From: 1/3/2023 To: 1/3/2023

Collected by: Volunteer(s)
Collecting agency: FDEP-CHAP
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											
HABW230104-035 FDEP CHV007 1/3/2023	Punta Gorda Boat Ramp (Charlotte Harbor)	Charlotte	26.9092 -82.0953	07:40	0.5	19.50	23.97	7.21	8.03		
Analyzed by:	Thurmond, R. on 1/4/2023									Karenia brevis	0
Comments:	Yellow Brown Water. Sunny. Wind S at 4-7mph. Second	ni Depth								Pseudo-nitzschia spp.	0
	= 0.6m. Air Temperature = 20.1 C.									Pyrodinium bahamense	0
HABW230104-036 FDEP CHV010 1/3/2023	Bokeelia Fishing Pier (Charlotte Harbor)	Lee	26.7067 -82.1637	07:07	0.5	20.10	29.43	6.03	7.97		
Analyzed by:	Thurmond, R. on 1/4/2023									Karenia brevis	0
Comments:	Yellow Brown Water. Sunny. Wind NE at 2-3mph. Air									Pseudo-nitzschia spp.	0
	Temperature = 19.4 C.									Pyrodinium bahamense	0
HABW230104-038 FDEP MPV002/MP3 1/3/2023		a Lee	26.6250 -82.0742	07:01	0.5	22.40	24.01	4.37	7.78		
	Markley, L. on 1/4/2023									Karenia brevis	0
Comments:	Medium Brown Water. Partly Cloudy. Wind SE at 2-3n									Pseudo-nitzschia spp.	0
	Secchi Depth = 1.6m. Air Temperature = 19.7 C. Smedead fish	elis like								Pyrodinium bahamense	0
HABW230104-047 FDEP PIV001 1/3/2023	Pelican Bay (Pine Island Sound)	Lee	26.6908 -82.2447	07:20	0.5	17.70	35.17	7.26	7.93		
Analyzed by:	Thurmond, R. on 1/4/2023									Karenia brevis	0
Comments:	Yellow Brown Water. Sunny. Winds SE at 4-7mph. Se									Pseudo-nitzschia spp.	0
	Depth = 1.7m. Air Temperature = 17.6 C. Some foam dead fish, and fishy smell. High turbidity.	i, some								Pyrodinium bahamense	0
HABW230104-048 FDEP PIV 002 1/3/2023		Lee	26.6623 -82.1702	07:50	0.5	18.10	34.40	7.38	7.97		
Analyzed by:	Markley, L. on 1/4/2023									Karenia brevis	0
Comments:	Yellow Brown Water. Sunny. Secchi Depth - Good to B	Bottom.								Pseudo-nitzschia spp.	7,000
	Winds SE at 4-7mph. Air Temperature = 18.5 C.									Pyrodinium bahamense	0

HAB ID Original ID	Location	County	Lat/Lon (DD.dddd	Time I)	Depth (m)	Temp (C)	Sal (ppt)	DO (mg/L)	рH	Species	cells/liter
Sample Date											
HABW230104-065 FDEP LBV001b 1/3/2023	South Venice Beach Boat Ramp	Sarasota	27.0395 -82.4265	07:33	0.5	22.00	29.77	4.48	7.37		
Comments: Yel	urmond, R. on 1/4/2023 llow Green Water. Sunny. Winds E at 0-1mph. S pth - Good to Bottom. Air Temperature = 19.6									Karenia brevis Pseudo-nitzschia spp. Pyrodinium bahamense	0 0 0

NOTE: Blank field = not measured

From: 1/3/2023 To: 1/3/2023

Collected by: Knauf, B. **Collecting agency:** PC

Fish and Wildlife Research Institute

Sample condition: Preserved



HAB ID	Location	County	Lat/Lon	Time	Depth	Temp	Sal	DO	рН	Species	cells/liter
Original ID			(DD.dddd	l)	(m)	(C)	(ppt)	(mg/L))		
Sample Date											
HABW230104-023 SHB - Nokomis B. 1/3/2023	Nokomis Beach	Sarasota	27.1233 -82.4712	06:45	0.5	17.00					
Analyzed by: Hen Comments:	schen, K. on 1/4/2023									Karenia brevis Pseudo-nitzschia spp.	2,000 45,667
										Pyrodinium bahamense	0
HABW230104-024 SHB - North Jetty 1/3/2023	North Jetty	Sarasota	27.1138 -82.4688	06:30	0.5	18.00					
Analyzed by: Hen	schen, K. on 1/4/2023									Karenia brevis	1,333
Comments:										Pseudo-nitzschia spp.	0
										Pyrodinium bahamense	0

From: 1/3/2023 To: 1/3/2023

Collected by: Volunteer(s)
Collecting agency: FDEP-EBAP
Sample condition: Preserved

Fish and Wildlife Research Institute



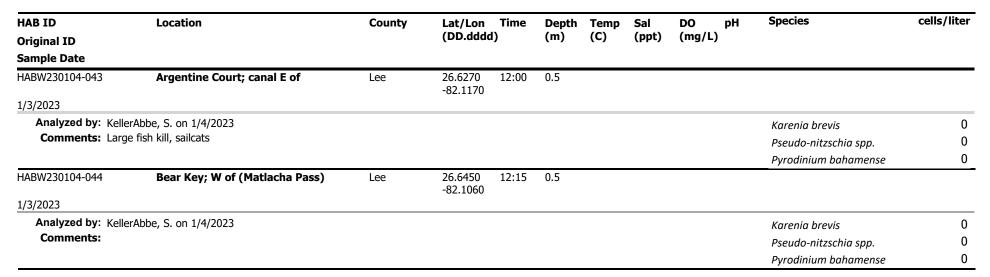
HAB ID	Location	County	Lat/Lon	Time	Depth	Temp	Sal	DO	pН	Species	cells/lite
Original ID			(DD.dddd)	(m)	(C)	(ppt)	(mg/L)			
Sample Date											
HABW230104-066 FDEP EBV001 1/3/2023	Matanzas Pass (Estero Bay)	Lee	26.4577 -81.9532	07:01	0.5	21.70	30.88	5.54	7.83		
Analyzed by: Conf	te, Camden on 1/4/2023									Karenia brevis	0
	en Brown Water. Sunny. Winds SE at 2-3mph. Sec	chi								Pseudo-nitzschia spp.	1,333
Dep	th= 2.1m. Air Temperature = 19.6 C.									Pyrodinium bahamense	0
HABW230104-067 FDEP EBV003 1/3/2023	Estero River; mouth of (Estero Bay)	Lee	26.4294 -81.8580	07:15	0.5	22.30	28.52	6.01	7.71		
											0
Analyzed by: Conf	te, Camden on 1/4/2023									Karenia brevis	0
Comments: Yello	ow Brown Water. Partly Cloudy. Winds E at 2-3mp	h.									1,333
Comments: Yello		h.								Karenia brevis Pseudo-nitzschia sp. Pyrodinium bahamense	•
Comments: Yello Seco HABW230104-068 FDEP EBV005	ow Brown Water. Partly Cloudy. Winds E at 2-3mp	bh. Lee	26.3584 -81.8375	06:47	0.5	22.20	27.91		7.80	Pseudo-nitzschia sp.	1,333
Comments: Yello Seco HABW230104-068 FDEP EBV005 1/3/2023	ow Brown Water. Partly Cloudy. Winds E at 2-3mp chi Depth= 0.7m. Air Temperature = 19.7 C. Pelican Bay Nature Park Pier (Estero Bay)			06:47	0.5	22.20	27.91		7.80	Pseudo-nitzschia sp. Pyrodinium bahamense	1,333
Comments: Yello Second	ow Brown Water. Partly Cloudy. Winds E at 2-3mpchi Depth= 0.7m. Air Temperature = 19.7 C. Pelican Bay Nature Park Pier (Estero Bay) Mank, Shelby on 1/4/2023 en Brown Water. Sunny. Winds E at 4-8mph. Second	Lee		06:47	0.5	22.20	27.91		7.80	Pseudo-nitzschia sp. Pyrodinium bahamense Karenia brevis	1,333
Comments: Yello Second	ow Brown Water. Partly Cloudy. Winds E at 2-3mp chi Depth= 0.7m. Air Temperature = 19.7 C. Pelican Bay Nature Park Pier (Estero Bay) mank, Shelby on 1/4/2023	Lee		06:47	0.5	22.20	27.91		7.80	Pseudo-nitzschia sp. Pyrodinium bahamense Karenia brevis Pseudo-nitzschia spp.	1,333
Comments: Yello Second	ow Brown Water. Partly Cloudy. Winds E at 2-3mpchi Depth= 0.7m. Air Temperature = 19.7 C. Pelican Bay Nature Park Pier (Estero Bay) Mank, Shelby on 1/4/2023 en Brown Water. Sunny. Winds E at 4-8mph. Second	Lee		06:47	0.5	22.20	27.91	6.62	7.80	Pseudo-nitzschia sp. Pyrodinium bahamense Karenia brevis	1,333 0 0 14,667
Comments: Yello Second	Pelican Bay Nature Park Pier (Estero Bay) Bank, Shelby on 1/4/2023 Ben Brown Water. Sunny. Winds E at 4-8mph. Secondary Mound House Dock (Estero Bay)	Lee	-81.8375 26.4462					6.62		Pseudo-nitzschia sp. Pyrodinium bahamense Karenia brevis Pseudo-nitzschia spp. Pyrodinium bahamense	1,333 0 0 14,667 0
HABW230104-068 FDEP EBV005 1/3/2023 Analyzed by: Mah Comments: Gree Dep' HABW230104-069 FDEP EBV007 1/3/2023 Analyzed by: Mah	Pelican Bay Nature Park Pier (Estero Bay) Mank, Shelby on 1/4/2023 en Brown Water. Sunny. Winds E at 4-8mph. Second Endowed Bay Canada Bay Nature Park Pier (Estero Bay)	Lee thi Lee	-81.8375 26.4462					6.62		Pseudo-nitzschia sp. Pyrodinium bahamense Karenia brevis Pseudo-nitzschia spp.	1,333 0 0 14,667

From: 1/3/2023 To: 1/3/2023

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.

