IDENTIFICATION GUIDE: Blue-green Algae fact sheet

Cyanobacteria bloom

Cyanobacteria algae bloom

Cyanobacteria bloom decaying along shoreline

Algal group:

Cyanophyta (cyanobacteria, blue-green algae)

Scientific Name:

Some of the most common forms of cyanobacteria are *Anabaena (Dolichospermum), Aphanizomenon, Oscillatoria, Microcystis, Aphanocapsa,* and *Chroococcus.*

Description:

There are hundreds of species of cyanobacteria. 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 cyanobacteria 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 cyanobacteria a nutrient source unavailable to other types of algae.

Habitat:

Cyanobacteria 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 cyanobacteria grow within sediment and form thick, dense mats that break apart and float to the water's surface.

Significance:

Cyanobacteria are notorious bloom formers. These blooms can cause unsightly water discoloration, surface films, flecks, mats, and taste and odor problems. Some are known to produce toxins.

North Carolina Department of Environmental Quality Division of Water Resources

Learn more: www.algae.nc.gov