



King County's SciFYI



King County

Department of
Natural Resources and Parks
Water and Land Resources
Division

A digest of current natural science issues in King County

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Nuthin' But Weeds

by Taylor Lee and Anthony Olachea



King County staff showed the class how lake algae blooms occur, fed by runoff containing fertilizers and animal waste.



Class students removed invasive weeds choking out native plantings around Cottage Lake.

Lakes are very valuable to humans and animals. People go to lakes to swim, keep cool during a hot summer, boat around or even fish. When the lake gets polluted, then people, fish and wildlife get sick. Some could even die.

As part of our summer class in Environmental Science, we went to Cottage Lake in Woodinville to see how our King County Department of Natural Resources and Parks is trying to protect that particular lake.

What Sally Abella and Beth Cullen, staff scientists from King County showed us was a project where they planted trees and shrubs around the lake. The reason for this is to prevent water with fertilizers or animal waste from lawns around the lake to flow into the lake water. The roots of these native trees and plants help filter out the chemicals and nutrients from lawn runoff so that the remaining water that flow into the lake is clean.

For three days this summer, we removed weeds that were growing alongside the planted native shrubs and trees. It is important to take out these weeds, which are considered invasive plants, because they are non-native, and therefore, compete against the native plants for space, water and sun. If we did not take out these invasive plants, they could take over the space and keep the native plants from growing.

We learned a lot from this field study, including how a lake can become nutrient rich when fed by runoff that has fertilizers containing phosphorus could result in a toxic bloom of blue-

green algae. We were taught that these blue-green algae, known scientifically as cyanobacteria are similar to algae, but they are not true algae.

Cyanobacteria are simple life forms closely related to bacteria. When lakes or ponds become nutrient-rich they could support a rapid growth of cyanobacteria which is known as a toxic bloom. When this happens, a "clear" body of water can become very cloudy with a green, blue-green or reddish-brown growth within just a few days.

Sometimes cyanobacteria blooms may produce toxins that are potentially lethal to animals, including humans. The danger is when a lake does not show signs that the toxins are in the water. When the algae dies and these toxins are released, the water gets back to being clear and seems very clean. In fact, if water containing these algae is drunk, it can cause a lot of health problems.

For more information on invasive and noxious weeds visit www.kingcounty.gov/weeds.

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