Lake Erie Harmful Algal Bloom Bulletin

12 July, 2018, Bulletin 07

Analysis

The *Microcystis* cyanobacteria bloom continues in the western basin. Recent satellite imagery (7/11) indicates the bloom is still present in Maumee Bay, extending eastward along the Ohio coast to the Ottawa National Wildlife Refuge, and in a patch north of West Sister Island. Measured toxin concentrations are below recreational thresholds throughout the bloom extent, but concentrations can exceed the threshold in the western extent of the bloom where it is most dense (appearing green from a boat). *Keep pets and yourself out of the water in areas where scum is forming*. The cyanobacteria bloom in Sandusky Bay persists, spilling out of the bay and east along the Ohio coast. A cyanobacteria bloom caused by *Dolichospermum* was visible in the central basin in imagery from 7/9 but has been obscured by clouds over the last several days. This bloom is different from the western basin bloom, and in past years has lasted only a few weeks.

Forecasts

Forecast winds (4-9 kn) today through Sunday (7/12-15) may promote scum formation in surface waters and northward transport of surface *Microcystis* concentrations. –Davis, Urízar

Additional Resources

To find a safe place for recreation, visit the Ohio DOH "BeachGuard" site: *http://publicapps.odh.ohio.gov/beachguardpublic/*
Ohio EPA's site on harmful algal blooms: *http://epa.ohio.gov/HAB-Algae*
NOAA's GLERL provides additional HAB data here: *http://www.glerl.noaa.gov/res/HABs_and_Hypoxia*

The images below are "GeoPDF". Please visit https://go.usa.gov/xReTC for instructions on viewing longitude and latitude.

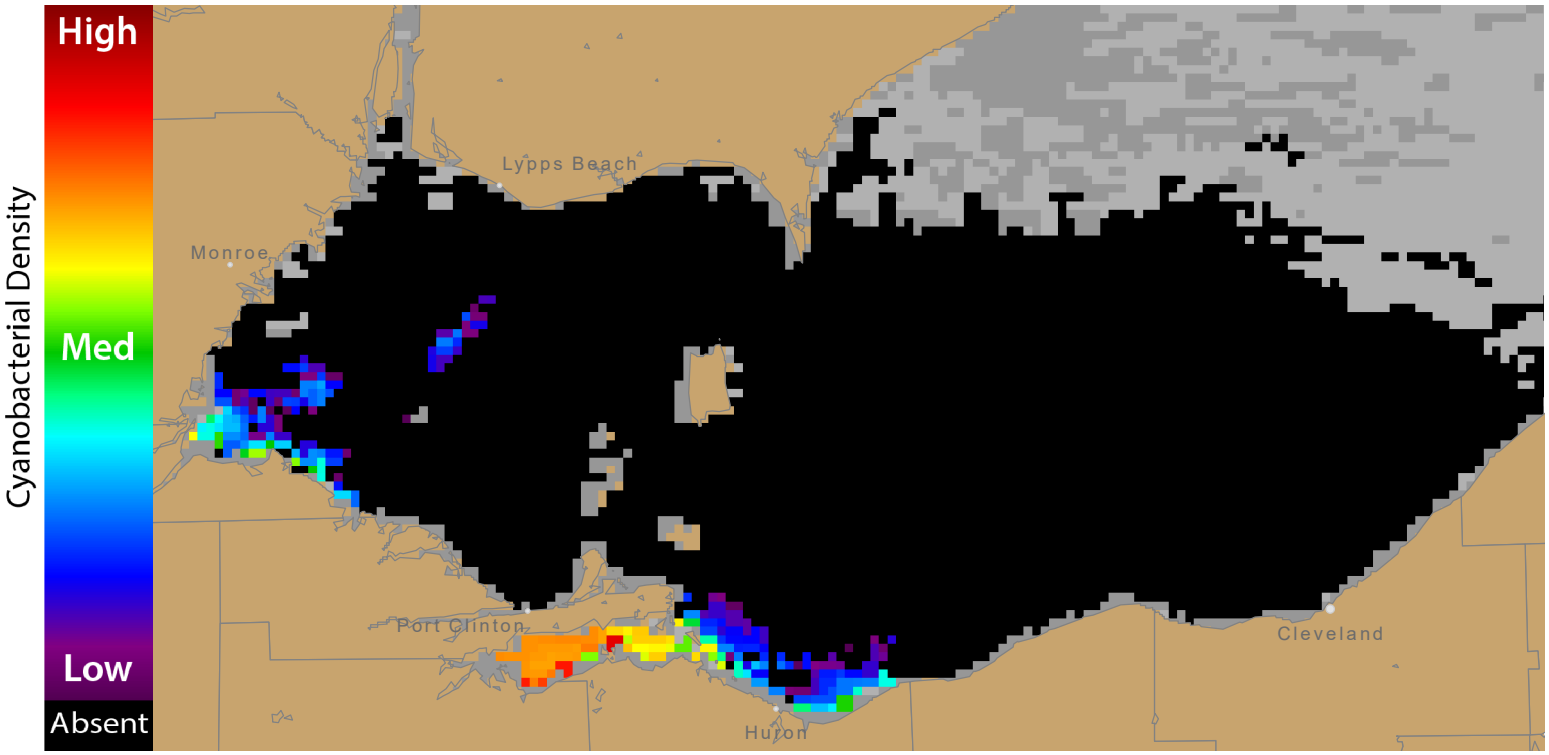


Figure 1. Cyanobacterial Index from NASA MODIS-Aqua data collected 11 July, 2018 at 13:25 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

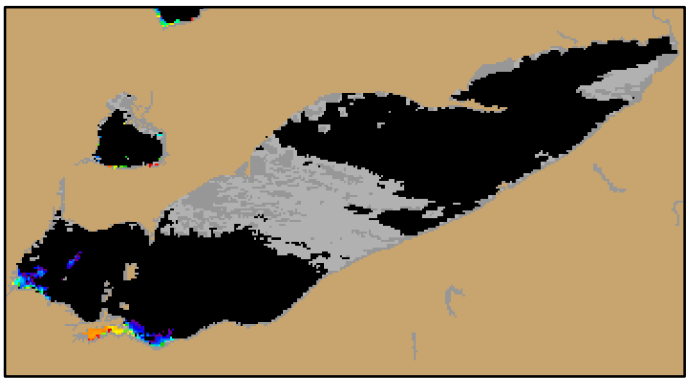
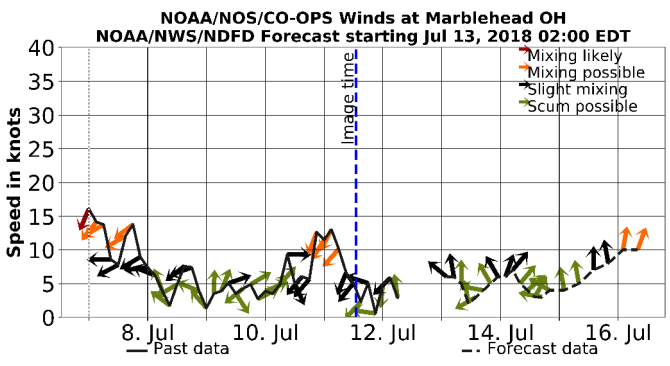


Figure 2. Cyanobacterial Index from NASA MODIS-Aqua data collected 11 July, 2018 at 13:25.



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).

For more information and to subscribe to this bulletin, go to: https://tidesandcurrents.noaa.gov/hab/lakeerie.html

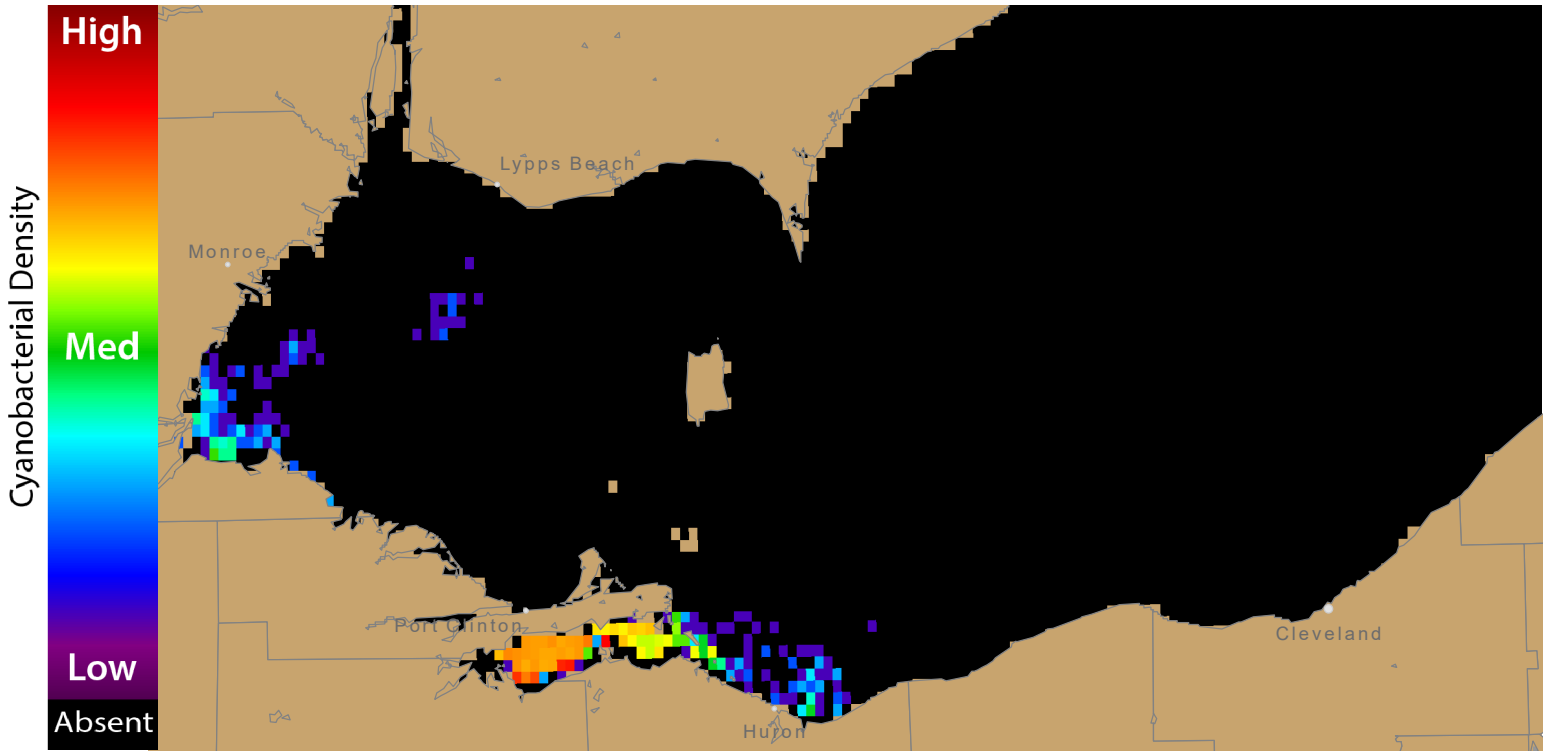


Figure 3. Nowcast position of bloom for 12 July, 2018 using LEOFS modelled currents to move the bloom from the 11 July, 2018 image.

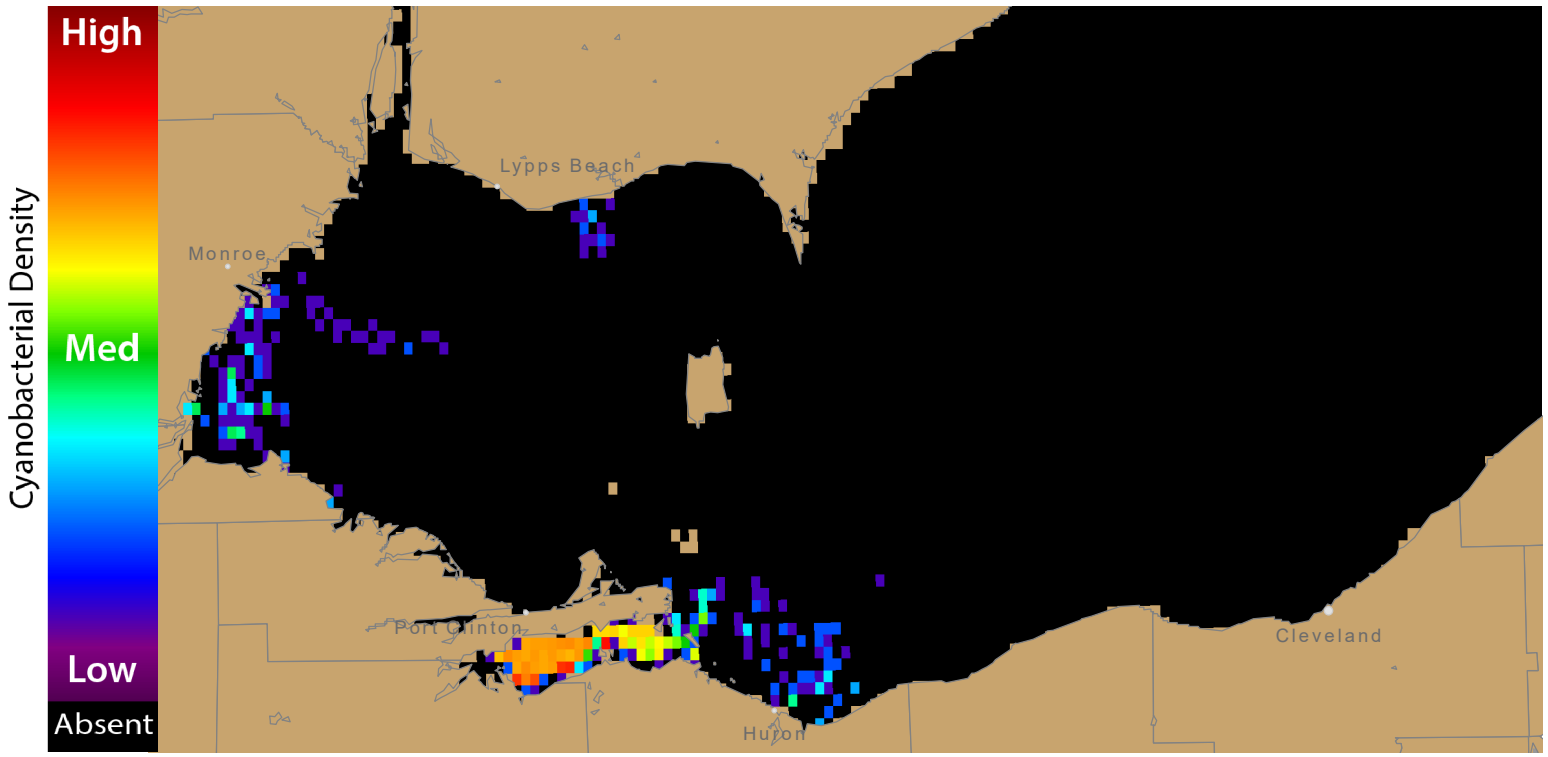
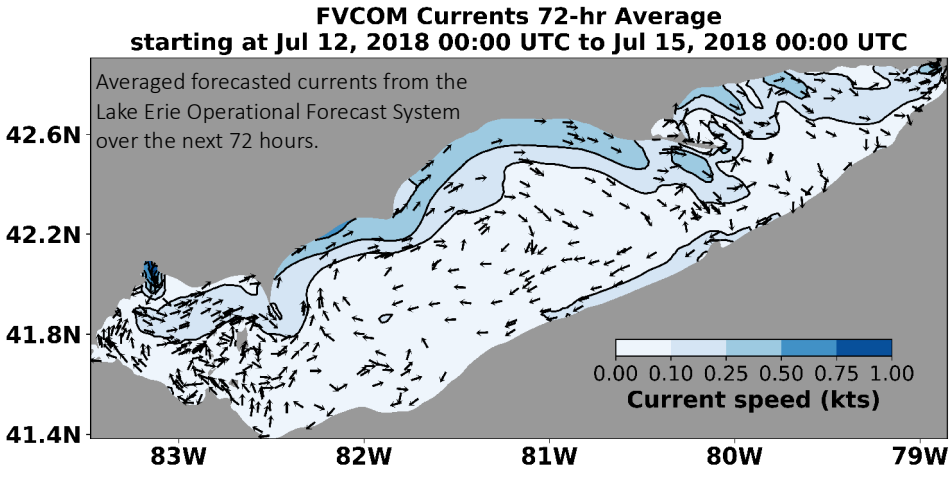


Figure 4. Forecast position of bloom for 15 July, 2018 using LEOFS modelled currents to move the bloom from the 11 July, 2018 image.



For more information and to subscribe, please visit the NOAA HAB Forecast page: https://tidesandcurrents.noaa.gov/hab/lakeerie.html