



Experimental Lake Erie Harmful Algal Bloom Bulletin

2011-008

28 July 2011

National Ocean Service

Great Lakes Environmental Research Laboratory

Last bulletin: 15 July 2010

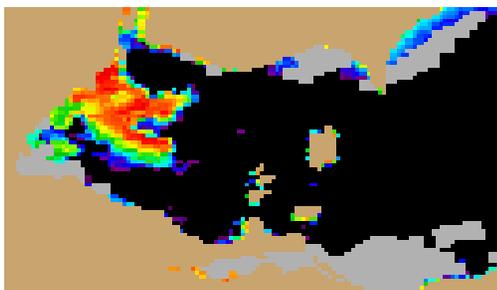


Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from July 24, where colored pixels indicate the likelihood of the last known position of the *Microcystis* spp. bloom (with red being the highest concentration). *Microcystis* spp. abundance data from shown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

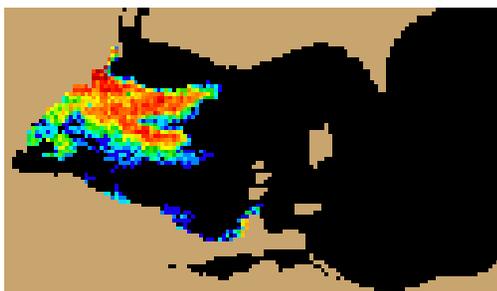


Figure 2. Nowcast position of *Microcystis* spp. bloom for July 28 using GLCFS modeled currents to move the bloom from the July 24 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

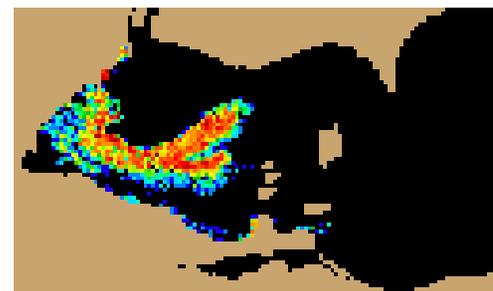


Figure 3. Forecast position of *Microcystis* spp. for July 31 using GLCFS modeled currents to move the bloom from July 24 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

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* bloom has been confirmed in western Lake Erie in the vicinity of Toledo Light #2

Analysis: Imagery indicates that a large *Microcystis* bloom is occurring north of the Maumee River mouth and to the east. At this time there is no indication that it has extended to the Bass Islands. A very high level of toxins has been observed near the Toledo Light #2 (>1000 ug/l). The bloom is expected to move east and southward through Sunday, but is not expected to reach the Bass Islands this weekend. The winds and temperature will be conducive to bloom intensification.

Please Note: due to a data acquisition problem in the hi-resolution MERIS image collection, we are using the low resolution (1 km) imagery for this bulletin.

-Tomlinson, Wynne

