



Experimental Lake Erie Harmful Algal Bloom Bulletin

2009-006

27 August 2009

National Ocean Service

Great Lakes Environmental Research Laboratory

Last bulletin: 20 August 2009

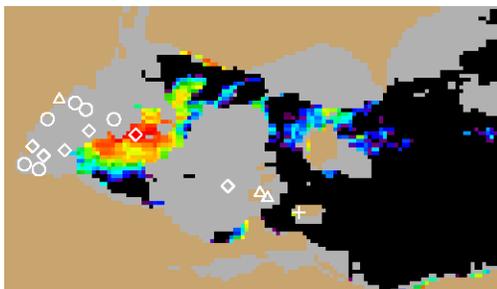


Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from August 24, where colored pixels indicate the likelihood of the last known position of the *Microcystis* spp. bloom (with red being the highest concentration). *Microcystis* spp. abundance data from August 25 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.

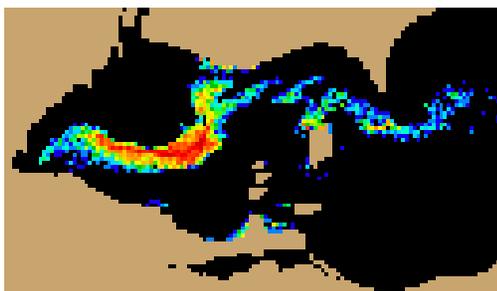


Figure 2. Nowcast position of *Microcystis* spp. bloom for August 27 using GLCFS modeled currents to move the bloom from the August 24 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

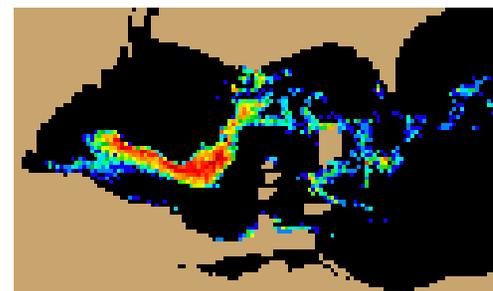


Figure 3. Forecast position of *Microcystis* spp. for August 30 using GLCFS modeled currents to move the bloom from August 24 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

Conditions: a *Microcystis* spp. bloom is present in much of the western basin of Lake Erie, Maumee Bay and the adjacent waters to the north. The bloom may be visible from shore, or nearshore areas outside of Maumee Bay and to the north, where the cell abundances are high. 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: The *Microcystis* spp. bloom in the western basin of Lake Erie has resurfaced and intensified, now encompassing much of the area west of the Bass Islands. Cloudy imagery prevents an analysis of the extent of the bloom. However, cell abundances range from high at the mouth of the Maumee Bay, with medium to low levels around the Bass Islands and very low levels on the southwest corner of Kellys Island. Due to the extent of the clouds in the imagery over the past several days, modeled nowcast and forecast positions underestimate the extent of the bloom. However, forecasts indicate that the bloom will move eastward over the next three days and out into the mid-basin. A decrease in wind stress could also intensify the bloom.

-Tomlinson, Wynne

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

