



Experimental Lake Erie Harmful Algal Bloom Bulletin

2009-004

13 August 2009

National Ocean Service

Great Lakes Environmental Research Laboratory

Last bulletin: 06 August 2009

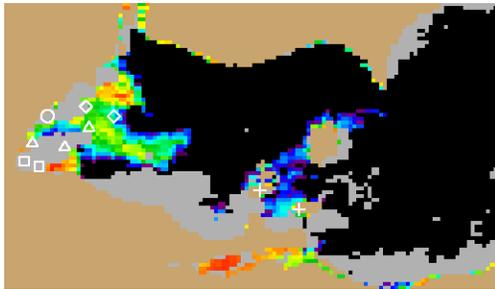


Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from August 11, where colored pixels indicate the likelihood of the last known position of the *Microcystis* spp. bloom (with red being the highest concentration). *Microcystis* spp. abundance data from August 11 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.

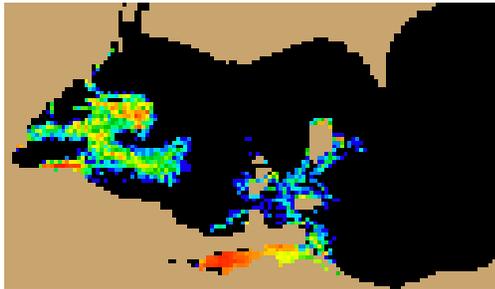


Figure 2. Nowcast position of *Microcystis* spp. bloom for August 13 using GLCFS modeled currents to move the bloom from the August 11 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

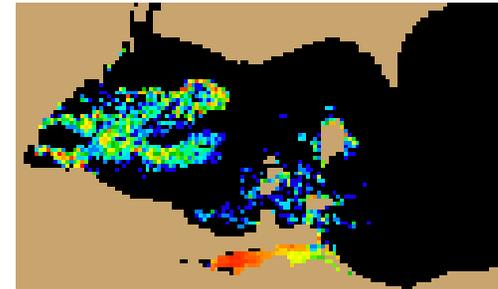


Figure 3. Forecast position of *Microcystis* spp. for August 16 using GLCFS modeled currents to move the bloom from August 11 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

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 has been identified in Maumee Bay and the adjacent waters to the northeast. The bloom may be visible from the shore, or near shore areas outside of Maumee Bay. A mixed cyanobacterial bloom is also present in Sandusky Bay. Moderate taste and odor issues have been observed and may continue to persist as a result of the bloom.

Analysis: The *Microcystis* spp. bloom in Western Lake Erie continues to persist and increase in both area and concentration. The bloom in Sandusky Bay is a mixed bloom dominated by *Planktothrix* spp. Wind stress is expected to be low for the next several days, which may intensify the bloom. The bloom is forecasted to remain relatively stationary, with a tendency to drift slightly to the NE. The feature present around the South Bass Islands has been identified as having very low concentrations of *Microcystis*. The feature has spread in area since last week's bulletin and may continue to spread. It should be noted that clouds covered Maumee Bay (gray pixels in the observed imagery). As a result of these clouds, the nowcast and forecast show no (or very little) concentration in Maumee Bay.

-Wynne, Dyble, Meredith

