

# Florida HAB Monitoring: An Update

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Fish and Wildlife Research Institute*

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# FWC/FWRI HAB Program

## MONITORING PROGRAM:

### ➤ Volunteer & FMRI Sampling Network:

HAB staff, public, charter captains,  
state & local agencies, researchers

### ➤ Monitors: 1) waters (>70 toxic, harmful & nuisance phytoplankton species)

Data distributed to:

State agencies: FDACS

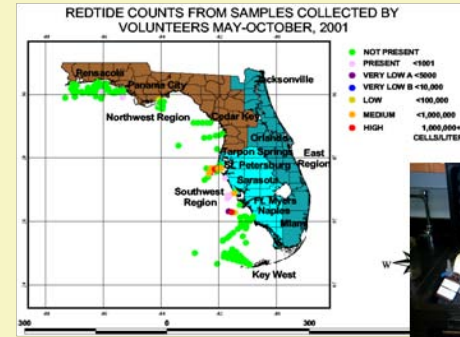
Stakeholders: via e-mail, web, hotline

Forecasters: NOAA HAB Bulletin, USF Center for Red Tide  
Prediction

Scientists:

2) shellfish with FDACS (brevetoxins, domoic acid, saxitoxins,  
Mouse & ELISA)

2) other animals (as required)



# FWC/FWRI HAB Program

## MONITORING PROGRAM:

- **Products:** weekly regional HAB status reports (counts, areas, shellfish closures) and maps, disseminated by e-mail and web site updates  
HAB Databases (HAB, Toxins, Mouse bioassay)



research.myFWC.com  
E-mail list distribution  
Red Tide Status Report  
1-866-300-9399



Historical red tide  
(1954-2002) data  
compiled into CD  
format

## ➤ Event Response:

Fish Kill Hotline, Web Fish Kill reports

Coordinate and/or support investigation of HABs & mortality events in FL

- **Research Program:** Local, state and federal grants investigating HABs



# FWC/FWRI HAB Program

## 2006-2009: Additional state funds available for:

- **Extended Red Tide Monitoring:** expand geographical scope of *Karenia* monitoring & further develop collaborative network

Panhandle: FSU investigation of *Karenia* transport to Panhandle

Coast Guard Auxiliary/Mike Sullivan: Panhandle *Karenia* monitoring

SW Florida: GGCU: western EVG *Karenia* monitoring

Mote Keys Lab: Keys monitoring for *Karenia*

- **New Red Tide Technology:** investigate, develop & apply new red tide technologies

Mote So Cool Center & Beach Monitoring Program: Brevebuster Technology

USF Center for Red Tide Prediction: Model Forecasting & Satellite Detection

*Karenia* molecular probe development

MARVIN: Water Quality & HAB monitoring



- **Control and Mitigation Research Program:** competitive program administered by FWC-FWRI to fund projects exploring environmentally acceptable techniques or technologies for red tide control or mitigation



# FWC/FWRI Control and Mitigation Research Program

- Les Films de L'Espigaou, Julien Naar - Film Documentary on Florida Red Tides for TV Broadcasting
- FL Department of Health, Andrew Reich - FL DOH/Florida Poison Information Center-Miami
- Mote, Barbara Kirkpatrick - Expansion of the Beach Conditions Reporting System to Collier County: Reducing the Public Health Impacts from *Karenia brevis* Aerosols
- Lovelace Respiratory Research Inst., Janet Benson - Examination of Fetal Uptake and Potential Developmental Effects of Brevetoxins in Mice
- Univ. of South Florida, Morna Dorsey - Measurement of Airways Inflammation in Asthmatic Children During Red Tide Exposure
- Mote, Catherine Walsh - Effects of brevetoxin exposure on signal transduction pathways in immune cells
- Smithsonian Inst., Mario Sengco - Parasitic *Amoebophrya* sp. in *Karenia brevis*: potential biological control agent
- Georgia Inst. of Technology, Julia Kubanek - Biological Control of *Karenia brevis* Toxicity
- Univ. of North Carolina @ Wilmington, Jerome Naar - Mitigating the harmful effects of Florida red tides using brevetoxin-specific complexing agents
- Univ. of South Florida, Jason Lenos - Nutrient controls contributing to *Karenia brevis* blooms
- WHOI, Porter Hoagland - Estimating the Socio-Economic Costs of Mitigating Respiratory Ailments Caused by Florida Blooms of *Karenia brevis*
- Univ. of Florida, Sherry Larkin - Red Tide Mitigation Through Strategic Education and Outreach



# FWC/FWRI HAB Program

**2009-10: Update: State cutting \$2.54-3M from HAB Funds from state budget**

- **Extended Red Tide Monitoring:** expand geographical scope of *Karenia* monitoring & further develop collaborative network: Cut to core program w/Mote Panhandle: FSU investigation of *Karenia* transport to Panhandle  
Coast Guard Auxiliary/Mike Sullivan: Panhandle *Karenia* monitoring  
SW Florida: GGCU: western EVG *Karenia* monitoring  
Mote Keys Lab: Keys monitoring for *Karenia* (cut back)
- **New Red Tide Technology:** investigate, develop & apply new red tide technologies  
Mote So Cool Center & Beach Monitoring Program: Brevebuster Technology  
USF Center for Red Tide Prediction: Model Forecasting & Satellite Detection  
*Karenia* molecular probe development  
MARVIN: Water Quality & HAB monitoring
- **Control and Mitigation Research Program:** competitive program administered by FWC-FWRI to funds projects exploring environmentally acceptable techniques or technologies for red tide control or mitigation



## Red Tide Status Reports

<http://research.myfwc.com>

- Red Tide
- Current Status

## Email Subscription to Red Tide Status Reports

<http://research.myfwc.com/subscriptions>

Interested in volunteering to assist red tide monitoring?

[RTOMP@MYFWC.com](mailto:RTOMP@MYFWC.com)

## Red Tide Status Hotline

**1-866-300-9399**

## Fish Kill Hotline

**1-800-636-0511** <http://research.myfwc.com>

## FWC Wildlife Alert Hotline

**1-888-404-3922**







# FWC/FWRI Aquatic Health Program

- Provides timely information to the public, researchers, media, and resource managers

Home : Fish Kill Database

## FISH KILLS

Fish Kill Database Search

The first fish kill reported to FMRI was April 24, 1972.  
All information in the Fish Kill Database is current through 6/6/2003.

If you'd like to receive an e-mail when the fish kill search is updated visit our subscription area.  
<http://www.floridamarine.org/subscriptions/>

You may select as many or as few search criteria as you like. To make multiple selections hold down the CTRL button while making a selection.

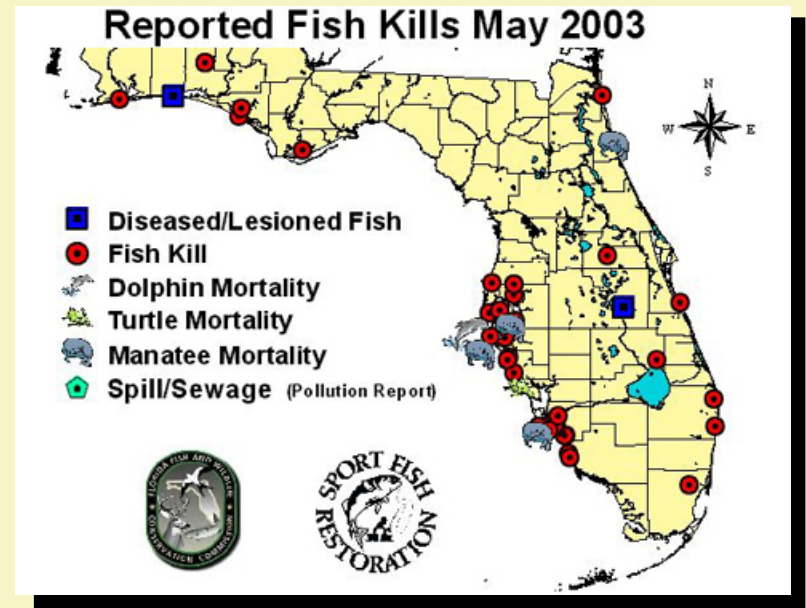
County:	Probable Cause:
ALL COUNTIES	ALL SUSPECTED CAUSES
Alachua	Algae Bloom
Baker	Boat Collision
Bay	Cold Weather
Bradford	Deformities
Brevard	Disease

Date Range ( MM / DD / YYYY ):

From  To

Choose Your Output Format:

Standard Output  
 Printer-Friendly Output



Interactive  
CD ROM

