

# **Assessment of the Public Health Risk from Cyanobacteria and related Toxins in Surface Water with Recreational Use**

Conducted for the

Aquatic Toxins Program  
Division of Environmental Health  
Florida Department of Health

under

US Centers for Disease Control and Prevention  
Grant #U50-CCU423360-01

by

University of North Florida and GreenWater Laboratories

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# Personnel

- **Greg Ahearn PhD, University of North Florida (UNF):  
Contract Manager**
- **Dale Casamatta PhD, UNF: Cyanobacteriologist**
- **Chris Williams PhD, GreenWater Laboratories (GWL):  
Project Manager**
- **Mark Aubel PhD, GWL: Analytical Chemist;**
- **Mr. Andrew Chapman MS, GWL: Phycologist**

# Objectives

- **Contact local Departments of Health and organize talks regarding the significance of blue-green algal toxins**
- **Develop primary contacts at local Departments of Health for dissemination of data**
- **Develop outlets for the dissemination of data and its implications to the public**
- **Develop an alert system for recreationally utilized waterways**

# Year 02 Project

- **Cyanotoxins are common components of Florida freshwater systems and have been reported at concentration levels > 100 ug/L**
- **Cyanotoxins are documented to be hepatotoxins, neurotoxins, and dermatotoxins**
- **Funding for monitoring**

# *Microcystis* bloom



# Pinellas County bloom



# *Anabaena* bloom



## Headline News

Coroner cites algae in teen's death  
(Dane County, Wisconsin; Journal Sentinel; July 2002)

Florida lax on algae risk, experts say  
(Orlando Sentinel; February, 2004)

40 people reported getting sick after being exposed to the toxic algae  
(Journal Star; Lincoln, Nebraska; July 2004)

Woman knows deadly danger of algae toxin  
(Wisconsin State Journal; June 2004)

Toxic Algae Found On 40-Plus Nebraska Lakes, Ponds  
(Omaha Channel; July, 200)

Blue-green algae that decorates lakes can be harmful to humans and pets  
(Portage Daily Register; June, 2004)

Cascade lakes tested for blue-green algae risk (Bend Bugle; June, 2004)

# **Future Direction**

- **Expanded areas of inclusion**
- **Epidemiological studies**
- **Public awareness programs**
- **Development of recommended guideline levels for individual cyanotoxins**
- **State-wide alert system for cyanotoxins and possible response plan to bloom events**

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Aquatic Toxins Program  
Division of Environmental Health  
Bureau of Community Environmental Health  
4052 Bald Cypress Way  
Tallahassee, Florida 32399-1712

To report illnesses related to Blue Green  
Algae (Cyanobacteria) call the toll free  
Aquatic Toxins Hotline at 1.888.232.8635