Cyanobacteria (Blue-Green Algae)

November 2024

What is it?

Cyanobacteria (sometimes called blue-green algae) are plant-like microscopic organisms that occur naturally in freshwater, particularly ponds and lakes. Although most often coloured blue-green, some types can also be green-brown, red-brown, or even red.

Some species of cyanobacteria can produce harmful toxins which may pose a health risk to people and pets if consumed, inhaled, or through skin contact. For ecosystems, large cyanobacteria blooms can be problematic when they decay and deplete oxygen in the water required to sustain aquatic life.

How to recognize it

Being microscopic, cyanobacteria are not normally visible in the water, under certain conditions blue-green algae populations can rapidly increase and form large masses of surface scum called a “bloom”.

Blooms most commonly occur in late summer, from mid-August to early September. Cyanobacteria can occur anywhere within a waterbody, but blooms normally are associated with warmer, slow moving shallow water.

Dense cyanobacteria blooms may make the water surface appear bluish-green, while very dense blooms may form solid-looking clumps. Blooms have been described as looking like “green pea soup” or “turquoise paint”. Cyanobacteria blooms can have distinct smells, such as grassy, septic, or rotting garbage.

Are cyanobacteria in the NWT?

Cyanobacteria naturally grows throughout the NWT, but blooms have been historically uncommon. However, under a changing climate with warming temperatures and increased nutrients, new and more frequent cyanobacteria blooms are emerging.

In Great Slave Lake, most cyanobacteria blooms have been observed nearshore in shallower areas of the lake including Yellowknife Bay, the North Arm, West Mirage Islands, and near Baker Island.

in Jackfish Lake near Yellowknife, red-brown coloured blooms have occurred annually since 2013.

Suspected blooms have been observed in Trout Lake near Sambaa K’e, and recently within many other lakes across the Dehcho, South Slave, and North Slave regions.

What does a cyanobacteria bloom look like in the NWT

Species: *Dolichospermum sp.*
Great Slave Lake, North Arm

Species: *Planktothrix sp.*
Jackfish Lake, near Yellowknife

If you spot it

Take a cautious approach, as some species of cyanobacteria can produce toxins that are harmful to both humans, pets and wildlife. Generally, a denser bloom is potentially riskier than a thinner bloom. Remember that boiling lake water will not remove toxins.

If you suspect a cyanobacteria bloom, take the precautionary approach:

- assume toxins are present
- avoid using, drinking, bathing or swimming in the water
- restrict pet access to the water

If you spot a cyanobacteria bloom, please contact your Regional ECC Office.