

Learn more about Blue-Green Algae

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What are blue-green algae?

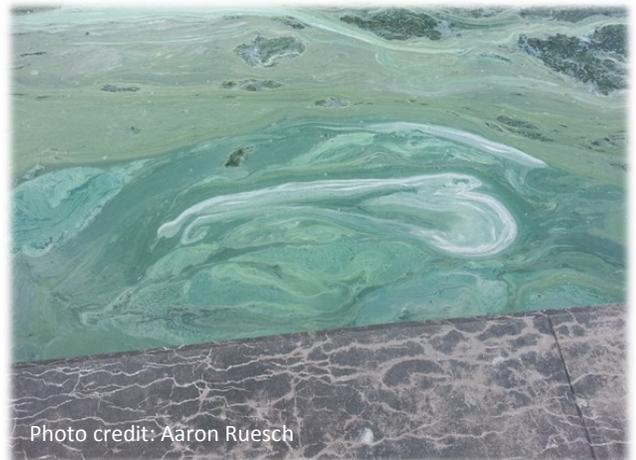
During hot summer months, blue-green algae may “bloom,” or grow to high densities in eutrophic water bodies in Wisconsin. Blue-green algae, or cyanobacteria, are actually photosynthetic bacteria. They grow best at high temperatures, so the warm waters of late summer offer them optimal growing conditions. Blue-green algae float, and calm weather allows them to accumulate at or near the water surface where they become noticeable in high concentrations as blooms. Blue-green algae are in every water body in Wisconsin, but blooms are most likely to occur in water bodies which contain excess nutrients that fertilize both plant and algae growth.

Blue-green algae are not always blue. They are usually green when they are actively growing, and in high concentrations they give water a “pea soup” appearance from the presence of many tiny green particles. These high concentrations of algae are known as a “bloom.” Because they float, blue-green algae can be moved around lakes by wind and currents, and they can be concentrated into scums with extremely high algae densities. When blooms decompose and release pigments, you may see many vivid colors appear, including blue, purple, white, and brown, giving blooms a paint-like appearance.

Impact on aquatic ecosystems and human health

Blue-green algae blooms have an adverse impact on aquatic life. In lakes that have high blue-green algal densities for most of the summer, aquatic plants are shaded, which inhibits their growth. Blue-green algae can displace other types of algae, resulting in poorer food sources for aquatic organisms and potentially affecting the aquatic food web. When blooms die, their decomposition depletes oxygen levels in the water.

Blue-green algae are a concern because some bloom-forming species may produce toxins that cause illness if people or animals swallow them in water or inhale them in water droplets. Skin contact with blue-green algae may also cause rashes in some people. Since you cannot tell if a bloom is producing toxins just by looking at it, be cautious about any high concentration of blue-green algae in water. For a good rule of thumb, if you can wade knee-deep into water and cannot see your feet because the water is green and opaque or any other unusual color, you should stay out. Algae cell densities are high enough that if the algae are producing toxins, you could become ill if you swallow water or inhale water droplets. Small children and pets should always be kept out of the water in these conditions. At lower densities, you still want to avoid swallowing water because other pathogens may be present.



Blue-green algae are green when they are growing. Water that is green and opaque from the presence of many tiny particles contains high concentrations of blue-green algae in what is known as a bloom.

With common-sense precautions, you can safely enjoy recreation on Wisconsin's lakes and rivers:

- Choose locations without noticeably green water for swimming without algae concentrated by wind into "pea soup" conditions and avoid areas that look like paint spills or have scums. Keep children and pets out if water is opaque and green or if scums are present.
- To avoid inhaling algae, do not boat or water ski through blue-green algae blooms.
- Always offer fresh, clean water for pets to drink and do not let pets swim in, or drink, waters experiencing blue-green algae blooms, noticeably green water or water containing many tiny green particles.
- Wash off after contact with any surface water and wash pets off immediately after swimming, before they can lick algae from their fur.
- Always avoid swallowing untreated surface water - it may contain pathogens other than blue-green algae that could make you ill.
- Clean fish thoroughly and eat only the fillet, not the viscera or guts. Wash your hands after handling fish caught during blooms and rinse fillets thoroughly before cooking or freezing.



Photo left: When blue-green algae blooms decompose, colors such as blue, purple, white and brown may be visible.

Photo right: Filamentous green algae may be mistaken for blue-green algae. Filamentous green algae grow in long, green strands approximately the size of human hair.

Photo credits: Gina LaLiberte

Learn more about blue-green algae:

You can find more information about the health effects of blue-green algae at the [Wisconsin Department of Health Services website \[exit DNR\]](#). You can also report human and animal illnesses potentially related to blue-green algae exposure at this website.

For more information about blue-green algae, click [HERE](#).