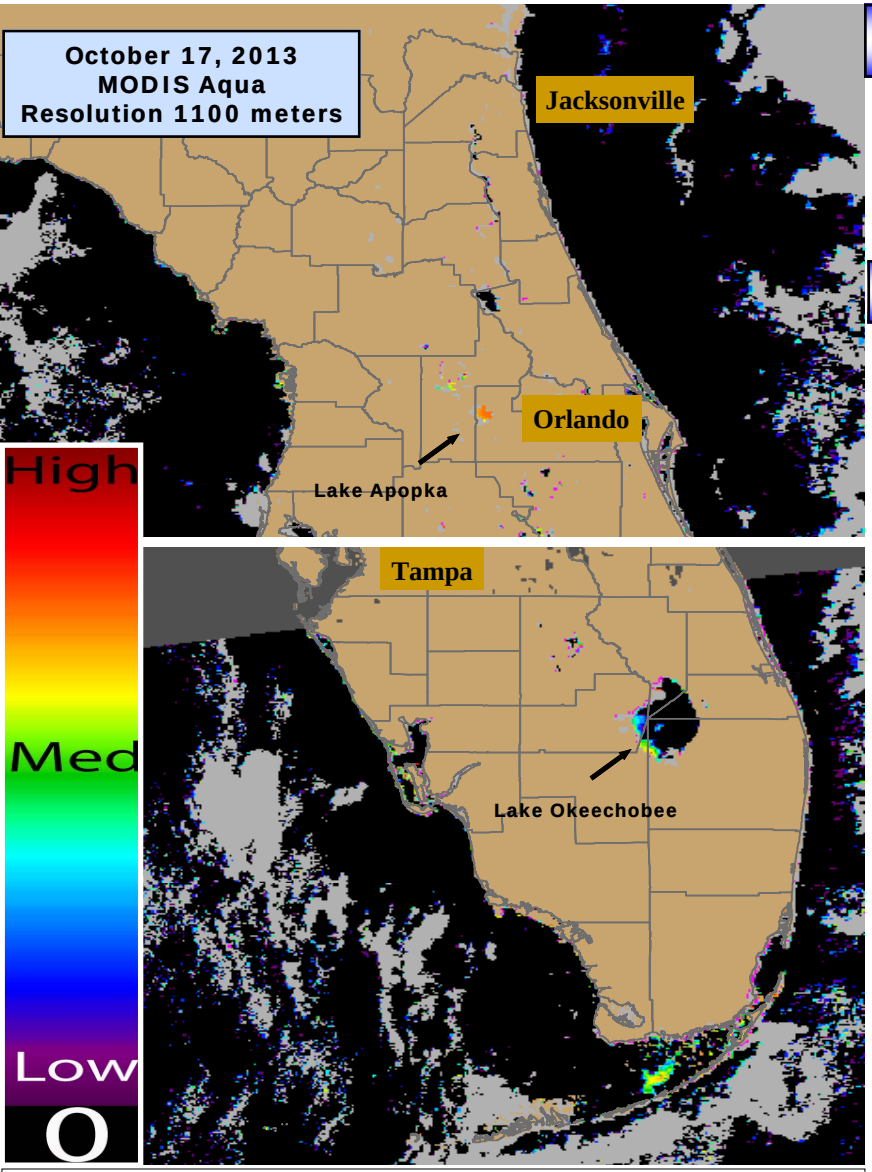
Inland Harmful Algal Blooms Health Bulletin: October 18, 2013

To report an illness related to a marine toxin or algal bloom contact the Florida Poison Information Center at 1-800-222-1222.
Images/data obtained from Florida Fish and Wildlife Research Institute, Florida Water Management Districts, National Oceanic and Atmospheric Administration (NOAA), NOAA National Climatic Data Centers and National Weather Centers. Support to produce this report from NOAA/NASA Contract NNH08ZDA001N.



MODIS Images display a chlorophyll-a index generated with a Moderate Resolution Imaging Spectroradiometer provided by the National Aeronautics and Space Administration (NASA)

- Very low likelihood of a bloom
- May indicate clouds or missing data
- Low estimated chlorophyll-a concentrations
- Medium estimated chlorophyll-a concentrations
- Higher estimated chlorophyll-a concentrations

Inland CyanoHAB Conditions Report

- Lake Apopka (Orange and Lake Counties) displayed high estimated elevated chlorophyll-a concentrations.
- Lake Okeechobee displayed medium estimated elevated chlorophyll-a concentrations on the southwestern shoreline.

HEALTH OFFICIALS PROVIDE WATER SAFETY TIPS

HEALTH OFFICIALS PROVIDE WATER SAFETY TIPS REGARDING BLUE GREEN ALGAE BLOOM IN ST. JOHNS RIVER

October 15, 2013

Jacksonville, FL - The Florida Department of Health in Duval County (DOH-Duval) reminds individuals to avoid exposure to algal blooms in the St. Johns River and other water bodies in Florida. Blue-green algae are a group of organisms that can live in freshwater, salt-water or in mixed "brackish" water and may commonly be referred to as pond scum. They also are referred to as cyanobacteria. Most blue-green algae do not produce chemicals harmful to humans or animals, however, some types make natural substances called cyanotoxins. Over time, these toxins are diluted and eventually break down and disappear...

DOH-Duval recommends people refrain from recreational water uses that could result in ingestion of and/or skin exposure to algal blooms in the river. Children should also not be allowed to play along the shoreline where they might be exposed to clumps of algae or drink water from the river. FDOH also recommends that fish caught in or near the bloom not be consumed.

The Florida Department of Health is working with other state and local agencies to assess concentrations of algal toxins in the St. Johns River. For a full text version of the press release see: http://www.dchd.net/component/content/article/8-dchd-news/163-blue-green-algae-safety-tips

**** Due to background levels of *K. brevis* off Florida's SW coast, status reports for Florida red tide will be suspended until bloom concentrations re-occur.**

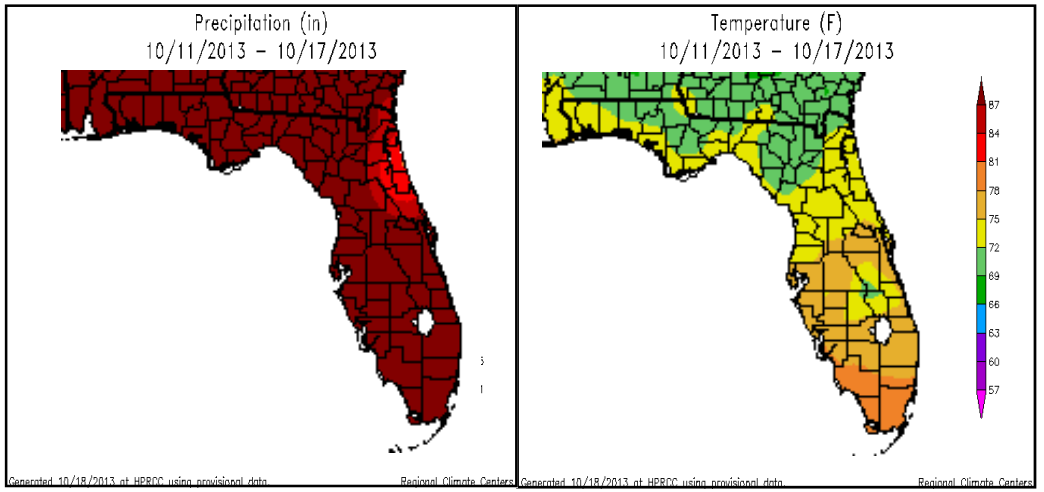
Interpreting Moderate Resolution Imaging Spectroradiometer Data

- The Moderate Resolution Imaging Spectroradiometer (MODIS) is deployed by NASA onboard the Terra (EOS AM) and Aqua (EOS PM) satellite. It passes over the earth, collecting new imagery every 1-2 days.
- This imagery is used as a surveillance tool. Data collected by the MODIS sensor are used to generate a chlorophyll-a index which is used to forecast harmful algal blooms. The results are not specific to any one HABs species and should be followed-up with onsite field observations. Data is only suggestive of a potential HAB event.
- MODIS uses a spectral band which is much coarser than MERIS, therefore only select larger water bodies in FL are visible using this technology.
- MODIS is better at depicting low to medium chlorophyll-a concentrations so once a potential bloom is depicted, a switch in algorithms may used to improve the visibility. MODIS has a few spectral bands which have higher resolution that are more comparable to MERIS although these bands do not cover all of FL.
- Several environmental factors may affect how results can be interpreted. For example, areas with abundant aquatic vegetation may present with a high Chl-a index resulting in a false positive bloom reading.
- The sensor identifies 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.
- While patches of red or warm colors may indicate higher chlorophyll-a concentrations, these data have not been verified in most cases using ground-truth methods.

Weather Conditions: Temperature and Precipitation - 10/11/13 to 10/17/13

- 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.

October 17, 2013
MODIS Aqua True Color Images



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/

For Individual Weather Station Data-Visit:
http://www.sercc.com/perspectives

Questions about the bulletin or suggestions- Contact
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