

# How to not let algae blooms harm your water fun in the sun

Karla Gimby Science matters. [Daily Gleaner](#) [Fredericton, N.B] 25 June 2008: B.8.

With the heat of the summer descending upon us, more and more people will be seeking comfort and reprieve in some of the cool and welcoming lakes and rivers around the province.

But what, you may ask, does this have to do with blooms?

There is a phenomenon called an algae bloom in which a mass of blue-green algae forms in a body of water. The scientific name of this algae is cyanobacteria, but it is more commonly known as pond scum.

This type of algae grows in shallow, warm, slow-moving or still water such as fresh water lakes, ponds and wetlands. The bacteria can range in colour from olive-green to red.

When conditions are favourable - such as hot, calm weather, most often in July and August - the numbers of algae can increase dramatically, which can lead to blooms.

When the blooms rise to the surface of the water, they cover the surface and can look like thick pea soup. During a blue-green algae bloom, the water looks and smells bad.

Most blooms are short-lived and an affected area will be safe again in a few days or a couple of weeks.

Some algae blooms can be toxic or poisonous if swallowed by wildlife, livestock or people. If you drank water with toxic blue-green algae, you might experience symptoms such as fever, sore throat, dizziness, stomach cramps, diarrhea or vomiting.

If you swim or boat in contaminated water, you may get itchy and irritated eyes and skin.

Not all algae blooms are harmful, though. Between 30-50 per cent of them contain non-toxic cyanobacteria. However, because there is no obvious way to tell if a particular bloom is toxic, samples should be analyzed before a body of water can be declared safe.

The tricky thing is that even if you can't see an algae bloom on the surface of the water, that doesn't mean one isn't there. Blooms can be suspended at various depths in the water, where they

can't be seen. The depth of the bloom depends on a numbers of factors this type of algae needs in order to survive, such as light, phosphorous and nitrogen.

Because the availability of these elements changes rapidly depending on the time of day and the weather, cyanobacteria have evolved to be able to control their buoyancy so they can sink and rise at will to be able to move to where nutrient and light levels are highest.

Algae blooms often seem to appear suddenly overnight, because algae need light in order to move.

At night when there is no light, these cells can't adjust their buoyancy and often float to the surface, leaving a film of scum on top of the water. This scum literally appears overnight and stays there until the wind and waves scatter the cells through the water.

To prevent illness from blue-green algae, do not:

- \* drink untreated water from water bodies, whether you can see a bloom or not;
- \* wade, swim or bathe in water with a visible bloom;
- \* cook or wash dishes using water with blue-green algae in it;
- \* let pets or livestock drink from water containing a bloom.

A hot, summer day on the water is supposed to be fun and relaxing.

Keep it that way by not swimming, boating or paddling in any water that has blue-green algae in it.

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