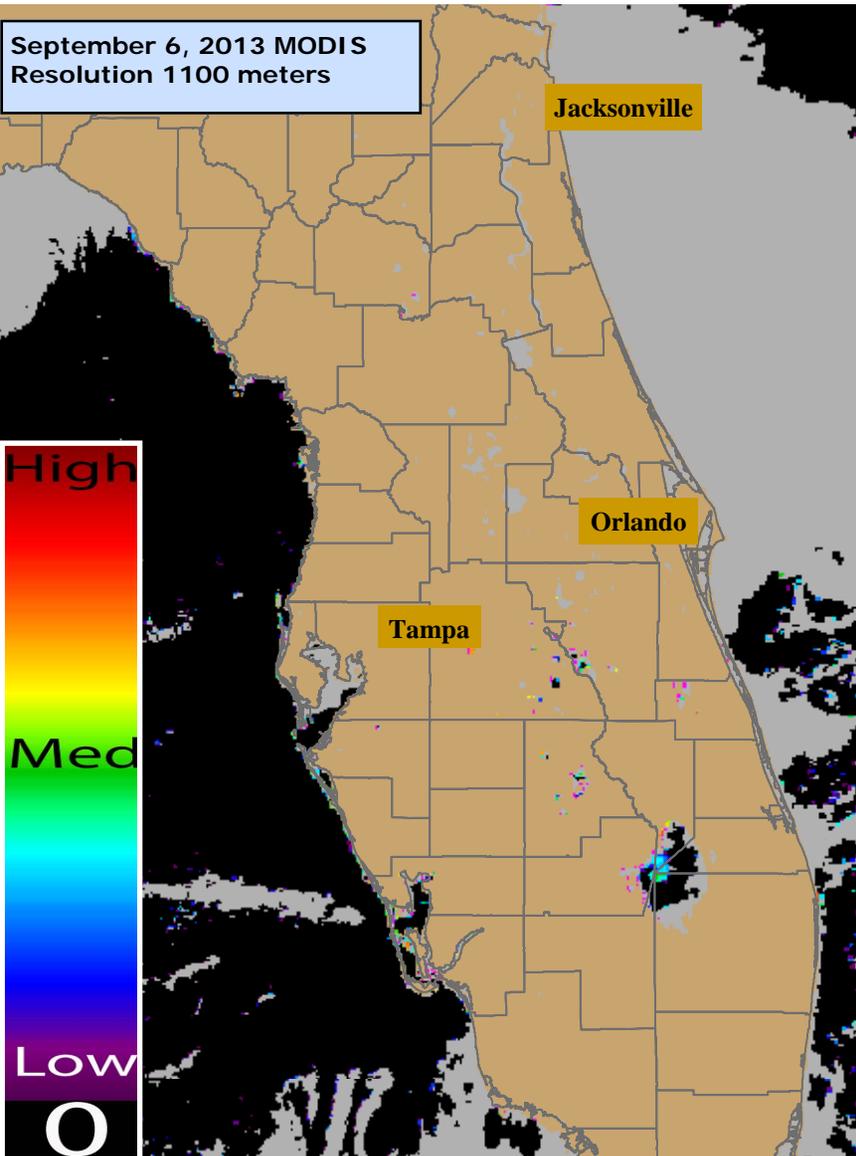


To report an illness related to a marine toxin or algal bloom contact the Florida Poison Information Center at 1-800-222-1222.
 Images/data obtained from Florida Fish and Wildlife Research Institute, Florida Water Management Districts, National Oceanic and Atmospheric Administration (NOAA), NOAA National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

September 6, 2013 MODIS
 Resolution 1100 meters



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

- Large water features in Florida were unremarkable on the 1100 meter resolution MODIS image.

Scientists Say Algae 'Can Only Have Come From Space'

'Seeds Of Life' Collected During Perseid Meteor Shower: Scientists Say Algae 'Can Only Have Come From Space'



September 10, 2013

Did a British research balloon pick up extraterrestrial life as it skimmed the stratosphere during the annual Perseid meteor shower? The answer is yes, absolutely – at least if you trust astrobiologist Chandra Wickramasinghe and his fellow scientists, who claim that the microscopic algae detected on the balloon's sterile slides "can only have come from space."

In a study presented at the Instruments, Methods, and Missions for Astrobiology conference in San Diego, Calif. last month, the team theorized that the seeds are constantly transported between planets by asteroids, comets, and other cosmic wanderers. "Biological entities of this nature have not previously been reported occurring in the stratosphere," Wickramasinghe said, speaking to *The Daily Mail*. "The entities varied from a presumptive colony of ultra-small bacteria to two unusual individual organisms - part of a diatom frustule and a 200 micron-sized particle mass interlaced with biofilm and biological filaments."

The presence of stratospheric life would back the panspermia hypothesis – the popular astrobiological view that life is promulgated by itinerant repositories of microorganisms that "impregnate" planets ...

See: <http://www.medicaldaily.com/seeds-life-collected-during-perseid-meteor-shower-scientists-say-algae-can-only-have-come-space>

**** 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 be 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.

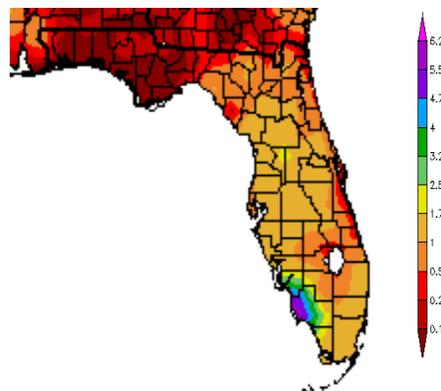
Weather Conditions: Temperature and Precipitation - 9/5/13 to 9/11/13

- 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.

September 06, 2013
MODIS True Color Image



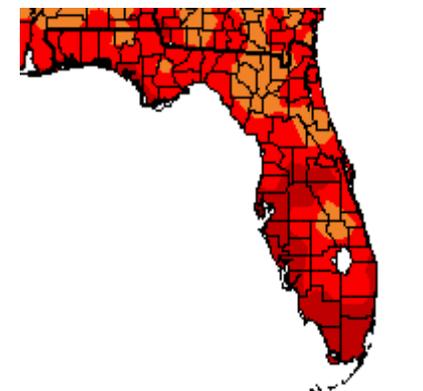
Precipitation (in)
9/5/2013 - 9/11/2013



Generated 9/12/2013 at HRBCC using provisional data

Regional Climate Centers

Temperature (F)
9/5/2013 - 9/11/2013



Generated 9/12/2013 at HRBCC using provisional data

Regional Climate Centers

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>

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