



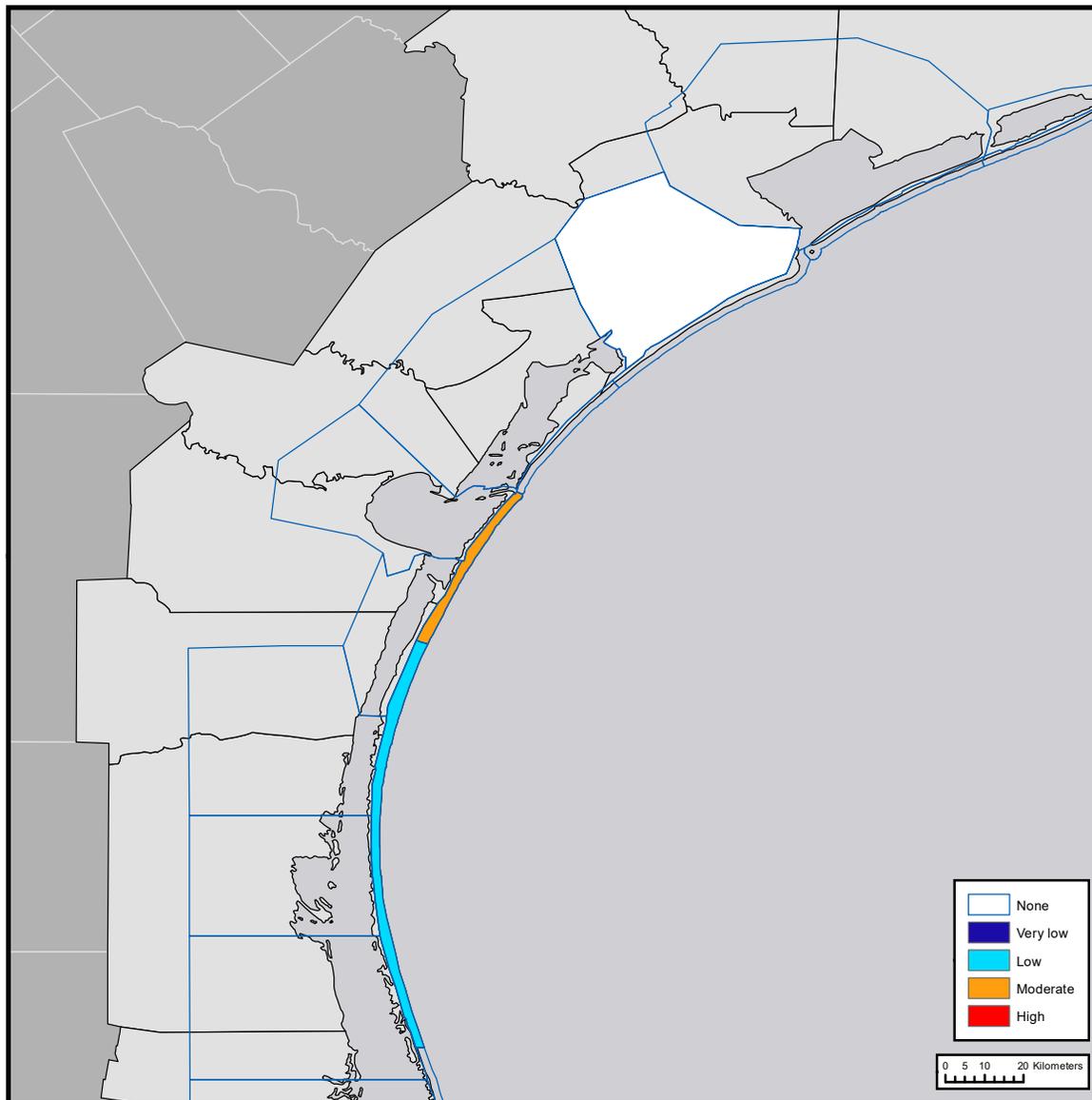
# Gulf of Mexico Harmful Algal Bloom Bulletin

Thursday, September 27, 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>.



## Conditions Report

Not present to low 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:

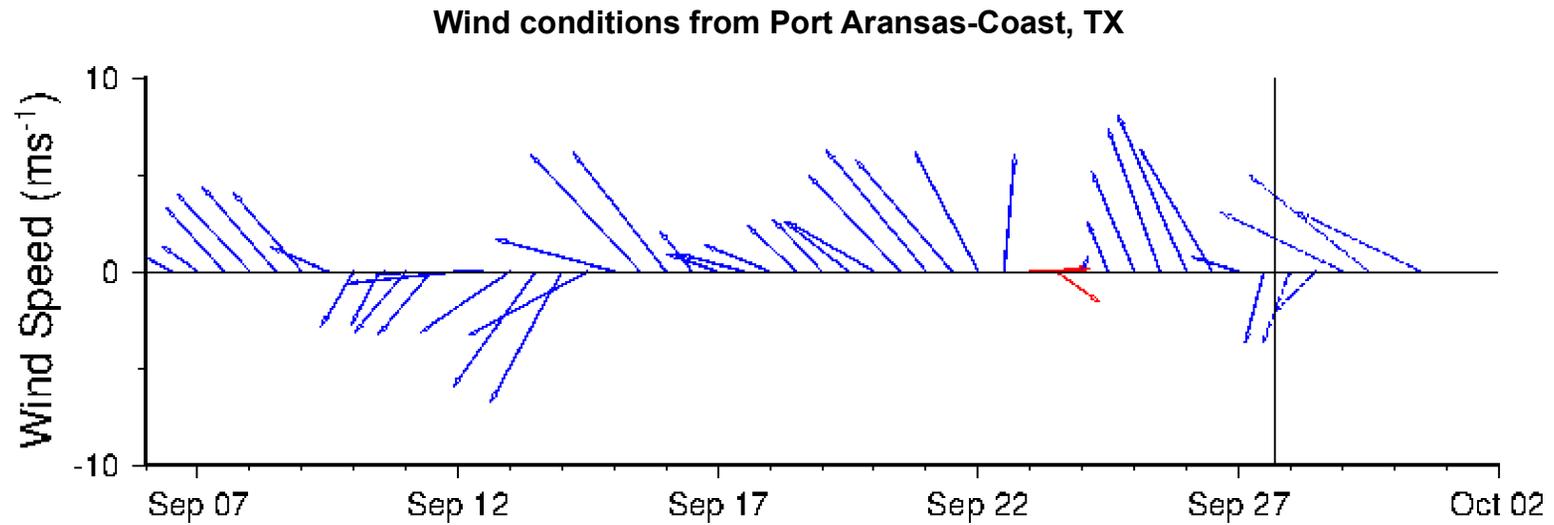
**Texas Parks and Wildlife Department Red Tide Status:**  
<https://tpwd.texas.gov/landwater/water/enviroconcerns/hab>

The image above is the top layer in a series of maps for 09-27-18 to 10-01-18 displaying the highest level of potential respiratory irritation forecasts in each region.

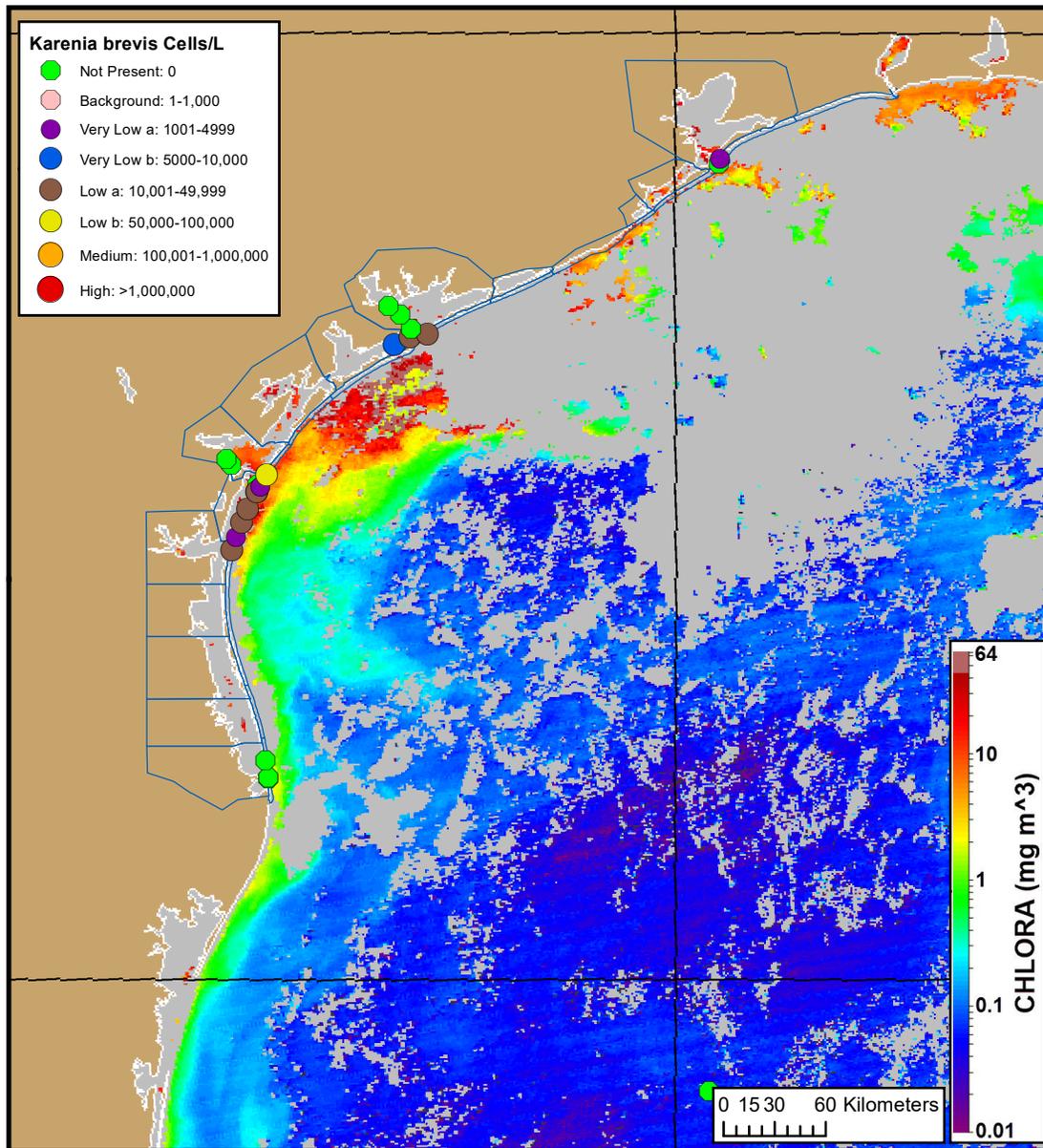
State Name	Region	Thu 09/27	Fri 09/28	Sat 09/29	Sun 09/30	Mon 10/01		
Texas								
	HIGH ISLAND to SABINE PASS-Gulf Coast							
	BOLIVAR PENINSULA-Gulf Coast							
	GALVESTON BAY-Bay Regions							
	GALVESTON ISLAND-Gulf Coast	none	none	none	none	none		
	WEST BAY-Bay Regions							
	CHRISTMAS BAY-Bay 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							
	SAN ANTONIO BAY/ESPIRITU SANTO BAY-Bay Regions	none	none	none	none	none		
	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	moderate		
	UPPER LAGUNA MADRE-Bay Regions							
	PADRE ISLAND NATIONAL SEASHORE (PINS)-Gulf Coast	low	low	low	low	low		
	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							

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.



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>.



*Karenia brevis* cell concentration sampling data from: 09/17/18 through 09/26/18. 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](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 (09/25/18) with possible *K. brevis* HAB areas shown by red polygon(s).

## Analysis

### Summary of Recent Water Samples:

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

**Range:** Not Present to Low

**Date:** 09/17-09/26

**Source:** TPWD, TAMU

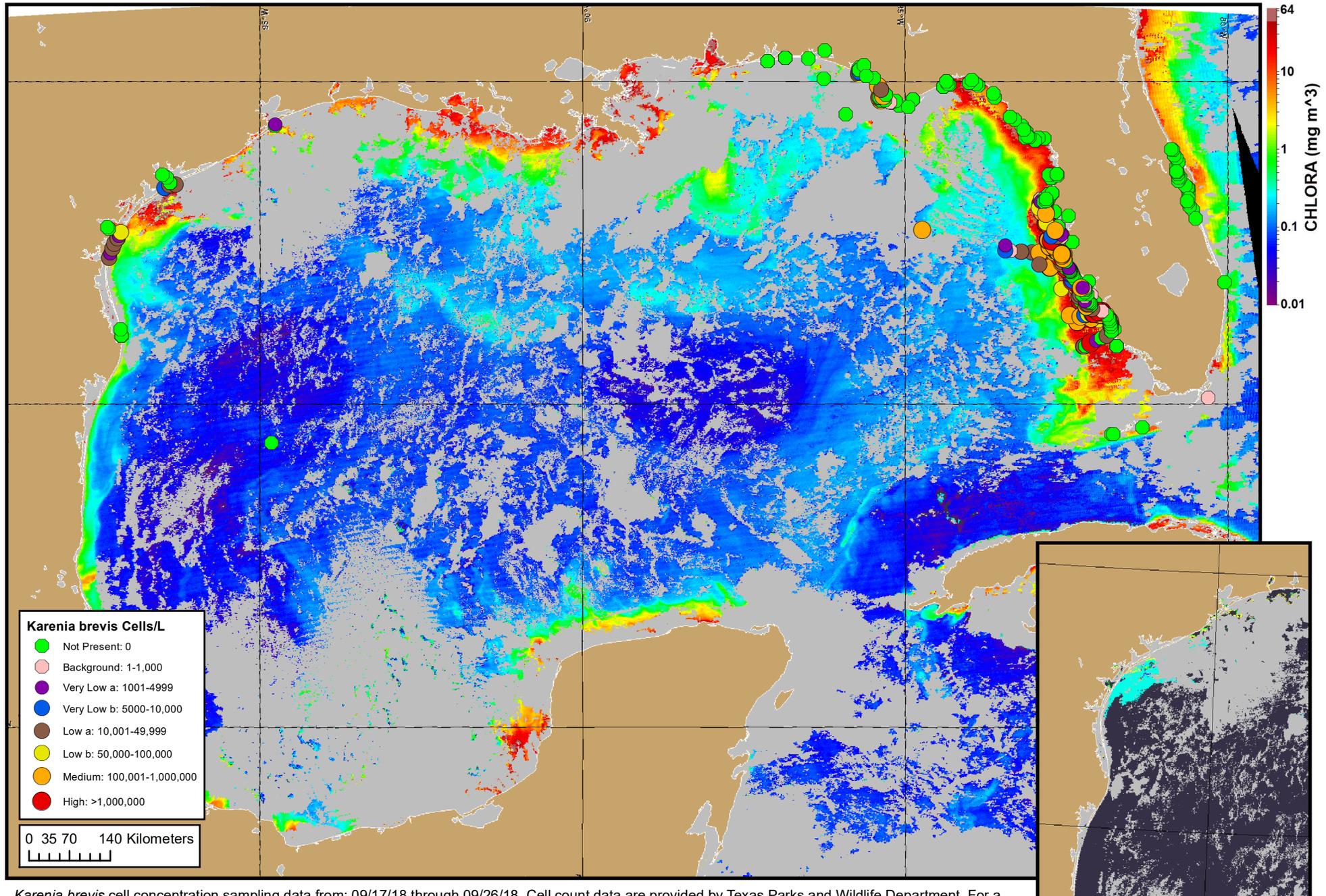
### Imagery:

Recent ensemble imagery (MODIS Aqua, 9/25) is obscured by clouds alongshore from Sabine Pass to Matagorda Bay, limiting analysis. Patches of elevated to very high chlorophyll (2 to >20  $\mu\text{g/L}$ ) with some of the optical characteristics of *K. brevis* are present along- and offshore the Texas coast from Matagorda Island to Padre Island National Seashore.

### Forecasts:

Forecast models based on predicted near-surface currents indicate a potential maximum transport of 90 km south along the coast from Port Aransas from September 25-30.

Ludema, Davis



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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).