

## Step Outside: Your Guide to Nature's Events

### Nature Guides

## Nature Paints: Fall Foliage

Early October 2011

A Featured Event: Fall Foliage

As we canoe camped in Killarney Provincial Park two weeks ago, we watched fall really begin as the colours began to change here and there, and leaves started to drop from the trees onto our campsite. 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.

#### Top R4R Picks

Resources for extending the learning

##### Go Johnny Go

Elementary, Secondary

##### The Mystery of the Missing Hummingbirds

Elementary

See "Colors of the Seasons"

##### I Like Trees

Elementary, Secondary



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 generally heavy spring snowpack (good) but a hot, dry summer (bad) and possibly plenty of fall sunshine (good), this year's predictions are, well, up in the air. Some leaves may also change early due to drought stress.

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. Some trees, however – oaks and beeches in particular – don't form this corky layer and remain on the tree long into the winter and at times even the next spring. These trees are termed [marcescent](#).

Now, colours are at or slightly past their peak in Algonquin Provincial Park and the Haliburton Highlands. To find out the extent of colour in Ontario 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 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. Wet conditions during the spring may increase 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 logs, 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](#) (scroll down).
- The full moon following the Harvest Moon (see Mid-September) is called the [Hunter's Moon](#), a time when hunters in both Europe and native North America could pursue their prey by the moon's light. It is associated with feast days in both locations. This year, the Hunter's Moon occurs on October 11<sup>th</sup>. We're listing it now to give you time to prepare if you so wish.

World Food Day  
October 16, 2011

Waste Reduction Week  
in Canada  
October 17-23, 2011