

CYANOBACTERIA

WHAT YOU NEED TO KNOW

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What are cyanobacteria?

Cyanobacteria, commonly called blue-green algae, are actually bacteria. They are a natural and essential part of our rivers and lakes, and have existed for billions of years.

Cyanobacteria are not normally visible, but with the right conditions (warm temperatures, sunlight, flow, and food - nutrients) populations can grow quickly and clump together to form what is called a bloom.

While not all cyanobacteria are harmful, some can produce toxins that are harmful to humans.

If you swim in water containing toxins, you may experience skin, eye, and/or throat irritation. More serious effects, such as gastrointestinal illness and/or numbness or tingling of fingertips and around the mouth can occur if toxins are consumed.

Surface Blooming Cyanobacteria

Surface blooming cyanobacteria are what people commonly think of when they hear cyanobacteria bloom. They can look different depending on the size of the bloom and species of cyanobacteria. They are most likely to form in warm, slow moving water like lakes and bays and may produce toxins.

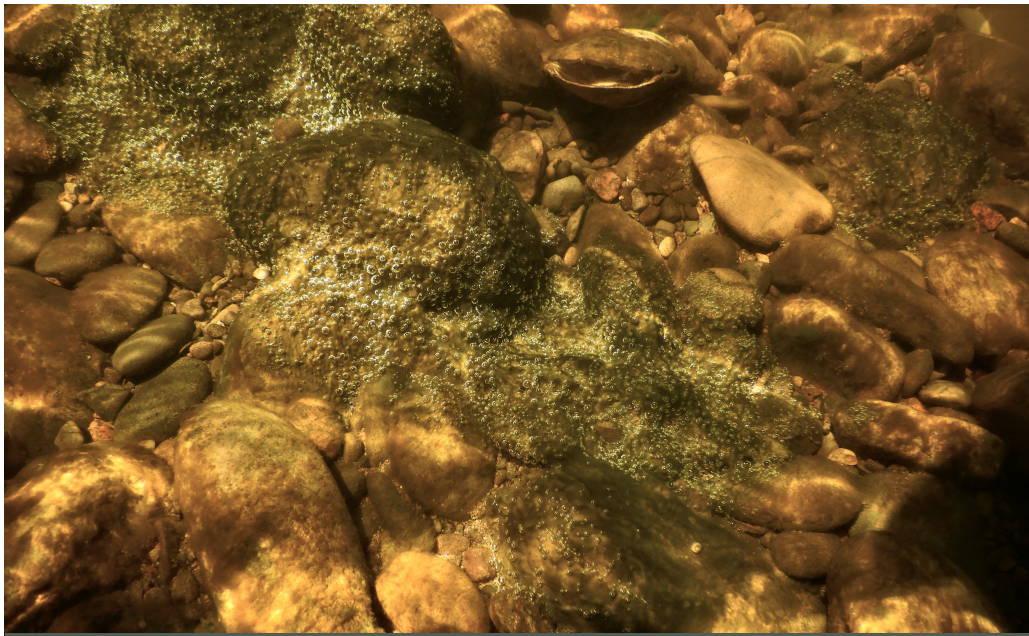
How to spot a cyanobacterial bloom:

- *Blooms most commonly look like green or blue-green scum along the surface of the water but other colours are possible. If the bloom is thick it may appear as though paint or hydroseed has been spilled on the water. Wind/waves can cause blooms to accumulate along the shore.*
- *When a bloom is forming, or wind/wave action has dispersed the bloom, the water can appear cloudy. The water may also appear clear with small green or blue-green globules (balls) or flecks suspended in it.*
- *Fresh blooms can smell like freshly cut grass and older blooms can have a foul smell.*
- *Blooms can appear and disappear quickly or overnight.*

To learn more about the health impacts and what you can do to protect yourself visit gnb.ca/algae

Example of a surface bloom.

Blooms are unpredictable and can move in the water column, so always check the water before entering. If you see a bloom, do not swim or engage in recreational activities that may involve contact with water in areas where blooms are present.



Examples of typical benthic mats (Photos: Meghann Bruce).

Benthic Cyanobacteria

Benthic cyanobacteria may form mats along the bottom of flowing streams and rivers. Benthic mats contain a mixture of cyanobacteria and other microorganisms. Unlike a surface bloom, these mats can be present in water that is clear.

Some species of benthic cyanobacteria can produce toxins. Human poisonings from benthic mats are unlikely as most people are not likely to ingest mat material. Dogs are attracted to the scent of decaying mat material and are at a greater risk of poisoning because they are more likely to ingest fatal doses.

How to Spot a Benthic Mat:

- *Mats under the water will often have many tiny bubbles on them.*

- *Mats are clumps of vegetation that can appear as scum on rocks, mud, or other vegetation along the bottom of the stream or river. They can be brown, black, or dark green.*
- *When they break off and float to the surface, the bubbles disappear, and it can appear spongy.*
- *On the shoreline, mats become dry and can appear light brown or grey. Dried out, washed up mat material may still contain toxins.*

When mats grow in excess, parts can break off from the bottom, float in the water, and wash up on shore making them accessible to children and pets. Carefully watch children and pets to ensure they do not play with or ingest pieces of benthic mats or plants found floating or washed up along the shore.

To learn more about cyanobacteria, health risks, and reducing the risk for you, your kids, and pets, please go to our website: www.acapsj.org/cyano

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