HAB MONITORING REPORT

From: 9/6/2022 To: 9/6/2022

Fish and Wildlife Research Institute

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

Sample condition: Preserved

| HAB ID Original ID | Location | County | Lat/Lon (DD.dddd) | Time) | Depth (m) | Temp (C) | Sal (ppt) | DO (mg/L) | рН | Species | cells/liter |
|--|--|-----------|----------------------|-----------|--------------|-------------|--------------|--------------|------|-----------------------|-------------|
| Sample Date HABW220907-055 FDEP EBV001 9/6/2022 | Matanzas Pass (Estero Bay) | Lee | 26.4577 -81.9532 | 07:17 | 0.5 | 31.50 | 28.97 | 3.48 | 7.94 | | |
| | KellerAbbe, S. on 9/7/2022 | | | | | | | | | Karenia brevis | 0 |
| Comments: | Wind E @ 2-3 mph, sunny, air 26.6 C; tide incoming, = 1.15 m, water green brown | secchi | | | | | | | | Pseudo-nitzschia spp. | 0 0 |
| HABW220907-056 FDEP EBV004 9/6/2022 | Carl Johnson Park Boat Ramp (Estero Bay) | Lee | 26.3936 -81.8655 | 07:05 | 0.5 | 30.70 | 30.23 | 1.66 | 7.90 | Pyrodinium bahamense | 0 |
| Analyzed by: | Conte, Camden on 9/7/2022 | | | | | | | | | Karenia brevis | 0 |
| Comments: | Wind NE @ 4-7 mph, partly cloudy, air 25.6 C; tide in | coming, | | | | | | | | Pseudo-nitzschia spp. | 0 |
| | secchi = 1.4 m, water yellow green | | | | | | | | | Pyrodinium bahamense | 0 |
| HABW220907-057 FDEP EBV005 9/6/2022 | Pelican Bay Nature Park Pier (Estero Bay) | Lee | 26.3584 -81.8375 | 07:09 | 0.5 | 30.80 | 25.57 | 5.20 | 7.94 | | |
| Analyzed by: | Conte, Camden on 9/7/2022 | | | | | | | | | Karenia brevis | 0 |
| Comments: | Wind E @ 2-3 mph, partly cloudy, 0.002 in. precipitati | | | | | | | | | Pseudo-nitzschia spp. | 0 |
| | last 24 hrs, air 25.7 C; tide incoming, secchi 0.9 m, w yellow green | ater | | | | | | | | Pyrodinium bahamense | 0 |
| HABW220907-058 FDEP EBV007 9/6/2022 | | Lee | 26.4462 -81.9272 | 07:17 | 0.5 | 31.90 | 27.38 | 3.88 | 7.95 | | |
| | Markley, L. on 9/7/2022 | | | | | | | | | Karenia brevis | 0 |
| Comments: | Wind ENE @ 2-3 mph, sunny, air 30.4 C; tide incomin | g, | | | | | | | | Pseudo-nitzschia spp. | 3,000 |
| | secchi = 1.35 m, water yellow brown | | | | | | | | | Pyrodinium bahamense | 0 |
| HABW220907-059 FDEP EBERS2 9/6/2022 | Estero River; upstream | Lee | 26.4386 -81.8400 | 07:40 | 0.5 | 29.40 | 4.82 | 5.17 | 7.37 | | |
| | Markley, L. on 9/7/2022 | | | | | | | | | Karenia brevis | 0 |
| Comments: | Wind E @ 0-1 mph, partly cloudy skies, 0.3 inches | a a a b i | | | | | | | | Pseudo-nitzschia spp. | 0 |
| | precipitation in last 24 hrs, air 25.0 C; tide incoming, s = 1.6 m, water medium brown | Secchi | | | | | | | | Pyrodinium bahamense | 0 |



| 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 \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 |
| нідн | > 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 <u>Department of Health Aquatic Toxins Program</u>.

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.



Matanzas Pass

Mound House Dock

Estero River: upstream

Carl Johnson Park Boat Ramp

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)

Pelican Bay Nature Park Pier

Google Earth

Data SIO, NOAA, U.S. Navy, NGA, GEBCO Image @2022 TerraMetrics