



Experimental Lake Erie Harmful Algal Bloom Bulletin

2009-007

03 September 2009

National Ocean Service

Great Lakes Environmental Research Laboratory

Last bulletin: 27 August 2009

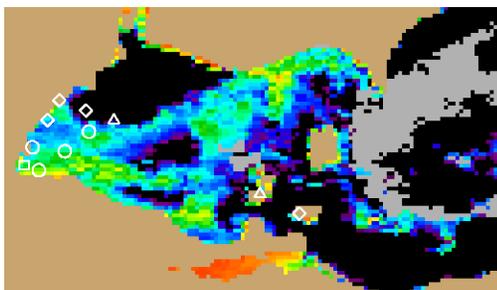


Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from September 02, where colored pixels indicate the likelihood of the last known position of the *Microcystis* spp. bloom (with red being the highest concentration). *Microcystis* spp. abundance data from September 01 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.

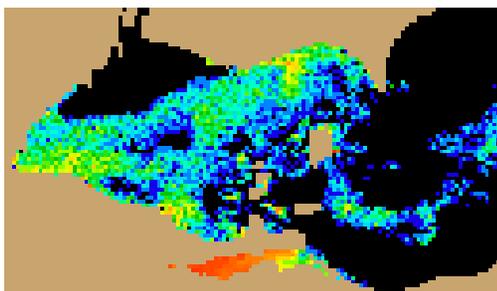


Figure 2. Nowcast position of *Microcystis* spp. bloom for September 03 using GLCFS modeled currents to move the bloom from the September 02 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

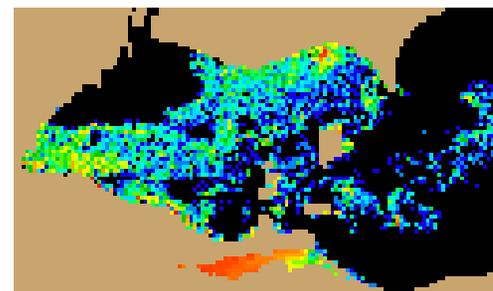


Figure 3. Forecast position of *Microcystis* spp. for September 06 using GLCFS modeled currents to move the bloom from September 02 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

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 *Microcystis* spp. bloom is present in much of the western basin of Lake Erie, Maumee Bay, and adjacent waters. A mixed cyanobacterial bloom is also present in Sandusky Bay. Moderate taste and odor issues may be observed as a result of the bloom.

Analysis: Imagery indicates that the *Microcystis* spp. bloom has intensified and extends into most of the western basin west of Kellys Island. *Microcystis* spp. cells may be found east of Kellys Island, however, at lower concentrations. From imagery, an area just northwest of Kellys Island (approximately 41d57'01"N, 82d46'36"W) indicates a relatively high abundance of *Microcystis* spp. and sampling is recommended. Modeled transport indicates that little movement of the bloom is expected over through 9/16, however, intensification is possible due to low wind stress.

-Tomlinson, Wynne

