

Station 1

Red Spruce (*Picea rubens*)

Did you know that Nova Scotia has an official tree ? It is the Red Spruce, our most valuable lumber and pulpwood species. The tree often interbreeds with black spruce making positive identification difficult. Wood from red spruce is used to make sounding boards for musical instruments because of its good resonance. It grows best in partial shade and frequently lives 200 years. The bark is fine, scaly, thin and reddish brown. The needles are four cornered and surround the twig. The cones hang down from the twig as opposed to the Balsam Fir which stand erect.

Station 2

Red Maple (*acer rubrum*)

The Red Maple is Nova Scotia's most abundant hardwood and is easily spotted in the fall when it turns a deep red. The leaf also helps to distinguish it from a close relative, the sugar maple which has smooth edges. It makes good fire wood, flooring and furniture and a small amount of maple syrup is made from the sap. The Maples and Ash are the only trees in the province with opposite buds on the twig.

Station 3

Yellow Birch (*Betula alleghaniensis*)

Our largest and most valuable hardwood prefers cool northern slopes but is scarce on the coast. It was used in building ships hulls as it is more durable than oak. Today you can find this handsome wood in flooring, furniture, doors, veneers and plywood. Yellow Birch can live up to 300 years and is a favourite food of deer. It is identifiable by its dark glossy green leaves, a yellowish brown bark that develops into thin papery curls and a wintergreen flavour and odour in the twigs.

Station 4

Old Cutover

This area was logged in a clear cut fashion about 15 years ago. The effect of removing the existing forest was to set the forest community back to an earlier stage of succession and must again develop towards the forest community which was cut. In the present early stages of succession, shrubs and herbaceous plants provide food for a variety of animals. If the opening created by the clear cut is not too large, the area can be used for foraging. However, the animals require shelter and a clear cut will not be used if older timber is not left nearby for shelter. Deer, ruffed grouse, snowshoe hare and a variety of songbirds may breed and feed in the area. Most of these animals are early seccessional species and as the forest matures they will no find this site useful for the food they seek. Thus, certain types of cutting can be of benefit to wildlife and used as a tool to increase wildlife population in these areas.

Station 5

Thinning or Spacing

Proper tree spacing is essential in the management of any wood lot. Thinning for proper spacing temporarily reduces the competition for growing room, light, water and nutrients and allows sunlight to reach the forest floor. This will provide a flush of nutrients from decomposing slash and ground plants will flourish as well as making the site more attractive for foraging and nesting wildlife. Reducing space allowances between trees will cause them to grow taller rather than concentrate the growth into diameter increase. Increasing the space between the trees will cause them to increase their diameter, often at the expense of height growth. As well, a portion of the site was left untouched to act as a control and to favour other species thereby increasing site diversity and wildlife requirements.

Station 6

Stand Edge

Wood land is always changing, responding to weather, wildfire, pest and above all human activities. Here the trail crosses the interface between two sorts of forests. Such variations as common in Nova Scotia with our long history of land clearing and harvesting. On a hike you may pass through an evergreen forest, then perhaps a glade of maple or a mixture of both. When forest managers map such woodlands they divide it into broad areas called types (eg. Softwood, hardwood or mixed wood) and into smaller units called stands. The type here is softwood, the boundary line separates two distinct age classes. What do you think caused the stands to be different ?

Station 7

Mosses and Lichens

Under this canopy of these spruces you will find a variety of mosses and lichens. *Sphagnum moss*, the bright green moss found in wettest areas and often found growing in a thick mat retains both moisture and oxygen then slowly allows it to seep into the soil during dry periods. Native Americans used it as a form of diapers, packing dried moss around babies. It was also used during WW1 as an emergency bandage, as it is very acidic and therefore, lessens the chance of infection. *British Soldier Lichen* are easily identifiable by their bright red knobby tops and greenish stalks. They are composed of both a fungi and an algae and are vital to the decomposition cycle of the forest floor. *Old Mans Beard* is another form of lichen, and can be found hanging in grey green strands from tree branches. Contrary to the popular belief, it will not kill the trees but in fact is also part of the decaying process, recycling dead branches. It is a favourite winter food of the White Tailed Deer.

Station 8

Black Spruce (*Picea mariana*)

Black Spruce a cross Canada species with a range similar to White Spruce is fourth in order of abundance among conifers in Nova Scotia. Its main uses is for pulpwood and mine timbers. The tree is found throughout Nova Scotia but is more frequent on poorly drained sites along the Atlantic and Fundy shores. Black Spruce frequently grow new trees by rooting its lower branches in wet moss. The tree matures usually after eight years. It is identifiable by its pendent cones that are shorter than other spruces, the inner bark is often olive green as opposed to red or pink in other spruces and much denser wood than either red or white spruce.

Station 9

Over mature (with established new growth)

This part of the trail leads through a stand of trees that are mostly over mature. They are now in a state of decline and will soon die and begin to fall. But growth and life do not stop here. The fallen trees will provide food and shelter for birds, insects and plant life. The young trees growing on the forest floor, offspring of these dying trees will be nourished by the fallen trees as they decompose, and the resulting flood of sunshine will enable them to grow rapidly. In nature, nothing is wasted.

Station 10

White Pine (*pinus strobus*)

Tall and stately, good quality White Pine has become scarce due to over cutting during the age of sail when it was prized for masts. White Pine is still prized for lumber especially for interior finish. The long cigar shaped resinous cones are the long, three cornered twigs in bundles of 5 serve as easy methods to identify these species. The tops of older white pine often are flattened and bent leeward.

Station 11

Snags and Cavity Trees

For many people, a dead or dying, partly hollowed out tree is hardly worth preserving. Yet to many birds and mammals, reptiles and amphibians, these cavity trees are vital for nesting, rearing young, roosting, feeding, storing food, escaping predators and hibernating. The cavities are either excavated by birds, or created by decay and broken branches. Although they can be a hazard to the unwary hiker should one fall over, they are a vital part of the forest and should be maintained whenever possible.

Station 12

Rotten Log

Many living organisms such as Fungi, Mushrooms and Lichens are breaking down this rotten log into soil. These fallen logs act as nurseries for seedlings of various types, providing water trapped in its moss covering and warmth caused by the chemical reactions of the rotting process. This old tree will gradually decompose, releasing nutrients into the soil and carbon dioxide into the air. In fact, a large portion of the soil composition is derived from rotting trees, their branches and leaves. The ensuing generations of trees will rely on this rich biomass its very existence. If left to decay, this tree will be recycled by the next generation of the Acadian forest.

Station 13

White Birch (*Betula papyrifera*)

With its delicate form and familiar white bark, the White Birch is also called the “Lady of the Forest”. Fast growing and short lived, it will sprout from the stump after fire or cutting. Veneers, plywoods and firewood are the main products. Native Americans used birch for canoes, wigwams, cooking pots, cups and plates. The leaves are smooth, dark green above, paler below and slightly hairy. The buds are arranged alternately on the twig and the flowers are drooping catkins.

Station 14

Snowshoe Hare

One thing that everyone who has hunted snowshoe hare or studied them agrees on is the need for relatively thick low cover. Since a hare's defences include concealment by blending in with the seasonal landscape and by remaining motionless, it seems reasonable that it often conceal itself better in areas of dense fir thicket provides excellent cover and its proximity to feeding areas, ie the nearby cut over, provides an excellent food supply as well. Snowshoe hare do not exist alone in the forest. The health and vitality of many species such as lynx, Bobcat, Owls and Foxes to name a few are dependent on healthy hare populations as a food supply. Each stage of growth in a forest ecosystem provides one or more of the basic needs of the Snowshoe Hare, be it food, shelter, water or space. A diverse forest will ensure the survival of this species and promote all of those things that are directly and indirectly related to them.

Station 15

Beech (*Fagus grandifolia*)

Beech are common in hardwood areas, being found on moist well drained slopes with maples and yellow birch. Though it tolerates heavy shade, extreme cold damages this species which is at its northern limit in Cape Breton. Beech wood is used in wooden-ware, small furniture and sometimes flooring. Mice, squirrels, bears, raccoons and ruffed grouse eagerly seek the nuts. American settlers stuffed their mattresses with the leaves which stay springy longer than straw. Beech bark was probably the first paper of European ancestors and the word beech and book are very similar. The introduction of Beech Scale disease has severely deformed and killed many of our native Beech.

Station 16

Eastern Hemlock (*Tsuga canadensis*)

Early lumbermen virtually ignored hemlock but it is now regarded as a valuable lumber tree. Today it is used for dresses interior wood and exterior rough work such as bridge planking and wharves. The tannin in hemlock bark was used to cure leather until the discovery of modern chemical treatments. The bark is reddish brown, the wood has a pronounced reddish tinge, the needles are shiny green, flat and blunt tipped. The cones are the smallest of any of our native species and fall during autumn and early winter.