Dufferin County Forest

The Main Tract is just one of the fourteen tracts that make up the 1,066 hectare (2,636 acre) Dufferin County Forest. It is the largest of the tracts, 607 hectares or 1,501 acres in size.

Major tree species in the County Forest include red pine, red oak, sugar maple, white ash, black cherry, white pine, white spruce, eastern white cedar, larch, white birch, and poplar. Together with other biota, these represent a variety of ecosystems, including conifer and hardwood plantations, upland tolerant hardwoods, upland oak forests, bottomlands, wetlands, and creeks.

The Forest is managed by the County of Dufferin on a sustainable, multi-use basis. The Forest serves many important functions in terms of erosion and water control, natural heritage protection, biodiversity, wildlife habitat, recreational opportunities, and support of the rural economy through timber production and employment opportunities.

For more information:

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Dufferin County Forest

See the forest and the trees

This pamphlet guides you along an interpretive trail at the Main Tract of the Dufferin County Forest. The Main Tract is located at 937513 Airport Road (on the east side, about 10 km north of Highway 89).

Please respect the Main Tract:
No camping
No campfires
No motorized vehicles except snowmobiles on designated OFSC trails
No littering or dumping
No hunting

Dufferin County Forest
Our Forest, Our Future

Welcome to the Main Tract!

poison ivy

The Main Tract is one of southern Ontario's largest unbroken forest areas totaling over 600 hectares (1,400 acres). The Main Tract, along with the other County Forest tracts, was born when Dufferin slowly bought parcels of land, starting in the 1930s, to support provincial conservation programs to increase forest lands. . The Tract has many well established trails for hiking, mountain biking, horseback riding, and snowmobiling. The interpretive trail winds in an about 2 km loop, marked with square white signs, starting and ending at the main parking lot. There are 14 descriptive and informative stops that are marked by a wooden post with a number that correlates to this pamphlet. Take the time to slow down and take in all the sights, sounds and smells of the forest. Please be sure to watch out for horses, bikes, and poison ivy while you walk. Enjoy your hike in the woods!

1. Why are there so many red pine in Dufferin County?

When European settlers first arrived in southern Ontario, much of the land was cleared for crops. After many of the trees were removed, there was nothing to hold the light, sandy soil together and there was mass erosion caused by the wind and water. The land eventually became very barren and desert-like to the point where sand had to be plowed off Airport Road. Many of the red pine seen today are the fruits of land reclamation and reforestation efforts which were begun in the early 1920s by the provincial government, led by the forester Edmund Zavitz. The native red pine was the tree of choice to reforest because of its exceptional ability to thrive on very nutrient poor, dry and sandy wastelands.

2. Will red pine plantations always be here?

Red pine is used as what foresters call a "nurse crop". This means the pine are used to "nurse" the original forest cover-type back to its pre-pioneer settlement state. Before the land clearing, much of the landscape would have been covered by broadleaf deciduous tree species such as maple, oak, beech and ash, which would have been unlikely to survive if planted on the sandy soils once the land was cleared. To reach the pre-settlement cover-type more quickly some of the red pine must be slowly cut out of the stand over time, or periodically "thinned".

3. What's the point of thinning?

The thinning of red pine ensures a healthy growing forest that will reach its maximum potential. As the pine trees grow from seedlings they eventually become overcrowded with their neighbours and are in competition with each other for nutrients, root space and sunlight. If trees are not removed growth rates will slow dramatically until trees die off from the competition or are destroyed by a natural disturbance. If you look into the distance you'll see the red pine stand at this stop demonstrating a natural disturbance pattern known as windthrow or blowdown. When the pines grow tall and thin, they become very susceptible to wind and ice storms and will often snap and break in patches. To learn more about red pine thinning take the time to read the demonstration area sign at the south end of the main parking lot.

4. What did the forests look like before European settlement?

Dufferin County is in what's known as the Great Lakes St. Lawrence forest region, often described as a mixedwood forest. This means that there are both coniferous (evergreen) and deciduous trees throughout. This stop shows what a typical forest would naturally look like before European settlement. Sugar maple, red maple, American beech and red

oak would have dominated the landscape, with scattered white pine that towered above the forest. Foresters describe this as a "tolerant hardwood" forest which means that it is mainly comprised of deciduous trees that can establish and grow in very shady conditions with minimal sunlight.

5. Is there such a thing as a good way to harvest a forest?

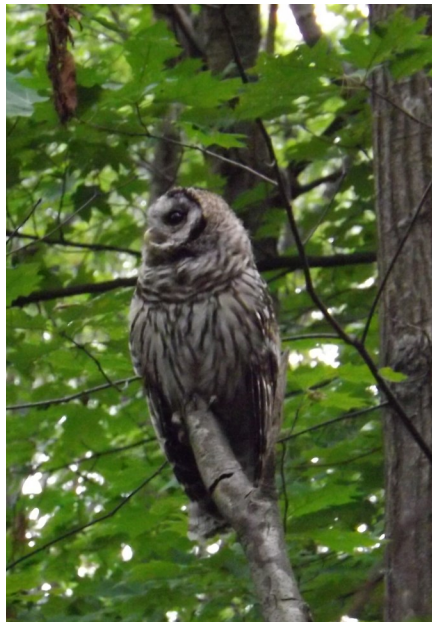
The best way to harvest is to mimic a natural disturbance or pattern such as a forest fire, windthrow or individual tree or tree group mortality. In the northern boreal forest region, clearcutting mimics a forest fire, but in the south large-scale forest fires do not occur naturally so clearcutting is not normally used in this forest region. The most common type of harvesting used today in the Dufferin County Forest and much of central and southern Ontario is single tree selection, or more simply, the selection system. The area you see at this stop was last harvested, using the selection system, in 2006.

6. How does the single tree selection system work?

As the name suggests, the selection system focuses on individual trees or very small groups of trees for harvest. Trees of all age groups and sizes are taken to maintain a healthy distribution of young and old trees. This mimics the trees natural mortality rates and maintains continuous forest cover. With this system a forest may be harvested approximately every 10-15 years, removing about one-third of the trees each time. The motto for selection cutting is "take the worst first!", which means that all diseased, dying or misshapen trees are the first to be harvested. This improves the overall health and genetic quality of the forest.

7. What happens to the trees that are harvested?

Wood is the most versatile renewable resource in the world. All the trees harvested from the Dufferin County Forest provide wood for numerous forest products that are commonplace in everyday life. Red pine, white pine and other softwoods are used in products like: utility poles, dimensional lumber, structural timber, fence posts and pressure treated landscape stock. Hardwood tree species such as sugar maple, red oak and American beech are typically used in the construction of more specialty purpose products. The wood will be used to make: flooring, cabinets, moulding, veneer, tables, chairs, instruments and many other fine woodworking crafts.



barred owl

8. What about the wildlife?

The Dufferin County Forest tracts are home to a multitude of different species of wildlife such as: white-tailed deer, eastern gray squirrel, red bellied snake, barred owl, northern goshawk, red fox, coyote, and ruffed grouse. When harvesting occurs certain types of habitat are left for specific animal species so that harvesting will have as little impact as possible. Chicots (standing dead trees) provide food and shelter for many smaller animals. Woodpeckers bore cavities in chicots to find insects and make homes. Once they leave these holes, other species will continue to use them for shelter. It is also important to leave mast trees. Mast is any type of fruit or nut that provides food for wildlife. Acorns, beech nuts, and wild berries are all excellent mast. Black bears are particularly fond of beech nuts, they will climb beech trees to reach the nutrient rich nuts in the crowns and will often leave the evidence of claw-marks scaling up the trunk.

9. If we leave the forest just the way it is won't it stay that way forever?
Forests are constantly evolving and changing like a single organism with many intricate parts that all have an important role to play. This principle of constant change is called forest succession. If you look into the forest at this stop you will see many white or paper birch trees in a more open area because they need lots of light to grow. These are known as "pioneer" tree species because they are typically the first trees to start growing when the forest has been opened by a natural or artificial disturbance. Forests may only seem like they don't change because the changes can happen over decades.

10. How did those deciduous trees get in there again?
As previously mentioned, red pine is used as a nurse crop. At this stop the hardwood saplings can be seen growing in the shade of the red pine. The pine have stabilized and started to rebuild the soil profile with their decomposing needle litter. As the red pine canopy is gradually opened by thinning, tolerant hardwood species have naturally started to seed in and grow in the understorey. The area you see at this stop was last harvested in 2016.

11. Aren't pine needles very acidic?
It is a common misconception that pine needles are so acidic that only acid-loving plants will be able to use them as a growing medium. This is not the case. Although green pine needles are quite acidic, when they grow old and fall off the tree they become almost neutral. Pine needle litter enriches the soil with nutrients, but may take longer to breakdown than deciduous leaves due to a wax-like coating on the needles.

12. Are those eye-shaped spots on the beech tree supposed to be there?
Those eye-shaped spots are actually cankers from a pathogen known as beech bark disease that is decimating beech populations all over eastern Canada and the USA. It was first introduced to North America from Europe in the late 19th century and has since been spreading throughout the American beech's native range. The fungus eats into the trees inner bark which causes immense stress and ultimately results in the death of the tree. It is believed that a very small portion of the beech population is resistant to beech bark disease, so there is hope for the American beech.

13. What is a super canopy tree?
A super canopy tree is a tree that is very tall, extending high above the rest of a forest's upper canopy like a tower. The most common super canopy tree in the County Forest is Ontario's provincial tree: the eastern white pine. You can see these giants lining both sides of the trail. White pine is so tall and straight with minimal branches that it was the primary choice for building European ship masts in the early pioneering days of Canada. Today, some supercanopy trees are always left after a logging operation as they are important habitat for raptors to perch and build nests (amongst other benefits).

14. Does the forest look messy?
Downed woody debris is the term used to describe fallen trees, logs and branches that are on the forest floor, which tend to give an untidy appearance. When trees are harvested in the County Forest, the top branches are cut off from the main trunk and left to decompose and enrich the soil with nutrients. Downed woody debris also provides crucial habitat for wildlife such as salamanders, grouse, rabbits, and hares.