HAB MONITORING REPORT

From: 11/4/2019 To: 11/4/2019

Collected by: Staff **Collecting agency:** EBAP

Fish and Wildlife Research Institute

Sample condition: Preserved



HAB ID	Location	County	Lat/Lon	Time	Depth	Temp	Sal	DO	рН	Species	cells/lite
Original ID			(DD.dddd	l)	(m)	(C)	(ppt)	(mg/L)			
Sample Date											
HABW191105-084 FDEP EBV001 11/4/2019	Matanzas Pass (Estero Bay)	Lee	26.4577 -81.9532	06:46	0.5	27.20	32.90	5.00	8.13		
	Henschen, K. on 11/6/2019									Karenia brevis	302,333
Comments: wind E 8-12mph, partly cloudy, ait temp= 25.5 degrees, tide=low slack, secchi=2.95m, water color=yellow green										Pseudo-nitzschia spp.	388,000
	tide=low slack, secchi=2.95m, water color=yellow	green								Pyrodinium bahamense	0
HABW191105-085 FDEP EBV003 11/4/2019	Estero River; mouth of (Estero Bay)	Lee	26.4294 -81.8580	06:40	0.5	26.20	32.97	4.70	7.79		
	Henschen, K. on 11/6/2019									Karenia brevis	3,333
Comments: wind SE 0-1 mph, overcast, air temp=24.7 degrees		, tide=								Pseudo-nitzschia spp.	7,333
	outgoing, secchi= 1.05m, water color= red brown									Pyrodinium bahamense	0
HABW191105-087 FDEP EBV004 11/4/2019	Carl Johnson Park Boat Ramp (Este Bay)	ro Lee	26.3936 -81.8655	05:55	0.5	26.10	33.57	1.98	7.89		
Analyzed by:	Henschen, K. on 11/6/2019									Karenia brevis	92,689
Comments: wind NE 4-7 mph, sunny, air temp=22.5 degrees, ti		ide= high								Pseudo-nitzschia spp.	25,333
	slack, secchi=1.2m, water color=yellow green									Pyrodinium bahamense	0
HABW191105-089 FDEP EBV005 11/4/2019	Pelican Bay Nature Park Pier (Estero Bay)	L ee	26.3584 -81.8375	06:47	0.5	27.80	33.29	2.24	7.78		
	Henschen, K. on 11/6/2019									Karenia brevis	2,333
Comments:	wind NE 4-7mph, overcast, air temp= 24.2 degrees	,								Pseudo-nitzschia spp.	12,667
	tide=outgoing, secchi=.9m, water color= yellow gr	een								Pyrodinium bahamense	0
HABW191105-090 FDEP EBV007 11/4/2019	Mound House Dock (Estero Bay)	Lee	26.4462 -81.9272	06:30	0.5	27.20	32.93	5.35	7.59		
Analyzed by:	Henschen, K. on 11/6/2019									Karenia brevis	6,383,638
Comments:	wind NE 4-12 mph, overcast, tide=outgoing, air ter	np=22.7								Pseudo-nitzschia spp.	441,635
	degrees, secchi= .8m, water color=yellow brown									Pyrodinium bahamense	0

HAB ID	Location	County	Lat/Lon	Time	Depth	Temp	Sal	DO (***)	рН	Species	cells/liter
Original ID			(DD.dddd	1)	(m)	(C)	(ppt)	(mg/L))		
Sample Date											
HABW191105-091 FDEP EBERS2 11/4/2019	Estero River; upstream	Lee	26.4386 -81.8400	07:10	0.5	27.60	9.56	2.94	7.30		
Analyzed by: Henschen, K. on 11/6/2019 Comments: wind N 0-1 mph, partly cloudy, air temp=23.2 degrees, tideoutgoing, secchi=2.0m, water color=green brown										Karenia brevis Pseudo-nitzschia spp. Pyrodinium bahamense	0 0 0

NOTE: Blank field = not measured

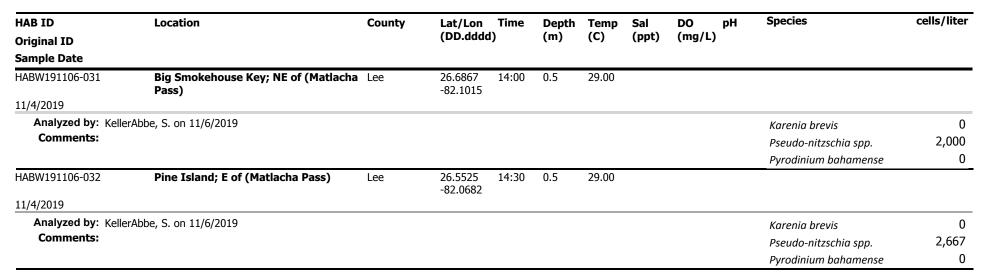
HAB MONITORING REPORT

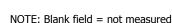
From: 11/4/2019 To: 11/4/2019

Collected by: Galpin, D. **Collecting agency:** CF

Fish and Wildlife Research Institute

Sample condition: Preserved





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/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.

