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The Autumn Leaves, Shoreline Restoration, and Water Quality

by Allison Slavick

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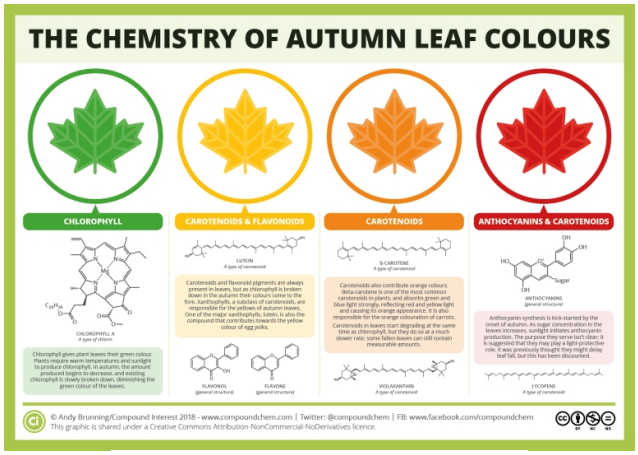
Gustave Courbet, Forest in Autumn, 1841

Upon a withered branch
A crow has stopped this
Autumn evening
-Basho (1644-1694), Haiku Master

There's no denying that autumn in northern Wisconsin – or most anywhere – evokes strong emotions. Imagine migrating geese honking overhead and flocks of cedar waxwings and robins stopping by your yard for crabapples and mountain ash berries. Along the roadsides, goldenrod and asters bloom into October. Brilliantly colored foliage in the sun, leaves drifting around, even the odor of leaves as they layer the ground capture the imagination. The inspiration of fall has been palpable throughout human civilization. In music, autumn is understandably metaphorical with lyrics that lament lost love and the passage of time. Poems evoke cycles of life and remembrances. Consider the most famous paintings of fall with interpretations that span realism to Impressionism to abstraction.

You've likely heard that the colors of autumn are always present in leaves. If you've watched closely in spring, you've seen emerging leaves that bear rich shades of their corresponding fall colors. Those colors are quickly masked by the development of bright green chlorophyll, which is key to food production in plants. When the days shorten and temperatures drop in fall, plants cease to make food and chlorophyll is lost. Leaves senesce as plant cells lose their power to divide and grow, and the colorful pigments called carotenoids (yellow pigments) and anthocyanins (oranges and reds) are unveiled. This sequence of plant physiology is as equally marvelous as the colors it reveals.

Evergreens like the magnificent white pines lose some of their needles in the fall, too, when two- or three-year-old needles turn yellow and drop. The American larch or tamarack is a conifer (a cone-bearing tree like pines and spruces) that loses all its leaves just as maples, oaks and birches do. The needles of the tamarack and other conifers are actually modified, scaly leaves. The golden color of tamaracks late in fall make them easily recognizable in bogs.



Courtesy of Compound Interest

Leaves and needles that fall to the ground are important to the health of the ever-cycling forest ecosystem. As leaves decompose, they replenish the soil with nutrients. Detritivores – the collective term for organisms that feed on plant detritus – include earthworms, millipedes, and snails. Fungi and bacteria contribute by breaking down leaves into tiny organic pieces that contribute to the richness of the forest soil.

You may even be part of this cycle if you find a night crawler under the forest duff, use it to catch bluegills off your dock, and then pan fry the fish for a shore lunch.

Significant to Lac Courte Oreilles is the role of the spongy forest floor and natural shorelines

to water quality. Fallen leaves prevent soil from taking a direct hit from raindrops and help prevent erosion. Soils rich with decomposing leaves and other organic matter absorb and filter rainwater. A natural shoreline and buffer zone may help filter or trap herbicides, pesticides, and fertilizers if (unfortunately) used, out of the lake.

If you have a lawn, consider restoring your shoreline to a natural state. It is simple to begin: leave a broad strip of fallen leaves along the shore. Rake more leaves into the area to form a deep layer of free mulch. Form a meandering path to your dock or shore. Native plants will soon establish themselves, and you may add small native shrubs and ferns.

By leaving leaves alone, you'll contribute to the overall biological health of the lake. Cleaner, clearer water provides better habitat for fish, leading to a stronger fishery. A shoreline with a buffer zone offers places for wildlife like toads, salamanders, and warblers that feed along the shoreline. Migrating birds will pass through diverse shoreline habitats. A natural shoreline enhances the beauty of Lac Courte Oreilles and adds to the sense of calmness for all lake users. Why not start now, on a crisp autumn day? Before stepping outside at Lac Courte Oreilles, take a "movement break" with this Fall Freeze Dance that will energize you for taking a walk through the woods. Soak up the sights and smells of autumn or write a poem or draw a leaf. Soon, we'll hear "old winter's song." Thank you, Nat King Cole

The American larch or tamarack is a conifer that loses all its leaves just as maples, oaks and birches do. Their beautiful golden color makes them easily recognizable in bogs. Photo courtesy of Emily Stone, naturalist at the Cable Natural History Museum.

Allison Slavick watches leaves from her home on Crystal Lake in southern Bayfield County.

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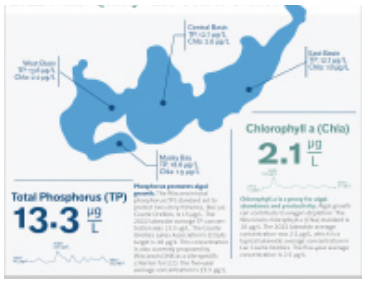
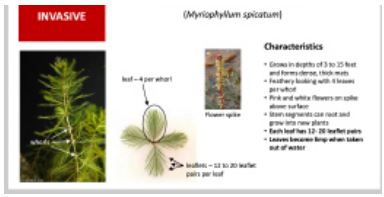
The Standard for Site Specific Phosphorus is Approved the Governor!

On September 7th, Governor Evers signed his approval to lower site-specific phosphorus criteria in Lac Courte Oreilles to 10 ug/L. Unfortunately, efforts for meeting this criteria are on a voluntary basis. Nonetheless, the rule was proposed by the Natural Resources Board on July 6th after a unanimous vote . (more)



LCO's WATER QUALITY 2022

The complete 2022 LCO water-quality assessment based upon Wisconsin's Consolidated Assessment and Listing Methodology (WisCALM) protocol is available here.



HOW TO DISTINGUISH NATIVE FROM INVASIVE WATERMILFOIL AND PONDWEED

Please help COLA map areas with invasive Eurasian watermilfoil and curly-leaf pondweed. These invasive species are often misidentified and confused with native species of milfoil and pondweed that are common in the LCO lakes, so please use this guide before contacting COLA. If you find invasive species and even (more)

Questions, comments or suggestions for future articles may be sent to communications@cola-wi.org

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COLA Mission: 1) to protect, preserve and enhance the quality of Lac Courte Oreilles and Little Lac Courte Oreilles, their shorelands and surrounding areas, while respecting the interests of property owners and the rights of the general public; and 2) to consider, study, survey and respond to issues deemed relevant by COLA's membership.

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