Florida Department of Health

HABs and Public Health

Division of Disease Control and Health Protection
Bureau of Environmental Health
Florida Harmful Algal Bloom Task Force
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Harmful Algal Blooms and Public Health

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What is the Department's Role?

"To Protect, Promote and Improve the health of all people in Florida"

- Evaluation of Human Health Effects
- Surveillance of Human Illness
- Education of Health Care Professionals
- Outreach to the Public

Challenges to Evaluating Health Impacts

- Limited understanding of exposure dose from some exposure pathways
- Symptoms not specific to harmful algal bloom (HAB) exposures
- No Food and Drug Administration approved clinical laboratory tests for exposure
- Many health care professionals need more education to identify HAB-related illnesses
- Migration of people in and out of affected areas
- Scarcity of air monitoring data
- Expense and time of conducting long-term, human health studies

Florida Department of Health (DOH) Appropriation 2019-2020

- Appropriated $650,000 for fiscal year 2019-2020
- Research Priorities
  - Prevention: Focus on prevention of impacts from exposure to HAB toxins
  - Treatment: Focus on improved treatment of impacts from exposure to HAB toxins
  - Health Disparities: Contribute to reduction of impacts from exposure to HAB toxins resulting from health disparities due to race, ethnicity, or income
  - Screening: Improve screening accuracy, detect high-risk subgroups, and/or improve implementation of screening program to increase early detection or prevention of HAB-related illness

DOH Funded Health Research: FY 19-20

Florida Atlantic University

- Assess toxin exposure of a group exposed to HABs
  - Sample blood, urine, and nasal cavity
  - Complete health survey; collect data for site, exposure frequency, duration of potential HAB exposures
  - Review self-reported symptoms to evaluate exposure and potential dose
- Refine methods in urine for detection of microcystin toxin
- Perform environmental sampling (surface water and air) before and during exposure

DOH Funded Health Research: FY 19-20

University of Miami

- Assess toxin exposure of a representative group of people exposed to HABs
  - Sample blood, urine, and lung function
  - Complete health survey
  - Look for visitors, residents, and those working around water
- Test air filtration systems' ability to filter HAB toxins

DOH Funded Health Research: FY 19-20

University of Florida

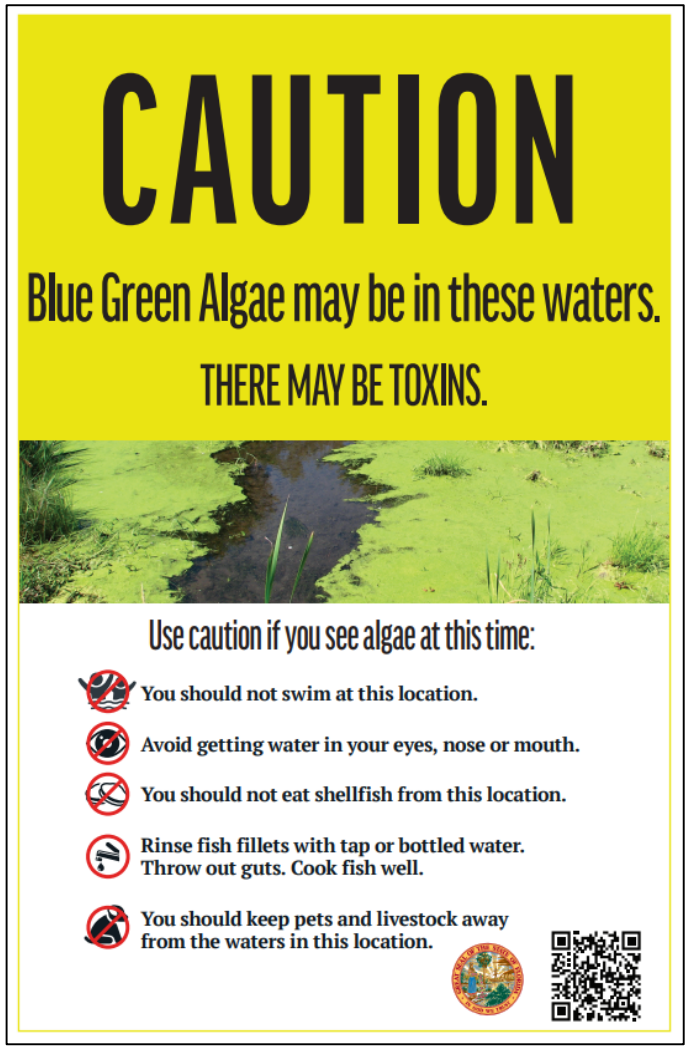
- Link electronic health record data to identify potential hotspots of human diseases associated with cyanobacterial toxins
- Provide environmental sampling with the St. Johns River Water Management District and Florida Lake Watch Network
- Analyze environmental samples for cyanotoxins

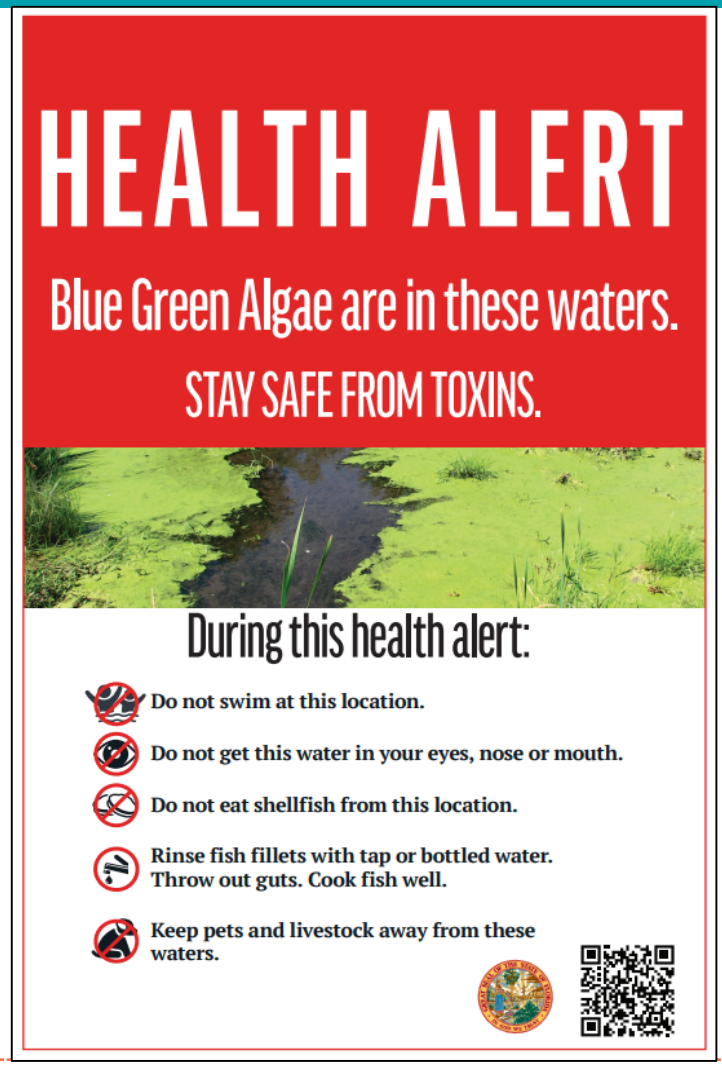
DOH Funded Health Research: FY 19-20

Florida Gulf Coast University

- Provide environmental sampling in support of CDC community exposure study including design and statistical analysis of data collected
- Isolate cyanobacteria species from the bloom that have no information on toxicity to better understand potential human impacts

Cyanobacteria/Blue-Green Signage





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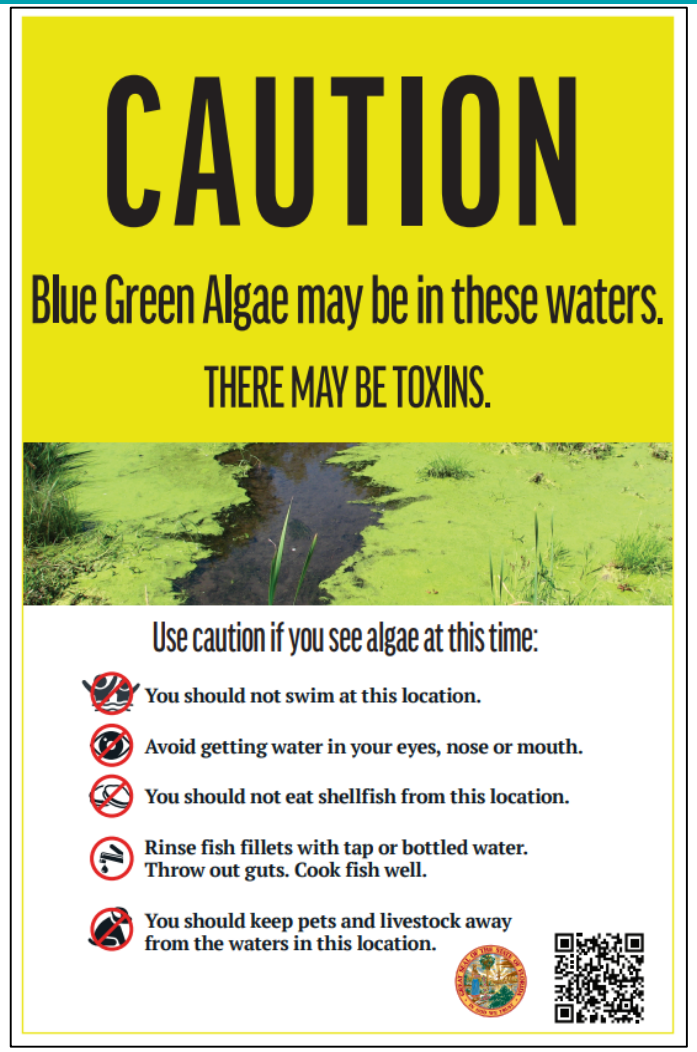
Cyanobacteria/Blue-Green Caution Sign



"If you see algae, stay out of the water"

- Placed at beginning of season
- Removed at the end
- Placed where public may contact HABs
- Locations chosen with local partners
- Consistent statewide approach
- Real-time
- Posted at publicly accessible points where blooms are present
- Not reliant on toxin results
- Easy to understand, clear message

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Cyanobacteria/Blue-Green Health Alert Sign

- Data driven
  - Local decision whether to use or not
- Uses laboratory-certified data
  - Trigger is the presence of toxins
  - Absence of toxin triggers removal of the signs
- More messaging available
  - Local County Health Department (CHD) website alert
  - Press release
  - **Health Alert** signage

Questions?

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