



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

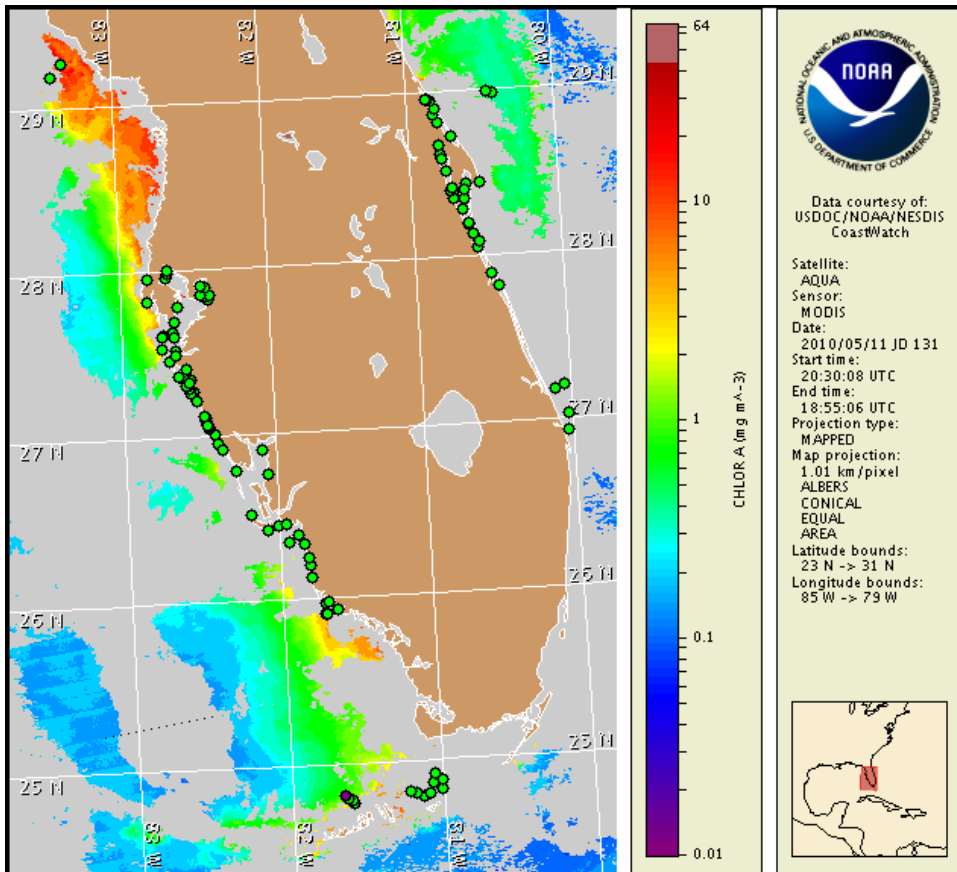
13 May 2010

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: May 10, 2010



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from May 3 to 11 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 HABFS bulletin guide:

[http://tidesandcurrents.noaa.gov/hab/habfs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf)

Please note the following restrictions on all SeaWiFS imagery derived from CoastWatch.

1. Data are restricted to civil marine applications only; i.e. federal, state, and local government use/distribution is permitted.
2. Image products may be published in newspapers. Any other publishing arrangements must receive GeoEye approval via the CoastWatch Program.

## Conditions Report

There is currently no indication of a harmful algal bloom at the coast in southwest Florida; however, harmful algae have been identified in the gulfside region of the lower Florida Keys. Reports of dead fish and discolored water were received last week at the south end of the Manatee River in Manatee County due to a localized bloom of *Peridinium quinquecorne*. This algal bloom is not toxic and does not produce respiratory irritation impacts associated with the Florida red tide caused by *Karenia brevis*. No respiratory irritation impacts are expected alongshore southwest Florida today through Sunday, May 16.

## Analysis

**Florida Keys:** Harmful algae have been identified in the gulfside region of the lower Florida Keys where a harmful algal bloom was last identified on April 22. Samples collected last week indicated one 'very low a' *Karenia brevis* concentration approximately 7.3 miles northwest of Sawyer Key, while all other samples indicated that *K. brevis* was not present (MML; 5/4). No new samples have been received for this area. Several samples collected last week from 6-14 miles north of Marathon, all indicated that *K. brevis* is not present (MML; 5/7).

Recent satellite imagery is predominately obscured by clouds throughout southwest Florida, including the Florida Keys. However, patchy imagery suggests that elevated to high (4 to >10  $\mu\text{g/L}$ ) chlorophyll levels remain throughout much of the area surrounding the lower Florida Keys and north of the middle Florida Keys. Sample results indicate that elevated chlorophyll levels north of the middle Keys are not associated with harmful algae. Continued sampling throughout the lower Florida Keys region is recommended.

Strong east winds through the remainder of the week may promote westward transport of features north of the lower Florida Keys through Sunday.

**Southwest Florida:** There is currently no indication of a harmful algal bloom at the coast in southwest Florida. No *K. brevis* has been identified in recent samples collected alongshore southwest Florida from Pinellas to Collier County (FWRI, MML, SCHD, CCPCPD; 5/3-5/11). Recent imagery is cloudy along and offshore southwest Florida, though suggests that elevated chlorophyll levels remain along much of the southwest Florida coastline. Elevated chlorophyll is likely a result of mixed diatom blooms that continue to be reported in many southwest Florida counties (FWRI; 5/3-5/12).

Dead fish and discolored water have been reported at the south end of the Manatee River in Manatee County. These reports are associated with a non-toxic bloom of *Peridinium quinquecorne*, not *K. brevis* (FWRI, 5/6).

Harmful bloom formation is not expected at the coast through Sunday, May 16.

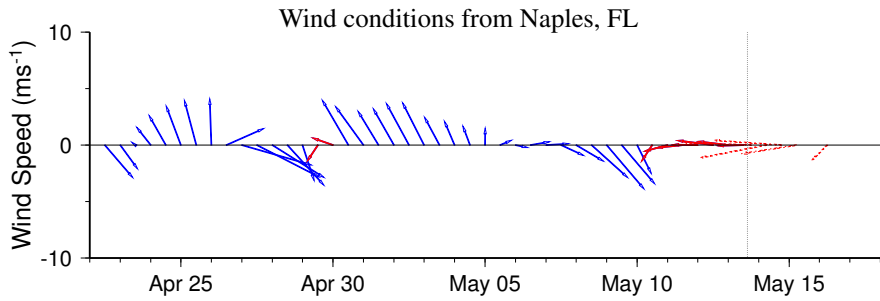
SeaWiFS imagery is not currently being displayed on the bulletin. MODIS imagery is shown at left and on page 3.

Derner, Fisher, Burrows

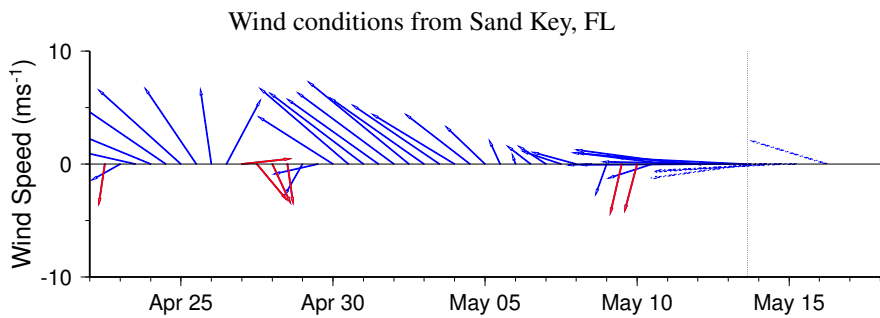
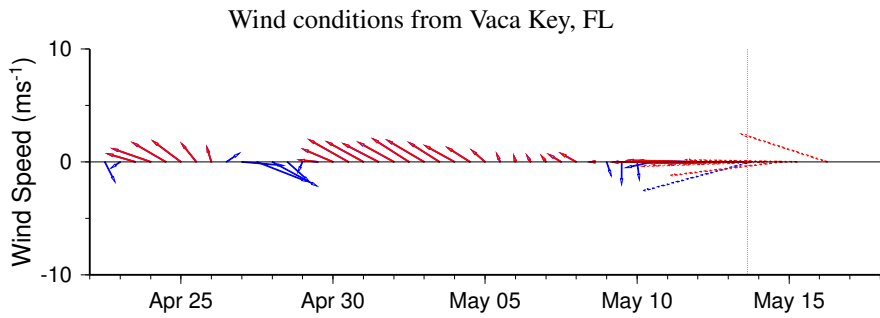
## Wind Analysis

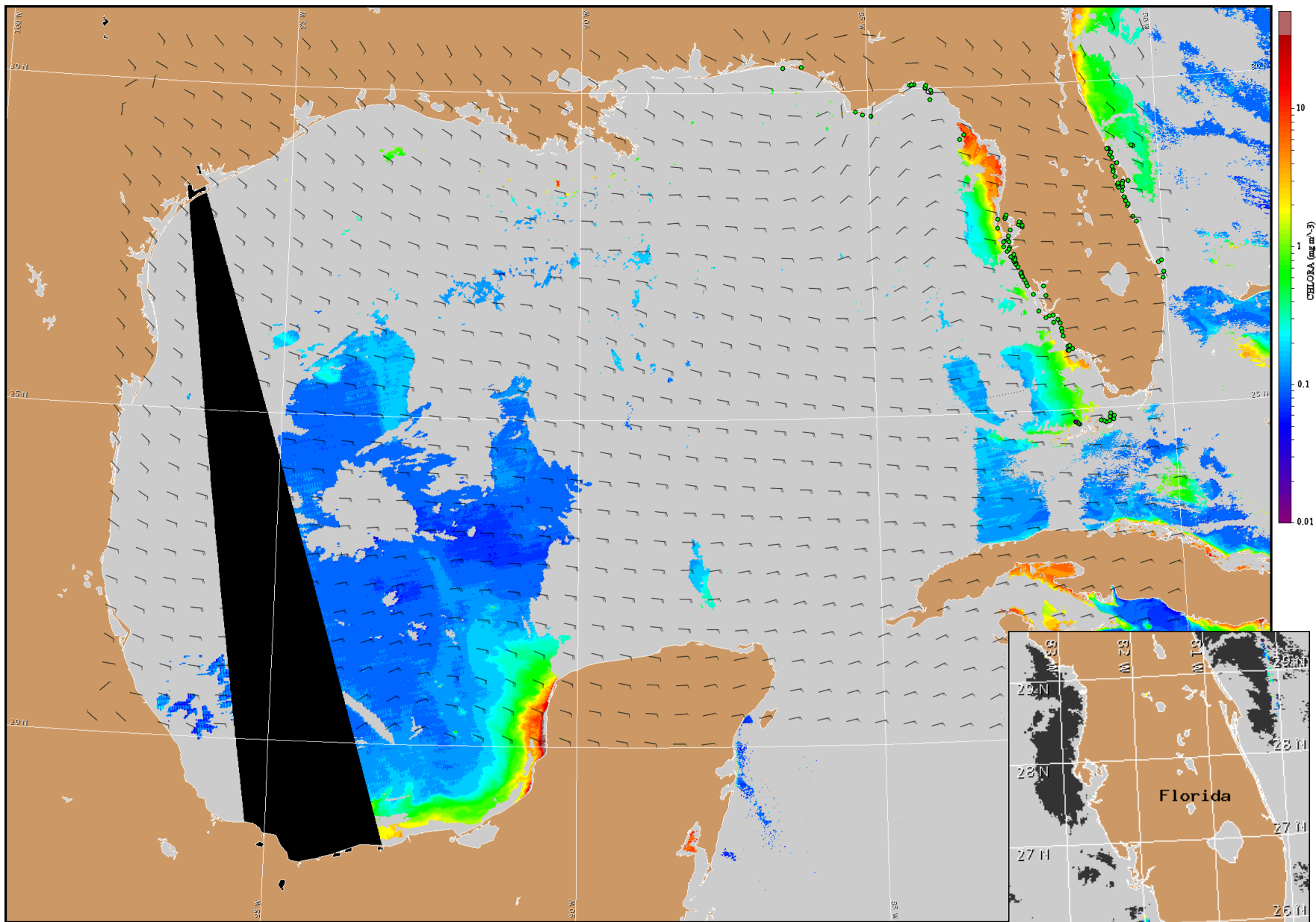
**Florida Keys:** East winds (15-20kn, 8-10m/s) today through Sunday.

**Southwest Florida:** East winds (10-15kn, 5-8m/s) today becoming northwest (10kn, 5m/s) in the afternoon. North winds (5-10kn, 3-5m/s) tonight. Southeast winds (10-15kn) Friday, becoming northwest (5-10kn) in the afternoon. Northeast to east winds (15kn, 8m/s) Friday night. Southeast winds (10kn) Saturday, becoming west (10kn) in the afternoon. North winds (10kn) Saturday night. East winds Sunday (10kn).



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 May 14, 2010 06Z with Cell concentration sampling data from May 3 to 11 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 HABFS bulletin guide:

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