Experimental
Lake Erie Harmful Algal Bloom Bulletin

2011-001
09 June 2011
National Ocean Service
Great Lakes Environmental Research Laboratory
Last bulletin: 14 October 2010

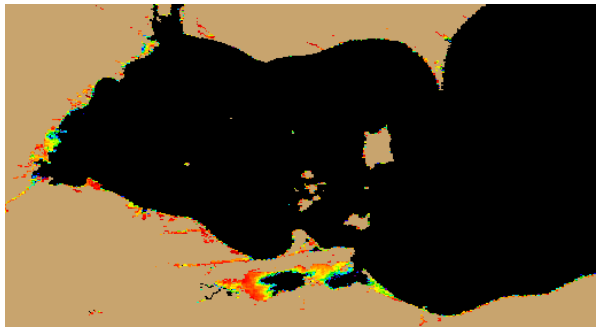


Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from June 07, where colored pixels indicate the likelihood of the last known position of the *Microcystis* spp. bloom (with red being the highest concentration). *Microcystis* spp. abundance data from shown as white squares (very high), circles (high), diamonds (medium), triangles (low) , + (very low) and X (not present).

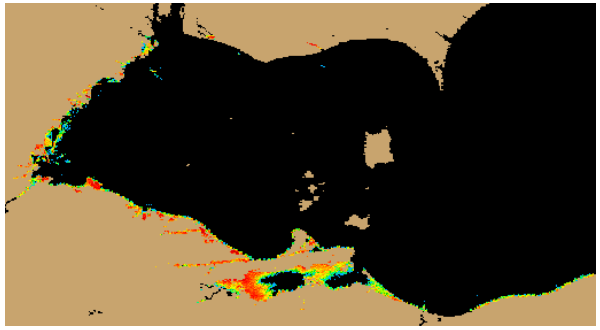


Figure 2. Nowcast position of *Microcystis* spp. bloom for June 09 using GLCFS modeled currents to move the bloom from the June 07 image.

Conditions: There are no harmful algal blooms reported at this time. No impacts are expected.

Analysis: This is the first bulletin of 2011. There are no features in imagery likely to be a cyanobacterial bloom. Water temperatures are still low, as they increase the chances of cyanobacterial growth will increase.

-Wynne, Tomlinson

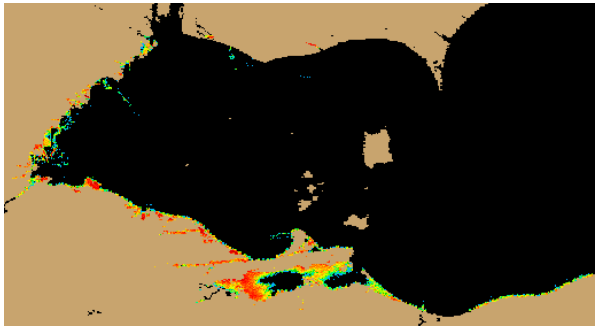
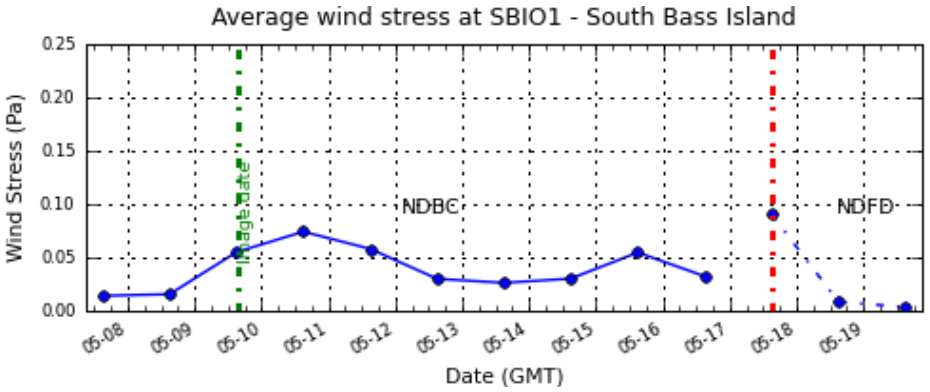
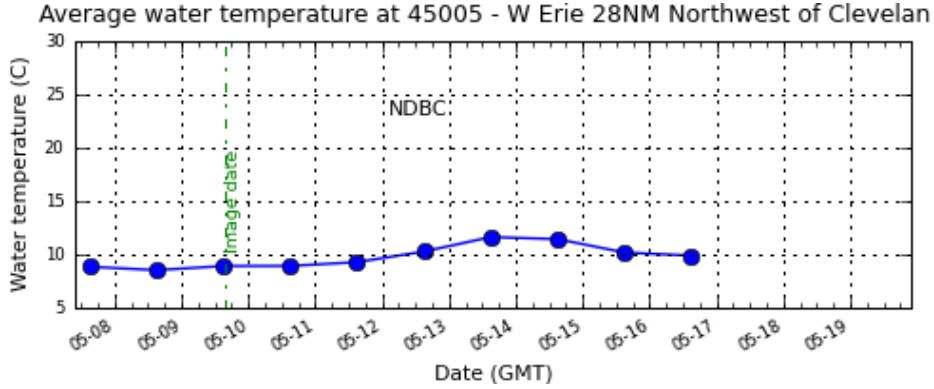


Figure 3. Forecast position of *Microcystis* spp. for June 12 using GLCFS modeled currents to move the bloom from June 07 image.

Please note:
- MERIS imagery was distributed by the NOAA CoastWatch Program and provided by the European Space Agency
- http://www.glerl.noaa.gov/res/Centers/HABS/lake_erie_hab/lake_erie_hab.html
- 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)
0.25
0.20
0.15
0.10
0.05
0.00
Image date
NDBC
NDFD
05-08
05-09
05-10
05-11
05-12
05-13
05-14
05-15
05-16
05-17
05-18
05-19
Date (GMT)


Average water temperature at 45005 - W Erie 28NM Northwest of Clevelan
Water temperature (C)
30
25
20
15
10
5
Image date
NDBC
05-08
05-09
05-10
05-11
05-12
05-13
05-14
05-15
05-16
05-17
05-18
05-19
Date (GMT)