



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

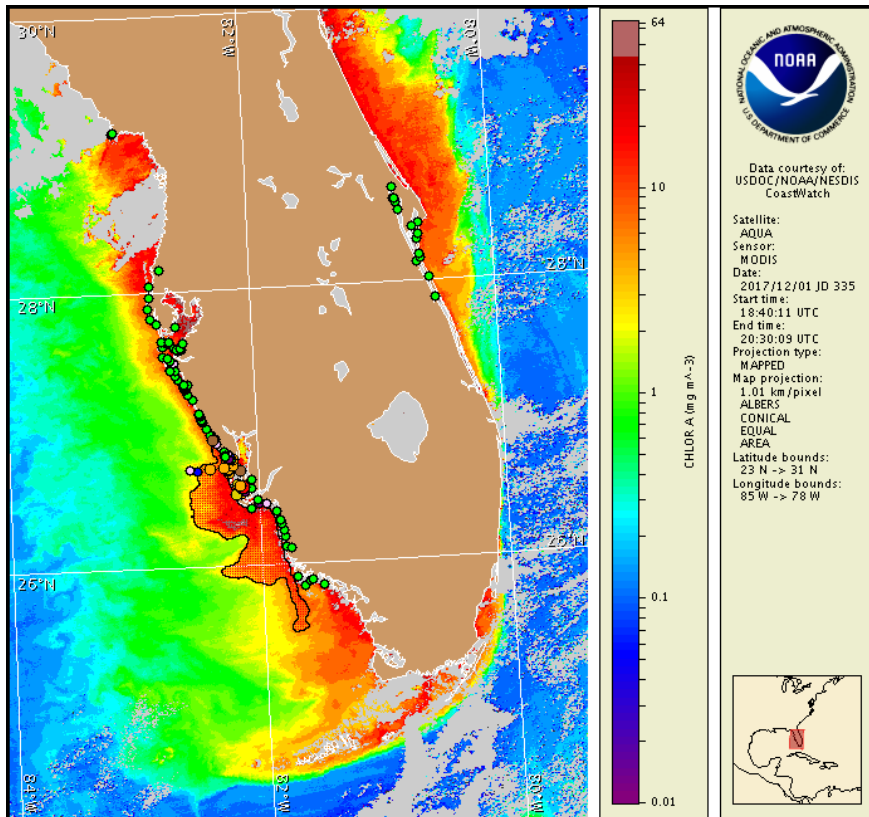
Monday, 04 December 2017

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, November 30, 2017



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 24 to 30: 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 Fish and Wildlife Conservation Commission (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:

https://tidesandcurrents.noaa.gov/hab/hab_publication/GOMX_HAB_Bulletin_Guide.pdf

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

<http://myfwc.com/redtidestatus>

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

Conditions Report

Not present to high concentrations of *Karenia brevis* (commonly known as Florida red tide) are present alongshore portions of southwest Florida. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for Monday, December 4 through Thursday, December 7 is listed below:

County Region: Forecast (Duration)

Northern Charlotte: Very Low (M, Th), Low (Tu-W)

Northern Charlotte, bay regions: Low (M-Th)

Southern Charlotte: Low (M-Th)

Southern Charlotte, bay regions: Moderate (M-Th)

Northern Lee: Low (M-Tu, Th), Moderate (W)

Northern Lee, bay regions: Moderate (M-Th)

Central Lee: Low (M-Th)

Central Lee, bay regions: Moderate (M-Th)

All Other SWFL County Regions: None expected (M-Th)

Health information, from the Florida Department of Health and other agencies, is available at https://tidesandcurrents.noaa.gov/hab/gomx_health.html. For recent, local observations and data check Mote Marine Laboratory Daily Beach Conditions (<http://visitbeaches.org/>) and the Florida Fish and Wildlife Conservation Commission Red Tide Status (<http://myfwc.com/redtidestatus>). Reports of respiratory irritation were received from Charlotte County.

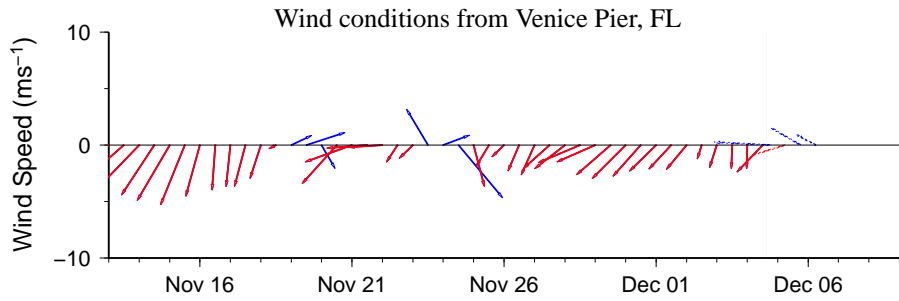
Analysis

Samples collected along- and offshore southwest Florida from Pinellas to Collier counties continue to indicate not present to 'high' concentrations *Karenia brevis*, with the highest concentrations identified in the bay regions of northern Lee County (FWRI, MML, SCHD, CCPCD; 11/24-11/30). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>.

Recent ensemble imagery (MODIS Aqua, 12/1) shows elevated to very high chlorophyll (2 to $>20\mu\text{g/L}$) along- and offshore southwest Florida. Patches of elevated to very high chlorophyll matching the optical characteristics of *K. brevis* are visible along- and offshore Lee and Collier counties.

Alongshore transport of the bloom is not expected today through Thursday due to variable forecast wind conditions.

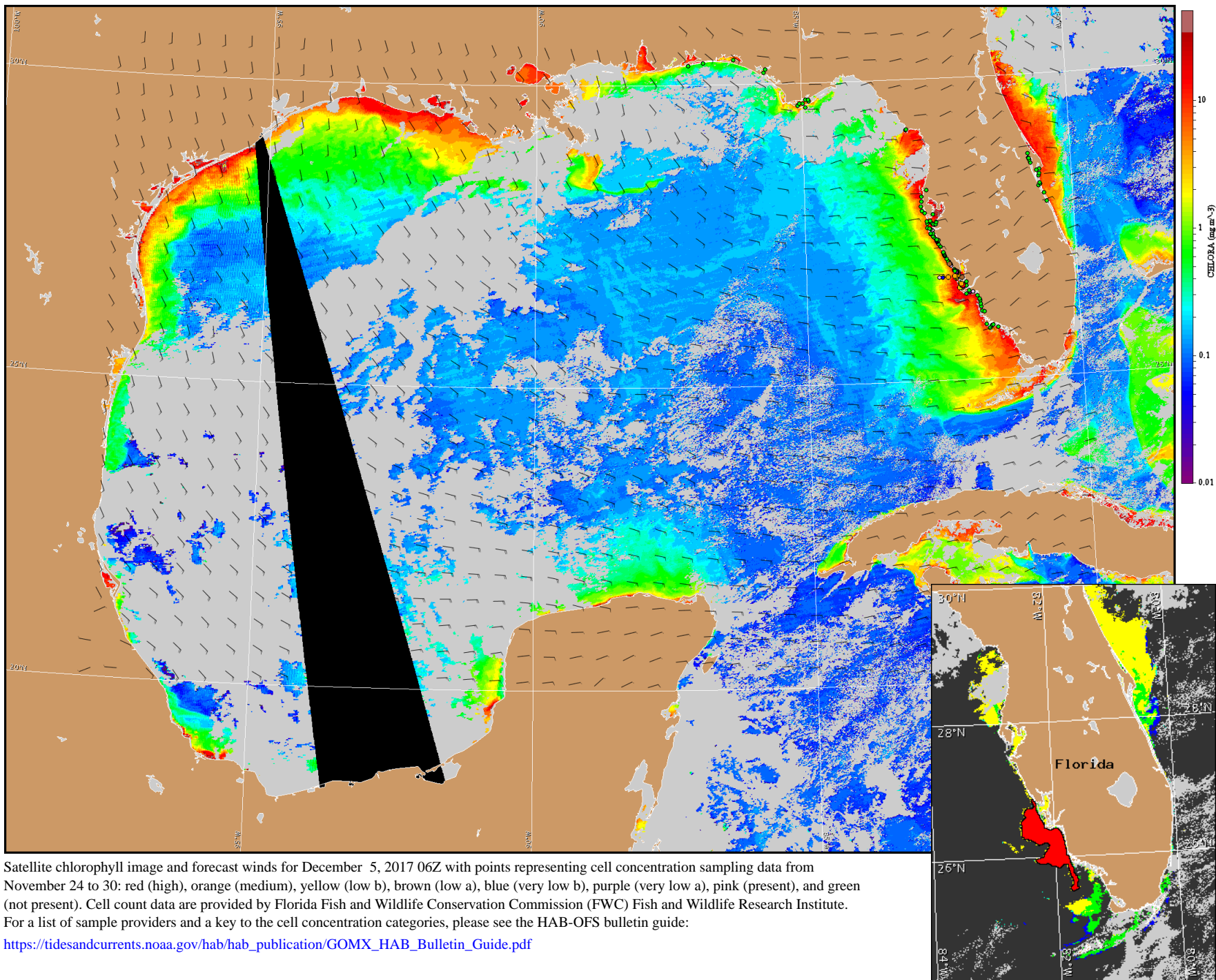
Lalime, Keeney



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

Englewood to Tarpon Springs (Venice): East to northeast winds (5-10kn, 3-5m/s) today. Varying southeast to northwest winds (5-10kn) Tuesday and Wednesday. Northwest to northeast winds (5-15kn, 3-8m/s) Wednesday evening and Thursday.



Satellite chlorophyll image and forecast winds for December 5, 2017 06Z with points representing cell concentration sampling data from November 24 to 30: 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 Fish and Wildlife Conservation Commission (FWC) Fish and Wildlife Research Institute.

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Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).