

Experimental Lake Erie Harmful Algal Bloom Bulletin

2011-020

20 October 2011

National Ocean Service

Great Lakes Environmental Research Laboratory

Last bulletin: 06 October 2011

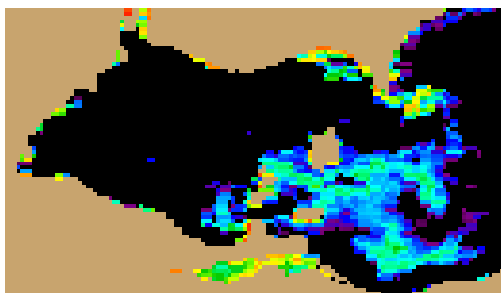


Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from October 17, where colored pixels indicate the likelihood of the last known position of the *Microcystis* spp. bloom (with red being the highest concentration). *Microcystis* spp. abundance data from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

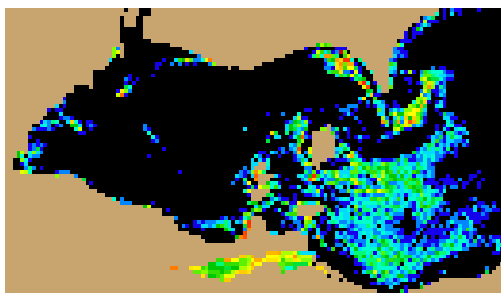


Figure 2. Nowcast position of *Microcystis* spp. bloom for October 20 using GLCFS modeled currents to move the bloom from the October 17 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

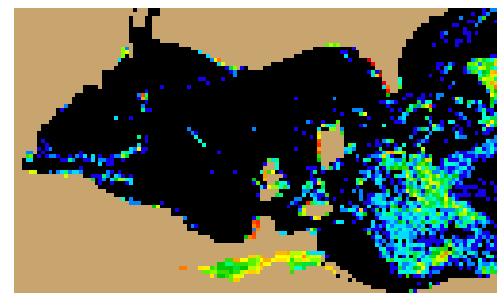


Figure 3. Forecast position of *Microcystis* spp. for October 23 using GLCFS modeled currents to move the bloom from October 17 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

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 *Microcystis* bloom persists in Lake Erie, extending from the Bass Islands to Cleveland.

Analysis: Imagery indicates that the bloom in western Lake Erie is dying. However the bloom persists around the Bass Islands, Pelee Island, and Kelleys Island extending to Cleveland. The bloom is expected to move east while not going past Cleveland. High winds last week likely stressed and mixed the bloom in the water column. Forecasted winds will most likely continue to stress the bloom. Additionally falling water temperatures this week will contribute to bloom stress and continued weakening. The bloom demise is expected within a week.

-Neff, Wynne

