

Michigan Harmful Algal Bloom Picture Guide



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY



Cyanobacteria

- Also known as “blue-green algae”
- A normal and important part of many aquatic ecosystems
- Can produce cyanotoxins and other irritants that can be harmful to people and animals
- There are many different species of cyanobacteria, and not all produce cyanotoxins
- A “bloom” occurs when there is a rapid increase in cyanobacteria
 - This may be called a “harmful algal bloom” or “HAB” if the bloom can produce toxins
- Can also produce strong odors

Appearance of Cyanobacteria

- Cyanobacterial blooms can be a variety of colors:
 - Green, blue-green, blue, brown, yellow, white, purple, or red
- They can look like scums in the water and may have small flecks, foams, or sometimes globs and mats floating in it
- The water can also look like it has spilled paint or a green sheen on the surface
- You cannot tell if cyanotoxins are present in a cyanobacterial bloom just by looking at it

Examples of green cyanobacteria



Examples of blue cyanobacteria



Photo credit: Jaimee Desjardins, Professional Lake Management



Examples of red or purple cyanobacteria



Examples of lake conditions
commonly mistaken for
cyanobacteria

Filamentous green algae



Duckweed

- Can look like cyanobacterial scums from far away but up close there are individual plants

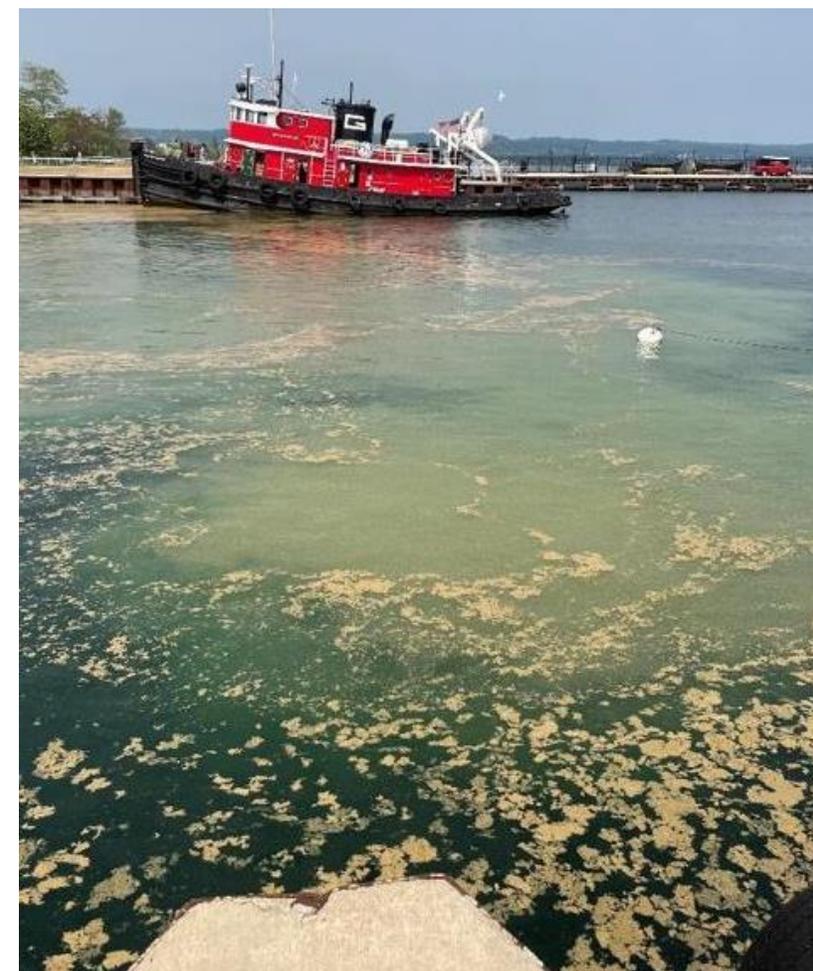


Aquatic plants



Pollen

- Often seen in spring and early summer
- Accumulations of airborne pollen from surrounding trees can be deposited on a lake and then accumulate along with shoreline
- Pollen can get mixed into the water due to wave action and make the water appear cloudy, often with a yellow coloration



Oil sheens



Iron seeps

- Often seen in streams where iron-rich ground water reaches oxygenated zones



Red tree/shrub roots

- Often seen along the water's edge where trees and shrubs are nearby and the root system extends into the water



Insect exuvia (cast-off outer skins)

