THE CONSERVATION COMMISSION OF THE BOROUGH OF HILLSDALE, N.J.
Ever Green
FOUNDED 1969

Jack Stubbs

Your field guide to the Nature Trail and Conservancy in Beechwood Park.

Field Guide to the Beechwood Nature Trail and Conservancy

THE NATURE TRAIL

The Conservation Commission of the Borough of Hillsdale welcomes you to the Nature Trail and Conservancy in Beechwood Park.

The western half of the park, in which the trail lies, contains a marsh, a lowlands, and an upland section. It is quite rare to find three separate, ecologically defined sections within such a small area. Because of this, the trail offers a great variety of plant life as it passes through each section along its half-mile way.

For the most part, each section contains the species of trees preferring that particular kind of soil and moisture balance.

BALANCE OF LIFE

We tend sometimes to think of woodlands only in terms of trees and ignore the hundreds of kinds of birds, insects, animals, and other plant life that exist there also. Yet each is dependent, one upon the other, and tied together in a bond of mutual cooperation.

The trees depend upon the microscopic bacteria and fungi that start the process of breaking down their leaves which will become humus; on the birds that pick the borers from under the bark; and the insects that pollinate their flowers.

The trees could not do without them, nor they without the trees that provide their food and shelter.

SOME ANIMALS TO LOOK FOR

Rabbits abound. They will be hard to spot because of their protective coloration, but if you look carefully, you will notice them, just a little darker than their surroundings. You won't miss the gray squirrel. Even in winter he livens up the scene scurrying here and there looking for one of his many hoards of nuts. He will probably only find a tenth of them, but that tenth will be enough.

Look for the chipmunk's burrow near an old log, but not in winter. He's having a somewhat fitful sleep under the drifts. You may spot a woodchuck from March to September. During the other months his sleep is so sound that his heart beat, which is usually 80 to a minute, drops down to four or five.

BIRDS TO WATCH (AND LISTEN) FOR

There is a great variety. You'll see the Nuthatch coming down the trunk of a tree head first looking for insects, or the Grosbeak on the top-most branches who can sing better than a robin.

In the marsh area you may find a Red-winged Blackbird nesting in a low bush. Listen for a Cardinal who sounds like a small boy whistling for his dog, and the Downy Woodpecker rapping up to 20 times a second drilling for insects, or the soft coo of the Mourning Dove. There are many others such as Slate-Colored Juncos, Goldfinches, and Tufted Titmice.

AN OUTDOOR LABORATORY FOR SCHOOLCHILDREN

The trail passes through what is essentially a wilderness area and nothing has been done, or will be done, to change that. No trees are rescued and none are planted. Nature will take care of its own or not. But this is as it should be if the schools are to use this miniature forest to teach the children the intricate design and relationships of nature.

THE SEASONS ALONG THE TRAIL

If you can, try to be on the trail during each of the seasons; there is always something new to examine.

SPRING Once again the promise of life is kept. This is the time to see that hardy harbinger of spring, the Skunk Cabbage, that will push up through snow if need be, and a little later on, the beautiful Jack-in-the-pulpit.

Look for the pale blue Hepaticas contrasted against last year's rusty-green leaves. Trillium is here too with its three leaves and three red petals.

And, of course, the violets.

SUMMER The dense foliage of summer has come, but in no haphazard order...first the low shrubs, then the understory growth and then the trees. With the leaves come the insects, like the aphids that feed upon them. But nature, too, has its checks and balances, in the form of other insects, like the ladybugs, that destroy the destroyers. And the catepillar that does damage to the trees this year may next year be a butterfly helping to pollinate them so new seeds may form.

(Continued on last page)

GUIDE TO THE MARKED TREES ALONG THE TRAIL

The trees are arranged in alphabetical order by their common name. The number on the nameplate of the tree, and shown below to the left of the common name, is that used in "Common Forest Trees of New Jersey" published by the Cooperative Extension Service of Rutgers University.

---

(55) AMERICAN BASSWOOD (Tilia americana)

Sometimes called a Linden, this fast growing tree has large, sharply toothed, somewhat heart-shaped leaves which are long pointed at the tip and usually unsymmetrical at the base. A quick clue to its identity is the seed cluster which hangs from a persistent leaf-like bract by a long slender stalk.

This tree could be called a Honey Tree, as its yellow flowers are rich in nectar from which bees can make an excellent honey. Basswood makes its best growth on bottomlands.

(32) AMERICAN BEECH (Fagus grandifolia)

This well-known tree grows with its neighbors Yellow Birch and Sugar Maple and is quickly identified by its smooth bluish-gray bark. It is a very shade tolerant tree and frequently dominates forest growth.

The leaves of this Beech are dark green, egg shaped and papery in texture with a sharply toothed margin. In winter the long, sharp pointed lance shaped buds are distinctive.

This tree is an important timber species. Although the wood is only of fair quality, it is used for inexpensive furniture, veneer, tool handles, and the like.

This tree is widely planted as an ornamental.

(33) AMERICAN CHESTNUT (Castenea dentata)

This valuable and once common tree covered extensive areas before it was attacked by chestnut blight. Now only old stumps continue to sprout. This is a sprout you see here and it too will be attacked by the blight before it reaches any useful size.

Its oblong sharp pointed leaves are 5 to 9 inches long and are somewhat leathery in texture.

The fruit is, of course, a nut and usually 2 or 3 are found within a husk covered by many prickly spines.

(30) AMERICAN ELM (Ulmus americana)

An excellent shade tree. You'll recognize the Elm, even at a distance, by its unique vase-shaped form.

The Elm is menaced now by Dutch Elm disease, a fungus, transmitted by the elm-bark beetle. Its almost elliptical leaves have an uneven base, and primary veins that run from the midrib to the points of the teeth.

Elms grow fairly rapidly in most any soil, but prefer moist bottomlands. The fruit is a greenish-wafer containing seeds eaten by bobwhite and gray squirrels. Flowers appear in small clusters in spring before the leaves.

(69) AMERICAN HORNBEAM (Carpinus caroliniana)

The fluted, sinewy trunk, and dark gray muscular-looking bark of this tree are distinctive, and give rise to its other common name, Ironwood.

It prefers moist soil and is found along borders of streams and on low ground. The light brown wood is dense and tough and is used for golf club heads and mallets.

In late spring look for the light green, leafy clusters which contain tiny nutlets (seeds) in pairs.

Leaves turn reddish-orange in the fall.

(59) AMERICAN SYCAMORE (Platanus occidentalis)

Once identified, the American Sycamore is never forgotten. Its bark, which peels off in large brown sheets reveals a new, cream colored, fresh bark beneath and gives the trunk a mottled appearance.

It is a large and beautiful tree with thick, 3 to 5 lobed leaves. The leaf stalk base is hollow and fits snugly over the winter bud. The tree is also sometimes called the "Buttonball" tree because of its spherical fruit which is brown and long stalked and covered by hairy seeds. The "buttonballs" remain on the tree almost all winter.

(80) ARROWOOD VIBURNUM (Viburnum recognitum)

So named because Indians once used its shoots for arrow shafts. This shrub has 2"-3" egg shaped to round leaves that have 4-22 pairs of coarse teeth.

Its twigs are hairless as opposed to the Mapleleaf Viburnum twigs which have velvety like hairs which show up under a glass. Look for flowers May thru July. Chipmunks are fond of its blackish fruits.

(50) BIG TOOTH ASPEN (Populus grandidentata)

It is the large coarse teeth along the margin of its somewhat triangular leaves that gives this species its name.

This member of the poplar family is a rapid growing, short lived species that will seed in barren or burned over areas quickly, and is commonly found growing with wild cherry, birch, and scrub oak.

Male and female flowers, in drooping catkins, are on separate trees and appear before the leaves come out. The small "cottony" seeds of this species are easily distributed by the wind. It takes three million seeds to make a pound.

The soft light wood is used for pulp, excelsior, and matches.

(46) BITTERNUT HICKORY (Carya cordiformis)

This medium to tall tree takes its name from the bitter meat of its fruit.

Its leaves are 6 to 10 inches long with 7 to 11 leaflets. Note the leaflets diminish in size from top to bottom. The fruit has a thin yellowish-green husk that splits into four parts about halfway down exposing a light-brown thin shelled nut.

It is a smaller tree than the Pignut hickory. As an aid to identification in winter, look for the bright yellow buds. Although the wood shrinks and warps easily, it has good strength and is used for the handles of tools.

(39) BLACK BIRCH (Betula lenta)

This tree grows in a mixture with other hardwoods such as Maples, Oaks, and Beech, and is sometimed called Sweet Birch.

One of the keys to identification is the spicy oil of wintergreen odor that comes from broken twigs.

You'll find male and female flowers on the same tree. Male flowers which are catkins are preformed in fall and in spring grow to a length of 3 to 4 inches. Female flowers appear in the spring and are 1/2" to 3/4" long.

This species' leaves are somewhat heart shaped at the base and are dark green on top with a single toothed margin. Its sap was once used to make birch beer, and oil of wintergreen is derived from the twigs and leaves.

(51) BLACK CHERRY (Prunus serotina)

The hard, close-grained wood of this tree is highly prized and is used for fine furniture, cabinetwork and veneer. It is one of the largest of the native cherries and is usually found growing with other hardwood species in rich deep moist soils.

The long, narrow, blunt toothed leaves are distinctive among the cherries, having prominent brown hairs along the midrib on the underside of the leaf. Twigs, when broken, have a sour odor.

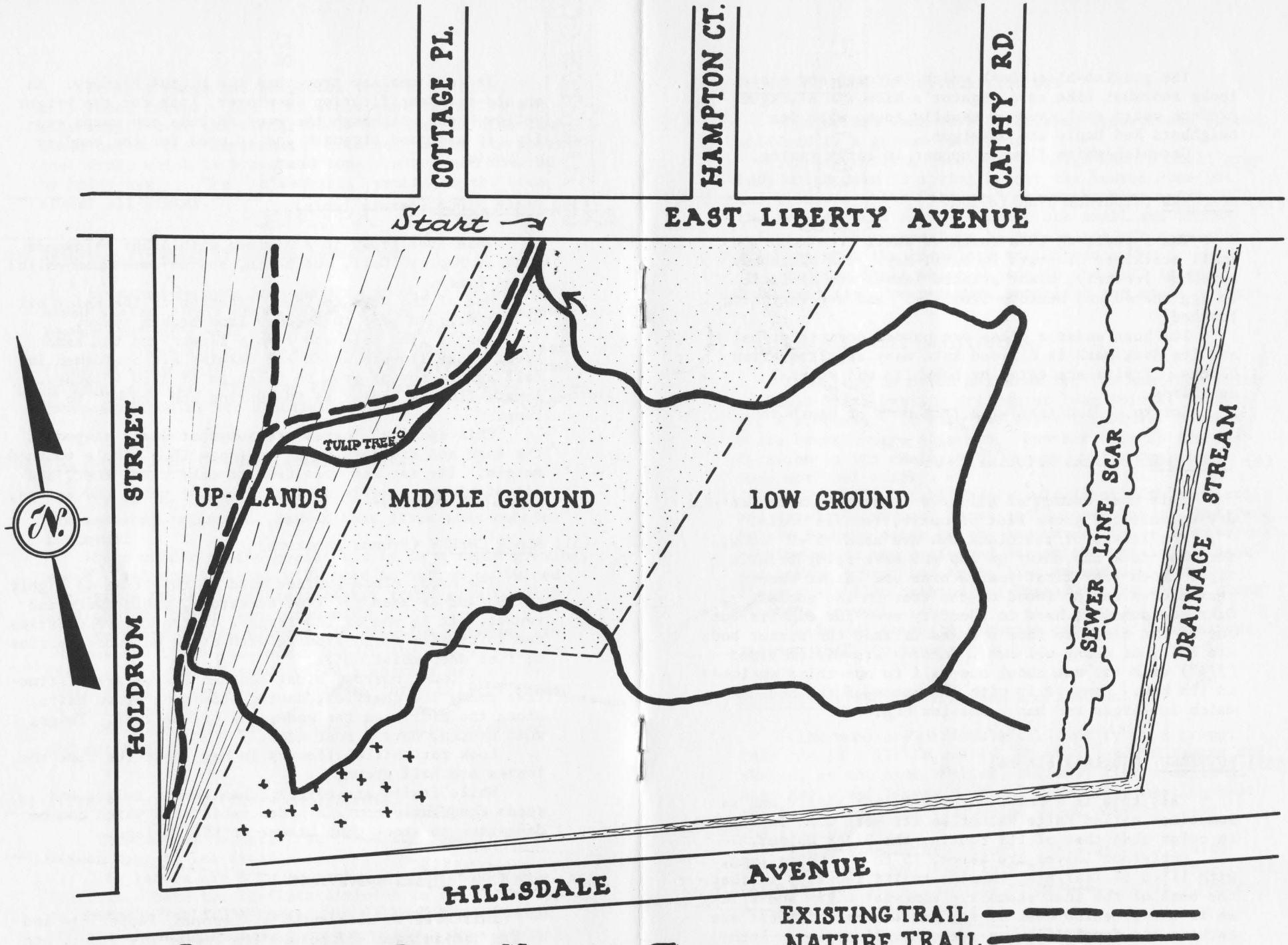
Look for whitish flowers in May about the time the leaves are half grown.

While fruits are edible, the leaves, twigs, and seeds frequently contain hydrocyanic acid which can be dangerous to stock that browse on the foliage.

(78) BLACKGUM (Nyssa sylvatica)

This tree is also known as Sourgum, Pepperidge and by its Indian name - Tupelo. Its leaves are smooth and shiny and turn a vivid scarlet in the fall.

(Continued after map)



Beechwood Park Nature Trail

The grayish-black bark which is rough and scaly looks somewhat like an alligator's hide. A Blackgum prefers moist soil, and is usually found with its neighbors Red Maple and Sweetgum.

Greenish-white flowers appear in early spring.

(79) BLACKHAW (Viburnum prunifolium)

The flowers on this shrub or small tree occur in small stalkless clusters in April-May. The Blackhaws somewhat leathery, blunt pointed leaves are elliptic to egg shaped and measure from 1"-3" and are very fine toothed.

Its buds under a glass are powder covered or hairy and its dark bark is divided into many small squarish blocks. Fruits are eaten by bobwhite and several songbirds.

Not to be confused with True Haws or Hawthorns.

(8) BLACK OAK (Quercus velutina)

This most common of all oaks is usually found on dry uplands but grows best on moist, fertile soils.

The leaves of the Black Oak are about 5"-9" long, somewhat dark and shiny on top and have spiny bristle tips. Both tiny first year acorns and larger second year acorns can be found on the tree in the summer. Oaks are somewhat hard to identify even for experts but one of the clues to this species is that the winter buds are hairy or downy all over. Acorns are medium sized (3/4") with the nut about one-half to one-third enclosed in its cup. Compare it with the acorn of the Red Oak which is larger and has a shallow cup.

(35) BUTTERNUT (Juglans cinera)

This tree is a member of the Walnut family and is sometimes called White Walnut as its soft wood is lighter in color than that of its cousin, the Black Walnut.

Butternut leaves are large, 15 to 30 inches long, with 11 to 17 leaflets. A clue to its identity is that the base of the leaf stems are somewhat hairy and sticky as is the greenish husk of its fruit. Male flowers are catkins and female flowers are on small spikes. Both appear on the same tree shortly after the leaves.

(65) FLOWERING DOGWOOD (Cornus florida)

One of the best loved flowering trees, both in the wild and as a garden specimen.

Upward curling dark purple twigs end in small gray buds which open in spring before the leaves come out and tiers of white "flowers" cover the tree. Actually the true flowers of the Dogwood are small and inconspicuous. What appear to be petals are not petals at all, but what the botanists call "bracts."

Its red fruit which ripens in the fall is an important food for numerous songbirds and small animals.

(36) GRAY BIRCH (Betula populifolia)

This tree is often mistaken for the American White or Paper Birch but its triangular long pointed leaves are a giveaway. It also has black triangular patches where branches are attached. Another help in identification is its chalky, not creamy, white bark that does not peel easily.

Gray Birch establishes itself quickly in poor soils and invades abandoned farms and cutover lands. Male and female flowers occur on the same tree. Male flowers are catkins which are preformed during the previous winter and become longer and tassellike in spring. Female flowers are also catkins and appear in the spring along with the leaves.

Seeds are in small brownish cones. It takes four million seeds to make a pound.

(81) MAPLELEAF VIBURNUM (Viburnum acerifolium)

Viburnums are difficult to identify as a group. This one is a little easier, however, as its leaves are shaped, as the name implies, somewhat like a maple's. Also Mapleleaf leaves have 3-5 main veins meeting near the base. Look for yellow and black dots on their undersides.

Flowers occur May-August. This shrub's fruits start out red (July) and turn black or deep purple (thru October) and are a favorite of grouse. It is a member of the Honeysuckle Family.

(43) PIGNUT HICKORY (Carya glabra)

You might want to compare the leaves of this tree to those of the Bitternut. The leaves of the Pignut are 8 to 12 inches long with 5 to 7 leaflets; 5 being more common.

You'll find male and female flowers separately on the same tree about the time the leaves are half developed. The male, in catkins, are where last year's leaves grew and the female's appear on short spikes on new growth. The nut of this tree has a thick bony shell which is enclosed in a pear shaped reddish-brown husk.

Its wood produces high grade charcoal.

(12) PIN OAK (Quercus palustris)

The horizontal or downward sloping lower branches of this Oak make identification easy in the winter.

Pin Oak leaves have 5-9 deep lobes ending in sharp hairlike bristles. This tree likes moist soil and can be found growing with Sweetgum, Red Maple, and other swamp hardwoods. Leaves are dark and shiny green on top. Its light brown acorns are small, often with dark lines, and set in tiny saucer-like cups that cover about 2/5 of the nut. Many stubby, pinlike branches are usually prevalent. It is a member of the Black Oak group.

(6) RED MAPLE (Acer rubrum)

The common name of this Maple is apt. Its blunt winter buds are reddish as are the twigs. In spring before the leaves come out small red flowers cover the tree. When the leaves do appear, they have a reddish midrib. Fall brings a scarlet foliage.

This tree grows best in moist soils but can be found with other hardwoods on higher land. Its seeds which turn reddish-brown are winged and, if planted at the right time in late spring, will yield seedlings several inches high in one year.

(9) RED OAK (Quercus borealis)

Oaks can be broken into two groups: The White Oaks whose leaves usually have rounded lobes and whose acorns mature in one year; and the Black Oaks with leaves having sharp pointed bristle tips and acorns that mature in two years. The Red Oak is a member of the latter group.

Its smooth, thin leaves are dark green on top and often have a reddish midrib.

It is one of the largest oaks, and can occasionally be found 125" high. Red Oak is a fast grower and is desirable for street plantings.

(82) SHADBUSH (Amelanchier arborea)

This small tree is found in the forest understory. It takes its name from the shad that begin their run in the local rivers in early spring about the same time that clusters of drooping white flowers appear. It often goes by the name of Juneberry or Serviceberry farther inland.

Its small purplish fruits ripen early and are a favorite of birds and animals. Its leaves are fine toothed and usually heart shaped at the base and somewhat long-pointed at the apex. The Shadbush grows well in poor soil.

(66) SPICEBUSH (Lindera benzoin)

The dark green untoothed leaves of this shrub are strongly aromatic when crushed as are the twigs and the attractive red fruits that appear in the fall.

Spicebush thrives in damp woods and seems to grow best on peaty or sandy moist soil in the under story of hardwood forests. Its small yellow flowers are in clusters and appear before the leaves. It is large, as shrubs go, and makes an attractive ornamental.

In pioneer days surveyors regarded the Spicebush as an indicator of good agricultural land.

(7) SUGAR MAPLE (Acer saccharum)

Best known of the maples. Its sugary sap is tapped in early spring and boiled down to make maple syrup. Leaves turn brilliant yellow orange in the fall. In winter, look for its slender, brown, sharp-pointed terminal buds flanked by two smaller lateral buds, also pointed. Twigs are glossy and reddish-brown.

In crowded woods Sugar Maples have long branchless trunks, while in open places they have a shorter trunk

and a large rounded crown. Its dark brown bark has rough vertical grooves and ridges.

Don't plan on growing grass underneath this tree as its roots are near the surface and its shade is dense.

(4) SWEETGUM (Liquidambar styraciflua)

The distinctive star shaped leaves of this member of the witch hazel family turn a brilliant red and gold in the autumn. It's usually found with its forest companions, the Red Maple and Blackgum that also like low moist places.

Sweetgum has a hanging, ball-like fruit covered with prickly projections. The fruit, after opening to release tiny seeds, can be found on the tree long into winter.

(54) TREE-OF-HEAVEN (Ailanthus altissima)

This is the tree referred to in "A Tree Grows in Brooklyn." It has very large compound leaves with 11 to 41 leaflets. At the base of each leaflet, is a gland which gives off a disagreeable odor when crushed.

Ailanthus likes moist locations but will grow almost anywhere and thrives even under the most adverse conditions. It seems immune to smoke, dust, grime and insect pests. Male and female flowers appear on separate trees.

Its common name is thought to be Asiatic in origin and alludes to its height - 80'-100'.

The tree was imported from Northern China and is now widely naturalized.

(1) TULIP TREE (Liriodendron tulipera)

One of the oldest trees along the trail, it predates the Civil War. Its flowers, which appear in late spring and resemble ordinary garden tulips, give the tree its name.

The fruit is a light brown cone that opens in September or October to let the seeds come out. The cones remain on the tree long into winter and give the appearance of tiny candles.

The Tulip Tree is prized for its lumber as it is a fast grower and produces soft, easily worked wood.

There is only one species in North America, the only other species is in China.

(41) WHITE ASH (Fraximus americana)

A forest tree primarily, but also is regarded as a good ornamental. It thrives in rich moist soils and is often found with oaks, hickories and maples. Its seeds, which form in the spring, are shaped somewhat like a canoe paddle.

The Ash has what are called compound leaves, each of which is usually composed of seven small leaflets three to five inches long. Male and female flowers occur on different trees at about the time the leaves come out.

A member of the olive family.

(15) WHITE OAK (Quercus alba)

A majestic tree, that develops a broad symmetrical crown when found growing in the open, but in woods, as with most other trees, it is a more vertical grower. The light gray scaly bark helps in identification as does its leaves with 5-9 rounded lobes.

In the spring new opening leaves are pinkish-red, a color they will turn again in the fall. This oak is an outstanding lumber tree and grows slowly in the rich soil it prefers.

Its acorns are medium-sized and pointed, and rest in shallow cups. The nut-meats are relatively sweet compared to those of the Black Oak group.

Flowers occur usually in May about the time leaves are one-third developed. Male flowers are catkins 2 1/2"-3" long. You'll have to look carefully for the inconspicuous female flowers, on short spikes, that are there on the same tree.

NATURE TRAIL (continued)

FALL By a process only little understood, the tree is signaled by the diminishing light and lower temperatures to drop its leaves. The winter drought is coming and leaves require water. The tree must conserve the moisture it now has in its roots and trunk, for once the ground freezes water will be hard to come by.

And so the water channels to the leaf are closed off, the chlorophyll in the leaf dies, and the leaves before they go have their final colorful fling.

WINTER It may appear very still and lifeless now, but it is only sleeping. Life is still there, under the protecting snow and in the chipmunk's burrow, and insects are passing the time under the bark of trees.

Nature is not so foolish not to have prepared for another year in the form of winter buds. These tiny miracles contain food, special growing cells and perfect minature leaves waiting to burst forth and start the cycle once again.

THE CONSERVATION COMMISSION

The Commission is charged with conducting research into the proper use of open lands and waterways in the Borough; with special emphasis on flood plain control, pollution prevention and abatement, and outdoor recreation needs.

Among its responsibilities is the management and protection of plant and animal life, and the planning and implementation of conservation programs.

"The land we live on our fathers received from God, and they transmitted it to us for our children and we cannot part with it...Where is the land on which our children and their children after them are to lie down?"

Iroquois Cornplanter to G. Washington 1790