Old growth in your backyard

What type of forest grew in your backyard, or schoolyard or neighbourhood when old growth was common? You can find this information in the notes of surveyors who originally measured and laid out the land before settlement. It is a fascinating project that you might wish to explore with a club or class.

You must identify the appropriate lot and concession lines for the property, and may acquire the information from the Ministry of Natural Resources, Land Survey Branch, Queen's Park, Toronto.

Tour the old growth

Old forests are living museums of natural history. Specimens of the past and trees of the future live, change and create history before your eyes. Few if any of these forests have not been altered by people. They may be small and they may be healing themselves after our cutting, but they will give you an idea of the grandeur of old growth. Visit them and give some of the forest giants a hug. Close your eyes and listen to the wind rustling through the branches. Picture thousands of passenger pigeons filling the branches and churning the air with their wings. . .

The Temagami Wilderness Society has developed interpretive pamphlets to nature trails in Temagami's old-growth white and red pine forests. Write them c/o: Tall Pines Project, Temagami Wilderness Fund, 19 Mercer Street, Suite 307, Toronto, Ont. M5V 1H2.

Your local naturalist club or district office of the Ministry of Natural Resources can also give you and your family directions to old forests.

For Additional Information Contact:

Nature Conservancy of Canada,
794-A Broadview Ave., Toronto, Ont. M4K 2P7

Western Canada Wilderness Committee,
20 Water St., Vancouver, B.C. V6B 1A4

Ancient Forest International,
P.O. Box 1850, Redway, California, U.S.A. 95560

ONTARIO'S ALL-STAR TREES

Old-growth forests are often home to some huge trees. But the biggest trees are not always the oldest and are not all in forests. The Ontario Forestry Association prints a guide to the biggest specimens of each tree species in Ontario — from black spruce to cucumber magnolia. This guide, called **Ontario's Honour Roll of Trees,** is updated each year and looks at the height, diameter and size of the crown of each tree. Find out if you have an all-star growing near you. Copies of the Honour Roll can be obtained from the Ontario Forestry Association, 150 Consumers Road, Willowdale, Ont. M2J 1P9. Why not create an Honour Roll of Trees for your neighbourhood, town or city? It would be a great project for Arbour Day or National Forest Week in mid-May.

OLD-GROWTH FORESTS

Written by Mark Stabb
Illustrations by Judie Shore

Let's turn your brain into a time machine. Think about your home, your school, and your favourite places. Now let's crank the dial back 500 years. What do you see? You could be up to your ears in a swamp. Or you could be balancing on a huge mossy log beneath towering old trees.

Awesome sights surround you but thick tree trunks block your view. Immense flocks of passenger pigeons feast 30 metres up in oak trees. Wapiti — eastern elk — browse in forest openings shaded by 40-metre-high white pines. Native peoples grow crops in clearings. Fires burn through vast forests of spruce and pine. Time travellers like you would see many forests we now call "old growth".

Let's come back to the present. The passenger pigeon and eastern elk are extinct. They will never be seen again because of over-hunting and habitat destruction. Most deciduous and mixed forests have been cleared, cut or dramatically changed by people. Northern boreal forests are still widespread, but we clear-cut their trees and control their fires. Few forests are allowed to live and die on their own. The forests we call "old growth" are almost gone, and a debate rages over their protection.

What is old growth?

Trees live five lives: the young tree, the mature tree, the old tree, the dead standing tree, and the dead rotting tree on the ground. Forests also have different lives. "Old growth" is one stage in the forest cycle.

Young forests grow when mature or old trees are knocked down or removed by disturbances such as logging, wind, tornadoes, fire, disease or beavers. We have many young forests today. Without a major disturbance, mature and even healthy old forests will develop. Because mature and old forests are prized for their lumber, they are less common today.

Old-aged or old-growth forests, however, are special. They often have a mix of young, mature, old and dead trees. Trees live out their natural lives and then die, making way for young trees. Each forest type has an old-aged state. Parks protect some great chunks of old growth, but they are rare.

Dying of natural causes

In old-growth forests, both live and dead trees are important. Dead trees are not skeletons; they take on a new kind of life after death.

Animals perch, eat, hide and nest in dead trees or dead parts of live trees. Woodpeckers dig for ants or gouge out cavities for nests. Birds, squirrels and other animals move into old holes. Trees blow down and become highways for wildlife and habitat for moss, lichens, ferns and other plants.

Federation of Ontario Naturalists, 355 Lesmill Road, Don Mills, Ontario, M3B 2W8 (416) 444-8419 Fax (416) 444-9866

Rotting logs soak up moisture like a sponge. Mushrooms move in as the solid tree turns to nourishing mush. Animals such as ringneck snakes and red-backed salamanders lay their eggs in the damp wood. Snapshots of the aging forest would show more and more dead wood in the picture. It is a natural mess that never needs cleaning: dead trees, rotten logs, wood in the soil and in streams. Woody material lasts hundreds of years.

To many wildlife species a forest without logs, dead standing trees and other dead wood is like a house without furniture. Pileated woodpeckers, for example, nest and forage in large dead trees of old growth, although they also live elsewhere. Spotted owls depend on the habitat of old-growth forests in southern British Columbia and the western United States. In Ontario we do not yet know of a wildlife species that needs only old growth to survive.

Live trees keep the dead-wood cycle going. In Backus Woods in south-western Ontario, for example, a tall maple may topple and knock down other trees. It creates a house-sized gap in the forest that may be filled by light-loving tulip trees. In old growth the result is a forest of different ages. Habitat for wildlife is diverse and food chains are complex. This cycle may be different in the north where thousands of black spruce or jack pine may grow up at once following a fire, only to be burnt again 100 years later. People affect this cycle too, by fighting fires.

How old is old growth?

White pines, oaks or sugar maples may last 400 or more years before they fall. Some eastern white cedars on the Niagara Escarpment have lived for more than a thousand years. On the west coast, old-growth forests of hemlock or Douglas fir can be more than a thousand years old.

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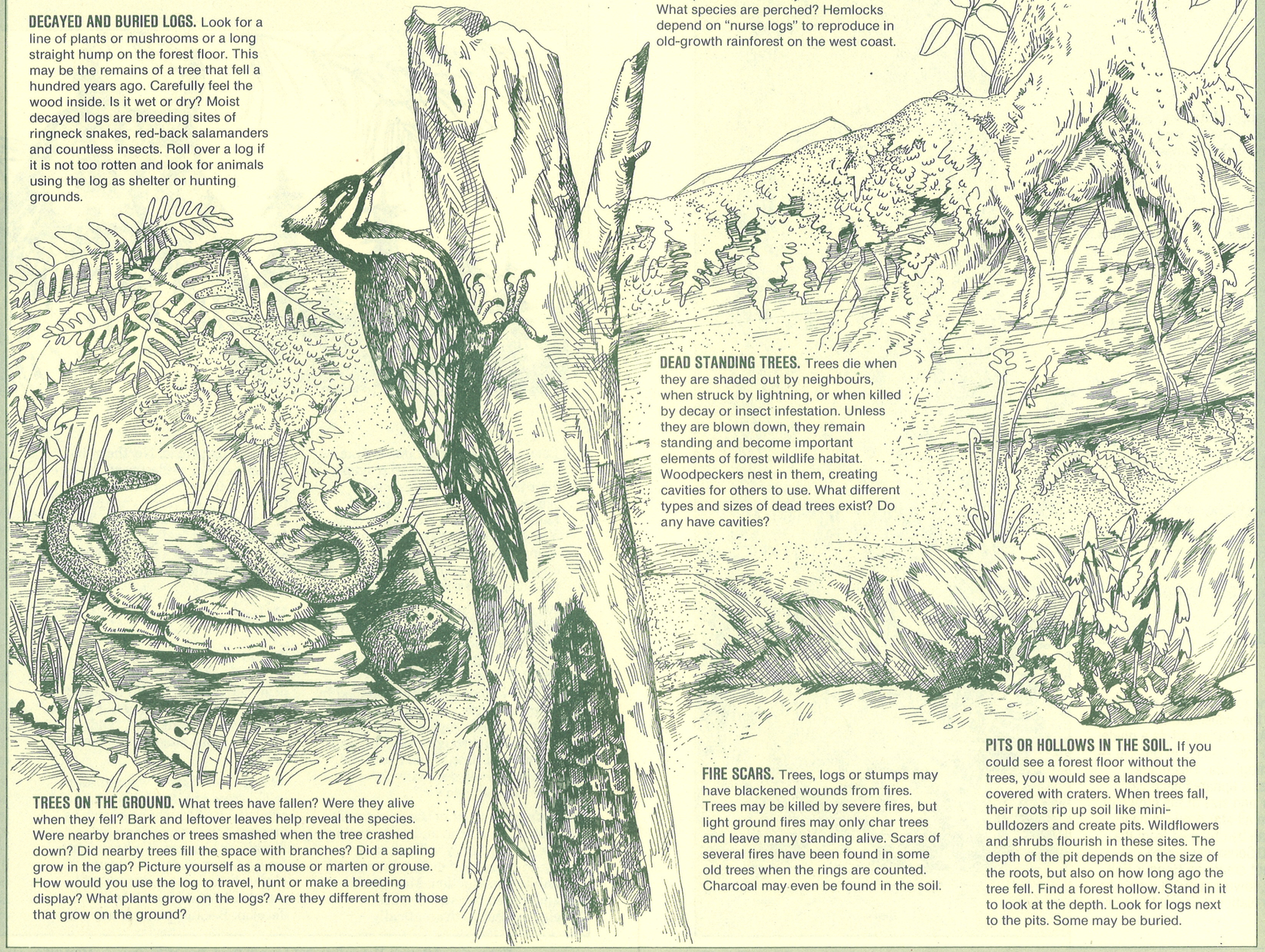
Be a forest detective

Old-growth forests are loaded with clues about their past. You can find these remnants in your nearest woods and discover how events of the past affect the forests of today. Like any good detective, try not to leave a trace of your explorations; you are exploring a living world.

DECAYED AND BURIED LOGS. Look for a line of plants or mushrooms or a long straight hump on the forest floor. This may be the remains of a tree that fell a hundred years ago. Carefully feel the wood inside. Is it wet or dry? Moist decayed logs are breeding sites of ringneck snakes, red-back salamanders and countless insects. Roll over a log if it is not too rotten and look for animals using the log as shelter or hunting grounds.

PERCHED TREES. Hemlock and yellow birch seeds can be too light to penetrate thick leaf litter. To germinate and grow they sometimes get started on old logs, stumps and root mounds. Over the years, the seedlings send small roots down to the soil. By the time the "nurse logs" decay the roots are strong and hold the tree off the ground. Look for these perched trees in your local woods. What species are perched? Hemlocks depend on "nurse logs" to reproduce in old-growth rainforest on the west coast.



DEAD STANDING TREES. Trees die when they are shaded out by neighbours, when struck by lightning, or when killed by decay or insect infestation. Unless they are blown down, they remain standing and become important elements of forest wildlife habitat. Woodpeckers nest in them, creating cavities for others to use. What different types and sizes of dead trees exist? Do any have cavities?

TREES ON THE GROUND. What trees have fallen? Were they alive when they fell? Bark and leftover leaves help reveal the species. Were nearby branches or trees smashed when the tree crashed down? Did nearby trees fill the space with branches? Did a sapling grow in the gap? Picture yourself as a mouse or marten or grouse. How would you use the log to travel, hunt or make a breeding display? What plants grow on the logs? Are they different from those that grow on the ground?

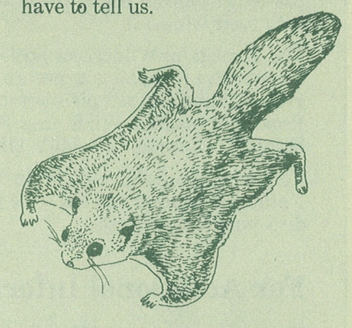
FIRE SCARS. Trees, logs or stumps may have blackened wounds from fires. Trees may be killed by severe fires, but light ground fires may only char trees and leave many standing alive. Scars of several fires have been found in some old trees when the rings are counted. Charcoal may even be found in the soil.

PITS OR HOLLOWS IN THE SOIL. If you could see a forest floor without the trees, you would see a landscape covered with craters. When trees fall, their roots rip up soil like mini-bulldozers and create pits. Wildflowers and shrubs flourish in these sites. The depth of the pit depends on the size of the roots, but also on how long ago the tree fell. Find a forest hollow. Stand in it to look at the depth. Look for logs next to the pits. Some may be buried.

Conservation

People cut trees and manage forests for products like this paper. But many people today, including foresters, are talking about the need to conserve some of our old growth forest. What do we risk if we cut old-aged or old-growth forests? We don't really know, but we are losing a chance to learn. Ecological mysteries await discovery in the soil, in logs, in streams. Like grandparents, old-growth forests have many stories to tell.

Let's hop in that time machine again. Program your imagination 100 years ahead. What is left on the land? Young and mature forests for sure. With concern and action now, many old-growth forests will also remain. In the meantime why not treat old forests as we would our grandparents? Visit them, give them a hug, and learn what they have to tell us.



Old forest features

Old-growth forests are part of Ontario's natural diversity. Uncut old trees protect genetic diversity. Nature should determine the future forest, not chainsaws. Wildlife habitat is complete with the oldest stage of forest succession. Clean clear streams flow from these forests. Carbon, fibre and nutrients are stored in dead wood to be used later by plants, animals, mushrooms and microbes. Old-growth ecosystems let us see how forests grow without being cleared or cut by people. Learning how nature rules the forest helps us understand how we can treat other forests better.

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