

## Experimental Lake Erie Harmful Algal Bloom Bulletin

2011-011

18 August 2011

National Ocean Service

Great Lakes Environmental Research Laboratory

Last bulletin: 11 August 2011

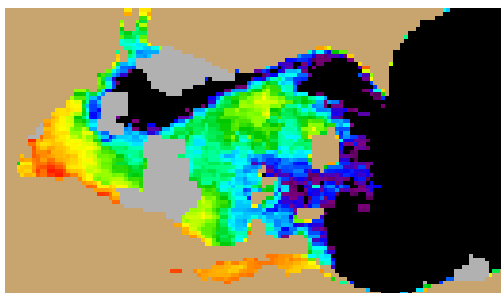


Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from August 17, where colored pixels indicate the likelihood of the last known position of the *Microcystis* spp. bloom (with red being the highest concentration). *Microcystis* spp. abundance data from shown 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.

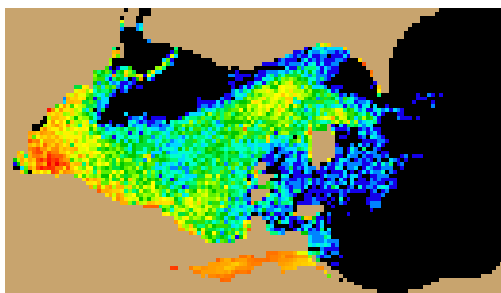


Figure 2. Nowcast position of *Microcystis* spp. bloom for August 18 using GLCFS modeled currents to move the bloom from the August 17 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

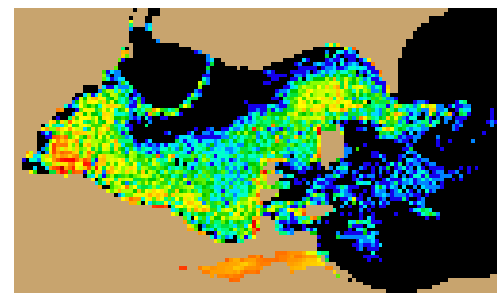


Figure 3. Forecast position of *Microcystis* spp. for August 21 using GLCFS modeled currents to move the bloom from August 17 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

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 confirmed *Microcystis* bloom persists in Western Lake Erie.

*Analysis:* A large *Microcystis* bloom remains in Western Lake Erie. Model trajectory indicates an easterly transport over the weekend, potentially to Pelee Point by August 21. Recent wind conditions have been relatively low, allowing the biomass to be concentrated in the surface. Low wind stress is predicted over the weekend, so this trend should continue. Water temperatures remain high (nearly 25 C) which should allow the bloom to persist at its present intensities through next week.

-Wynne, Tomlinson

