



Experimental Lake Erie Harmful Algal Bloom Bulletin

25 July, 2016, Bulletin 05

Cyanobacteria (*Microcystis*) is detectable in far western Lake Erie, extending from Maumee Bay along the Michigan coast, and extending east into the western basin in moderate concentrations. Scum areas have not been observed. Measured toxin levels are below recreational thresholds.

The central basin bloom of *Dolichospermum* still remains below detection for satellite. However, there are pockets of higher concentration east of the islands. OSU Stone Lab has observed localized areas of scum during calm weather. This is typically an early to mid-July bloom, although it is much weaker than past years.

Winds are expected to be mild over the next few days, with little mixing expected. Eastward transport is expected due to south to southwesterly winds, with a short period of northwest winds later in the week.

The persistent cyanobacteria bloom continues in Sandusky Bay. No blooms have been observed in the eastern basin.

Dupuy, Stumpf

The images below are "GeoPDF". To see the longitude and latitude under your cursor, select "Tools > Analyze > Geospatial Location"

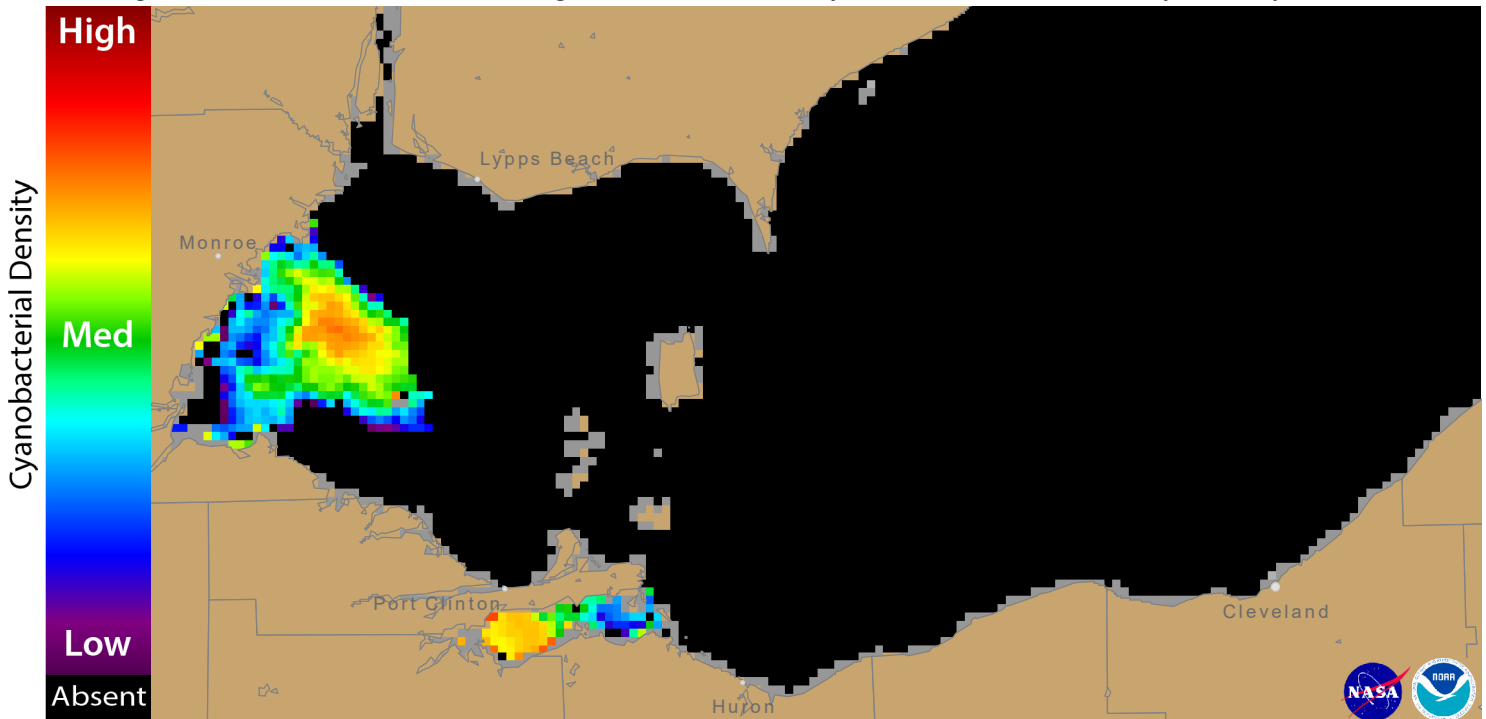


Figure 1. Cyanobacterial Index from NASA's MODIS-Aqua data collected 23 July, 2016 at 13:13 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

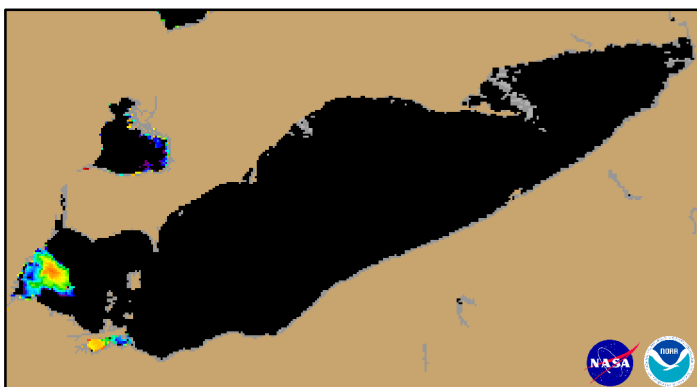
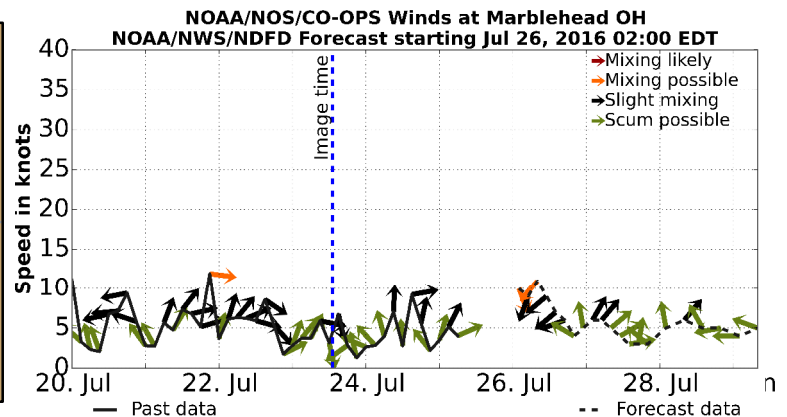


Figure 2. Cyanobacterial Index from NASA's MODIS-Aqua data collected 23 July, 2016 at 13:13.



Wind speed and direction from Marblehead, OH. Blooms mix through the water column at wind speeds greater than 15 knots (or 7.7 m/s).

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<http://coastalscience.noaa.gov/research/habs/forecasting>

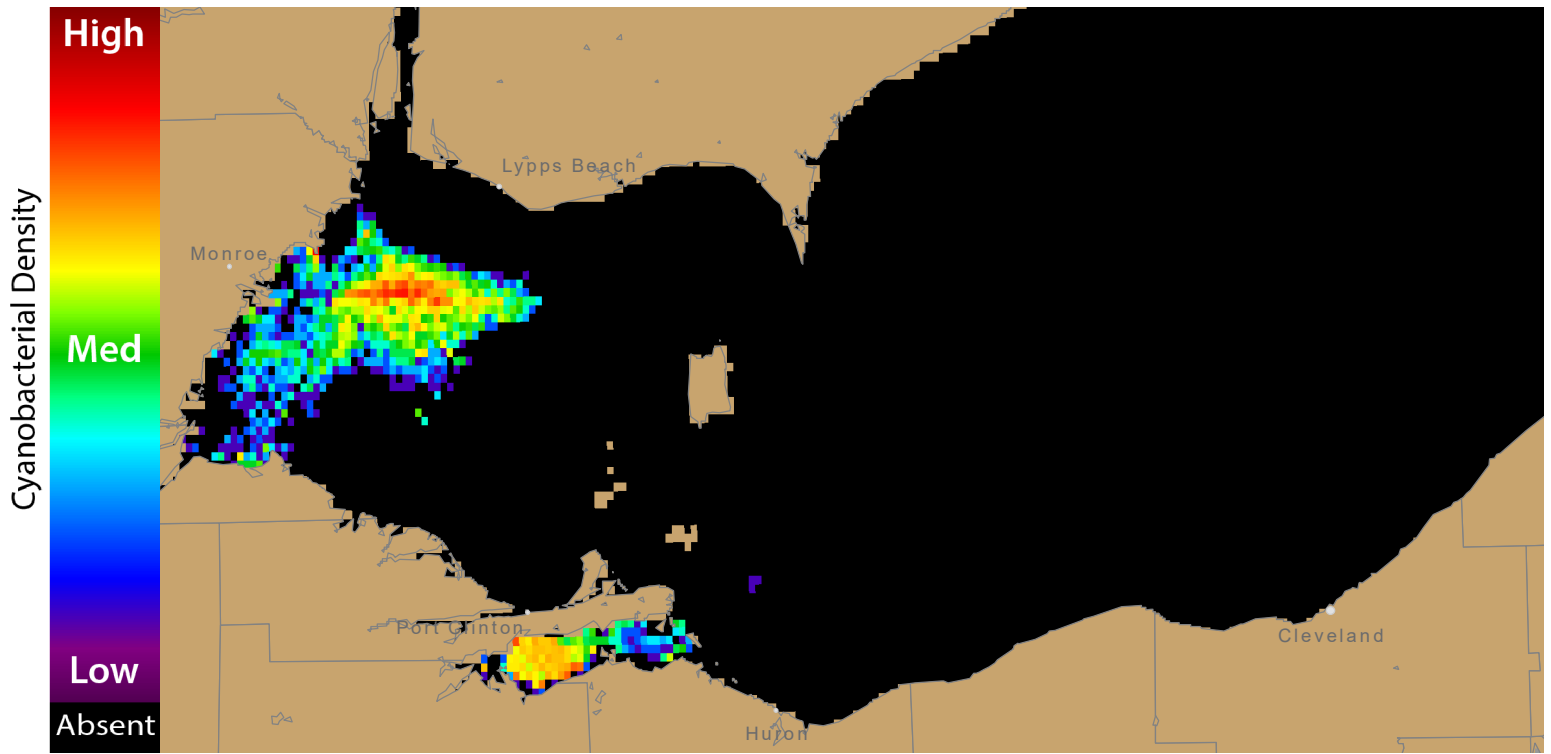


Figure 3. Nowcast position of bloom for 25 July, 2016 using GLCFS modeled currents to move the bloom from the 23 July, 2016 image.

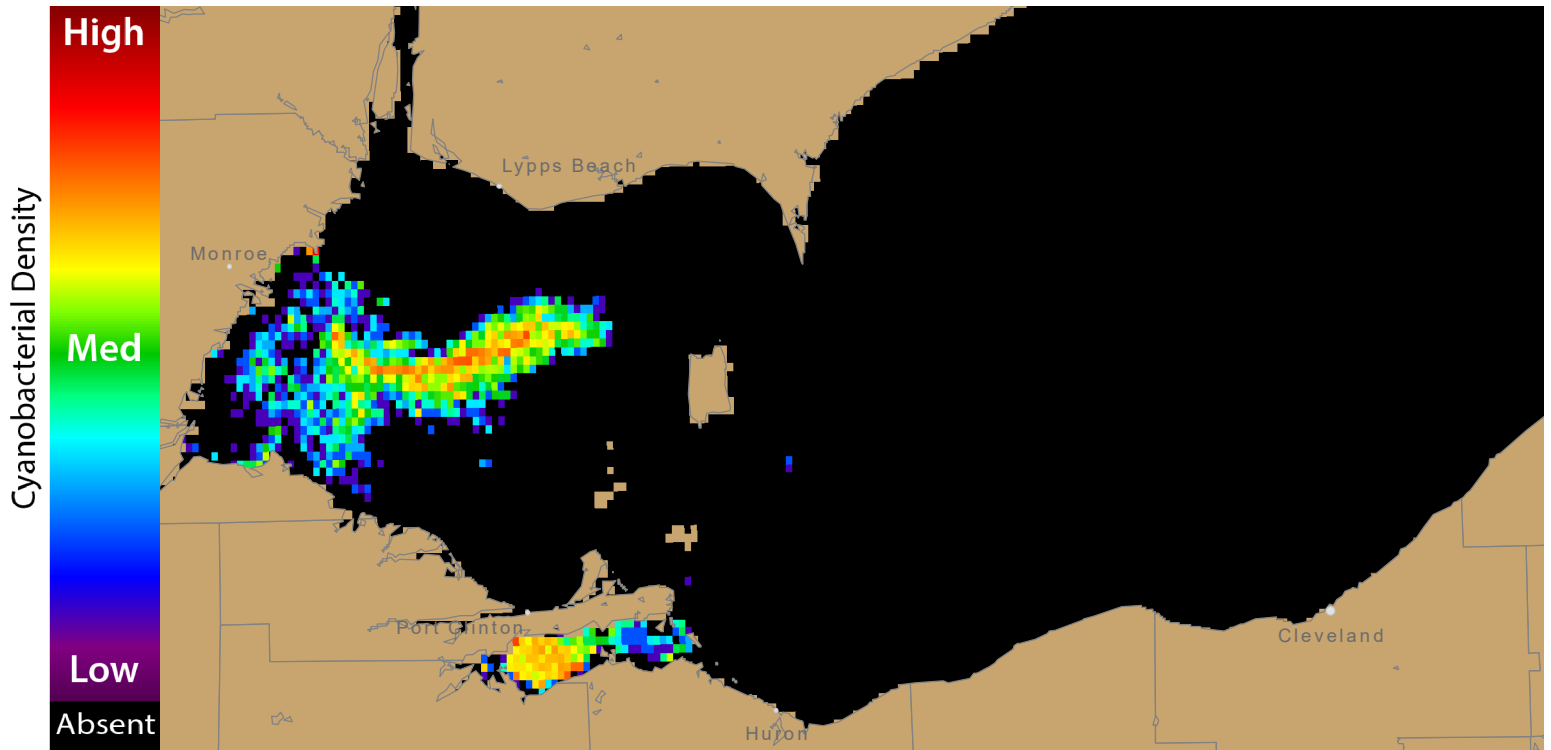
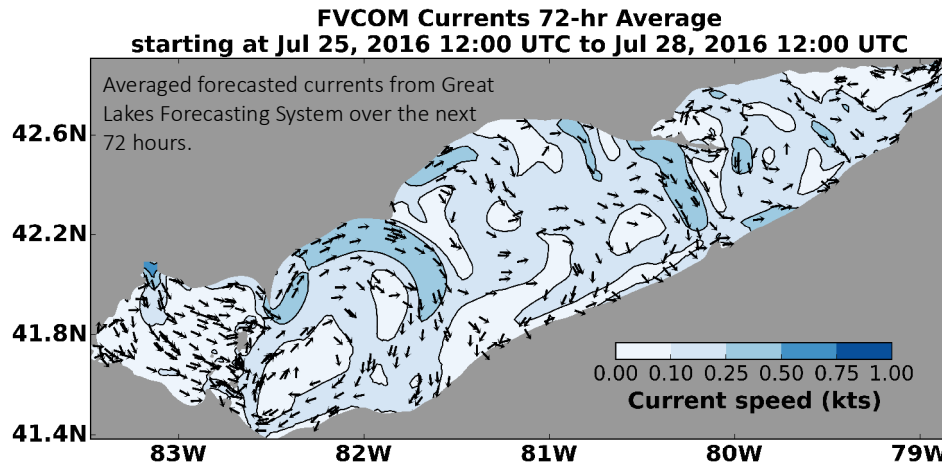


Figure 4. Forecast position of bloom for 28 July, 2016 using GLCFS modelled currents to move the bloom from the 23 July, 2016 image.



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