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.

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 EQIP 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 overwinter 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.

---

NH Department of Environmental Services
29 Hazen Drive
PO Box 95
Concord, New Hampshire 03302
This email was sent to: sara.steiner@des.nh.gov
Unsubscribe