



Experimental Lake Erie Harmful Algal Bloom Bulletin

National Centers for Coastal Ocean Science and Great Lakes Environmental Research Laboratory

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The bloom's intensity is concentrated along the western shore, in Brest Bay and around Sterling State Park. Microcystis concentrations have continued to decline. No scum formation was seen in the imagery, even with the relatively low winds. Water temperature is still above 15 C (59 F), the threshold below which the bloom declines rapidly, so change will be slow over the next week.

The model forecasts for a slight northeastern movement over the next few days.

- Dupuy, Stumpf

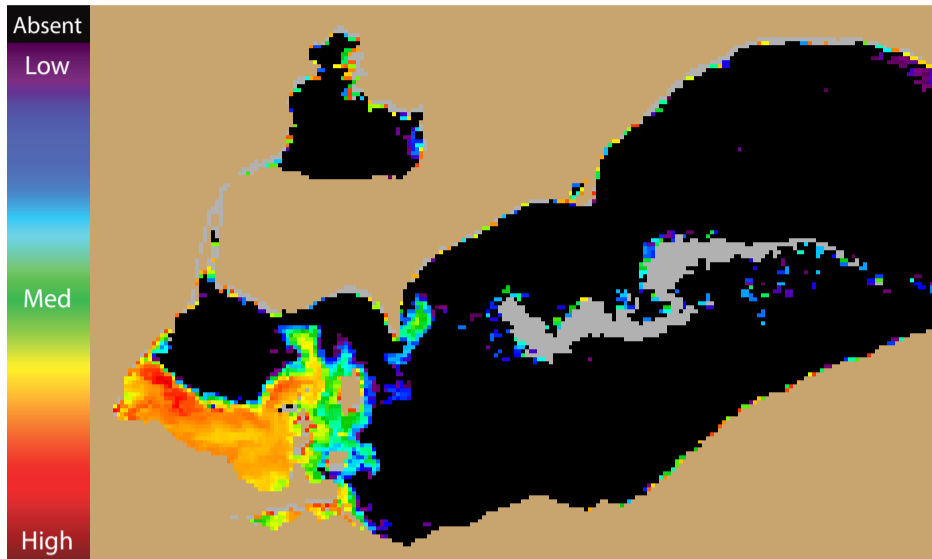


Figure 1. MODIS Cyanobacterial Index from 24 September 2013. Grey indicates clouds or missing data. Black represents no cyanobacteria detected. Colored pixels indicate the presence of cyanobacteria. Cooler colors (blue and purple) indicate low concentrations and warmer colors (red, orange, and yellow) indicate high concentrations. The estimated threshold for cyanobacteria detection is 35,000 cells/mL.

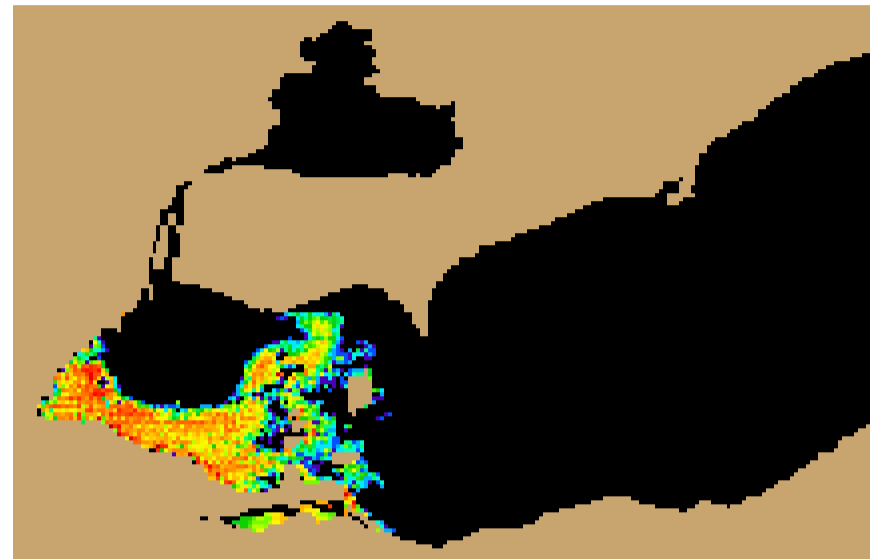


Figure 2. Nowcast position of bloom for 29 September 2013 using GLCFS modeled currents to move the bloom from the 24 September 2013 image.

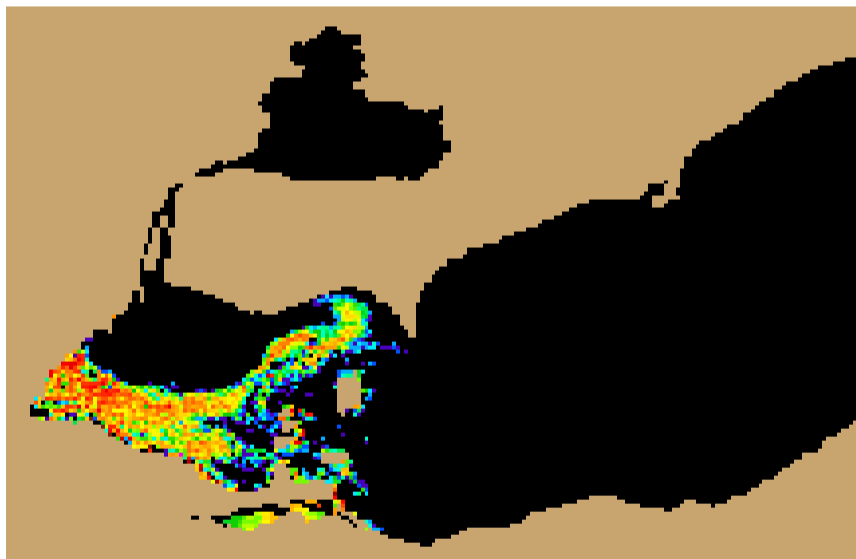
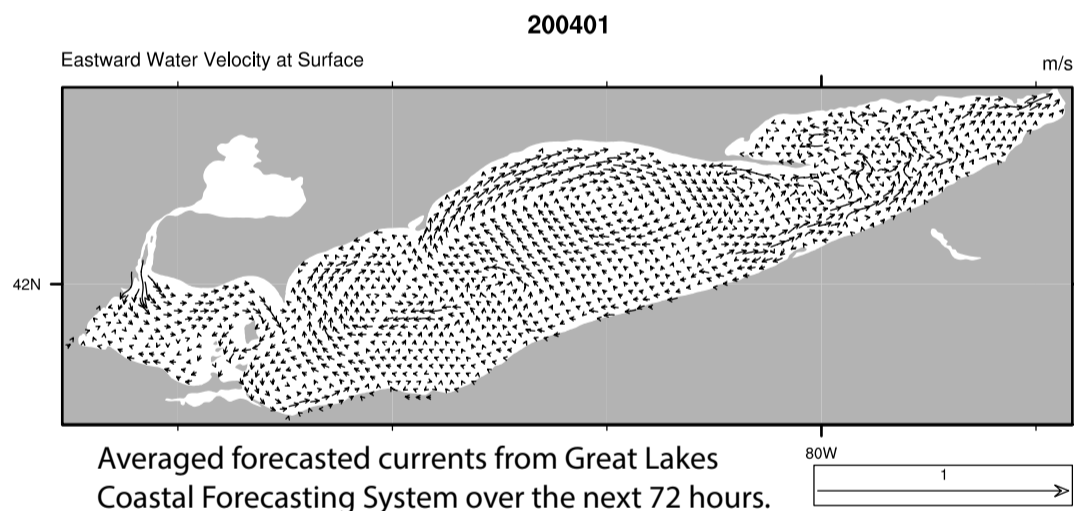
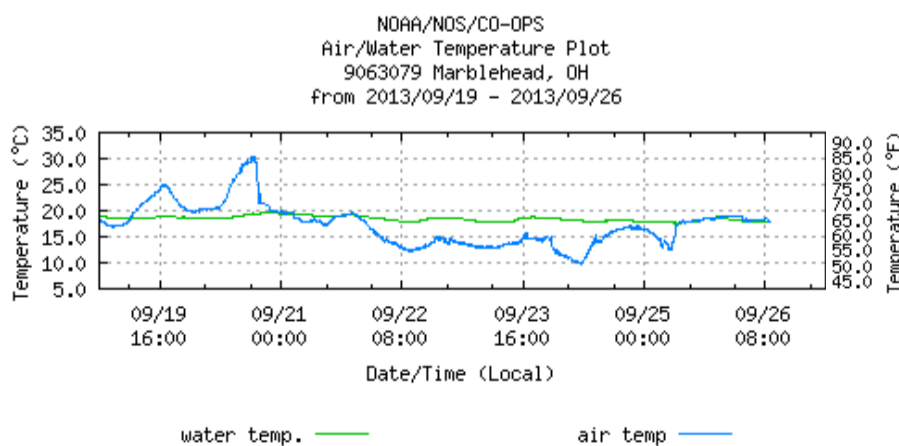


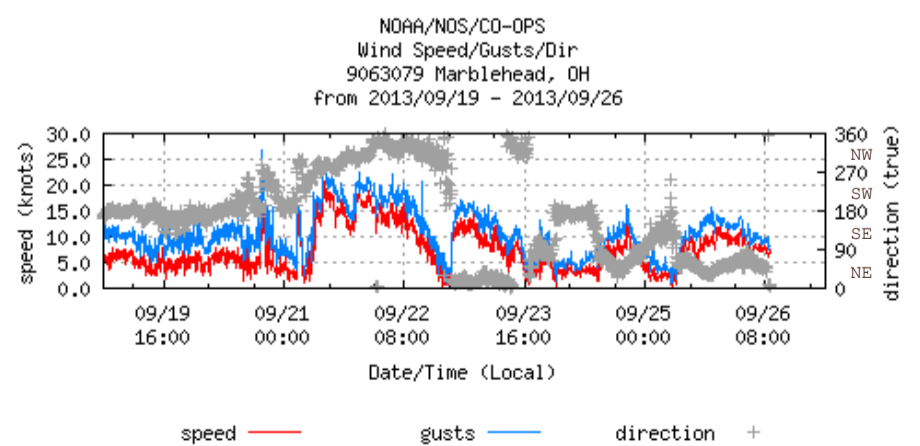
Figure 3. Forecast position of bloom for 29 September 2013 using GLCFS modeled currents to move the bloom from the 24 September 2013 image.



Averaged forecasted currents from Great Lakes Coastal Forecasting System over the next 72 hours.



Air and Water Temperature from Marblehead, OH. From: NOAA/Center for Operational Oceanographic Products and Services (CO-OPS).



Wind Speed, Gusts and Direction from Marblehead, OH. From: NOAA/Center for Operational Oceanographic Products and Services (CO-OPS). Note: 1 knot = 0.51444 m/s. Blooms mix through the water column at wind speeds greater than 7.7 m/sec (~ 15 knots).