



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

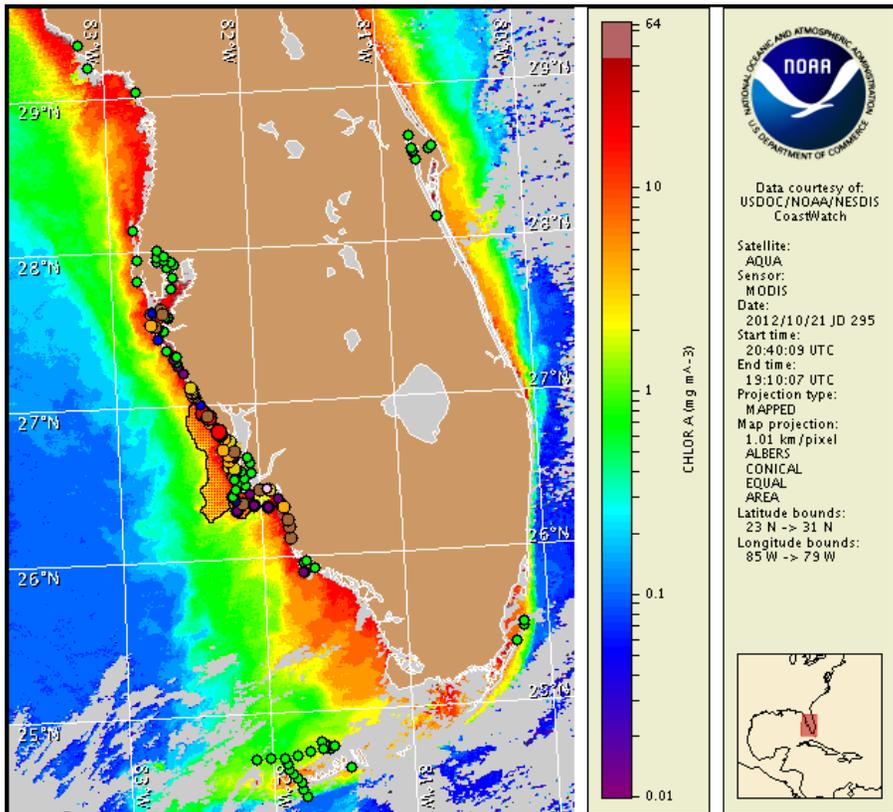
Monday, 22 October 2012

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, October 18, 2012



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from October 12 to 19 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). Cell count data are provided by Florida FWC Fish and Wildlife Research Institute. For a list of sample 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

Detailed sample information can be obtained through the Florida FWC Fish and Wildlife Research Institute at:

<http://myfwc.com/research/redtide/events/status/statewide/>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: <http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

A harmful algal bloom of *Karenia brevis* (commonly known as Florida Red Tide) is present at the coast of southern Pinellas, Manatee, Sarasota, Charlotte, in the Gasparilla Pass and northern Pine Island Sound regions of Charlotte and northern Lee, and along- and offshore Lee and northern Collier counties. Harmful algae are present in the Marco Island region of southern Collier County. Patchy high respiratory impacts are possible today through Thursday alongshore northern Manatee and Charlotte counties, and in the Gasparilla Pass and Pine Island Sound regions of Charlotte and northern Lee counties. Patchy low respiratory impacts are possible today through Thursday in southern Sarasota County and the eastern San Carlos Bay region of southern Lee County. Patchy very low respiratory impacts are possible today through Thursday alongshore northern Sarasota, southern Lee, and northern Collier counties. Patchy very low respiratory impacts are possible in southern Pinellas County today, Wednesday, and Thursday, with patchy low respiratory impacts possible on Tuesday. Over the past several days, fish kills have been reported in Pinellas, Charlotte, Lee, and Collier counties. No impacts are expected elsewhere alongshore southwest Florida today through Thursday, October 25.

Analysis

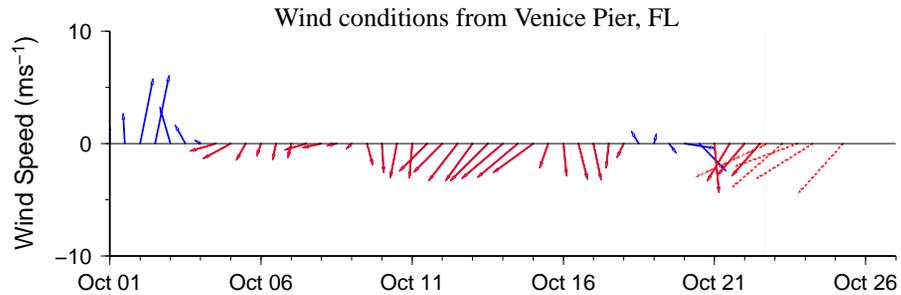
A harmful algal bloom of *Karenia brevis* (commonly known as Florida Red Tide) is present at the coast of southern Pinellas, Manatee, Sarasota, Charlotte, in the Gasparilla Pass and northern Pine Island Sound regions of Charlotte and northern Lee, and along- and offshore Lee and northern Collier counties. Harmful algae are present alongshore southern Manatee County and in the Marco Island region of southern Collier County. New samples received last Friday confirmed the presence of 'very low a' to 'low b' *K. brevis* concentrations alongshore southern Lee County and eastern Sanibel Island, with 'very low a' (Tarpon Road Beach) and 'low a' (Lighthouse Beach) concentrations identified alongshore Sanibel Island, and 'low a' and 'low b' concentrations identified alongshore southern Lee County at Bonita Beach and Ft. Myers Beach, respectively (FWRI; 10/17). 'Very low a' *K. brevis* concentrations were also identified alongshore southern Lee County at Lovers Key State Park and Lynn Hall Park (FWRI; 10/17). Further sampling on 10/17 also identified 'very low a' to 'medium' *K. brevis* concentrations 4-13 miles offshore Sanibel Island and southern Lee County, with 'medium' concentrations confirmed approximately 6 miles west of Bonita Beach (FWRI). Recent samples continue to indicate 'very low a' to 'medium' *K. brevis* concentrations throughout the Gasparilla and Pine Island Sound regions of Charlotte and northern Lee counties, with 'high' concentrations identified at the northern end of Gasparilla Pass, east of Little Gasparilla Island (FWRI; 10/16-18). 'High' concentrations were also identified further north in Charlotte County, with 'low a' to 'high' concentrations confirmed northeast of Manasota Key within Lemon Bay; 'medium' concentrations were identified alongshore Charlotte County at Stump Pass (FWRI; 10/16-18). Sampling continues to confirm 'low a' to 'high' *K. brevis* concentrations alongshore Sarasota County and 'low a' to 'medium' concentrations alongshore northern Collier County (FWRI, SCHD, CCPCPD; 10/15-18). 'Very low a' concentrations were identified in one sample late last week at South Marco Beach in the Marco Island region of Collier County (FWRI, CCPCPD; 10/18). No *K. brevis* was identified in samples collected throughout Tampa Bay or along- or offshore the Florida Keys last week (FWRI, MML; 10/17-19).

Recent MODIS Aqua imagery (10/21; shown left) continues to indicate elevated to very

high chlorophyll (3 to >20 $\mu\text{g/L}$) along- and offshore southwest Florida from Pinellas to Monroe counties. Patches of very high chlorophyll (>20 $\mu\text{g/L}$) extend alongshore Sarasota and Charlotte counties, along- and offshore the Gasparilla, Cayo Costa, and Captiva Islands in Charlotte and northern Lee counties, and along- and offshore southern Lee and northern Collier counties from approximately 26°25'60"N 81°56'34"W to 26°10'27"N 81°50'46"W.

Forecasted winds throughout the past weekend and over the next several days may promote bloom formation or intensification at the coast, and will increase the potential for respiratory impacts alongshore northern Manatee and Charlotte counties, and within the Gasparilla Pass and Pine Island Sound regions of Charlotte and northern Lee counties.

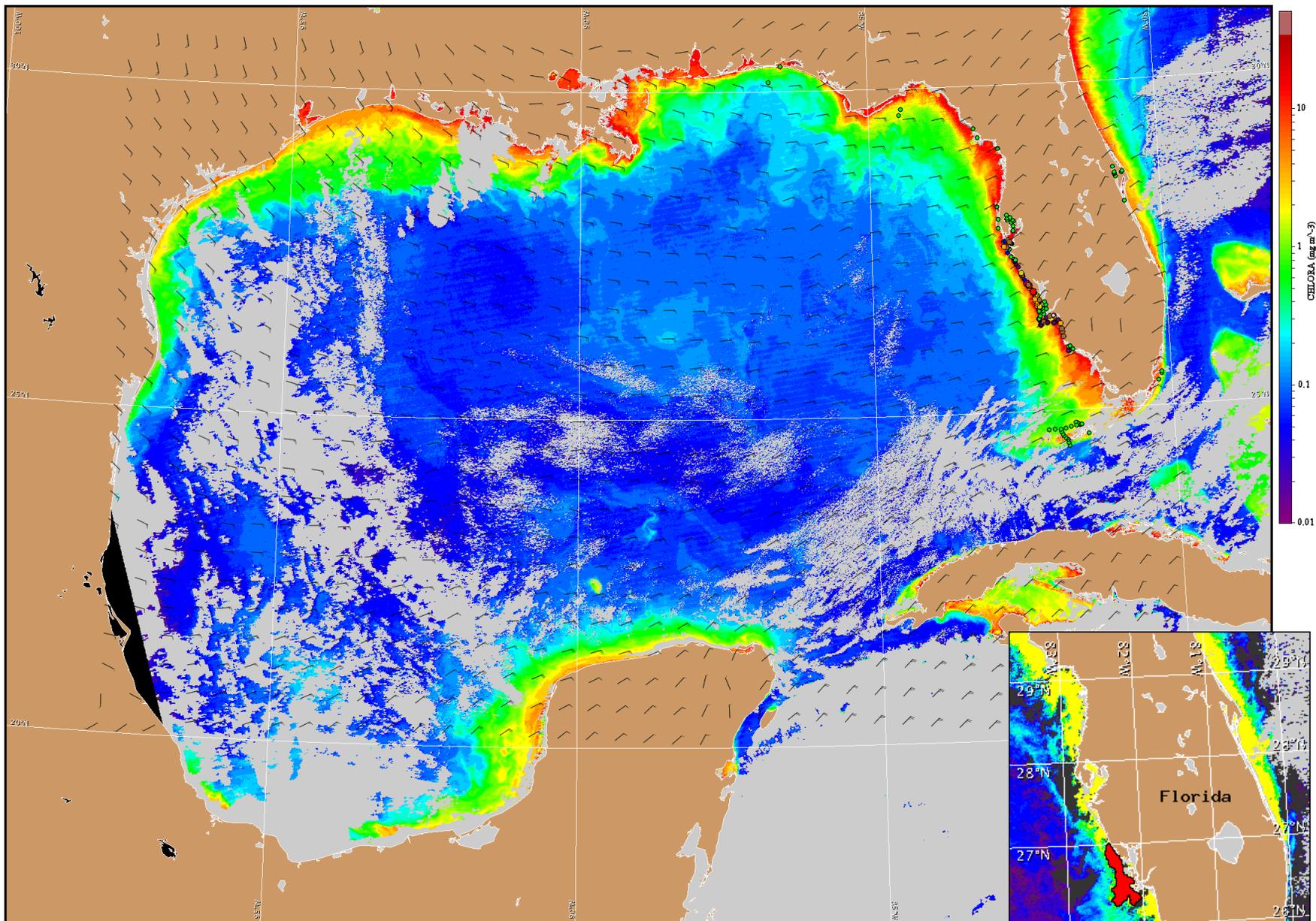
Derner, Burrows



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 to east winds (15kn, 8m/s) today becoming northeast (15-20kn, 8-10m/s) today through Tuesday. East winds (15-20kn) Tuesday night. Northeast winds (15-20kn) Wednesday through Thursday.



Satellite chlorophyll image and forecast winds for October 23, 2012 06Z with cell concentration sampling data from October 12 to 19 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). Cell count data are provided by Florida FWC Fish and Wildlife Research Institute. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS 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).