

Lake Gaston and *Lyngbya wollei*



Figure 1. Floating *Lyngbya* mats.

In the summer of 2020 the Virginia Department of Health received several reports of floating mats of *Lyngbya/Microseira wollei*, sometimes called black mat algae, at Lake Gaston (see Figure 1). Mats were reported from two locations on opposite shores of the lake. At times this algae will grow rapidly and produce what is called a bloom.

The result can be mats of algae that float in the water or wash up on shore. Since *Lyngbya* is known to have the ability to make several toxins, blooms can pose a risk to swimmers. As the weather warms up this spring, *Lyngbya* blooms may occur again.

What is *Lyngbya*?

Lyngbya wollei is a type of blue-green algae, or cyanobacteria, that grows in freshwater lakes and rivers. It normally grows on the lake or riverbed and forms thick mats that slowly spread. When conditions are right the mats can cover large areas and crowd out other vegetation. Mats can sometimes detach from the bottom and float to the surface, and can wash up on shore. The mats are a dark green to black color. They are fibrous and dense, like wet wool or cotton, and have an unpleasant musty smell. Mats may wash up along the surface or in coves where water is shallow where they may dry out (see Figure 2).



Figure 2. Dried *Lyngbya* mat.

Health Risks of *Lyngbya* Blooms

Some strains of *Lyngbya* are capable of making toxins that can cause skin irritation. In some cases, strains have been found to make cylindrospermopsin, a toxin that causes liver damage, or saxitoxin, a neurotoxin that can cause gastrointestinal and neurological symptoms. You cannot tell from looking at algal mats if they contain toxins or not. There have been no known cases of illness associated with *Lyngbya* in Virginia's natural waters, but swimmers should watch out for mats and stay out of the water if mats are floating.

Lyngbya and Pets

Dogs are more vulnerable to poisoning by *Lyngbya* and other toxic blue-green algae because they may drink lake water or eat mat material, so they may ingest a larger dose of algal toxins. Virginia has not had any reported cases of illness in dogs due to *Lyngbya*, but if you observe mats in the water or along the shoreline, keep dogs away from the water. Dogs that swim in natural waters should be rinsed with clean water after they are done swimming.

Best Practices when *Lyngbya* blooms are Present

- If you get algae on your skin, rinse well with clean water. Symptoms from harmful algae exposure can include upset stomach (nausea, vomiting, and diarrhea), skin rash, tingling or burning skin, and coughing. Children and pets are most vulnerable because they are more likely to swallow the water; even a small amount can cause illness. If you have health concerns from algae exposure, contact your medical provider.
- Report algal blooms using the online form at www.SwimHealthyVa.com.
- Report suspected health effects of harmful algal blooms to (888) 238-6154.

For more information or to report blooms of *Lyngbya* or other harmful algae, visit: www.SwimHealthyVA.com.