

Experimental Lake Erie Harmful Algal Bloom Bulletin

2011-018

06 October 2011

National Ocean Service

Great Lakes Environmental Research Laboratory

Last bulletin: 29 September 2011

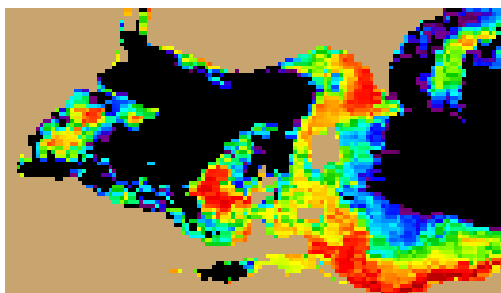


Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from October 05, where colored pixels indicate the likelihood of the last known position of the *Microcystis* spp. bloom (with red being the highest concentration). *Microcystis* spp. abundance data from shown as white squares (very high), circles (high), diamonds (medium), triangles (low), + (very low) and X (not present). Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

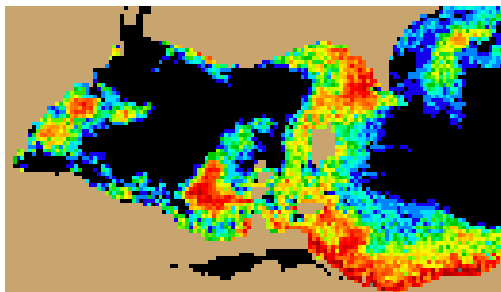


Figure 2. Nowcast position of *Microcystis* spp. bloom for October 06 using GLCFS modeled currents to move the bloom from the October 05 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

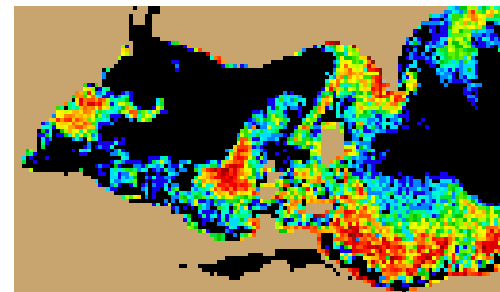


Figure 3. Forecast position of *Microcystis* spp. for October 09 using GLCFS modeled currents to move the bloom from October 05 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

Please note:

- MERIS imagery was distributed by the NOAA CoastWatch Program and provided by the European Space Agency
- Cell counts were collected by the Great Lakes Environmental Research Laboratory
- The wind data is available through the National Data Buoy Center and the National Weather Service
- Modeled currents were provided through the Great Lakes Coastal Forecasting System

Conditions: A large *Microcystis* bloom persists in Western Lake Erie.

Analysis: Satellite imagery from Wednesday (10/05/2011) indicates a large *Microcystis* bloom continues to transport east of Catawba Island and concentrate near the Cleveland shore. Winds are forecast to remain light through the weekend and may favor an intensification of the bloom. This intensification may result from the resurfacing of cells and/or formation of scum. Also, winds are forecast to remain south and southeast through the weekend. This may prevent scum formation along the Cleveland shore and promote scum formation along the south and east coasts of Pelee Island

The overall transport of the bloom is forecast to remain in place, with the possibility of intensification and scum formation, as wind stress remains light and water temperatures remain stable.

-Briggs, Tomlinson, Wynne

