



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

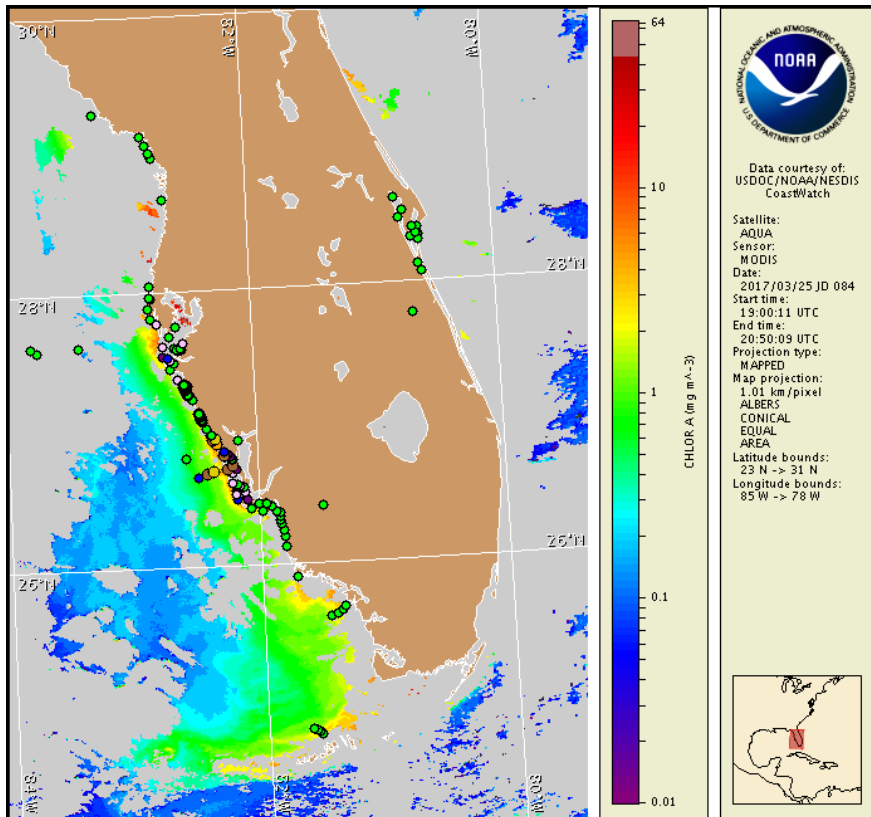
Monday, 27 March 2017

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, March 23, 2017



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from March 17 to 24: 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:

http://tidesandcurrents.noaa.gov/hab/hab_publication/habfs_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: <http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

Not present to medium concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of southwest Florida and not present in the Florida Keys. *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, March 27 through Thursday, March 30 is listed below:

County Region: Forecast (Duration)

Northern Manatee, bay regions: Very Low (M-Th)

Southern Manatee: Very Low (M-Th)

Southern Manatee, bay regions: Very Low (M-Th)

Northern Sarasota: Low (M-Th)

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

Southern Sarasota: Low (M-Th)

Northern Charlotte: Low (M-Th)

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

Southern Charlotte: Low (M-Th)

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

Northern Lee: Low (M-W), Very Low (Th)

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

Central Lee: Very Low (M-Th)

Central Lee, bay regions: Very Low (M-Th)

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

Check https://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Health information, from the Florida Department of Health and other agencies, is available at https://tidesandcurrents.noaa.gov/hab/hab_health_info.html. Over the past several days, there have been no reports of respiratory irritation. Dead fish were reported in Lee County.

Analysis

Recent samples collected along- and offshore the coast of southwest Florida from southern Manatee to central Lee counties, identified not present to 'medium' concentrations of *Karenia brevis*, with the highest concentrations collected from Stump Pass in the bay regions of northern Charlotte County (FWRI, MML, SCHD, CCENRD; 3/17-3/24). Samples collected from the bay regions of northern Sarasota County indicate a decrease from 'medium' to not present (MML; 3/21-3/24). 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, 3/25) is partially obscured by clouds along-shore southwest Florida, limiting analysis; however, a patch of elevated chlorophyll (2-9 $\mu\text{g/L}$), with the optical characteristics of *K. Brevis*, is visible alongshore northern Charlotte County.

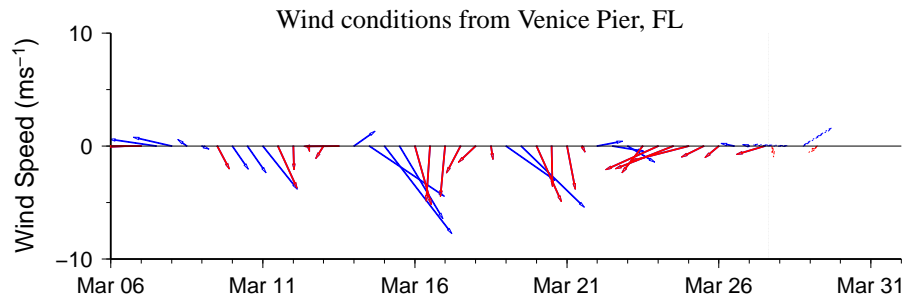
Variable winds today through Wednesday may minimize the potential for both respiratory irritation at the coast and transport of surface *K. Brevis* concentrations along southwest

Florida from Pinellas to Lee counties.

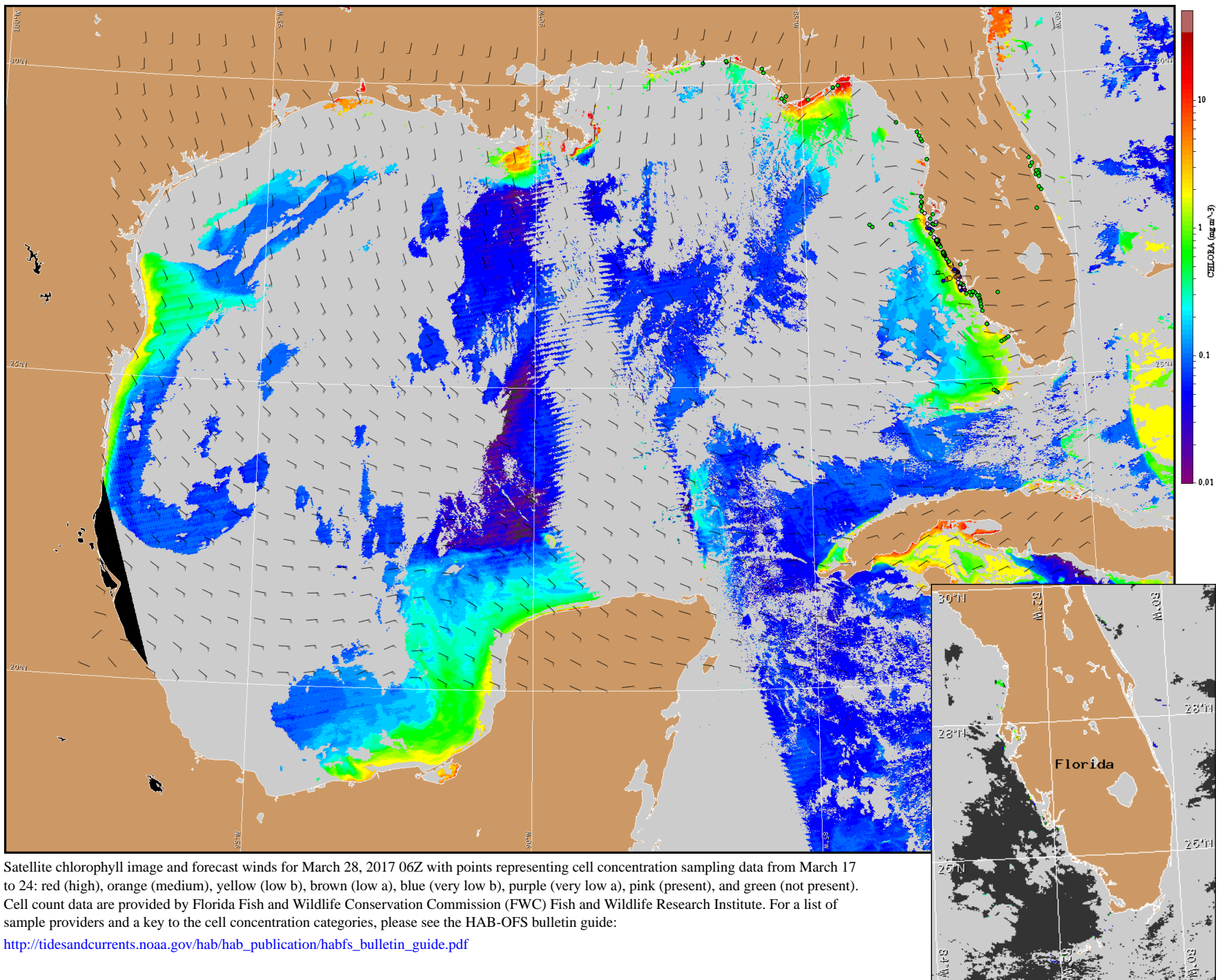
Ludema, Lalime

Wind Analysis

Englewood to Tarpon Springs (Venice): Variable winds (5-10kn, 3-5m/s) today through Wednesday. Southeast to south winds (5-10kn) Thursday.



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 March 28, 2017 06Z with points representing cell concentration sampling data from March 17 to 24: 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:

http://tidesandcurrents.noaa.gov/hab/hab_publication/habfs_bulletin_guide.pdf

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