HAB MONITORING REPORT

From: 4/1/2019 To: 4/1/2019

Fish and Wildlife Research Institute

Collected by: Harshaw, K.
Collecting agency: FDACS
Sample condition: Live

HAB ID / Original ID / Sample Date	Location	County	Lat/Lon (DD.dddd)	Time	Depth (m)	Temp (C)	Sal (ppt)	DO (mg/L)	pH	Species	cells/liter
HABW190402-021 Pine Island Sound (SHA 62) SEAS #370 4/1/2019	**McCardle Island; SW of (Matlacha Pass)**	Lee	26.5857 -82.0645	09:32	0.2	23.50	24.95	7.62	8.27		
Analyzed by: KellerAbbe, S. on 4/2/2019 **Comments:** 30% Cloud cover, low incoming tide, 13 mph WSW wind										*Karenia brevis* *Pseudo-nitzschia spp.* *Pyrodinium bahamense*	0 17,667 0
HABW190402-022 Pine Island Sound (SHA 62) 4/1/2019	**Merwin Key; W of (San Carlos Bay)**	Lee	26.5003 -82.0475	11:29	0.2	23.70	25.15	7.26	8.14		
Analyzed by: KellerAbbe, S. on 4/2/2019 **Comments:** 40% Cloud cover, mid-incoming tide, 13 mph WSW wind										*Karenia brevis* *Pseudo-nitzschia spp.* *Pyrodinium bahamense*	0 354,189 0
HABW190402-023 Pine Island Sound (SHA 62) SEAS #410 4/1/2019	**Jug Creek Point; E of (Matlacha Pass)**	Lee	26.7003 -82.1208	13:20	0.2	24.20	29.17	9.20	8.21		
Analyzed by: KellerAbbe, S. on 4/2/2019 **Comments:** 60% Cloud cover, mid-incoming tide, 13 mph WSW wind										*Karenia brevis* *Pseudo-nitzschia sp.* *Pyrodinium bahamense*	0 2,667 0

NOTE: Blank field = not measured

HAB MONITORING REPORT

From: 4/1/2019 To: 4/1/2019

Fish and Wildlife Research Institute

Collected by: Staff
Collecting agency: EBAP
Sample condition: Preserved

HAB ID / Original ID / Sample Date	Location	County	Lat/Lon (DD.dddd)	Time	Depth (m)	Temp (C)	Sal (ppt)	DO (mg/L)	pH	Species	cells/liter
HABW190402-054 FDEP EBV003 4/1/2019	**Estero River; mouth of (Estero Bay)**	Lee	26.4294 -81.8580	07:20	0.5	23.70	28.85	43.10	6.63		
Analyzed by: Henschen, K. on 4/2/2019 **Comments:** Wind 0 - 1 mph, sunny, air temp 21.5 C, tide incoming, secchi = 0.2 m, water color med-brown										*Karenia brevis* *Pseudo-nitzschia spp.* *Pyrodinium bahamense*	0 0 0
HABW190402-055 FDEP EBV004 4/1/2019	**Carl Johnson Park Boat Ramp (Estero Bay)**	Lee	26.3936 -81.8655	06:25	0.5	23.60	34.77	3.13	7.70		
Analyzed by: Henschen, K. on 4/2/2019 **Comments:** Wind 0 - 1 mph, sunny, air temp 19.1 C, tide low slack, secchi = 1.1 m, water color green-brown										*Karenia brevis* *Pseudo-nitzschia spp.* *Pyrodinium bahamense*	0 0 0
HABW190402-056 FDEP EBV005 4/1/2019	**Pelican Bay Nature Park Pier (Estero Bay)**	Lee	26.3584 -81.8375	07:22	0.5	23.70	30.39	3.94	7.86		
Analyzed by: Henschen, K. on 4/2/2019 **Comments:** Winds E @ 0 -1 mph, partly cloudy, air temp 20.2 C, incoming tide, secchi = 0.6 m, water color yellow-green										*Karenia brevis* *Pseudo-nitzschia spp.* *Pyrodinium bahamense*	0 0 0
HABW190402-057 FDEP EBV006 4/1/2019	**Coon Key; N of (Estero Bay)**	Lee	26.4287 -81.8832	07:01	0.5	24.30	31.57	5.25	7.84		
Analyzed by: Henschen, K. on 4/2/2019 **Comments:** Winds NE @ 0 -1 mph, partly cloudy, air temp 21.2 C, tide incoming, secchi = .85 m, water color yellow-green										*Karenia brevis* *Pseudo-nitzschia spp.* *Pyrodinium bahamense*	0 0 0
HABW190402-058 FDEP EBV007 4/1/2019	**Mound House Dock (Estero Bay)**	Lee	26.4462 -81.9272	07:05	0.5	24.10	30.13	5.72	7.98		
Analyzed by: Henschen, K. on 4/2/2019 **Comments:** Winds NE @ 0 -1 mph, partly cloudy, air temp 18.5 C, tide incoming, secchi = 1.8 m, water color green										*Karenia brevis* *Pseudo-nitzschia spp.* *Pyrodinium bahamense*	0 0 0

NOTE: Blank field = not measured

HAB ID Original ID Sample Date	Location	County	Lat/Lon (DD.dddd)	Time	Depth (m)	Temp (C)	Sal (ppt)	DO (mg/L)	pH	Species	cells/liter
HABW190402-059 FDEP EBERS2 4/1/2019	**Estero River; upstream**	Lee	26.4386 -81.8400	07:20	0.5	24.20	17.40	3.21	7.35		
Analyzed by: Henschen, K. on 4/2/2019 **Comments:** Winds E @ 0 - 1 mph, partly cloudy, air temp 18.7 C, tide outgoing, secchi = 1.7 m, water color green brown										*Karenia brevis* *Pseudo-nitzschia spp.* *Pyrodinium bahamense*	0 0 0

HAB MONITORING REPORT

From: 4/1/2019 To: 4/1/2019

Fish and Wildlife Research Institute

Collected by: Kowitch, L.
Collecting agency: PC
Sample condition: Preserved

HAB ID / Original ID / Sample Date	Location	County	Lat/Lon (DD.dddd)	Time	Depth (m)	Temp (C)	Sal (ppt)	DO (mg/L)	pH	Species	cells/liter
HABW190402-068 4/1/2019	**Hogue Channel**	Lee	26.3579 -81.8563	08:25	0.5						
Analyzed by: KellerAbbe, S. on 4/2/2019 **Comments:**										*Karenia brevis*	0
										Pseudo-nitzschia spp.	0
										Pyrodinium bahamense	0
HABW190402-069 4/1/2019	**Big Carlos Pass**	Lee	26.4056 -81.8833	07:20	0.5						
Analyzed by: KellerAbbe, S. on 4/2/2019 **Comments:**										*Karenia brevis*	0
										Pseudo-nitzschia spp.	0
										Pyrodinium bahamense	0

NOTE: Blank field = not measured

Description	*Karenia brevis* abundance	Possible effects (*Karenia brevis* 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 ≥ 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. (≥ 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.


Jug Creek Point; E of
McCardle Island; SW of
Lee
Merwin Key; W of
Mound House Dock
Estero River; upstream
Coon Key; N of
Estero River; mouth of
Big Carlos Pass
Carl Johnson Park Boat Ramp
Hogue Channel
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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