

# Ongoing Research

With Financial assistance from the Province of New Brunswick's Environmental Trust Fund, The City of Moncton, in partnership with the Université de Moncton, is conducting research to better understand the algae present in the Irishtown reservoir.

- In the first year of research the main goal is to create a picture of the overall water quality and the diversity of life present in and around the water.
- In the second year of research we hope to find solutions to the overgrowth of algae and limit the input of nutrients in the water.
- In the third year, our goal will be to monitor the success of the chosen remediation to insure that the algae blooms do not reoccur.



## What are blue-green algae?

Blue –green algae are photosynthetic bacteria, they contain pigments like plants for converting sunlight into energy. They are microscopic in size.

## Where can they be found?

Blue-green algae occur around the world in both fresh water and salt water.

## What does a bloom look like?

Colors may vary depending on species but typically water will take on a green tint. Often there will be a bad odor as well. When the algae rise to the surface it has often been described as if the surface of the water had been painted green.

## What causes a bloom?

Blooms are triggered by excessive nutrients. This is further accelerated by warm weather and calm conditions.

## Why are blue-green algae a problem?

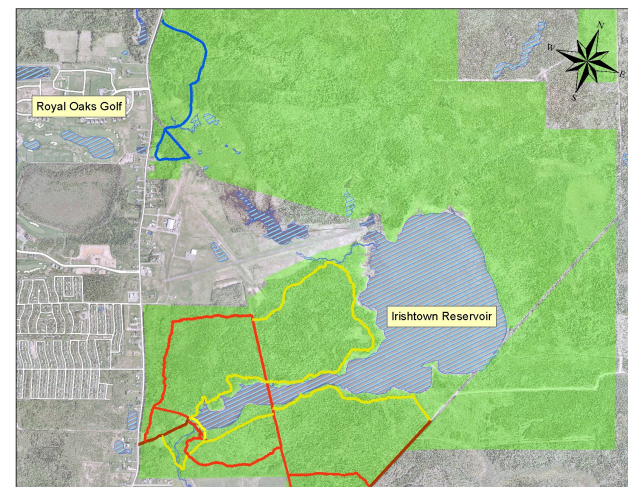
When they occur in excess they can replace other species, creating an imbalance in the ecosystem and deprive other species of food. They can also reduce oxygen levels and result in fish kills. They can become sufficiently dense that fish eating birds can no longer see their prey. An example of visual predators would be loons.

## Are there any health concerns?

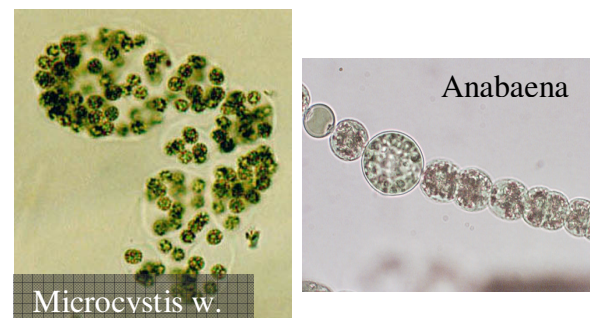
Major concerns come from ingestion of contaminated water. Symptoms can range from severe diarrhea, headaches, vomiting and fever. Dogs are more susceptible than humans and children are more susceptible than adults. Secondary concerns stem from skin contact with the water and can result in rashes and irritation. The general recommendation is not to enter the water that is a soupy green color.

## What can be done to control outbreaks?

The ultimate solution is to control the input of nutrients.



## Blue-green algae seen through a microscope



# Partners in Research

Notes

City of Moncton



Université de Moncton



Petitcodiac Watershed Alliance



Province of New Brunswick



Your Environmental Trust Fund at Work

Votre Fonds en fiducie pour l'environnement au travail



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Cyano-Bacteria Bloom Monitoring

