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# LIVING

# Bark of distinction

*Trees can be identified by their coverings almost as easily as by their leaves*

A couple of weekends ago we were walking along a cottage road that leads into Faraday Lake just east of Bancroft. Other than the call of a chickadee and the croaking of a raven that quickly passed overhead, the woods were devoid of animal sounds. Mammal tracks, too, were few and far between. The only ones we were able to find were those of a snowshoe hare.



## OUR CHANGING SEASONS

Drew Monkman

However, the absence of birds and mammals allowed us to concentrate on more commonplace things that often escape the observer's attention at other times of the year. This was a perfect occasion to focus on identifying the deciduous trees and shrubs along the roadside using clues other than the leaves. These indicators can include the tree's overall shape, the branch and twig patterns, characteristics of the bark, and the size, shape, colour, and location of the buds. On this particular day, however, the combination of late-afternoon sun and freshly fallen snow still clinging to the tree trunks seemed to put the spotlight on the bark itself, showing just how distinctive the barks of different tree species actually are.

Bark comes in a wide assortment of textures, patterns, and colours which, with practice, can be used to identify trees almost as easily as by the leaves. If any doubt remains, a quick glance at the buds usually clinches the identification.

This section of forest offered up a selection of tree species typical of much of central Ontario. I suggested to my friend that one way to begin seeing the trees as distinctive individuals is by paying attention to the often marked difference in bark colour. I try to see each species as part of a colour continuum that extends from white to dark grey. Some of the more common species in this continuum include the immaculate white of the white birch, the creamy beige-green of the trembling aspen, the shiny, grey-yellow of the yellow birch, the elephant grey of the beech, the mid-grey of the sugar maple, the shiny red of red-osier dogwood, the reddish brown of the white cedar, dark brown of the eastern hemlock and, the darkest of all, the greyish black of black cherry.

Bark is all the more interesting when you understand and appreciate the valuable services that it provides. Bark helps to prevent loss of water from the tree by evaporation, and acts as a barrier against insects, disease and extremes of cold and heat. In some species, the bark can even protect the tree from fire damage.

The outermost bark is composed mostly of dead cells that become filled with a cork-like substance and with air. It is vitally important because it protects the active growing layers that are just underneath. The inner bark, called phloem, contains living cells, and transports food from the leaves to other parts of the tree, including the roots. When these short-lived phloem cells die, they become a part of the outer bark. Phloem cells, in turn, are on the outside of the cells that suck the water and nutrients up from the soil and take them to the leaves. These cells are called xylem.

Some tree trunks are surprisingly easy to identify. Fortunately, that's the case with many of the key players in a typical Kawarthas woodland. With the following species, the bark's texture, pattern, and colour quickly eliminate all other trees. Remember, however, that bark can vary greatly throughout the life of a tree, often becoming rougher as a tree grows. Old trees can be quite different from middle-aged trees, especially in species such as yellow birch and trembling aspen.

Here are 10 easy ones to learn. These descriptions apply mostly to average-sized,



mature trees.

■ **American beech:** Thin, very smooth, elephant-grey bark that, unfortunately is perfect for carving one's initials in.

■ **White birch:** Although reddish-brown on young stems, mature bark is bright, creamy white, often shedding off in large sheets. Birches also have very conspicuous horizontal markings on the bark called lenticels. They allow air to penetrate the bark.

■ **Yellow birch:** Reddish-brown, too, when young; mature bark is usually a shiny, yellowish-grey with small, thin, papery shreds ending in tight curls.

■ **Trembling aspen:** The whitish-green to whitish-grey bark has a smooth, waxy appearance. Some young trees are almost as white as birches. Unlike birch, however, there is no shedding off of the bark, and the horizontal lines are absent.

■ **White cedar:** Reddish-brown and smooth when young, the bark greys with age and becomes very fibrous, with flat, narrow strips that are usually loose at both ends.

■ **Red pine:** An aptly named tree, the pinkish to reddish bark is usually scaly. On older trees, broad, flat, scaly plates are present with red visible around the edges.

■ **Eastern hemlock:** On mature trees, the bark is deeply furrowed with dark-brown, broad, flat-topped ridges. In the Kawarthas, nearly all hemlock trees are embroidered with almost perfectly aligned holes where yellow-bellied sapsuckers, a type of wood-

pecker, have been drilling

■ **Sugar maple:** On mature trees, the grey bark is divided into long, vertical ridges. They are very firm when you pull on them and often curl outward along one side.

■ **Ironwood:** Also known as hop hornbeam, this small but common tree has characteristics not unlike the white cedar. The fibrous bark is composed of thin, short, overlapping strips that are loose at both ends and easily rubbed off. Unlike cedars, ironwoods are leafless in winter.

■ **Black cherry:** The dark-grey bark on mature trees separates into squarish plates that curve upwards at their vertical edges. The plates have an almost reptilian look to them.

As we walked along, evidence of the relentless war that other organisms wage on trees was also evident. Crossing through an open area, we immediately noticed that many of the choke and pin cherries were riddled with a growth called black knot. It appears as an unsightly, black, warty mass which surrounds and distorts twigs and branches, eventually killing them. Black knot is caused by the *Dibotryon morbosum* fungus. In the wild, it only affects cherry and plum trees. The latter are very rare in the Kawarthas.

While we're on the topic of the ugly and unattractive, we should probably mention fall webworm nests. These are the large, loose webs which encase the ends of branches on deciduous trees, often looking like tat-

tered, old oriole nests. During the summer, they house colonies of small, beige caterpillars called webworms. Webworms overwinter in the pupal form and emerge in May as small, white moths which mate and lay their eggs on the underside of leaves. The damage done by the caterpillars is usually limited to the leaves with the web. The webs are easy to see this winter in many parts of the northern Kawarthas and southern Haliburton.

Woodpecker activity, too, stands out in winter. On this day we came across several pileated woodpecker drillings. Even in the depth of winter, this species has the uncanny ability of finding its favourite food, namely carpenter ants. The ants hibernate in clusters in the centre of both dead and living trees. Some of the holes we saw were easily three feet long and six inches wide. Unlike other woodpeckers' holes, pileated holes are always straight-sided. There is usually a very conspicuous pile of wood chips on the ground as well.

There have been many sightings of pileated woodpeckers in Peterborough this winter, especially in the north end of the city near Edmison Heights School. One bird was even seen hanging upside down in a crabapple tree, gorging itself on the fruit.

To the curious and attentive observer, winter provides a surprising number of interesting things to see and appreciate, if we just take time to slow down and to notice. By doing so, we appreciate nature as more than pretty landscapes and all that "stuff" that simply rushes past on the other side of closed car windows.

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Drew Monkman, special to The Examiner

Top row, from left: American beech, black cherry, ironwood; second row, from left: red pine, trembling aspen, white birch; far left, white cedar; and left, yellow birch.