Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

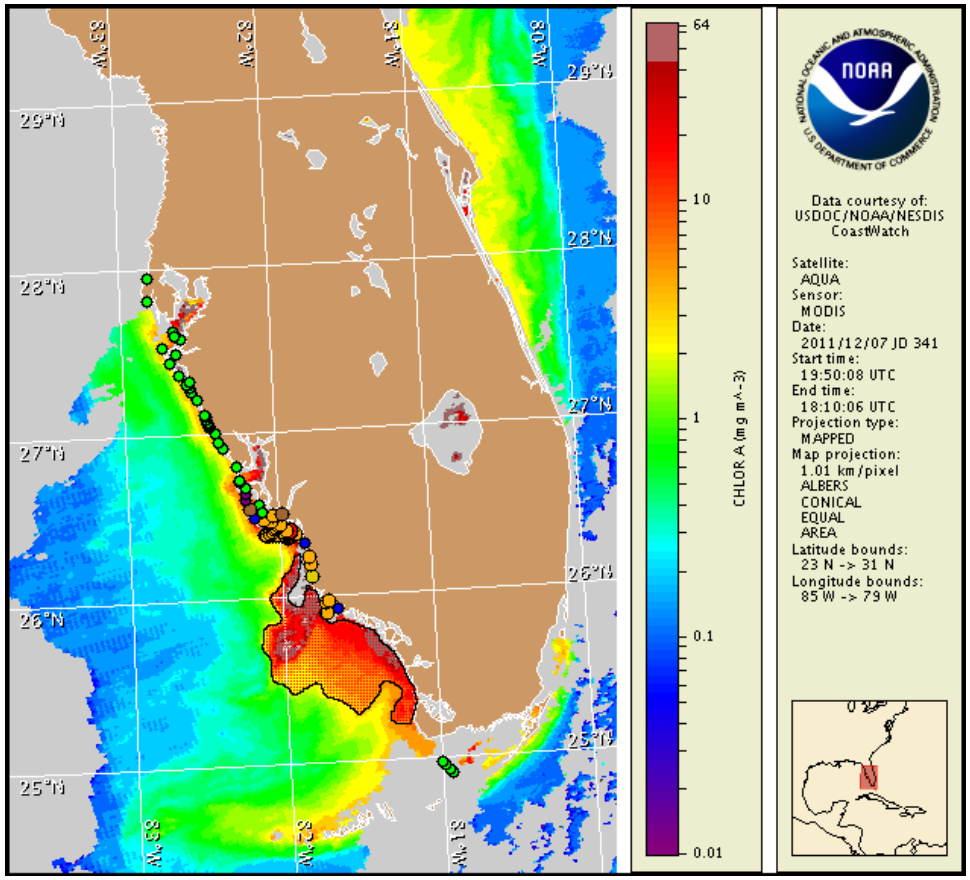
Thursday, 08 December 2011

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, December 5, 2011



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from November 28 to December 6 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

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To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive: http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

A patchy harmful algal bloom persists in the southern Pine Island Sound/San Carlos Bay region of Lee County, and alongshore and offshore central and southern Lee County and northern and central Collier County. Patchy harmful algae have been confirmed in the northern Pine Island Sound region of Lee County. In the northern Pine Island Sound region of Lee County, patchy very low impacts are possible today through Sunday. In the southern Pine Island Sound/San Carlos Bay region of Lee County, patchy high impacts are possible today through Sunday. In the southern and eastern Sanibel Island region of central Lee County, patchy high impacts are possible today, Saturday and Sunday, with patchy low impacts possible on Friday. In southern Lee County, patchy low impacts are expected today through Sunday. In northern Collier County, patchy very low impacts are possible today through Sunday. In the Marco Island region of central Collier County, patchy high impacts are possible today through Sunday. No additional impacts are expected elsewhere at the coast in southwest Florida today through Sunday, December 11. Dead fish and respiratory irritation have been reported in the bloom area. A shellfish poisoning advisory has also been issued by the Lee County Health Department.

Analysis

The harmful algal bloom persists in the southern Pine Island Sound/San Carlos Bay region of Lee County, and alongshore and offshore central and southern Lee County and northern and central Collier County. Patchy harmful algae have been confirmed in the northern Pine Island Sound region of Lee County. The most recent samples indicate *Karenia brevis* is not present through most of the Pine Island Sound region, with Very Low to Medium concentrations in the southernmost section, at the Sanibel Island & San Carlos Bay regions (FWRI 12/5). Very Low to Medium concentrations of *K. brevis* are persist alongshore and offshore in northern and central Collier County, including within Marco Island passes (12/5-6; FWRI, CCPCPD). Fish kills and respiratory irritation have been reported with this bloom; however, there have been no reports within the last week in Collier County (12/5-6; FWRI, CCPCPD).

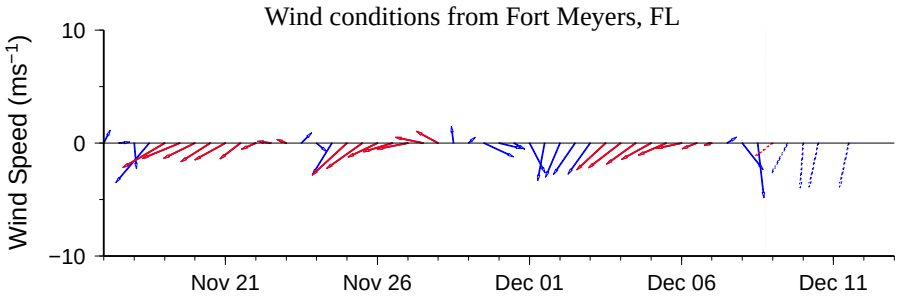
Satellite imagery indicates the elevated to very high chlorophyll feature (5-20 μg/L) is maintaining location in the southern Pine Island Sound/San Carlos Bay and Sanibel Island regions, extending nearshore of southern Lee County until expanding offshore near the Pelican Bay region, Collier County and south to the Ten Thousand Islands region, Monroe County. This is an extensive feature (up to 30 miles offshore); however, patchy, very high chlorophyll (>20 μg/L) levels are distinctly visible in a north-south oriented feature extending from 26°18’25’’N 81°52’57’’W to 25°37’23’’N 83°3’42’’W. Sampling is highly recommended in this area to establish the potential southern extent of offshore bloom location. Additionally, features appearing in the Ten Thousand Islands region are not necessarily indicative of *K. brevis* presence.

Forecasted winds may increase potential impacts in bay regions of southern Lee County and central Collier County and may decrease the potential for respiratory impacts at the coast today through Sunday. Additionally, forecast winds decrease the potential for bloom intensification today through Sunday. Southerly transport of the bloom is possible today through Sunday.

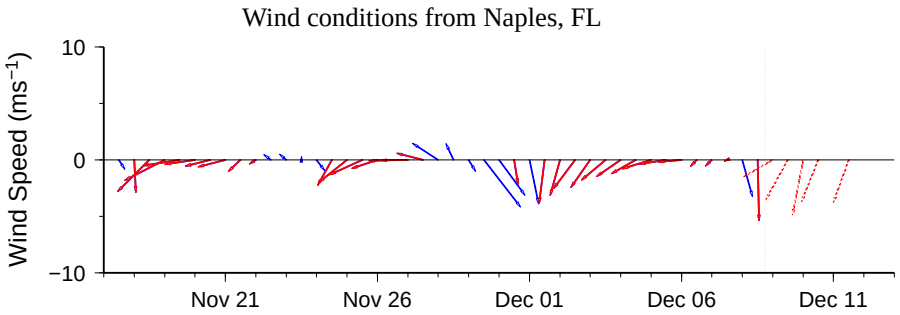
Fenstermacher, Derner

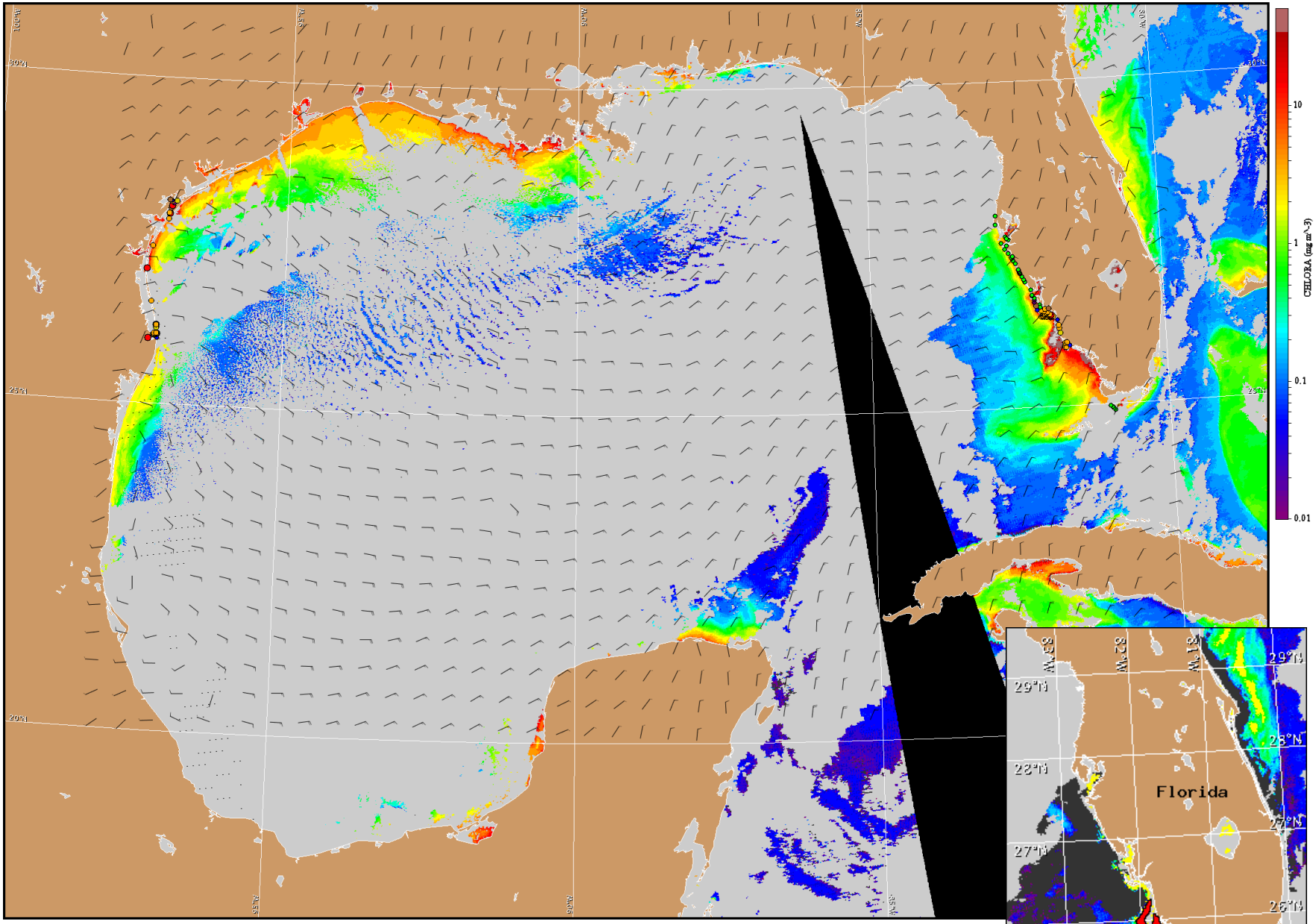
Wind Analysis

SWFL: North to Northeasterlies today through Sunday (10-20 kns; 8-10 m/s).



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).





Satellite chlorophyll image and forecast winds for December 9, 2011 12Z with cell concentration sampling data from November 28 to December 6 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide: http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).