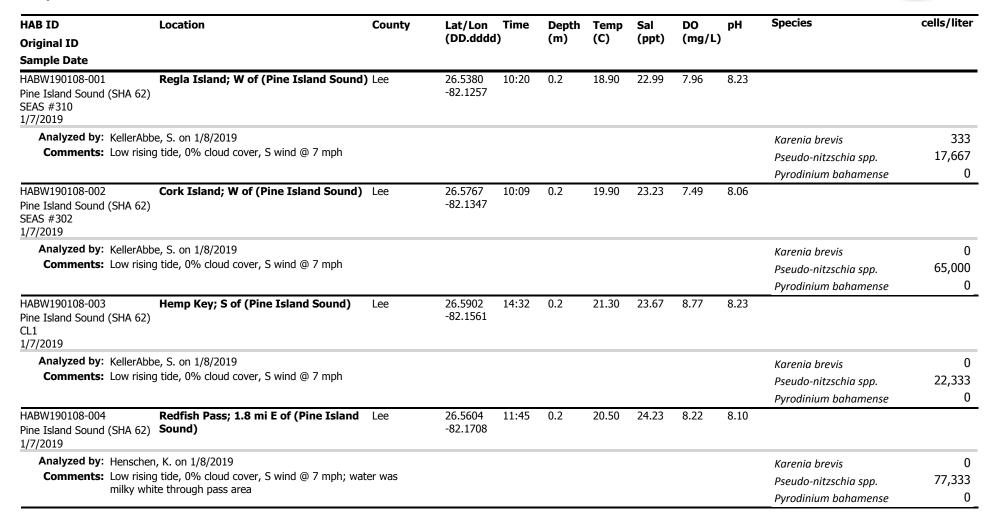
#### HAB MONITORING REPORT

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

**Collected by:** Harshaw, K. **Collecting agency:** FDACS

### **Fish and Wildlife Research Institute**

Sample condition: Live



HAB ID	Location	County	Lat/Lon	Time	Depth	Temp	Sal	DO	рН	Species	cells/liter
Original ID			(DD.dddc	l)	(m)	(C)	(ppt)	(mg/L)			
Sample Date											
HABW190108-005 Pine Island Sound (SHA 62) 1/7/2019	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		
Analyzed by: Markley,	L. on 1/8/2019									Karenia brevis	0
<b>Comments:</b> Low rising tide, 0% cloud cover, S wind @ 7 mph										Pseudo-nitzschia spp.	24,333
										Pyrodinium bahamense	0
HABW190108-006 Pine Island Sound (SHA 62) 1/7/2019	Captiva Rocks; SW of (Pine Island Sound)	Lee	26.5992 -82.1846	11:53	0.2	21.00	23.91	13.26	8.41		
Analyzed by: Markley,	L. on 1/8/2019									Karenia brevis	0
Comments: Low rising	g tide, 0% cloud cover, S wind @ 7 mph									Pseudo-nitzschia spp.	1,333
										Pyrodinium bahamense	0

NOTE: Blank field = not measured

## **HAB MONITORING REPORT**

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

Collected by: Staff Collecting agency: EBAP

Sample condition: Preserved

# **Fish and Wildlife Research Institute**



HAB ID	Location	County	Lat/Lon	Time	Depth	Temp	Sal	DO	рН	Species	cells/liter
Original ID			(DD.dddd	I)	(m)	(C)	(ppt)	(mg/L	)		
Sample Date											
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		
	Villac, M.C. on 1/8/2019									Karenia brevis	0
Comments: Winds 0-1 mph, partly cloudy, air temp 14.5 C, tide outgo										Pseudo-nitzschia spp.	0
	secchi = 1.15, water color green									Pyrodinium bahamense	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		
Analyzed by:	KellerAbbe, S. on 1/8/2019									Karenia brevis	0
Comments: Winds NE @ 2-3 mph, sunny, 18.9 C, tide low slack,		ecchi								Pseudo-nitzschia spp.	0
	= .2 m; water color yellow-brown									Pyrodinium bahamense	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		
Analyzed by:	KellerAbbe, S. on 1/8/2019									Karenia brevis	0
Comments: Winds ENE @ 5-10 mph, fog/haze, air temp 18.5										Pseudo-nitzschia sp.	1,667
	outgoing, secchi = 0.8 m; water color yellow-brown; v foggy, very low tide	ery								Pyrodinium bahamense	0
HABW190108-023 FDEP EBV005 1/7/2019		Lee	26.3584 -81.8375	07:30	0.4	20.30	32.36	5.30	7.72		
Analyzed by:	Villac, M.C. on 1/8/2019									Karenia brevis	0
Comments:	Winds N @ 4-7 mph, fog/haze, air temp 17.1 C, tide									Pseudo-nitzschia spp.	0
	outgoing, secchi = 0.4 m, water color yellow-green; vi	ery								Pyrodinium bahamense	0
HABW190108-024 FDEP EBV006 1/7/2019		Lee	26.4287 -81.8832	07:14	0.5	20.30	33.27	6.24	7.86		
Analyzed by:	Villac, M.C. on 1/8/2019									Karenia brevis	0
Comments:	Winds NE @ 8-12 mph, partly cloudy, air temp 17.6 C									Pseudo-nitzschia sp.	1,333
	low slack, secchi = 0.45 m, water color med-brown; sa had little to no Lugol's	ampie								Pyrodinium bahamense	0

HAB ID Original ID	Location	County	Lat/Lon (DD.dddd		Depth (m)	Temp (C)	Sal (ppt)	DO (mg/L)	рН	Species	cells/liter
Sample Date											
HABW190108-025 FDEP EBV007 1/7/2019	Mound House Dock (Estero Bay)	Lee	26.4462 -81.9272	06:55	0.5	20.80	32.15	6.00	7.64		
Comments: W	ellerAbbe, S. on 1/8/2019 /inds NE @ 4-7 mph, overcast, air temp 14.9 C, ir de, secchi = 1.1, water color yellow-brown	ncoming								Karenia brevis Pseudo-nitzschia spp. Pyrodinium bahamense	0 2,667 0
HABW190108-026 FDEP EBERS2 1/7/2019	Estero River; upstream	Lee	26.4386 -81.8400	07:40	0.5	22.20	21.44	4.02	7.39		
Comments: W	ellerAbbe, S. on 1/8/2019 /inds E @ 0-1 mph, partly cloudy, air temp 17.3 C utgoing, secchi = 1.7 m, water color green-browr	•								Karenia brevis Pseudo-nitzschia spp. Pyrodinium bahamense	0 0 0

NOTE: Blank field = not measured

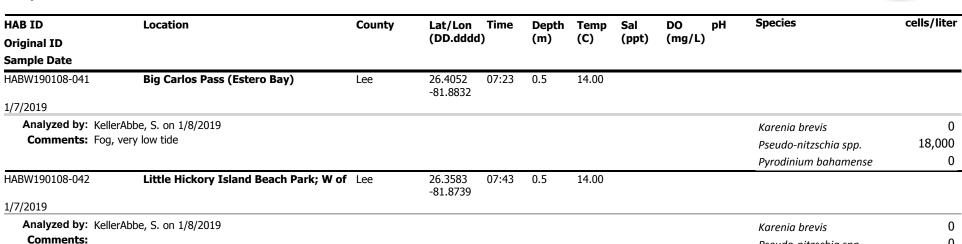
### HAB MONITORING REPORT

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

**Collected by:** Kowitch, L. **Collecting agency: PC** 

### Fish and Wildlife Research Institute

Sample condition: Preserved





0

0

Pseudo-nitzschia spp.

Pyrodinium bahamense

Description	Karenia brevis 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 ≥ 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 *Pseudonitzschia* 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/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.

