



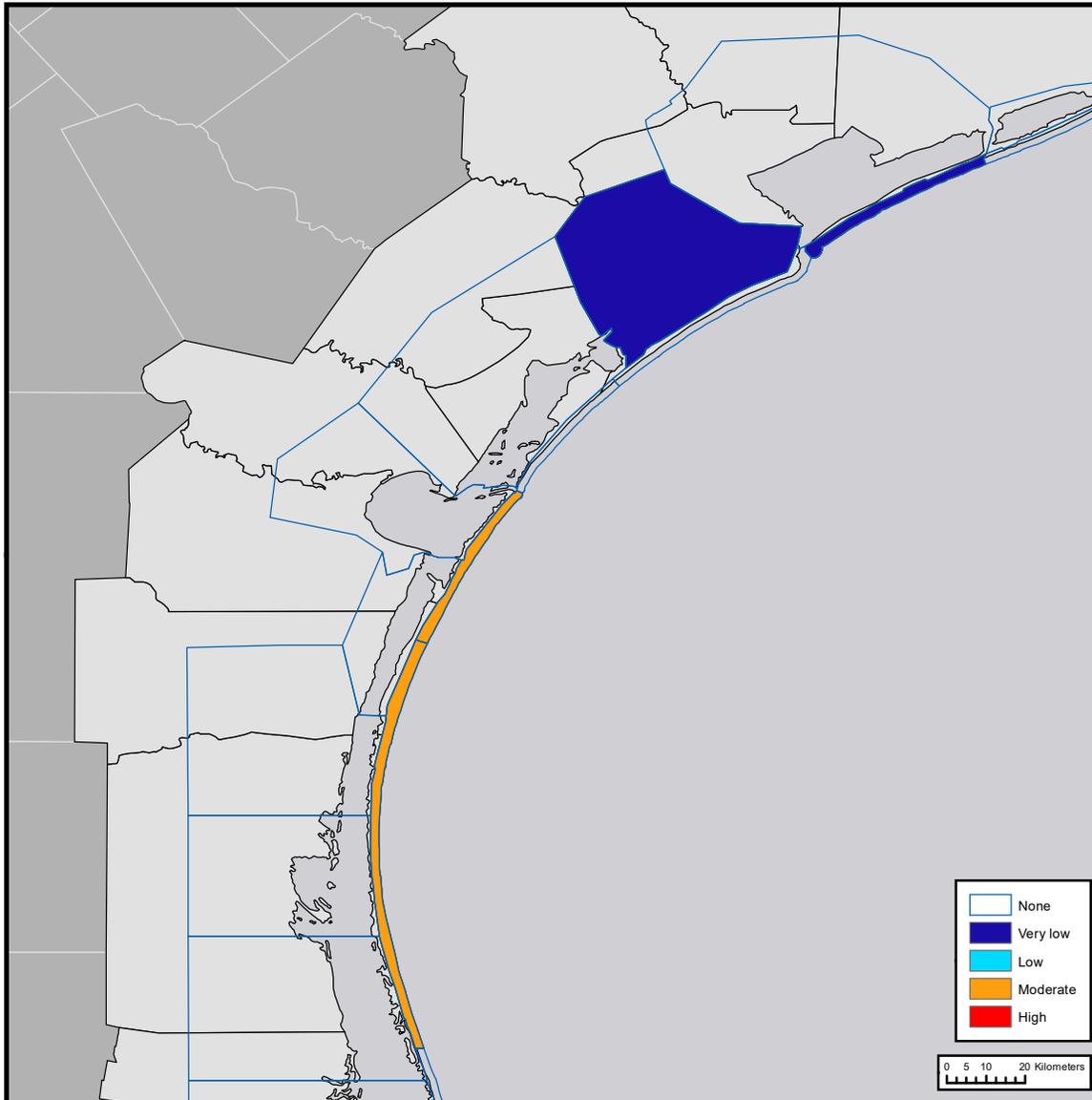
Gulf of Mexico Harmful Algal Bloom Bulletin

Monday, September 24, 2018
 NOAA National Ocean Service
 NOAA Satellite and Information Service
 NOAA National Weather Service

Region: Texas



Instructions for viewing this geospatial pdf are available at: <https://go.usa.gov/xn9g2>.



The image above is the top layer in a series of maps for 09-24-18 to 09-27-18 displaying the highest level of potential respiratory irritation forecasts in each region.

Conditions Report

Not present to medium concentrations of *Karenia brevis* (commonly known as red tide) are present along- and offshore portions of Texas. *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.

Recently Reported Impacts (Listed by County):

Respiratory irritation: None
Dead fish: None

Definition of respiratory irritation levels.

RESPIRATORY IRRITATION LEVEL	AFFECTED POPULATION				
	NONE	CHRONIC RESPIRATORY CONDITION	SENSITIVE TO RED TIDE	GENERAL PUBLIC (MILD SYMPTOMS)	GENERAL PUBLIC (INTENSE SYMPTOMS)
None	X				
Very low		X			
Low		X	X		
Moderate		X	X	X	
High		X	X	X	X

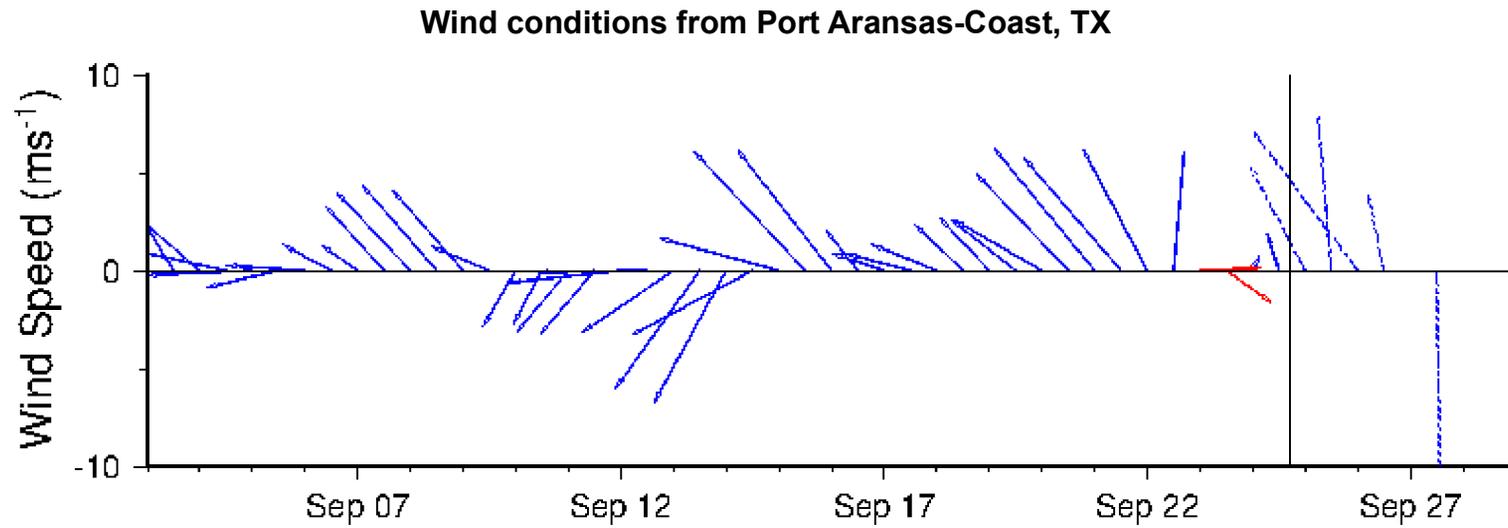
Additional Resources

Health Information:

Texas Department of State Health Services:
<http://www.dshs.texas.gov/seafood/harmful-algal-blooms.aspx>
Other resources: <https://go.usa.gov/xQNWp>

Recent, Local Observations and Data:

Texas Parks and Wildlife Department Red Tide Status:
<https://tpwd.texas.gov/landwater/water/enviroconcerns/hab>

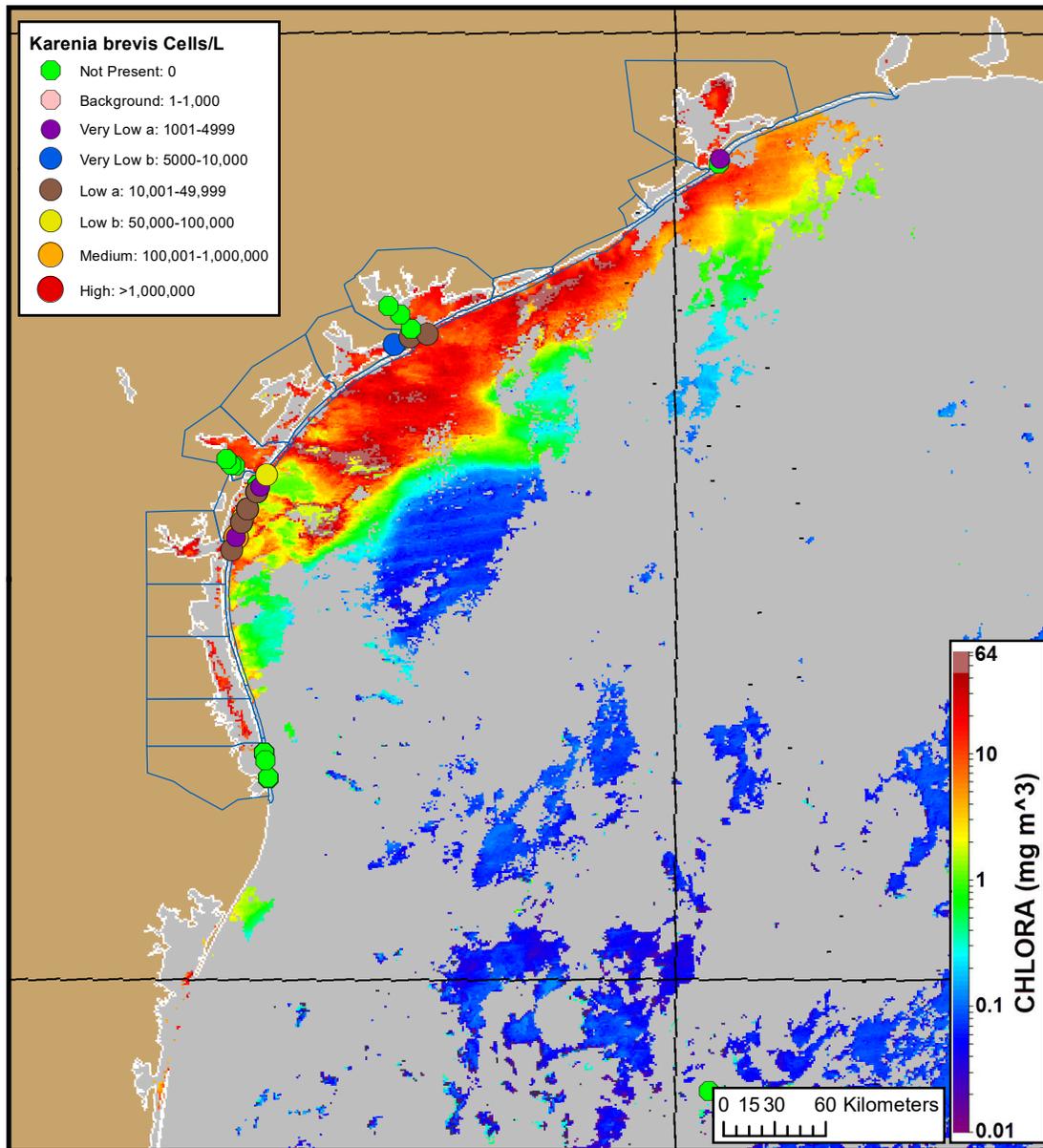


Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS). A text summary of the marine forecast by region is available from NWS at <http://go.usa.gov/xnRax>.

State Name	Region	Mon 09/24	Tue 09/25	Wed 09/26	Thu 09/27			
Texas								
	HIGH ISLAND to SABINE PASS-Gulf Coast							
	BOLIVAR PENINSULA-Gulf Coast							
	GALVESTON BAY-Bay Regions							
	GALVESTON ISLAND-Gulf Coast	none	none	none	none			
	WEST BAY-Bay Regions							
	CHRISTMAS BAY-Bay Regions							
	SAN LUIS PASS to SARGENT BEACH-Gulf Coast							
	EAST MATAGORDA BAY-Bay Regions							
	SARGENT BEACH to COLORADO RIVER MOUTH-Gulf Coast							
	MATAGORDA BAY-Bay Regions							
	MATAGORDA PENINSULA-Gulf Coast	very low	very low	very low	very low			
	SAN ANTONIO BAY/ESPIRITU SANTO BAY-Bay Regions	very low	very low	very low	very low			
	MATAGORDA ISLAND-Gulf Coast							
	ARANSAS BAY to ARANSAS PASS-Bay Regions							
	SAN JOSE ISLAND-Gulf Coast							
	CORPUS CHRISTI BAY-Bay Regions							
	PORT ARANSAS/MUSTANG ISLAND to PINS-Gulf Coast	moderate	moderate	moderate	moderate			
	UPPER LAGUNA MADRE-Bay Regions							
	PADRE ISLAND NATIONAL SEASHORE (PINS)-Gulf Coast	moderate	moderate	moderate	moderate			
	BAFFIN BAY to LAND CUT-Bay Regions							
	LAND CUT-Bay Regions							
	LAGUNA MADRE-Land Cut to Bennie's Shack-Bay Regions							
	LAGUNA MADRE-Bennie's Shack to Cullen Channel-Bay Regions							
	LOWER LAGUNA MADRE to LAGUNA VISTA-Bay Regions							
	MANSFIELD PASS to BEACH ACCESS 6-Gulf Coast							
	BEACH ACCESS 6 to RIO GRANDE-Gulf Coast	none	none	none	none			

The table lists the highest level of potential respiratory irritation forecast. *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.

Cells are marked 'none' if *K. brevis* was detected, but no respiratory irritation is forecasted in the region. Cells are blank if no *K. brevis* has been detected in the region.



Karenia brevis cell concentration sampling data from: 09/14/18 through 09/21/18. Cell count data are provided by Texas Parks and Wildlife Department. 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 the Texas Parks and Wildlife Department at: <http://www.tpwd.state.tx.us/landwater/water/enviroconcerns/hab/redtide/status.phtml>.

MODIS Aqua satellite chlorophyll image (09/23/18) with possible *K. brevis* HAB areas shown by red polygon(s).

Analysis

Summary of Recent Water Samples:

***K. brevis* Cell Concentrations:**

Range: See Agency

Date: 09/14-09/21

Source: TPWD, TAMU

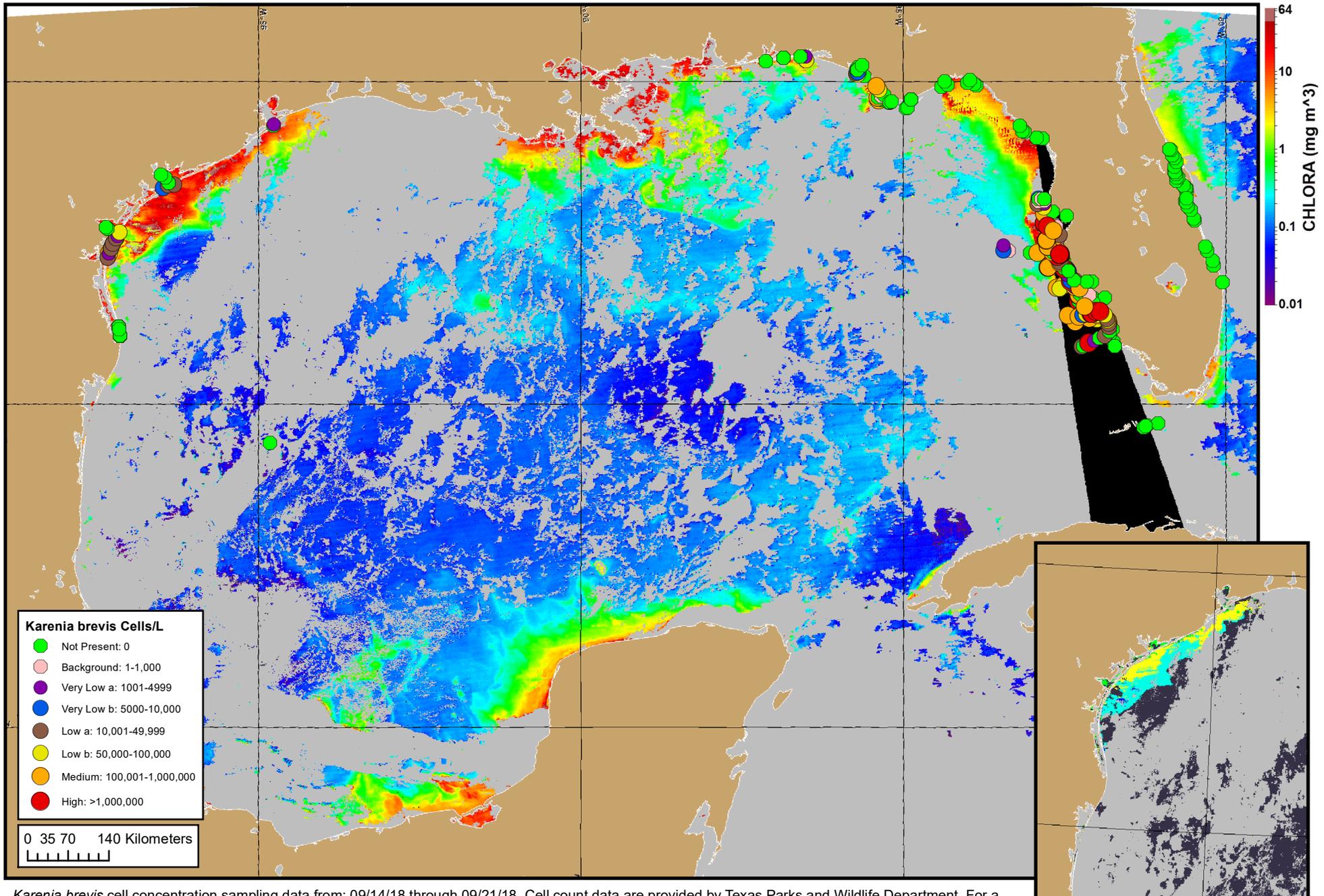
Imagery:

In recent ensemble imagery (MODIS Aqua, 9/23), patches of elevated to very high chlorophyll (2 to >20 $\mu\text{g/L}$) with the optical characteristics of *K. brevis* are present along- and offshore the Texas coast from MacFaddin National Wildlife Refuge to Mustang Island State Park. However, field sampling indicates the current *K. brevis* bloom does not match this extent and elevated chlorophyll is most likely due to the resuspension of benthic chlorophyll and sediments along the coast.

Forecasts:

Forecast models based on predicted near-surface currents indicate a negligible transport of surface *K. brevis* concentrations along the coast from Port Aransas from September 24-27.

Ludema, Yang



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Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 4 analysis for interpretation).