Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

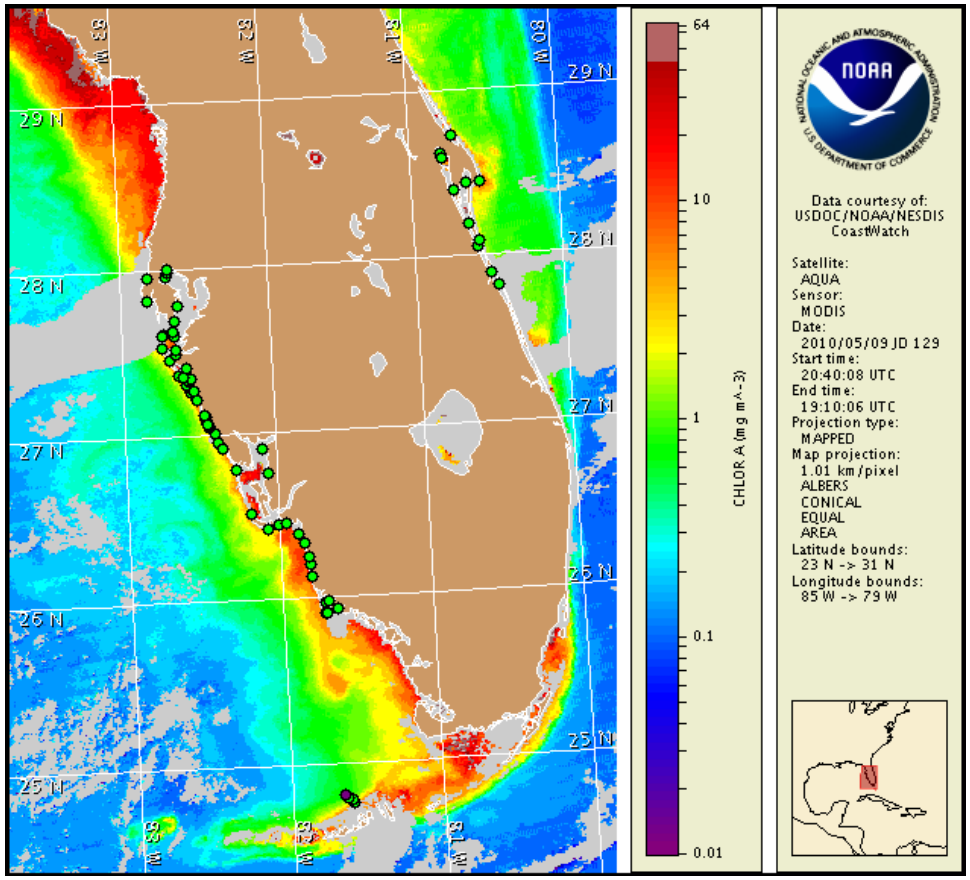
10 May 2010

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: May 6, 2010



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from May 3 to 7 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

---

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. Localized blooms of Pyrodinium quinquecorne have been identified at the coast in southwest Florida near the De Soto National Memorial at the south end of the Manatee River in Manatee County, and at the south end of Phillipi Creek in Sarasota County. Reports of dead fish and discolored water have been received over the last week at the south end of the Manatee River. 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 Wednesday, May 12.

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. Recent samples indicate background concentrations of *K. brevis* 7 miles north of Upper Harbor Key (MML; 4/29), and a 'very low a' concentration approximately 7.3 miles northwest of Sawyer Key (MML; 5/4). All other samples from this region indicate that *K. brevis* is not present.

Recent satellite imagery indicates elevated to high chlorophyll throughout much of the Florida Keys region. Onshore imagery throughout the lower Florida Keys is obscured by clouds; however, elevated to high chlorophyll (2 to >10 μg/L) is visible west of the lower Keys, extending from approximately 24°33'43''N 82°1'5''W east toward Key West. A patch of elevated chlorophyll (~2 μg/L) is also visible south of Key West centered at 24°28'59''N 81°47'7''W. From the western edge of the lower Florida Keys, elevated chlorophyll (2-5 μg/L) is visible in a thin band north of the lower Keys, stretching eastward to the north of Big Pine Key. From here, a broad band of elevated to high chlorophyll (4 to >10 μg/L) stretches northeastward from north and east of Big Pine Key to north of the middle Keys, with the region of highest chlorophyll concentration (>10 μg/L)approximately 8-11mi northeast of Big Pine Key, centered at 24°47'20''N 81°15'48''W. Continued sampling throughout the Florida Keys is recommended.

Strong east winds through Wednesday may promote westward movement of elevated chlorophyll features north of the Florida Keys.

Southwest Florida: There is currently no indication of a bloom at the coast in southwest Florida. No *K. brevis* was identified in samples collected alongshore southwest Florida from Pinellas to Collier County last week (FWRI, MML, SCHD; 5/3-5/7). Elevated to high chlorophyll (3 to >10 μg/L) is currently visible along and offshore much of the coast in southwest Florida and is likely a result of mixed diatom blooms that continue to be reported in in many southwest Florida counties (FWRI; 5/3-5/7). The previously identified elevated chlorophyll feature located northwest of Cape Sable in Monroe County remains visible in recent imagery, though appears to have dissipated slightly from the chlorophyll concentration last reported (2-5 μg/L). This feature appears to be in roughly the same location as last reported, centered around 25°29'47''N 81°42'16''W.

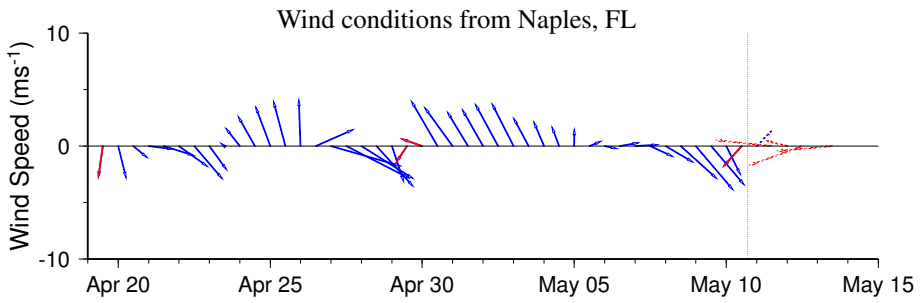
Reports of dead fish and discolored water were received over the last week at the south

end of the Manatee River in Manatee County. These reports are related to a localized bloom of the non-toxic algae *Pyrodinium quinquecorne*, which was identifi ed at the south end of the Manatee River, as well as the south end of the Phillipi Creek in Sarasota County, and are not associated with *K. brevis*.

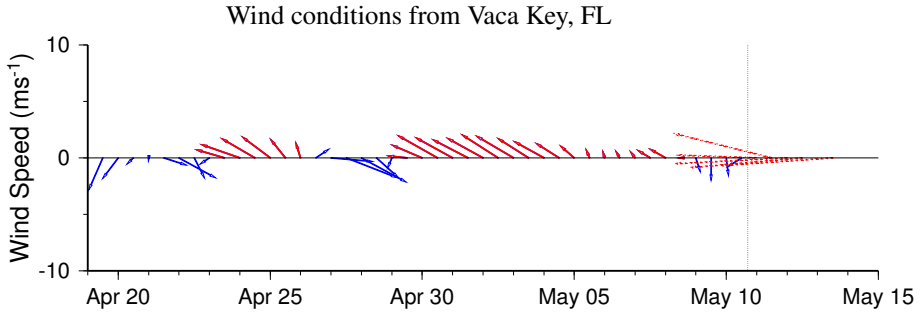
Harmful bloom formation is not expected at the coast through Wednesday, May 12.

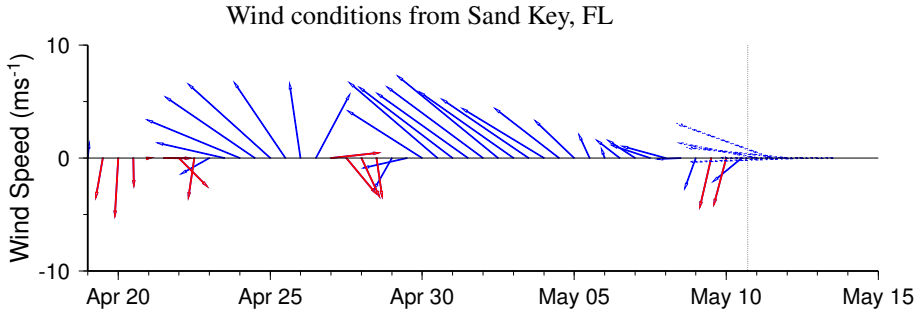
SeaWiFS imagery is not currently being displayed on the bulletin. MODIS imagery is shown at left and on page 3.

Derner, Fenstermacher, 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).



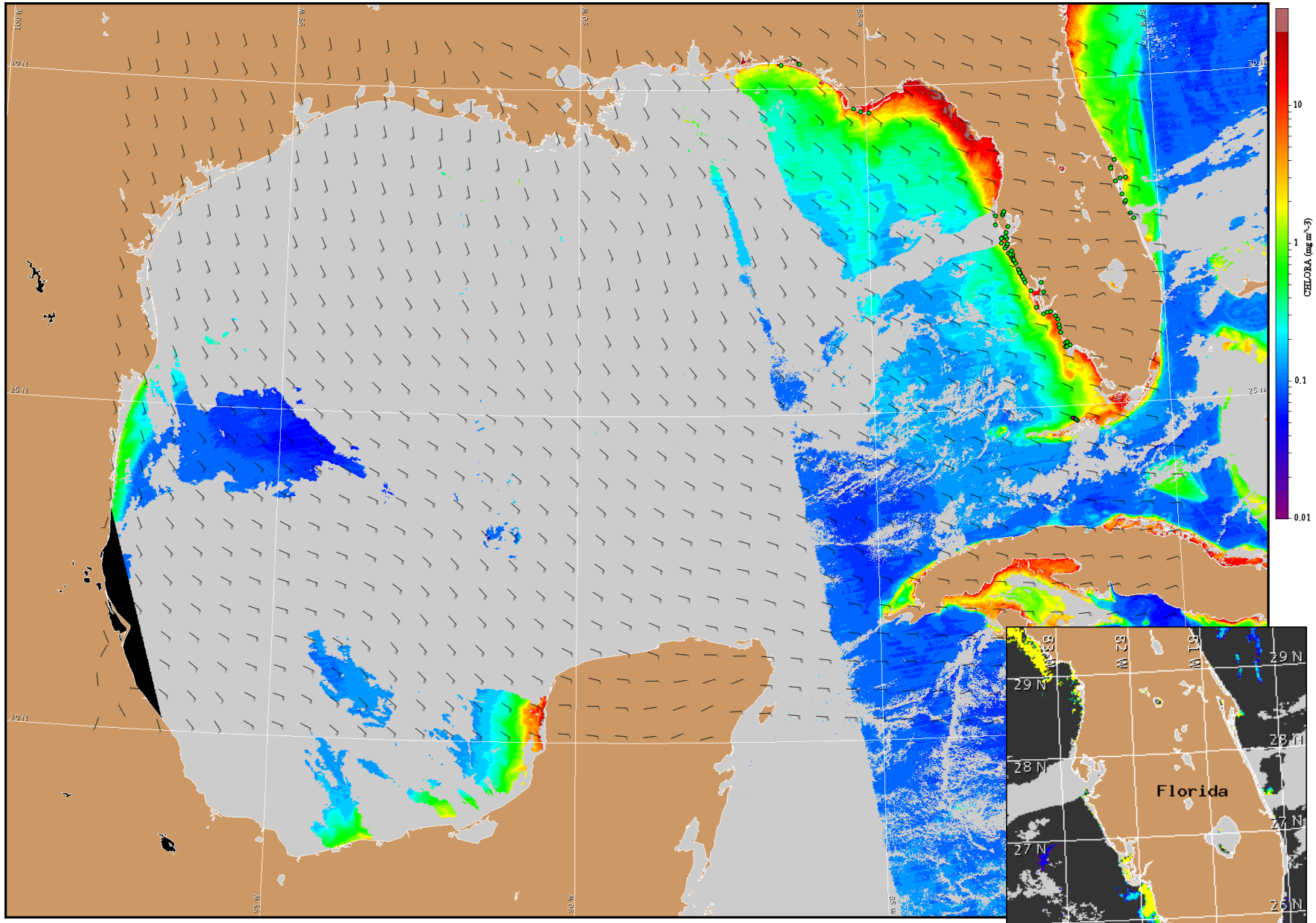


Wind Analysis

Florida Keys: East winds (10-15kn, 5-8m/s) today, becoming stronger (15-20kn, 8-10m/s) tonight through Wednesday.

Southwest Florida: East winds (15kn, 8m/s) today becoming northeast (5-10kn, 3-5m/s) in the afternoon. East winds (15kn) tonight. Southeast winds (15kn) Tuesday becoming northwest (5kn, 3m/s) in the afternoon and east (10kn, 5m/s) Tuesday night. Southeast winds (10kn) Wednesday, becoming east (15kn) Wednesday night.

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA CoastWatch bulletin archive: http://coastwatch.noaa.gov/hab/bulletins_ns.htm



Satellite chlorophyll image and forecast winds for May 11, 2010 12Z with Cell concentration sampling data from May 3 to 7 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

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