



**Fish and Wildlife Research Institute**  
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**HAB PHYTOPLANKTON REPORT**

|                              |                                 |                                |                                |                                |                                    |
|------------------------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------------|
| <b>Sample Date:</b> 8/5/2013 | <b>Collected By:</b> FDEP Staff | <b>Collecting Agency:</b> FDEP | <b>Analysis Date:</b> 8/6/2013 | <b>FWRI Analyst:</b> Brame, J. | <b>Sample Condition:</b> Preserved |
|------------------------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------------|

| HAB ID<br>Original ID          | Location                                 | County    | Lat/Lon<br>(DD.dddd) | Time<br>(GMT) | Depth<br>(m) | Temp<br>(C) | Sal<br>(ppt) | DO<br>mg/L | pH   | Genus species               | cells/liter | Comments |
|--------------------------------|--|-----------|----------------------|---------------|--------------|-------------|--------------|------------|------|-----------------------------|-------------|----------|
| HABW130806-013<br>FDEP EBV 001 | Mantanzas Pass,<br>Estero Bay            | Lee       | 26.4577<br>-81.9532  | 11:01         | .5           | 27.40       | 19.1         | 7.90       | 7.90 |                             |             |          |
|                                |  |           |                      |               |              |             |              |            |      | <i>Pyrodinium bahamense</i> | 0           |          |
|                                |  |           |                      |               |              |             |              |            |      | <i>Karenia brevis</i>       | 0           |          |
| HABW130806-014<br>FDEP EBV 003 | Estero River, Mouth<br>of, Estero Bay    | Lee       | 26.4294<br>-81.8580  | 11:35         | .5           | 29.30       | 12.5         | 4.90       | 7.91 |                             |             |          |
|                                |  |           |                      |               |              |             |              |            |      | <i>Karenia brevis</i>       | 0           |          |
|                                |  |           |                      |               |              |             |              |            |      | <i>Pyrodinium bahamense</i> | 0           |          |
| HABW130806-015<br>FDEP LBV 004 | Redfish Cove                             | Charlotte | 26.9342<br>-82.3520  | 11:10         | 1.4          | 29.60       | 26.4         | 7.80       | 8.12 |                             |             |          |
|                                |  |           |                      |               |              |             |              |            |      | <i>Karenia brevis</i>       | 0           |          |
|                                |  |           |                      |               |              |             |              |            |      | <i>Pyrodinium bahamense</i> | 0           |          |
| HABW130806-016<br>FDEP EBV 006 | Coon Key, 0.85 miles N<br>of, Estero Bay | Lee       | 26.4287<br>-81.8832  | 10:59         | .5           | 29.50       | 23.9         | 5.70       | 8.80 |                             |             |          |
|                                |  |           |                      |               |              |             |              |            |      | <i>Pyrodinium bahamense</i> | 0           |          |
|                                |  |           |                      |               |              |             |              |            |      | <i>Karenia brevis</i>       | 0           |          |
| HABW130806-017<br>FDEP EBV 007 | Mound House dock,<br>Estero Bay          | Lee       | 26.4462<br>-81.9272  | 11:00         | .5           | 28.00       | 19.3         | 3.90       | 7.98 |                             |             |          |
|                                |  |           |                      |               |              |             |              |            |      | <i>Karenia brevis</i>       | 333         |          |
|                                |  |           |                      |               |              |             |              |            |      | <i>Pyrodinium bahamense</i> | 0           |          |

NOTE: Blank field = not measured.

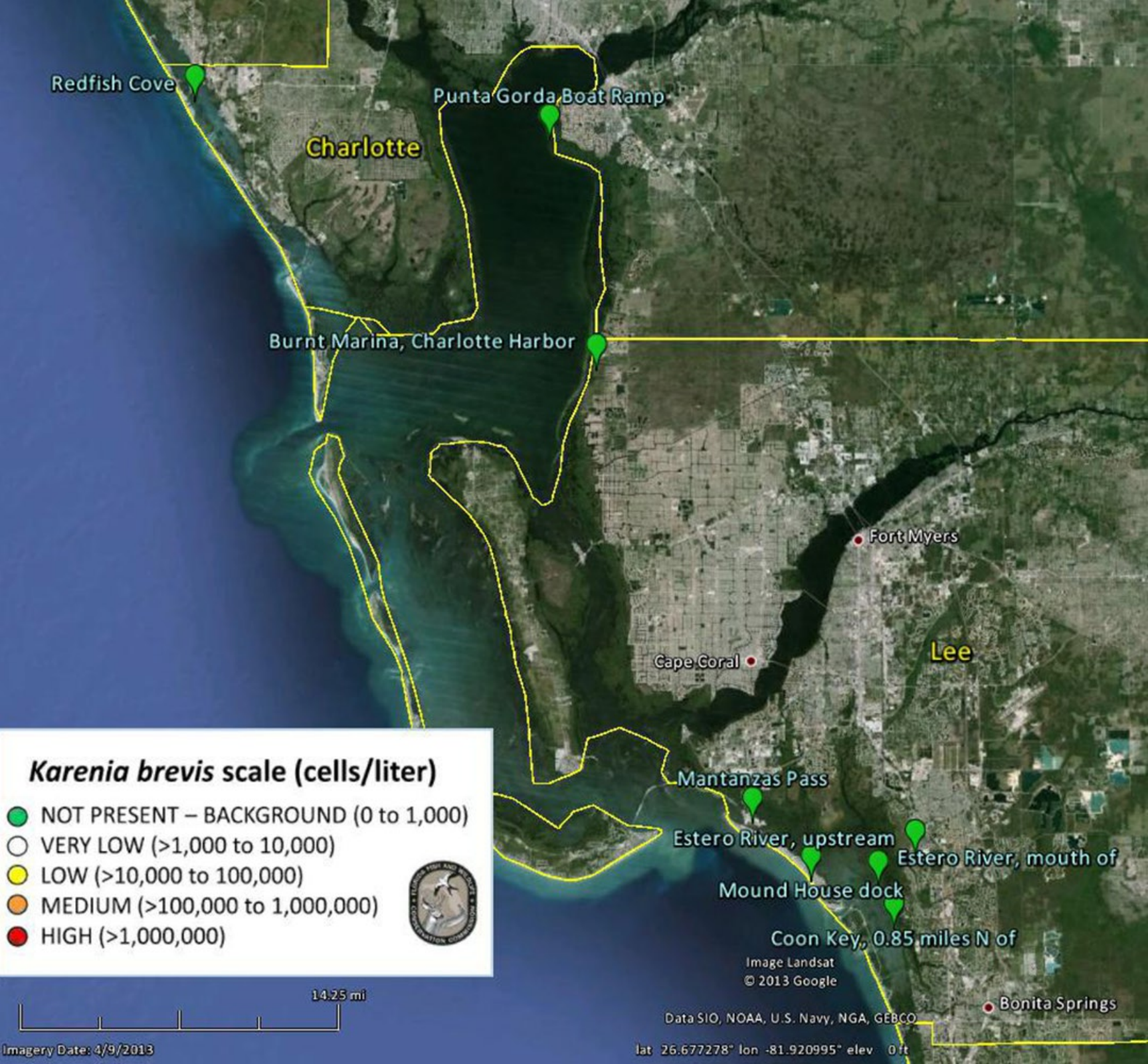
| HAB ID<br>Original ID          | Location                          | County    | Lat/Lon<br>(DD.dddd) | Time<br>(GMT) | Depth<br>(m) | Temp<br>(C) | Sal<br>(ppt) | DO<br>mg/L | pH   | Genus species               | cells/liter | Comments |
|--------------------------------|-----------------------------------|-----------|----------------------|---------------|--------------|-------------|--------------|------------|------|-----------------------------|-------------|----------|
| HABW130806-018<br>FDEP EBERS 2 | Estero River, upstream            | Lee       | 26.4386<br>-81.8400  | 11:02         | .5           | 27.90       | 1.4          | 3.30       | 7.41 |                             |             |          |
|                                |                                   |           |                      |               |              |             |              |            |      | <i>Karenia brevis</i>       | 0           |          |
|                                |                                   |           |                      |               |              |             |              |            |      | <i>Pyrodinium bahamense</i> | 0           |          |
| HABW130806-019<br>FDEP CHV007  | Punta Gorda Boat<br>Ramp          | Charlotte | 26.9092<br>-82.0953  | 11:00         | .5           | .           | .            | .          | .    |                             |             |          |
|                                |                                   |           |                      |               |              |             |              |            |      | <i>Karenia brevis</i>       | 0           |          |
|                                |                                   |           |                      |               |              |             |              |            |      | <i>Pyrodinium bahamense</i> | 0           |          |
| HABW130806-020<br>FDEP CHV009  | Burnt Marina,<br>Charlotte Harbor | Lee       | 26.7614<br>-82.0611  | 11:00         | .5           | .           | .            | .          | .    |                             |             |          |
|                                |                                   |           |                      |               |              |             |              |            |      | <i>Pyrodinium bahamense</i> | 0           |          |
|                                |                                   |           |                      |               |              |             |              |            |      | <i>Karenia brevis</i>       | 0           |          |

| Description              | <i>Karenia brevis</i> cells/L | Possible Effects ( <i>Karenia brevis</i> only)   |
|--------------------------|-------------------------------|--|
| NOT PRESENT - BACKGROUND | 0 - 1,000                     | None anticipated   |
| VERY LOW                 | > 1,000 - 10,000              | Possible respiratory irritation; shellfish harvesting closures ≥ 5,000 cells/L                                   |
| LOW                      | > 10,000 - 100,000            | Respiratory irritation; possible fish kills and bloom chlorophyll probably detected by satellites at upper range |
| MEDIUM                   | > 100,000 - 1,000,000         | Respiratory irritation and probable fish kills   |
| HIGH                     | > 1,000,000                   | As above plus 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](#) and [Pyrodinium bahamense](#). *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. For information on red tide related human health issues, please refer to the [Department of Health Aquatic Toxins Program](#).

[State-wide status reports](#) including interactive Google Maps are provided weekly by our group and [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](mailto:HABData@myFWC.com).

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.



Redfish Cove

Punta Gorda Boat Ramp

Charlotte

Burnt Marina, Charlotte Harbor

Fort Myers

Cape Coral

Lee

Mantanzas Pass

Estero River, upstream

Estero River, mouth of

Mound House dock

Coon Key, 0.85 miles N of

Bonita Springs

### *Karenia brevis* scale (cells/liter)

- NOT PRESENT – BACKGROUND (0 to 1,000)
- VERY LOW (>1,000 to 10,000)
- LOW (>10,000 to 100,000)
- MEDIUM (>100,000 to 1,000,000)
- HIGH (>1,000,000)



14.25 mi

Imagery Date: 4/9/2013

Image Landsat  
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Data SIO, NOAA, U.S. Navy, NGA, GEBCO

lat 26.677278° lon -81.920995° elev 0 ft