years to completely decompose. Even in death it continues to provide homes and food for forest denizens.

#### Alien Invaders

Our Carolinian forest and its inhabitants have been assaulted by all manner of foreign invaders, everything from mammals, through birds, and insects to plant diseases. The most destructive mammal is, of course, ourselves. In Elgin County only about 10 % of the land remains forested. Luckily, Pearce Park has been preserved and still maintains much of its original features. Two missing elements though are the Sweet Chestnut and the American Elm, both once among the most common trees in our forests. Devastated by plant diseases they are not likely to ever regain their former numbers. Introduced birds such as the European Starling feed in open fields but invade the woodlands during the breeding season to find a nesting cavity in a large tree. Many of our native woodpeckers and other cavity nesting birds have declined in numbers due to the more aggressive starling. As you walk the trails look for two very aggressive European plants that are dominating the native plants for growing space. The Garlic Mustard has heart-shaped evergreen leaves and small, white, four-petalled flowers. If the leaf is bruised there is a strong odour of garlic. The other plant is also easily recognized. It is the Multiflora Rose which is scattered here and there but definitely making inroads in this woodland. As a member of the rose family it has thorns, long canes, medium-sized, fivepetalled white flowers in season and small cherry-sized rose hips. Studies of woodlands in southern Ontario show that often the percentage of non-native plants to natives can exceed 30 %. The aggressive nature and adaptability to our climate of many nonnatives is the main reason that there is such a strong movement to use native plants in gardens and wildlife plantings on larger properties.



#### **Human Presence**

A human presence has been recorded in this area for almost 10,000 years. Until 1000 A.D. most aboriginals in the region were hunters and gatherers living in temporary camps and moving throughout a large territory to take advantage of seasonal riches such as ripening berries and spawning fish. After 1000 A.D. the natives lived in more permanent dwellings - long houses covered with elm bark - and learned to cultivate corn but still relied on hunting and gathering for most of their food. By 1500 A.D. crops had expanded to more varieties of corn and sunflowers, tobacco, beans and squash. Their close relatives, the Huron, called them Attiwandaronk (the people who speak a similar tongue) but the early French visitors named them the Neutrals because they were able to stay out of the wars between the Hurons near Georgian Bay and the Iroquois Confederacy in upper New York state. One early French visitor estimated that there were 28 Neutral villages in an area stretching from the Niagara Peninsula to Windsor along the Lake Erie shoreline. The remnants of one of the larger stockaded villages is located only about 12 km to the north of Pearce Park at Southwold. By 1650 the Neutrals, like their Huron cousins, were decimated by the Iroquois. Southern Ontario remained essentially uninhabited except for wandering hunting bands of Iroquois and Missisauga natives until the late 1700s when the first European settlers began showing up in Elgin County. The story of the Talbot settlement is best told by a visit to the Backus Page House.





# John E. Pearce

# Spicer Trail



This brochure is printed by Ontario Parks in partnership with the Tryconnell Heritage Society. In the interest of safety we encourage you to start the trail from the Backus Page parking lot so that vehicles can be parked off the road. Trail distances are in the legend. The combination of the red and blue trails take approximately one hour to hike. The yellow trail would add another 1/2 hour but please note that this portion of the trail is extremely wet in the spring. We cannot actively monitor the control signs at the yellow entrance and exit. Please put the closed signs up (signs are specially designed to be easily changed) at the start and finish of the yellow trail if conditions warrant and we strongly urge you not to use the yellow trail during warm spells in winter and during the entire spring season (March to mid June).

# A Park History

In 1923, the John E. Pearce family purchased the lands that now comprise the 68 hectare Pearce Park. They were concerned about the loss of woodland in the area. In 1955, they donated the land to Ontario for the creation of a provincial park to be enjoyed and appreciated as an example of the original forest. In 1957, the park was opened for picnicking and nature observation. Today, Pearce Park is well known, especially for its impressive display of spring flowers best seen in late April to mid May.

Since 1995, Ontario Parks has worked with the St. Thomas Field Naturalists and the Tyrconnell Heritage Society to interpret the local history and natural history of the area and to reforest the lands that were formerly rented for agriculture. The Backus Page House and St. Peter's Anglican Church are remnants of the Talbot settlement of Elgin County which dates back to the early 1800s. In 1997, the Tryconnell Heritage Society began working on the trail which is named in honour of Lorne Spicer, an active, local naturalist and driving force in the development of the trail.

Test your powers of observation. Find and check off the 19 species of trees along the **red** and **blue** sections of this trail that have name tags. Hint all are shown on the map with corresponding #'s on the legend below and many are between the bridge and the exit.

Trembling Aspen	Black Cherry
American Basswood	Yellow Birch
Sugar Maple	Black Walnut
Norway Spruce	Shagbark Hickory
White Pine	White Ash
Red Ash	Ironwood
Black Locust	Butternut
Green Ash	Bitternut Hickory
Red Oak	American Elm
American Beech	

## B Abandoned

As you walk the Spicer Trail you gradually travel from the manicured landscape of the Backus Page house with its lawn and flower gardens through a landscape that is reverting to natural habitat and finally through a forest that has not been logged since the 1950s. The first plants to respond to abandonment are herbs such as the goldenrods and asters, wild raspberries, shrubs such as the sumac, dogwood and elderberry and vines such as the wild grape and wild cucumber. Even the cement foundations of a former outbuilding are almost hidden from view. The planted spruce hedgerow and walnut plantation are beginning to look like they are part of the natural landscape and not the handiwork of civilization.



Crossing the meadow you are surrounded by habitats at different stages of reversion to forest. Typically, in southern Ontario an abandoned field will go through various stages until it reverts to woodland. At first, croplands may be infested with non-native weedy plants. Then, native grasses and wildflowers manage to get a foothold. Shortly after this shrubs, vines, and the young saplings of trees such as elm and ash join the slow march to forest. After a leafy canopy is established, the shade loving trees can move in. This slow transformation from field to forest may take up to 100 years. However, this process can be speeded up by the planting of trees and shrubs. This is exactly what has been done in the fields to the north and west of the trail. Since 1995 eight hectares have been planted with White Pine and 20 species of hardwood trees and shrubs by the St. Thomas Field Naturalists and West Elgin Secondary School students.

## Biodiversity

In the immediate vicinity of Pearce Park, the diversity of habitats ranges from landscaped dwellings, through cropped lands, to meadows, shrubby patches, and young to older growth forest. To add to the diversity, each habitat has its own retinue of creatures; its own birds, insects, and flowers. Some animals may be restricted to one habitat while others will visit different habitats at different times of the day or year. Blue Jays, for example, are generalists that will visit most of these habitats at some time in their life cycle. From late fall to winter they might forage in the corn fields for spillage. If winter snows get too deep they will visit nearby bird feeders. In the breeding season they become very secretive and retire to the deeper woods to raise their young. As various seeds and fruits ripen throughout the summer and fall their daily rounds take them through many habitats. Redbacked Salamanders, on the other hand, are specialists that spend their entire life in the forest and, indeed, may not venture too far from their favourite rotting log where they find worms and insects to eat and where they lay their eggs.

#### Carolinian Forest

When the first European settlers arrived in southwestern Ontario almost all of the land was covered by extensive forest. Only a few open patches of tall grass prairie and scattered cattail marshes broke up the landscape. Even now, if land is abandoned from agriculture long enough the eventual vegetation cover in most places will be forest. The forest region in southwestern Ontario is called the Carolinian Zone, a subdivision of the vast Eastern Deciduous Forest which covers most of eastern North America. The name "Carolinian" was chosen because a few of the trees and plants found in southern Ontario are the same as those which are more typical and common as far south as the Carolinas. Examples of "Carolinian" trees include Tulip, Sassafras, Sycamore, Black Gum, and Kentucky Coffee-tree. The most common trees though in the Carolinian Zone are the Sugar Maple, American Beech, White Ash, American Basswood, Black Cherry and various oaks and hickories. Yellow Birch and Eastern Hemlock are also found, especially in woods with north facing slopes and cooler, wetter soils. White Pine and the oaks tend to be most dominant on sandy soils while the oaks and hickories are most numerous on clay soils.

# Forest Layers

Just as there are animals that specialize in specific habitats there are also specialists in the forest that spend most of their time in one of the different forest layers. Think of the forest as a layered cake. At the top is the supercanopy made up of the trees that are so tall that they stick up above the rest of the forest. Next is the canopy. This is the solid mass of trees with branches almost touching so that an almost continuous canopy of shade is created. Below the canopy in the understorey are a few trees that are waiting their turn to take their place in the sun should one of the canopy trees be uprooted by a fierce windstorm. The shrub layer, made up of various species such as elderberry, witch hazel and sapling trees can be very thinly scattered in the forest depending on how much sunlight filters through the canopy. The ground layer is mostly made up of nonwoody plants such as Trilliums and other spring flowers which usually wither away before the canopy leafs out. Ferns, tree seedlings, and mosses flesh out the ground layer. The bottom layer of the cake is the humus layer which can be made up of several centimetres of leaves and twigs in various stages of decay. Each of these layers has its own inhabitants. For example, various members of the warbler family each exploit a different layer in the forest. The Cerulean Warbler prefers to forage and nest in the canopy. The American Redstart inhabits the understorey especially if it is fairly dense. The Hooded Warbler lives in the thick growth of raspberries and shrubs that spring up when a canopy tree topples over. The Ovenbird stays close to the ground where it nests and forages for insects in the leaf litter.

#### **G** Forest Inhabitants

Despite the presence of hundreds of species of animals the forest often seems devoid of life. On your visit you may not see many animals, especially if it is a hot, humid day in summer, a cold, windy day in winter or the middle of any day. But the forest is full of animals. The common mammals of Elgin County forests are the Grey Squirrel, Eastern Chipmunk, White-footed Mouse, Raccoon, Opossum and White Tail Deer. In some larger forests with lots of older, hollowed trees the Southern Flying Squirrel may be present. The common breeding forest birds include the Eastern Wood-Pewee (a flycatcher), the Red-eyed Vireo and the Wood Thrush. Year round feathered residents include the Black-capped Chickadee, White-breasted Nuthatch and Downy Woodpecker. Amphibians adapted to woodland living include the American Toad, Wood Frog and Red-backed Salamander. Even a few butterflies inhabit the woods. Eastern Tiger Swallowtails, whose caterpillars feed on forest trees such as cherry, are often seen coursing through the woods. The Mourning Cloak, our only butterfly to overwinter as an adult, can be found as early as March when it comes out to drink maple sap. The best time to see or hear birds is just after dawn in May or June when the woods are full of breeding song. Butterflies are best seen on hot, calm summer days. Mammals are best seen at dusk and dawn. In other words a number of visits are necessary at various times of day and in the different seasons if you want to discover the many forest residents at Pearce Park.

## Spring Ephemerals

The word "ephemeral' is used to describe the flowers you see early in spring in southern Ontario woodlots..

Ephemeral means short lived. Ephemerals must complete their life cycle quickly before the trees leaf out and the forest canopy is closed, usually in late May. The trillium is the best known but there are several others. The first trillium shoots are noticeable shortly after snow melt in late March. Most of April is taken up with the growth of the stem and leaves. Flowers blossom in late April or

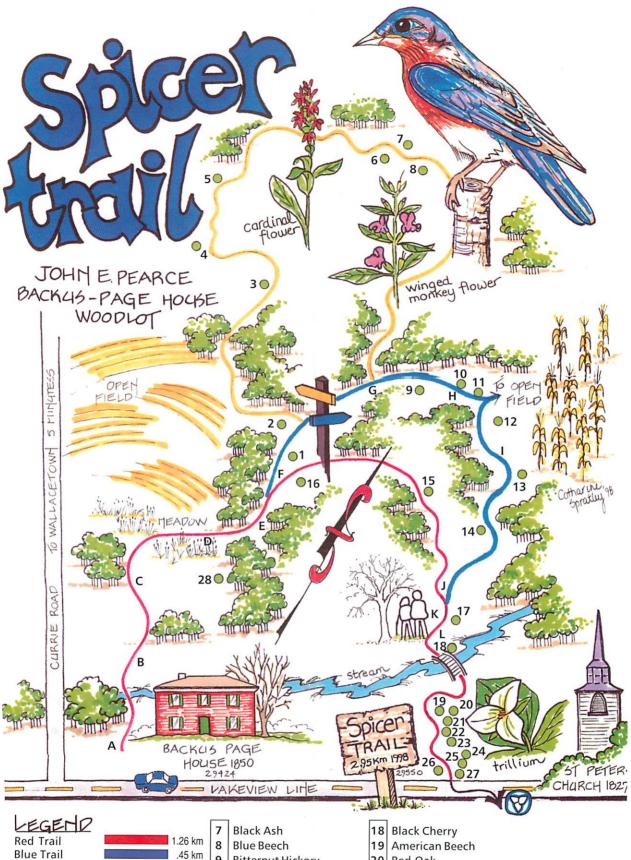
early May and most woodlots are carpeted by mid May. By late-May the flowers have faded to pink and by mid-June the leaves have withered to nothing. If you return in mid July you would never suspect that the forest had been carpeted with trilliums two months earlier. Other spring ephemerals found at Pearce Park include the Red Trillium, Cut-leaved Toothwort, Dutchman's Breeches, Hepatica, Spring Beauty, and Yellow Trout-Lily. Each species must grow quickly so that the plant can leaf out, flower, get pollinated, set seed and store enough energy in their roots or bulbs to start up the next year before the forest canopy leaves out and creates so much shade that the plants cannot capture that energy. Hence the term ephemeral.

#### Forest Birds

Some birds are adapted to live in the middle of the forest. These are called "forest interior" birds. They spend most of their lives in deep shade. Others birds are considered to be "area sensitive". These prefer very large woodlots, preferably 100s of hectares in size. Because few of our remaining woodlots are large enough forest interior and area sensitive species are much less common than formerly. The most common remaining forest birds are called "interior-edge" species: that is, species that live in the forest but can also survive at the forest edge or in smaller woodlots. At Pearce Park the only forest interior species likely to be found is the crow-sized Pileated Woodpecker. Look for the oblong excavations of this species on various trees throughout the park. Forest interior and areas sensitive species are very vulnerable to nest failure in smaller, more open woodlots. Raccoons, Grey Squirrels, Blue Jays and Grackles find their nests easily and eat the eggs or young. The parasitic Brown-headed Cowbird lays its eggs in the nest of other birds. Cowbird eggs hatch before those of the host species. The hosts do not recognize the young cowbirds as intruders and feed them to the detriment of their own young. Consequently very few young are fledged from a nest that is parasitized by cowbirds. Forest interior and area sensitive birds will continue to decline as more land is cleared or woodlots are broken up into smaller fragments.

#### The Life of a Tree

Even the mighty oak starts life as a seed. A healthy oak may produce 10,000 acorns in a good year and over 1 million in a life time. Only one of those acorns needs to survive in order to replace its parent . That acorn may survive for years on the forest floor if buried and forgotten by a squirrel. When the right conditions occur the acorn sprouts and begins its slow ascent to the forest canopy. Even the first leaves start producing the energy to live while banking the excess for the right moment when the canopy opens and releases the seedling to compete with its neighbors to reach towards that opening far above. If the canopy is too closed and shady the seedling's growth may be stalled out for years. Even after 25 years the scrawny sapling may only have grown a meter or so. Then one of its giant relatives, now ancient and weakened by rot comes crashing down in a windstorm. The surviving saplings now tap the stored energy in their roots to see which one will succeed in the race to reach the canopy. Because of the fierce competition this stage may only take 20 years or so as the trees concentrate their energy on growing tall first. Once they reach the canopy where they can take in the sunlight they grow in girth and send out side branches to crowd out their neighbors. A canopy oak can live to a ripe old age of 300 or more years. Even when the tree is hollowed by fungus rot it is used by forest animals: mammals use the hollowed branches and trunk for dens, cavity nesting birds raise their young in protected caverns, wood eating insects proliferate. Finally, the day comes when the tree's roots can no longer withstand the periodic wind or ice storms and the tree topples. Its life purpose is not over yet as it may take another 50 to 100



Blue Trail Yellow Trail

28 Labelled Trees

- Trembling Aspen
- 2 American Elm
- 3 Tulip Tree
- 4 Bur Oak
- Red Maple
- Poison Ivy

- 9 Bitternut Hickory
- 10 Butternut

1.24 km

- Ironwood 11
- 12 White Ash
- 13 Shagbark Hickory
- 14 Black Walnut
- 15 Black Maple 16 Spicebush
- Yellow Birch 17

- 20 Red Oak
- 21 Green Ash
- 22 Black Locust
- 23 Red Ash
- 24 White Pine
- 25 Norway Spruce
- 26 Sugar Maple
- 27 Basswood
- 28 Sycamore