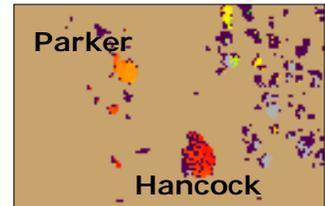
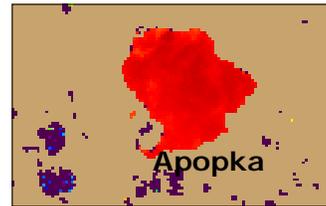
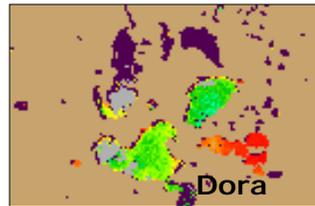


To report an illness related to a marine toxin or algal bloom please contact the Florida Poison Information Center-Miami Aquatic Toxins Hotline at 1-888-232-8635. For questions about the report: contact Becky Lazensky, FL-DOH, at 352-955-1900. Images/data were obtained from Florida Water Management Districts, The National Oceanic and Atmospheric Administration (NOAA), NOAA National Climatic Data Centers and National Weather Centers. Support to produce this report was received through a NOAA/NASA Agreement (Number: NNH08ZDA001N)

## Cyanobacteria HABs Conditions Report: Feb. 25

- Lake Dora (Lake County) displayed high estimated cyanobacteria concentrations
- Lake Apopka (Orange and Lake Counties) displayed high estimated cyanobacteria concentrations
- Parker and Hancock Lakes (Polk County) displayed high estimated cyanobacteria concentrations



## Lakes and Rivers of Interest to You?

NOAA has offered to run time-series graphs of some select lakes and rivers in Florida which have been consistently showing up red or elevated in the satellite imagery. Time-series graphs depict the MERIS satellite images over time and display the variations in color more clearly.

If you have any areas of interest that you would like a time-series for, you can email me your suggestions: [Becky.Lazensky@doh.state.fl.us](mailto:Becky.Lazensky@doh.state.fl.us)  
Lakes/Rivers must be >1km in size.



## Non Cyano HABs & Health Report: March 1, 2012 Update

Confirmed Species: *Karenia brevis*

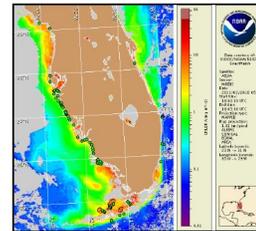
NOAA Update: Very low approximately 12 miles north of Big Pine Key (Mote Marine Laboratory-2/23).

Health Complaints: None reported

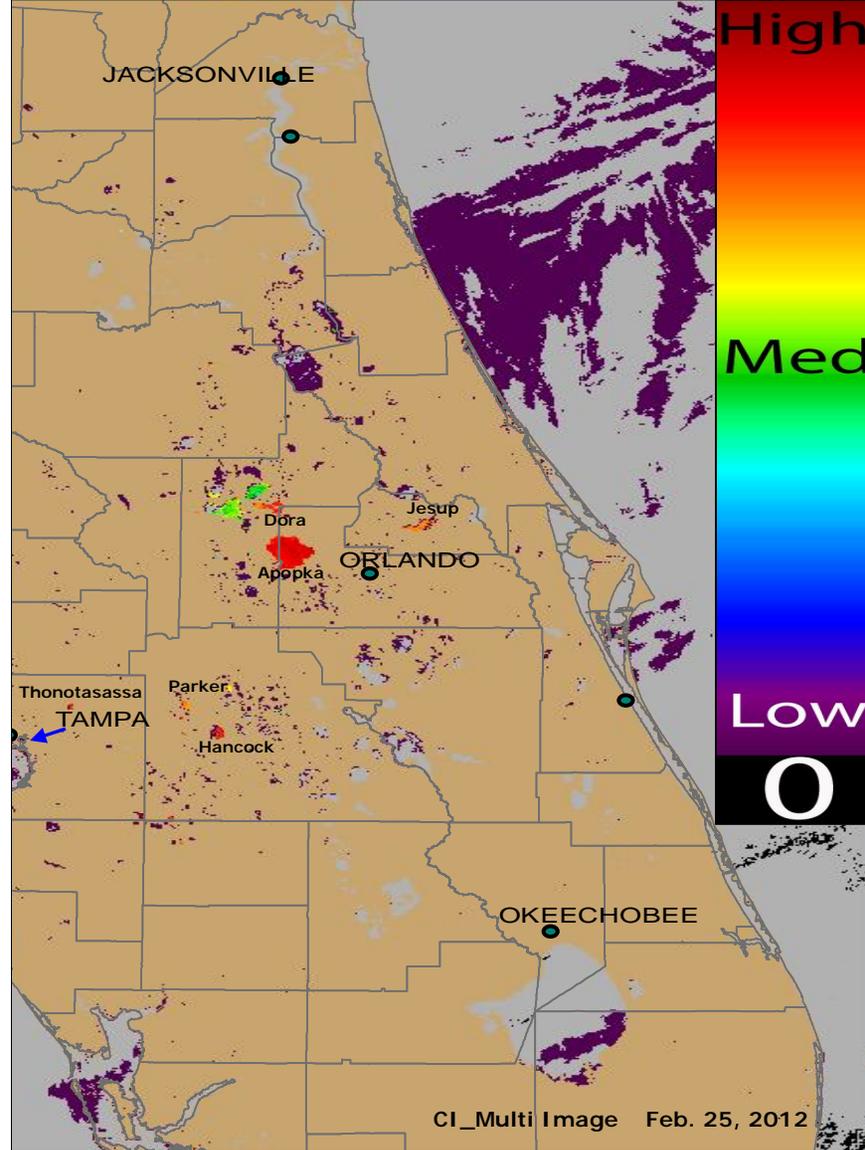
To Report a Fish Kill: call the FWRI/FWC Fish Kill

Hotline: 1-800-636-0511; Visit FWRI/FWC for updates:

<http://myfwc.com/research/redtide/events/status/>



GOM HAB Bulletin Region: SW FL  
Date: March 1, 2012  
NOAA Ocean Service, Satellite and Information Service, NWS



MERIS Satellite Images display a cyanobacteria index generated with a Medium Resolution Imaging Spectrometer satellite provided by the European Space Agency & NOAA.

Very low likelihood of a bloom   
 May indicate clouds or missing data   
 Low estimated cyanobacteria concentrations   
 Medium estimated cyanobacteria concentrations   
 Probable bloom or higher est. cyano. concentrations

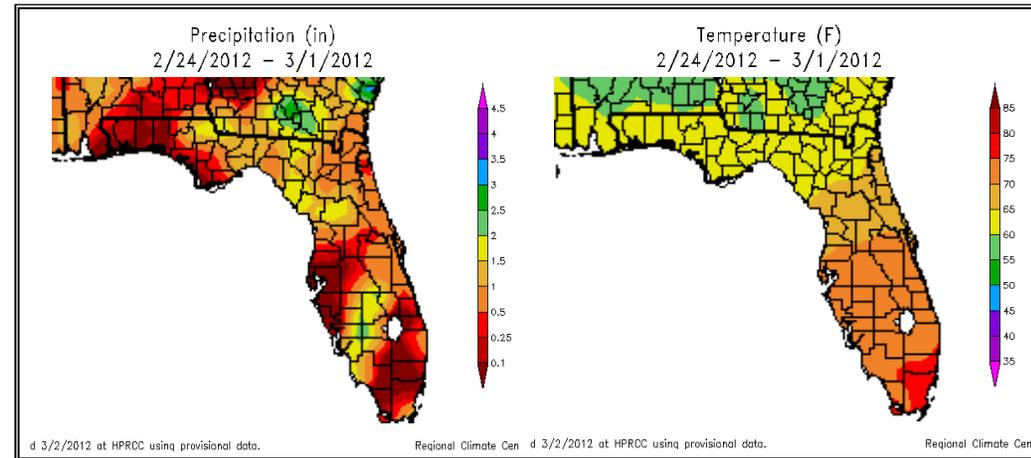
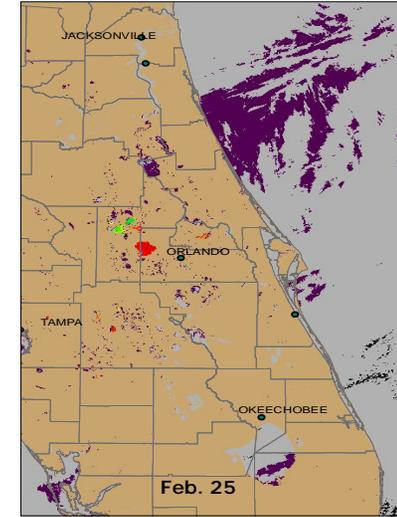
# Interpreting Medium Resolution Imaging Spectrometer Satellite Imagery

- The medium resolution imaging spectrometer (MERIS) is located on the Envisat satellite deployed by the European Space Agency.
- The cyanobacterial index algorithm is designed to identify high biomass algal blooms caused by cyanobacteria. However, the current algorithm tends to have false positives, so other blooms may be "flagged". NOAA is currently testing new algorithms that are more specific to cyanobacteria.
- Data can be used to estimate near surface cyanobacteria concentrations which are an indication that algal blooms may be present.
- The algorithms used to generate the satellite images can vary, resulting in some models having a higher likelihood of detecting surface blooms. The satellite identifies the biomass near the surface (in the upper few feet of water). As a result, it may underestimate the total biomass for blooms that are mixed or dispersed through the water column. Turbidity does not otherwise influence the algorithms.
- The satellite imagery does not display the species of algae present.
- While patches of red or warm colors may indicate a bloom, these data have not been verified in most cases using ground-truth methods. Data collected by the satellite is considered experimental.
- Only part of FL is in the satellite's coverage area.
- Several environmental factors may affect how results can be interpreted. For example, areas with abundant aquatic vegetation may present with a high cyanobacteria index on the color spectrum, resulting in a false positive bloom reading.

# Weather Conditions-Feb. 25th Temperature and Precipitation



- Weather conditions can impact the duration and location of blooms and the satellite imagery shown in this report may no longer be relevant. Images represent the last image taken with a realization that blooms may have moved, dissipated or intensified.
- Cloud coverage can obscure imagery and create patches or gray areas on map and obscure bloom detection.



**If your agency has field sampling data on the regions shown in red, these data can be used to help validate the MERIS imagery. Contact Becky Lazensky at: 352-955-1900 to participate in future FDOH validation efforts.**

To review HABs satellite reports in the Gulf of Mexico and marine waters visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive at: <http://tidesandcurrents.noaa.gov/hab/bulletins.html>



**For Individual Weather Station Data Visit:**  
[http://www.sercc.com/climateinfo/historical/historical\\_fl.html](http://www.sercc.com/climateinfo/historical/historical_fl.html)

**Questions about the report or suggestions:** You can contact Becky Lazensky, MPH  
352-955-1900  
Becky\_Lazensky@doh.state.fl.us