# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

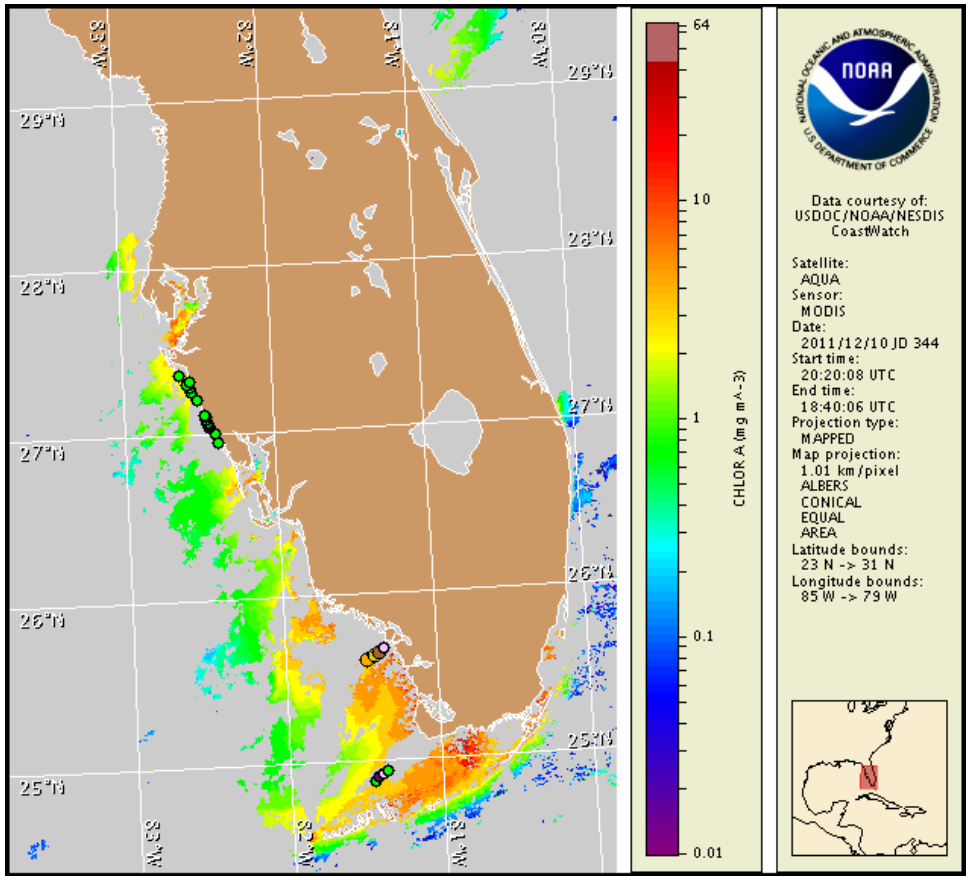
Monday, 12 December 2011

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, December 8, 2011




Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 2 to 9 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

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, Collier County and northern Monroe County. Patchy harmful algae have also been confirmed in the northern Pine Island Sound region of Lee County and offshore, north of the lower Florida Keys. In northern Monroe County and the northern Pine Island Sound region of Lee County, patchy very low impacts are possible today through Wednesday. In the southern Pine Island Sound/San Carlos Bay and coastal Sanibel regions of Lee County, patchy high impacts are possible today through Wednesday. In southern Lee County, patchy low impacts are possible today through Wednesday. In Collier County, patchy low impacts are possible along the coast, and patchy high impacts are possible in the Marco Island region, today through Wednesday. No additional respiratory impacts are expected elsewhere at the coast in southwest Florida or in the Florida Keys today through Wednesday, December 14. Dead fish and respiratory irritation have been reported in the bloom area.

## Analysis

***Due to technical issues, recent samples are not displayed on the image at left. Please read below for a summary of sample locations.***

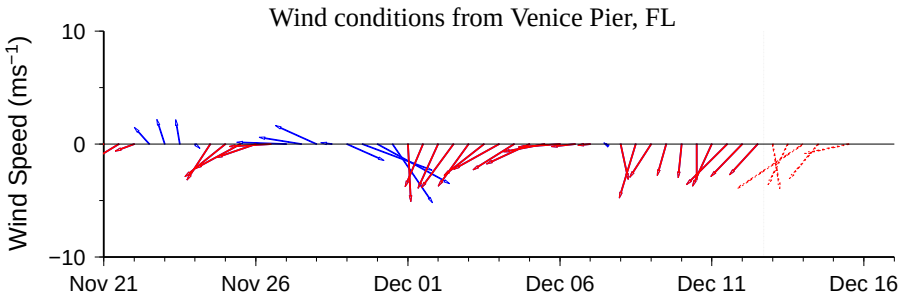
A patchy harmful algal bloom persists in the southern Pine Island Sound/San Carlos Bay region of Lee County, and alongshore and offshore central and southern Lee County, Collier County and northern Monroe County. Patchy harmful algae have also been confirmed in the northern Pine Island Sound region of Lee County and offshore, north of the lower Florida Keys. The most recent satellite imagery is obscured by clouds along much of southwest Florida, limiting analysis. Imagery from last week (MODIS; 12/7) indicated extensive high chlorophyll regions from southern Lee alongshore and offshore Collier and northern Monroe counties.

Recent sample reports provided by Mote Marine Laboratory confirm that the southern extent of the *Karenia brevis* bloom has increased. Samples collected offshore northern Monroe County on 12/6 identified 'low a' to 'medium' *K. brevis* concentrations in an area 3 to 9 miles southwest of Pavilion Key (MML). Sampling efforts alongshore Collier County identified 'high' concentrations in Naples Bay, 'medium' concentrations at the Naples Pier, Vanderbilt, and Seagate beaches, and 'low a' concentrations at Barefoot Beach (12/8; CCPCPD, FWRI). Samples collected in the Marco Island area continue to indicate 'low' to 'medium' concentrations (12/8; FWRI). In Lee County, 'high' *K. brevis* concentrations were identified alongshore the Sanibel Captiva Conservation, Sanibel Beach, Lighthouse Beach, and north of Captiva Pass. 'High' concentrations were also collected alongshore southern Lee County at Lovers Key State Park, 'medium' concentrations identified at Bonita Beach Park, and 'low b' concentrations at Lynn Hall Park (12/7; FWRI). Samples collected from Sarasota County indicate that *K. brevis* is not present (12/5; SCHD). Offshore the gulf side of the lower Florida Keys, samples collected 4-5 miles north of Harbor Key and 8-9 miles north of Big Spanish Key identified background to 'very low a' concentrations (12/7; MML). Fish kills and respiratory irritation have been reported with this bloom; however there have been no reports within the last week in Collier County (12/9; CCPCPD).

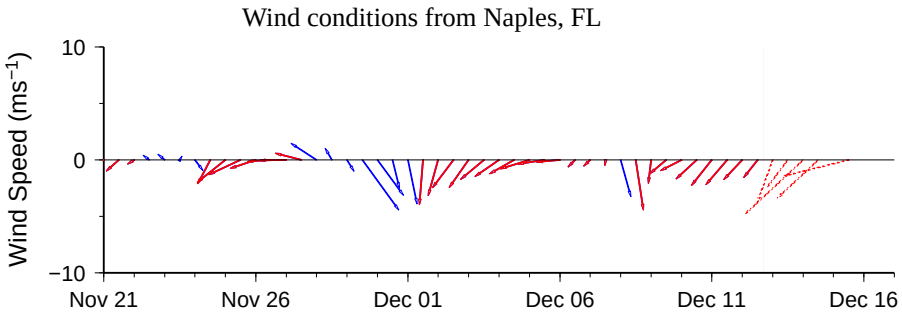
Forecast winds increase the potential for impacts in the Pine Island Sound/San Carlos Bay and coastal Sanibel regions of Lee County over the next few days, and decrease the potential for impacts alongshore southern Lee, Collier, and northern Monroe counties. Southerly transport of the bloom is possible today through Wednesday.

Derner, Urizar

---

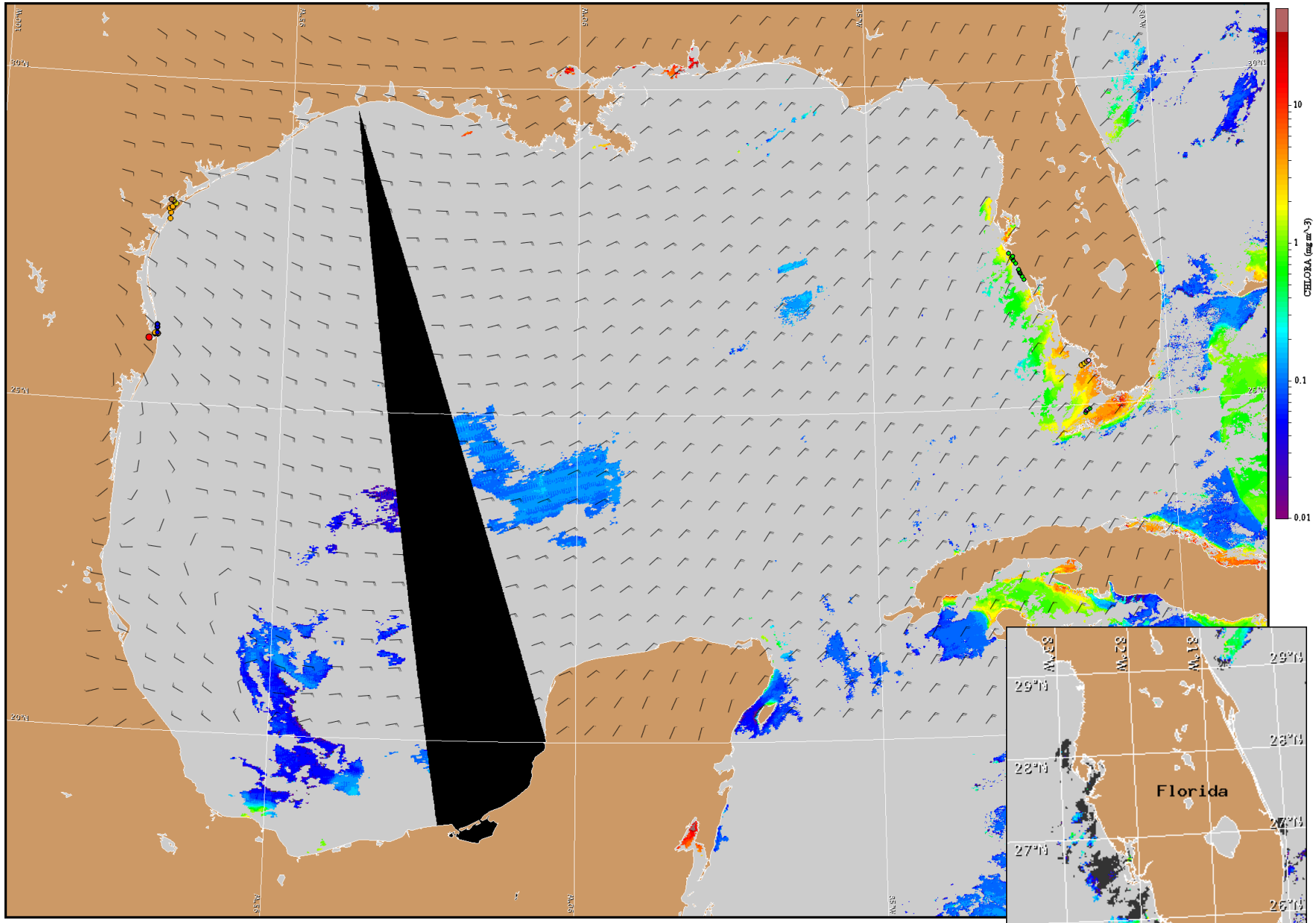



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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




## Wind Analysis

**Southwest Florida**: Northeast winds (10-22kn, 5-11m/s) today through Wednesday. East winds (15-22kn, 8-11m/s) Wednesday night.




Satellite chlorophyll image and forecast winds for December 13, 2011 12Z with cell concentration sampling data from December 2 to 9 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).