



September 22, 2014

The Sampler is a monthly e-newsletter produced by the Volunteer Lake Assessment Program.

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Web Highlights

This month's featured lake website is

[Fertilizer Rules Aim to Avoid Algae Blooms](#)

[Using Drones to Limit Fertilizer Flow into Lake Erie](#)

[NRCS and NH DES Reach Landmark Agreement](#)

[NRCS National Water and Climate Center Interactive Map](#)

Upcoming Events

[Source to Sea Cleanup](#)
CT River Watershed Council
Sept. 26th and 27th 2014

[National Public Lands Day](#)
Sept. 27, 2014
Events at six NH State Parks

[NHACC 44th Annual Meeting and Conference](#)
Nov. 1, 2014
Laconia Middle School
Laconia, NH 03246

Seasonal Succession of Algae

Have you ever wondered what different types of algae, also known as phytoplankton, are growing in your lake? VLAP collects phytoplankton samples during the biologist visit and has historical records for each participating lake. The algal assemblage of those samples may change during different times of the year. This is referred to as seasonal succession.

Phytoplankton populations undergo a natural succession during the growing season (Figure 1). Many factors influence algal succession: amount of sunlight, availability of nutrients, temperature of the water, and zooplankton grazing. It is natural for diatoms to be the dominant phytoplankton in the spring and then green algae in the early summer, while cyanobacteria may dominate in mid to late summer. The phytoplankton samples collected often show different dominant species, depending on when the samples were collected.

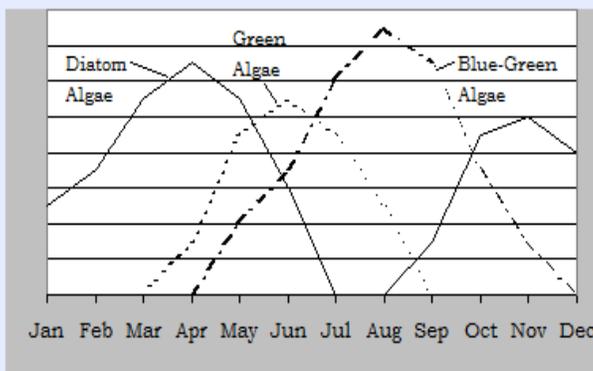


Figure 1. Typical Seasonal Succession of Lake Algae

For more information on phytoplankton populations in your lake or pond, contact the VLAP Coordinator at sara.steiner@des.nh.gov.

September VLAP Summary

September has been an unusually busy month for VLAP sampling, likely due to the late start to the sampling season for some lakes. September has proven to be a beautiful month for sampling however a little cool and dry. The VLAP Coordinator and intern conducted a total of seven biologist visits and volunteers sampled 27 lakes and ponds on their own. VLAP sampling will end on October 3, 2014.

August proved to be cooler than normal and the temperature was 2.2 degrees below average as recorded in Concord, NH. This

Grants

NRCS FY 2015 EOIP Grants

Multiple dates

Limno Lingo

Akinete: A specialized resting cell produced by cyanobacteria that allow it to resist harsh environments. In New Hampshire these cells allow cyanobacteria to over-winter in lake sediments. Akinetes can then germinate to produce new cells when conditions improve.

was the coolest August since 1986. September looks to be following a cooler than normal pattern as well. A total of 3.82 inches of rainfall occurred in August and was 0.64 inches above average. However, most of the rainfall fell on only two days, making August seem drier than it was. Tributaries to our lakes followed the typical pattern of low to no flows in August and that has continued into September.

As the air and water temperatures cool down, our deeper lakes are beginning the process of fall turnover. It is an interesting and beautiful time of year to enjoy our lakes. I hope you all take some time to observe changes that occur as fall arrives and winter approaches. Thank you for another exciting VLAP season and I hope to see you again in 2015!

State Announces Fall Drawdown of Lakes

The NHDES Dam Bureau announced its [list of lakes](#) that will experience a drawdown in fall 2014. Lake drawdowns are conducted each fall to reduce winter ice damage to shoreline properties and to reduce spring flooding. Drawdowns also give property owners an opportunity to conduct any necessary repairs to their waterfront property, provided they first secure a permit from the NHDES Wetlands Bureau at (603) 271-2147.

The NH Fish and Game Department recommends that if special drawdowns are to be conducted for the purposes of repairing property such as retaining walls or private boat ramps they occur only once in every 5 years. In the event a party may wish to conduct such a drawdown, please contact the NHDES Dam Bureau immediately after receiving all permits required for such work, so that the drawdown can be coordinated with any other work at the same water body being proposed by other parties. In this way the number of special drawdowns can be minimized, and unexpected delays (up to 5 years) for your project can be avoided.

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