

IDENTIFICATION GUIDE:

Blue-green Algae

fact sheet



Blue-green algae bloom



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Blue-green algae bloom decaying along shoreline

Algal group:

Cyanophyta (cyanobacteria, blue-greens)

Scientific Name:

Some of the most common forms of blue-greens are *Anabaena*, *Aphanizomenon*, *Oscillatoria*, *Microcystis*, *Aphanocapsa*, and *Chroococcus*.

Description:

There are hundreds of species of blue-green algae. They are usually microscopic, but high concentrations can sometimes be seen with the naked eye. They can be individual spherical cells, colonial, or filamentous. Many blue-green algae species have special adaptations that give them a competitive advantage over other types of algae. For example, *Microcystis aeruginosa* can control its exposure to sunlight and nutrients using floatation devices called gas vesicles, that allow it to move up and down in the water column. Other species in this group have structures known as heterocysts that allow them to transform nitrogen from the air into a biologically usable form. This gives blue-greens a nutrient source unavailable to other types of algae.

Habitat:

Blue-green algae can be found in all aquatic habitats, including wet walls and ditches. Most are found floating freely in nutrient-rich ponds, lakes and slow moving rivers. Some filamentous blue-greens grow within sediment and form thick, dense mats that break apart and float to the water's surface.

Significance:

Blue-greens are notorious bloom formers. These blooms can cause unsightly water discoloration, surface films, flecks, mats, and taste and odor problems. Some are even known to produce toxins. However, there have been no documented cases of health problems caused by blue-green algae in North Carolina.

North Carolina Division of Water Resources

Learn more: www.algae.nc.gov