Experimental
Lake Erie Harmful Algal Bloom Bulletin

2009-003
06 August 2009
National Ocean Service
Great Lakes Environmental Research Laboratory
Last bulletin: 30 July 2009

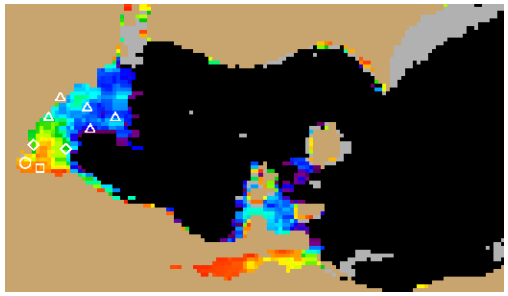


Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from August 05, where colored pixels indicate the likelihood of the last known position of the *Microcystis* spp. bloom (with red being the highest concentration). *Microcystis* spp. abundance data from August 03 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.

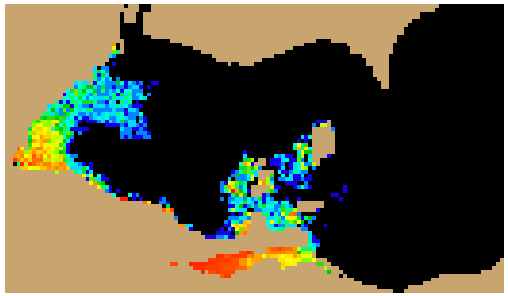


Figure 2. Nowcast position of *Microcystis* spp. bloom for August 06 using GLCFS modeled currents to move the bloom from the August 05 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

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 the near shore areas outside of Maumee Bay, to the east where concentrations are relatively high. A mixed bloom is also present in Sandusky Bay. Moderate taste and odor issues have been observed and may continue in Sandusky Bay as a result of the bloom.

Analysis: The *Microcystis* spp. bloom in the western basin of Lake Erie continues to increase in both area and concentration. The bloom in Sandusky Bay is a mixed bloom, primarily dominated by *Planktothrix* spp. Wind stress is expected to be low for the next several days, and will most likely intensify the bloom. The bloom is forecasted to be transported to the east over the next three days. The feature present around the South Bass Islands has not been confirmed as *Microcystis*, sampling is recommended.

-Wynne, Tomlinson

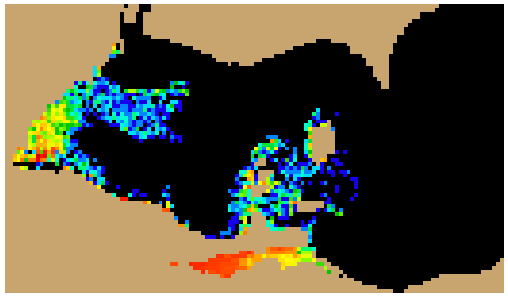
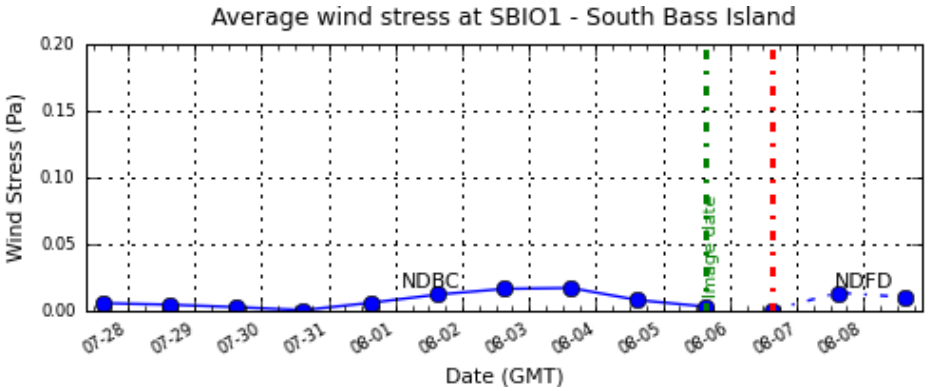


Figure 3. Forecast position of *Microcystis* spp. for August 09 using GLCFS modeled currents to move the bloom from August 05 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

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


Average wind stress at SBIO1 - South Bass Island
Wind Stress (Pa)
0.20
0.15
0.10
0.05
0.00
NDBC
NDFD
07-28
07-29
07-30
07-31
08-01
08-02
08-03
08-04
08-05
08-06
08-07
08-08
Date (GMT)