph, mid-rising tide, 5% cloud cover, wind calm; collected 31 clams for MB										<i>Pseudo-nitzschia spp.</i>	3,000
										<i>Pyrodinium bahamense</i>	0
HABW200204-004	Redfish Pass; 1.8 mi E of (Pine Island Sound)	Lee	26.5604 -82.1708	12:14	0.5	17.90	33.42	7.91	8.01		
Pine Island Sound (SHA 62) 2/3/2020											
Analyzed by: Villac, M.C. on 2/4/2020										<i>Karenia brevis</i>	0
Comments: Wind NE @ 8 mph, mid-rising tide, 5% cloud cover, wind calm										<i>Pseudo-nitzschia spp.</i>	7,000
										<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
Original ID HABW200204-005	Buck Key; 1.9 mi NE of (Pine Island Sound)	Lee	26.5321 -82.1567	11:10	0.2	17.40	33.49	7.70	7.98		
Sample Date Pine Island Sound (SHA 62) 2/3/2020											
Analyzed by: KellerAbbe, S. on 2/4/2020										<i>Karenia brevis</i>	0
Comments: Wind NE @ 8 mph, mid-rising tide, 5% cloud cover, wind calm										<i>Pseudo-nitzschia spp.</i>	2,667
										<i>Pyrodinium bahamense</i>	0
HABW200204-006	Captiva Rocks; SW of (Pine Island Sound)	Lee	26.5992 -82.1846	12:22	0.2	17.90	32.96	8.59	8.04		
Sample Date Pine Island Sound (SHA 62) 2/3/2020											
Analyzed by: KellerAbbe, S. on 2/4/2020										<i>Karenia brevis</i>	0
Comments: Wind NE @ 8 mph, mid-rising tide, 5% cloud cover, wind calm										<i>Pseudo-nitzschia spp.</i>	7,667
										<i>Pyrodinium bahamense</i>	0

NOTE: Blank field = not measured

HAB MONITORING REPORT

From: 2/3/2020 To: 2/3/2020

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
HABW200204-028 FDEP EBV001 2/3/2020	Matanzas Pass (Estero Bay)	Lee	26.4577 -81.9532	06:49	0.5	17.90	29.86	6.00	7.82		
<p>Analyzed by: Markley, L. on 2/4/2020</p> <p>Comments: Wind E @ 0-1 mph, sunny, air temp 12.5 C, tide incoming, secchi = 1.7 m, water yellow-green</p>											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia spp.</i>	0
										<i>Pyrodinium bahamense</i>	0
HABW200204-029 FDEP EBV003 2/3/2020	Estero River; mouth of (Estero Bay)	Lee	26.4294 -81.8580	07:16	0.3	16.60	27.47	5.86	7.70		
<p>Analyzed by: Henschen, K. on 2/4/2020</p> <p>Comments: Wind E @ 2.1 mph, sunny, air 14.6 C, tide incoming, secchi = 0.3, water green-brown</p>											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia spp.</i>	0
										<i>Pyrodinium bahamense</i>	0
HABW200204-030 FDEP EBV004 2/3/2020	Carl Johnson Park Boat Ramp (Estero Bay)	Lee	26.3936 -81.8655	06:46	0.5	16.70	31.34	6.62	7.89		
<p>Analyzed by: Henschen, K. on 2/4/2020</p> <p>Comments: Wind NE @ 2-3 mph, sunny, tide low slack, secchi = 1.05, water yellow-green</p>											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia spp.</i>	0
										<i>Pyrodinium bahamense</i>	0
HABW200204-031 FDEP EBV005 2/3/2020	Pelican Bay Nature Park Pier (Estero Bay)	Lee	26.3584 -81.8375	07:24	0.5						
<p>Analyzed by: Henschen, K. on 2/4/2020</p> <p>Comments: Wind E @ 2-3 mph, sunny, air temp 11 C, tide incoming, secchi = 0.6 m, water yellow-green; little to no Lugol's in sample</p>											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia spp.</i>	1,333
										<i>Pyrodinium bahamense</i>	0
HABW200204-032 FDEP EBV006 2/3/2020	Coon Key; N of (Estero Bay)	Lee	26.4287 -81.8832	07:10	0.5	17.70	30.52	6.57	8.25		
<p>Analyzed by: Henschen, K. on 2/4/2020</p> <p>Comments: Wind SE @ 2-3 mph, sunny, air temp 11.8 C, tide incoming, secchi = 1.0 m, water medium-brown</p>											
										<i>Karenia brevis</i>	0
										<i>Pseudo-nitzschia spp.</i>	3,667
										<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
HABW200204-033	Mound House Dock (Estero Bay)	Lee	26.4462 -81.9272	06:48	0.5	17.80	30.96	5.92	7.93		
FDEP EBV007											
2/3/2020											
Analyzed by: Markley, L. on 2/4/2020										<i>Karenia brevis</i>	0
Comments: Wind SE @ 4-7 mph, sunny, air 12.2 C, tide incoming, secchi = 2.1 m, water yellow-brown										<i>Pseudo-nitzschia spp.</i>	16,667
										<i>Pyrodinium bahamense</i>	0
HABW200204-034	Estero River; upstream	Lee	26.4386 -81.8400	08:00	0.5	18.20	2.87	4.84	7.96		
FDEP EBERS2											
2/3/2020											
Analyzed by: Markley, L. on 2/4/2020										<i>Karenia brevis</i>	0
Comments: Wind W @ 0-1 mph, sunny, air temp 10.5 C, tide incoming, secchi = 1.7 m, water green-brown										<i>Pseudo-nitzschia spp.</i>	0
										<i>Pyrodinium bahamense</i>	0

NOTE: Blank field = not measured

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.



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

Lee

Matanzas Pass

Mound House Dock

Estero River; upstream

Coon Key; N of

Estero River; mouth of

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 © 2020 TerraMetrics

10 mi

