



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

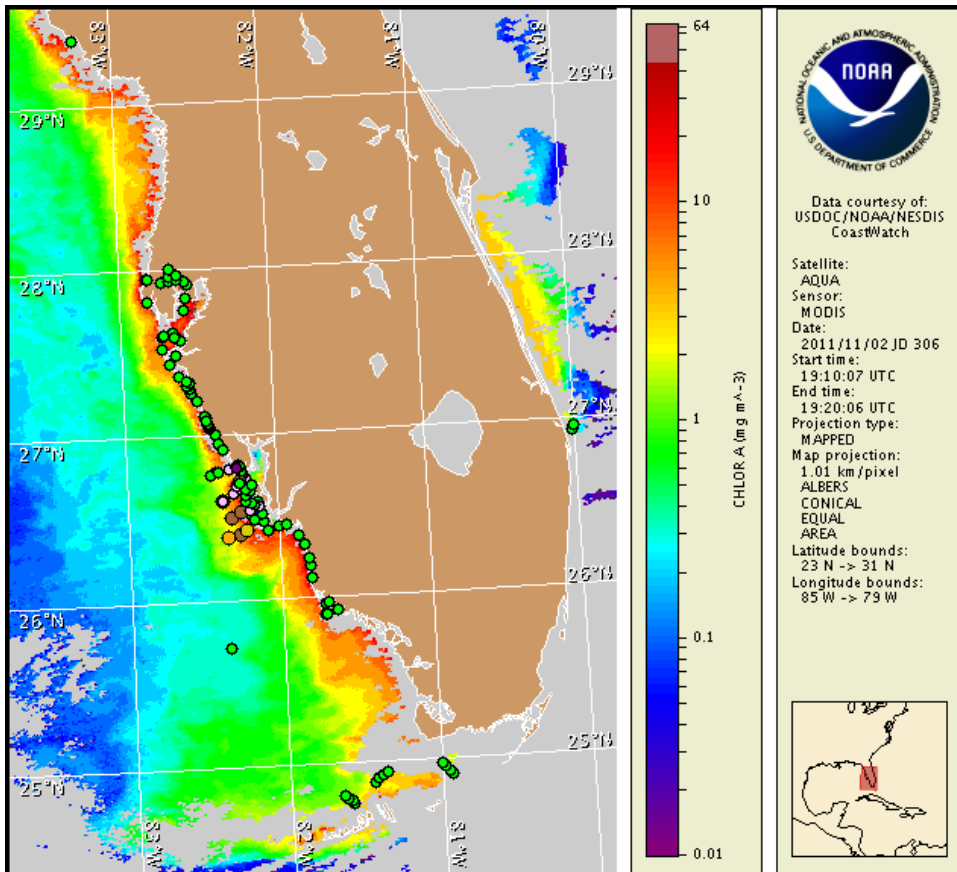
Thursday, 03 November 2011

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, October 31, 2011



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from October 24 to November 1 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](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

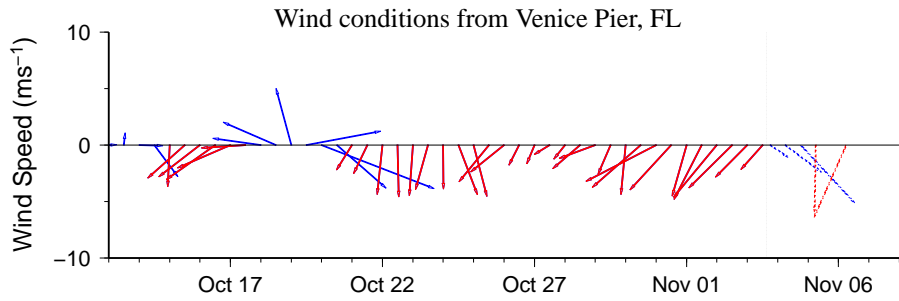
A harmful algal bloom is present alongshore and offshore northern to central Lee County. Harmful algae is also present in the Gasparilla and Pine Island Sound regions of Charlotte and Lee County. Patchy moderate impacts are possible in the coastal Sanibel Island region of central Lee County on Thursday, with patchy high impacts possible on Friday. Patchy low impacts are possible in northern Lee County on Thursday and Friday. Patchy very low impacts are possible in the Gasparilla and Pine Island Sound regions on Thursday and Friday and in northern Lee County and the coastal Sanibel Island region of central Lee County on Saturday and Sunday. No impacts are expected along the coast of Charlotte County or elsewhere alongshore southwest Florida today through Sunday, November 6.

## Analysis

The harmful algal bloom first identified on 9/26 in southern Sarasota County is currently located alongshore and offshore Charlotte and northern to central Lee Counties, including the Gasparilla and Pine Island Sound regions. In Charlotte and northern Lee counties, 'very low a' *Karenia brevis* concentrations were identified at the northeast tip of Gasparilla Island in the Gasparilla Sound (11/1; FWRI) and 'very low b' concentrations were identified in one sample collected at Port Boca Grande (10/28; FWRI). One sample collected about 15 miles southwest of Sanibel Island indicates that 'medium' *K. brevis* concentrations continue offshore Lee County (10/27; FWRI). Several samples collected within Pine Island Sound identified background to 'very low b' *K. brevis* concentrations at Redfish Pass (10/27-11/1; FWRI), as well as background concentrations west of Cork Island (11/1; FWRI). All other samples collected within Pine Island Sound, alongshore from Pinellas to Collier counties, and in the Florida Keys indicate that *K. brevis* is not present (10/27-11/1; CCPCPD; FWRI).

In recent MODIS imagery (11/2; shown left) a band of elevated to high chlorophyll (2 to >10  $\mu\text{g/L}$ ) is visible stretching along- and offshore from Pinellas to Collier counties. Elevated to high chlorophyll (2 to >10  $\mu\text{g/L}$ ) also continues to be present offshore Lee County, though appears to have diminished slightly in its offshore extent, extending up to approximately 26 miles offshore Lee County. Imagery alongshore much of Sarasota and Charlotte counties is obscured by clouds, limiting analysis in these regions, however the most recent samples indicate that *K. brevis* is not present (10/27-11/1; FWRI). Forecasted onshore winds may increase the potential for respiratory impacts in southwest Florida on Friday.

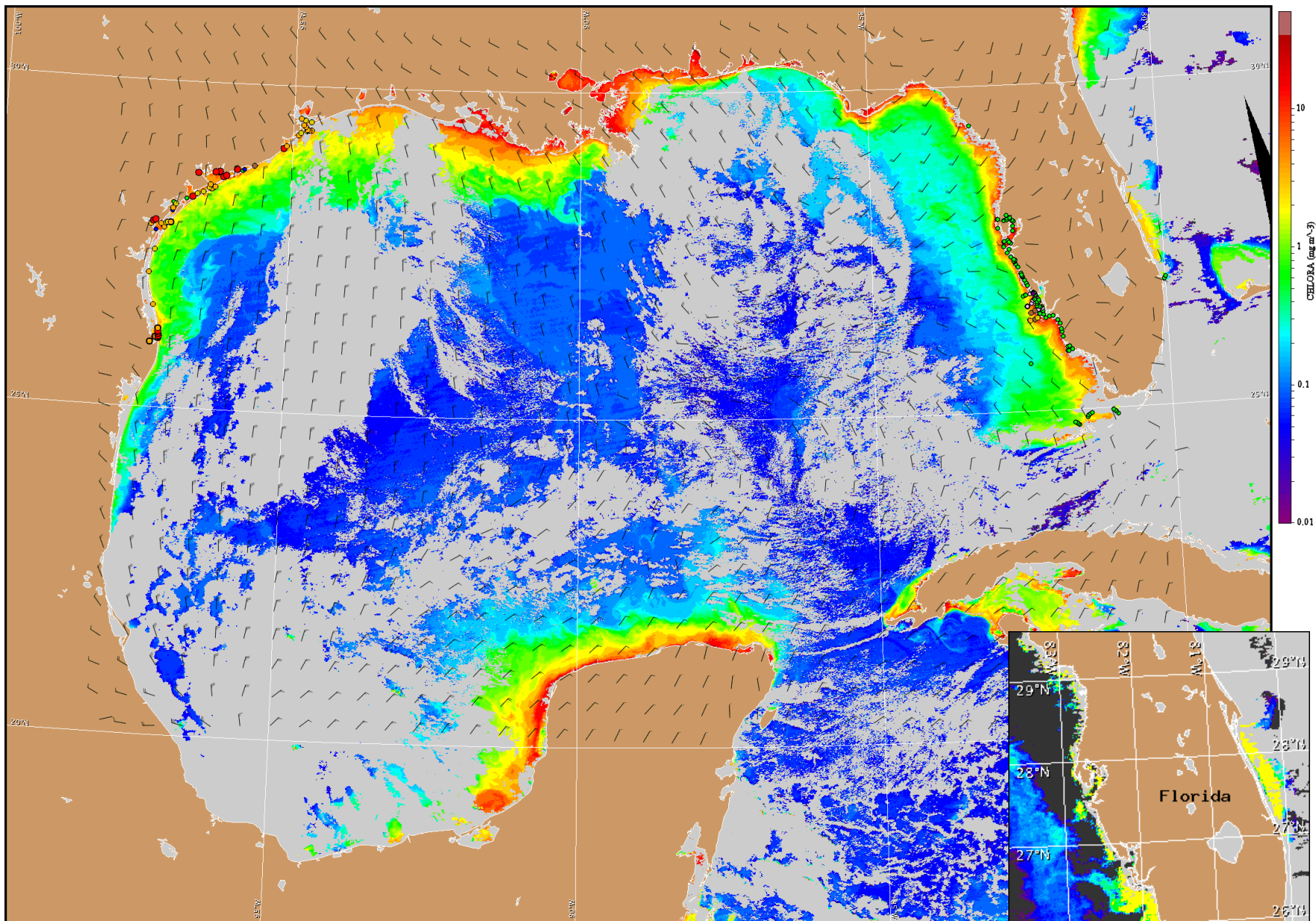
Derner, Yang



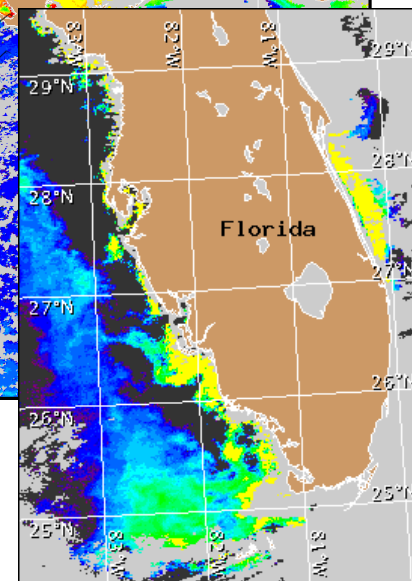
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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

## Wind Analysis

Northeast winds (5-10kn, 3-5m/s) today shifting northwest (10kn, 5m/s) in the evening.  
West winds (15-20kn, 8-10m/s) Friday, becoming north (15-20kn) in the afternoon.  
Northeast winds (15kn, 8m/s) Saturday and Sunday.



Satellite chlorophyll image and forecast winds for November 4, 2011 06Z with cell concentration sampling data from October 24 to November 1 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](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).