

What IS that Floating in the Waters of Lake Gaston?

When thinking of aquatic weeds in Lake Gaston, most of us are aware of the usual suspects. Hydrilla, Brazilian Elodea, and Eurasian Water milfoil are household names and the news of their existence is hardly new. Another culprit, however, might not be as well-known by lake residents and can have just as severe an impact as its dastardly counterparts.

Lyngbya is a filamentous Cyanobacteria (algae-like plant) composed of cells surrounded by a tough sheath. Its hair-like strands crowd together in thick, tangled mats which can occur along the bottom of the lake or floating. There are more than sixty known species of Lyngbya that occur in both marine and freshwater environments. Most of the freshwater forms are harmless; however there is at least one noxious form of Lyngbya present in southeastern lakes, including Lake Gaston.

Lyngbya wollei or Giant Lyngbya is an extremely aggressive form of Lyngbya that can result in literal tons of plant material in a relatively small area. Lyngbya resembles human hair and is most often black in color until late summer when it turns a mottled green, black, and white. Lyngbya needs abundant nitrogen, phosphorus and dissolved organic solids to thrive, therefore it is often found in dense mats at the bottoms of nutrient rich lakes. During the warmer summer months, Lyngbya produces gasses during photosynthesis that cause the mats to rise to the surface yielding unsightly sludge that blocks navigation and shades out native vegetation. This is the reason Lyngbya can be very hard to discover and track. Often by the time it is noticed floating at the surface, filaments have had a head start growing along the bottom of the lake.

There are very few benefits from having Lyngbya wollei in a water body. It robs nutrients from otherwise beneficial plants while also reducing sunlight and decreasing dissolved oxygen which threatens fish health. It also deters people from boating, fishing or swimming in the area due to its unsightly appearance and production of a sewage like smell.

To make things worse, Lyngbya wollei is extremely difficult to control. Current physical, chemical and biological control methods are not efficient at levels acceptable for treatment in waters used by the public. Effective herbicide use is hindered by the protective sheath present in Lyngbya, grass carp often prefer other species to feed on over Lyngbya and mechanical removal is very expensive and time consuming.

Although difficult to treat, you can often reduce the likelihood of Lyngbya establishing where you live. Here are just a few tips that could sway the odds in your favor:

1. Refrain from fertilizing areas near the water.
2. Ensure that your community septic system is working properly.
3. Detection is important in new areas: Lyngbya is normally easy to identify being hard to tear apart and appearing black, filamentous, and having a foul smell.

For the 2012 maps of Lyngbya occurrence in Lake Gaston, please visit

<http://www.weedscience.ncsu.edu/aquaticweeds/LakeGaston.asp> or contact Brett M. Hartis at (919)-515-5648 or email bmhartis@ncsu.edu