



Nature Guides

Nature Paints: Fall Foliage

Early October

Featured Event: Fall Foliage

As we drove home this past weekend from Waterloo and past Belfountain on the back roads, we watched fall really begin as the colours began to change and get more intense as we approached home. Still a long way to go, but a sign of more colours to come.

The colour shift is keyed by day length, rather than temperature or frost -- as the days grow shorter, the trees begin to pull nutrients back into the tree for storage over the winter, and the production of chlorophyll (the green pigment that captures the sun's energy) shuts down. As the greens fade, reds, yellows and oranges that had been hiding there begin to show. Carotenes give us the yellows and oranges, while anthocyanins provide the reds. Try this activity to witness the invisible colours right in the classroom.

Again, the intensity of the colour has more to do with sunlight than with temperature. Colours will be more intense if there's been a good growing season – plenty of water and sunlight. Also, reds are more intense when fall sunshine allows the production of additional sugars and cool, but not freezing nights slow the enzyme activity that destroys the anthocyanin pigments. With a wet summer and plenty of fall sunshine, this year the trees are predicted to put on a spectacular show.

Colour can be quite variable, both within and among different species. White Ash can vary from yellow to purple. Male Red Maples tend to be red and females yellow. For oranges, look to Sugar Maples and Staghorn Sumac; for yellows, Silver Maple, Trembling Aspen and White Birch; for reds, Red Maple, Pin Cherry and oaks. There is some evidence that individual trees turn a similar colour each fall. Try your own observational experiment by noting the colours of trees nearby your home or school in a journal or painting and compare the colours in subsequent years.

Finally, a corky layer forms between the leaf and the tree, eventually weakening and detaching as the leaves fall and drift on the autumn winds. Eventually, the leaves find their way to forest floor, where although dead, they become part of an important cycle providing life by decomposing, providing food for numerous soil organisms, and putting nutrients back in the soil.

To find out the extent of colour in your local provincial parks, visit Ontario Parks Fall Colour Report.

Other Happenings:

- Many of the warblers that have been flitting about are now heading south. Golden-crowned and Ruby-crowned Kinglets, however, are arriving in some numbers, along with Yellow-rumped Warblers, which are the last warblers to leave in the fall.
- Northern Canada Geese continue to over fly the area.
- Your backyard feeders may be busier now than at any other time of the year, as residents prepare for winter, and

Top R4R Picks

Resources for extending the learning

➤ Five Minute Fieldtrips
Elementary, Middle

➤ Go Johnny Go
Elementary

➤ Forests Alive
Elementary

migrants fill up for their long trips. Get out the guides and start identifying!

- In the forest the drumming of the male [Ruffed Grouse](#), commonly heard during the spring mating season, returns as young males establish their own territories.
- Another sign of fall: rustlings from the attic. [Deer Mice](#) are looking for a secure winter nest, and often seek out buildings, woodpecker holes or even birdhouses. Care should be taken when handling deer mice and their droppings, as they may have the [Hantavirus](#), which can cause a serious infection in humans. [Big Brown Bats](#) may also be looking for wintering spots in older buildings.
- [Cluster flies](#) may be abundant this year. They are a bit larger than [houseflies](#), and have fine, [light hairs on their backs](#). At this time of year they find [cracks and crannies](#) in buildings to over-winter in, but mild temperatures may not have driven them inside yet. If they make it inside, they will buzz against south-facing windows on sunny days. Unlike House Flies, cluster flies are not interested in your food, do not develop in garbage, and are not a sign of unsanitary conditions. They are just irritating! They begin laying eggs in the soil in spring, and the larvae enter earthworms and develop inside. This year's wet conditions may have increased the earthworm population, and thus the fly population as well. Everything *is* connected!! The adults eat nectar and fruit.
- The combination of bright, sunny days and cooler air temperatures can lead to basking [reptiles](#) and [amphibians](#) on rocks and road surfaces. [Frogs and toads](#) are still abundant, and [Eastern Garter Snakes](#) are active. They are the last snakes to make their way to winter shelter.
- [Snowy Tree Crickets](#) will continue calling until the first heavy frost. [This site](#) has some fun with chirps! Listen to warm and cold Snowy Tree Crickets [here](#).
- The full moon following the fall [equinox](#) is called the [Harvest Moon](#), [aptly named](#) after the coinciding harvest activities of corn, pumpkins, squash, beans, and wild rice – the chief First Nations staples. The light from the full moon allowed farmers to work into the night. Although usually in September, [this year](#) the Harvest Moon occurs on Sunday, October 4th. Let us know how you celebrate this year's harvest moon. Read about how harvests are celebrated around the world [here](#).