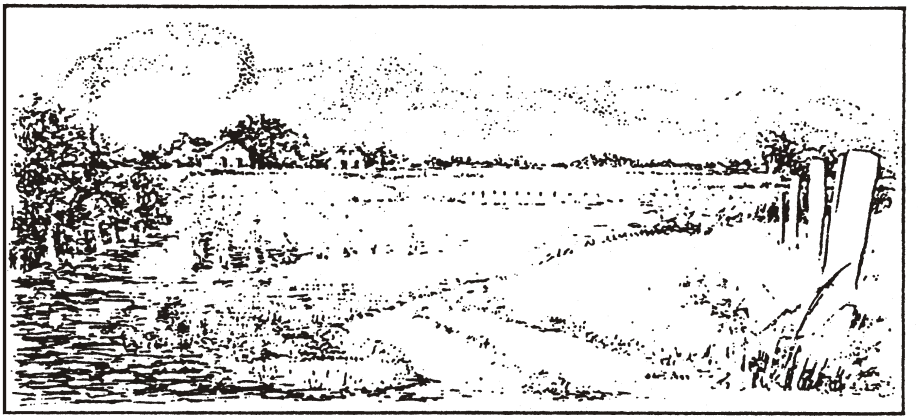
SELF-GUIDING NATURE TRAIL IN SLEEPING GIANT STATE PARK



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for the Sleeping Giant Park Association

Seventh Edition 2019

SELF-GUIDING NATURE TRAIL

Many people visit the Sleeping Giant. It is hoped that you will be one of those who will gain more enjoyment from your visit by exploring the Nature Trail with this "Trail Guide", which will help you to interpret our natural world.

The Nature Trail is 1.8 miles in length and requires over an hour to walk. The first part is relatively level walking. The second part of the trail, after the turn near number 13, is rougher, steeper and, in places, rocky. All trails require suitable shoes.

The numbered trees or rocks beside the trail are matched with the numbered paragraphs in this booklet. When you reach a numbered tree or rock, look up the matching number in this Trail Guide and read about the natural features around you.

The natural features covered in this guide have necessarily been limited to things that can be seen in all seasons. However, in the proper season look for the many flowers, birds, insects, and other wildlife which make their home on the Sleeping Giant. They will add to what is covered in this guide.

The trail is well marked with Nature Trail blazes (white arrows on green circles) and the footprints of others who have explored this trail before you. We welcome you to the Nature Trail and ask that you leave our natural environment undisturbed.

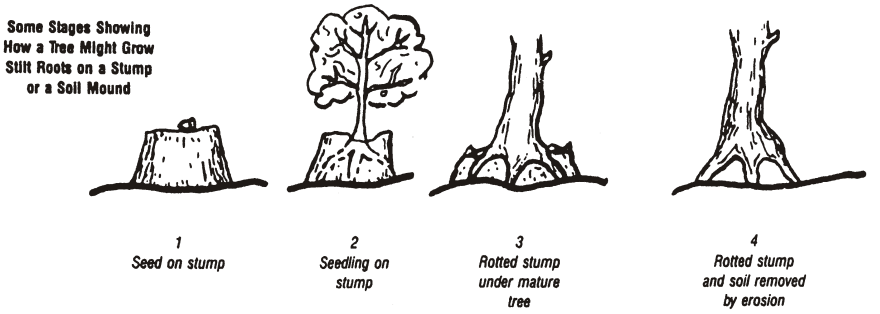
This, the newest edition of the Sleeping Giant Nature Guide, was written after the May 2018 tornado did significant damage to parts of Sleeping Giant State Park. The tornado damage necessitated many changes to the Nature Trail. As you hike along this trail there will be new stations as well as old ones and the trail now returns via the Tower Path rather than the Red Hexagon and Orange Trails.

1. DESCRIPTION OF TORNADO PATH/DAMAGE – In the late afternoon of May 15, 2018 four tornados, a macroburst, and a microburst moved through parts of our state. One of the tornados, rated an F1 with speeds reaching 110 mph, moved east from Beacon Falls through Bethany into the northern part of Hamden. Just before reaching the Sleeping Giant the damage path of this tornado widened and the winds became straight-line in nature with speeds of 100 mph. The greatest damage from these winds occurred here near the parking lot, picnic areas and Mill River with scattered spots occurring along the Tower Path, the Nature Trail and on the north side of the Giant as well. The force of these winds caused severe damage to all types of trees on the Giant, however, white pine trees, such as the ones that had surrounded the parking lot and provided shade in the picnic areas, were particularly susceptible to the tornado's winds. Most of the white pine trees were snapped in half with their tops flung onto the ground leaving only bare, ragged trunks still standing. Trees that were not broken in half were uprooted and tossed down as easily as a child tosses aside a toy. Such extensive destruction of the white pine forest in this area necessitated a complete removal of all the magnificent mature trees that once graced this area.

2. THE WOODEN STAIRS – The Tower Path that you are now on has many curves or "switch-backs" in it as it winds its way up to the Observation Tower. These broad curves allow a gentler grade and thus easier walking for the many people who use the Tower Path daily. They also lessen the likelihood of erosion to the sloping sides of the Sleeping Giant. However, it is human nature to take the shortest distance between two points and hikers have made a shortcut here where the wooden stairs are. Unfortunately, this shortcut and others like it lead to a great deal of erosion resulting in damage to the surrounding soil and plant life. In these impromptu areas, water cascades rapidly down the steep path stripping soil away from the surface thus exposing tree roots and other plants to the damage of many passing feet. These wooden stairs were built in an attempt to lessen the damage here. To prevent other areas of damage, please stay on the trails as they are marked.

Note: Continue walking on the gravel Tower Path here until you reach a sharp left hairpin turn. The Nature Trail leaves the graveled Tower Path at this point and follows its own path.

3. STILT ROOT TREE – This black birch tree exhibits a condition known as stilt roots. The tree may have started as a seed sprouting on a dead stump or a small mound of soil from an uprooted tree (see station 6). As the tree grew and the roots reached down for nutrients and water, either the old stump rotted away or the mound of soil eroded away leaving the base of the young tree above the level of the surrounding forest floor. Continued erosion of soil eventually leaves the upper roots exposed as you see them.



4. NATURAL FOREST DAMAGE – All around this area dead, toppled trees and branches litter the forest floor. This is one of many places along the Nature Trail that shows the result of natural forces on forest trees. Even before the stunning damage caused by the 2018 tornado, Connecticut and all of New England experienced severe storms destroying many of the trees in our neighborhoods and forests. But not just storms have been involved in the loss of these trees. Many of these trees had already been weakened by destructive fungal and insect diseases such as the chestnut blight, the emerald ash borer, the hemlock woolly adelgid and, more recently, the southern pine beetle which required the spruce trees around the Maltby Lake Recreation Area to be cut.

Although the area around this station is not very pretty right now, over time decomposition will allow these fallen trees to add nutrients to the soil and the openings now provided in the canopy will allow light to filter through encouraging young trees and other plants to grow.

5. BRACKET FUNGI ON DEAD TREE – Here on the right side of the trail you will see a dead tree's trunk that is covered by rows of white fungi. The fungi are called **bracket** or **shelf fungi** and they generally attack dead or weakened living trees. The dozens of small, white shelf-like structures that you see are the reproductive part of the fungus. Inside these structures the fungus makes thousands of spores which will drop out through holes on the bottom of each small shelf. The spores will be carried by the wind to other trees that will become a host of this fungus. Although there are dozens of these reproductive shelves on this tree the bulk of the body of this fungus is actually hidden inside the tree. The main body of the fungus, called a **mycelium**, is made of a network of fine, threadlike structures called **hyphae**. As each hypha grows, it penetrates further into the heartwood of the tree releasing enzymes that it uses to digest the wood of the tree. The hyphae then absorb these digested nutrients feeding the entire fungus. Although this invasion aided in the death of this particular tree, the action of bracket fungi is immensely important to the health of the surrounding forest. Bracket fungi are one of only a few organisms that can break down the tough materials in wood releasing vital nutrients such as minerals containing nitrogen and phosphorus into the soil. The enriched soil it ultimately provides will aid the next generation of trees and herbaceous plants by providing them a welcoming environment in which to grow.

6. UPROOTED TREE WITH EXPOSED ROOTS – On the right side of the trail, the large uprooted tree that you see here is but one of many that the 2018 tornado ripped up from the ground and flung down. Most of the tree's roots are in the top 3 feet of soil and were no match for the powerful winds that occurred that May. Although the death of this tree was violent, it lets us see how much soil and rock can be embedded in a tree's roots. Also notice the very large depression or scar left in the earth. Now, overtime, the soil in the root mass will wash back into the earth and the roots will decay leaving a small mound of rich soil. Eventually the surrounding forest floor will be littered with these small mounds (called pillows) seated next to a depression (called a cradle). This will be a clue for future hikers that a powerful storm significantly changed the face of this forest.

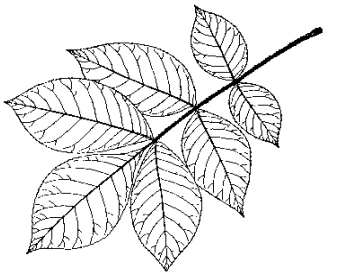
7. ROTTING LOG SUCCESSION – All living organisms which die in nature will either be consumed by scavengers or will undergo decomposition in a series of stages. One of the most conspicuous decomposition processes in the forest is that involving dead trees. On the left of the trail here you will see the first stages of tree decomposition. You can see the trunk of a standing dead tree and just in front of it is the trunk of another tree that has fallen onto the ground. Look carefully at both. On both trees you will see that most of the bark is still intact but large patches are beginning to peel away. As the protective bark is lost, both insects and fungi can begin work breaking down the wood of the tree. Still, even now the standing dead tree remains a valuable resource to the forest's animals providing homes in the form of nesting holes for birds and squirrels.

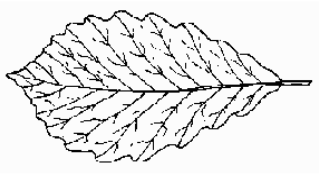
Now look down to the right of the trail. There you will see part of a tree trunk that has fallen and been in contact with the forest floor for a long time and is in an advanced state of decay. Once a tree is in full contact with the soil a new series of decomposing organisms begin to invade the log. Insects such as beetles and grubs cut lacy patterns of holes in the wood. This allows water to permeate the wood, which aids the deeper penetration of fungi. This series of different decomposing organisms will eventually break down the wood and return the organic matter and nutrients to the soil. While it is sad when a mature tree dies, it is nature's way of recycling and providing food and space for the next generation.

8. SANDSTONE CONGLOMERATE SLABS – Sandstone is a common type of rock under the soil of central Connecticut. Various types of sandstone can be found among the rocks strewn on the slopes along the trail.

Look closely at the rocks lying to the left above the trail about 25 feet away. You can see that they are composed of sand and pebbles. The material from which this sandstone was made was deposited in layers by water 300 million years ago. Time, pressure and mineral cement have consolidated them into rock. This type of rock is weak along the lines of the layers and it splits easily. In the surfaces of the large slabs are half-buried pebbles and holes from which other pebbles have been pulled out.

9. MOCKERNUT HICKORY – This tree is a mockernut hickory. Hickories are found mainly in drier habitat in the eastern United States. The hillside forest along the lower section of the Nature Trail is an ideal habitat for hickories because of its drier southerly exposure. Hickory trees have compound leaves. Compound leaves are made up of leaflets attached to a flexible, greenish main stem. The mockernut hickory is one of four species of hickories found in this region and is characterized by deeply furrowed bark and compound leaves containing 7 or 9 leaflets. The nut is a source of food for many forest animals.





10. CHESTNUT OAK – Notice the trio of trees to your right. Also characteristic of drier forests are the oaks, represented here by the chestnut oak. This tree has mature, deeply furrowed bark with long vertical fissures and a broad, characteristically shaped leaf. The chestnut oaks form a subsection of the white oak group and are one of the major trees of drier hillsides in southern New England. Notice the tiny chestnut oak seedlings scattered around the base of their parent tree.

11. SHAGBARK HICKORY – To the left about 60 feet from the trail is a shagbark hickory. The shagbark hickory is one of the easiest trees in the forest to identify. The bark of the tree has a most distinctive shaggy appearance of thin, narrow scales curved outward at the ends. The shagbark hickory has compound leaves usually containing 5 leaflets and its nut is a source of food for many forest animals.

12. DRAINAGE GULLY – The rocks in this gully were deposited by the continental glacier approximately 15,000 years ago. The glacial ice was a thousand feet thick over this region and as it pushed slowly southward the ice swept up the soil, scoured away loose rock, and tore pieces of bedrock from the hills. When the ice began to melt, it dropped this mixture of material forming our present day soil. The soil on either side of the gully is like soil all over the highlands of New England, a mix of sand, pebbles, clay, and small and large stones. But in the gully itself, the force of water draining off the Sleeping Giant has washed away the lighter sand and smaller stones leaving behind the large rocks filling the gully today.

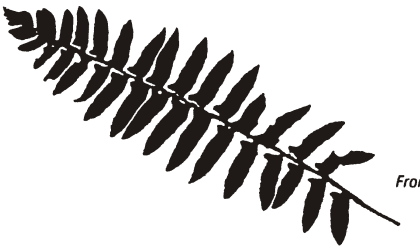
13. OLD FORKED PINE – This is the farthest point of the Nature Trail from the starting point and about one-third the total length. From here on the trail is steeper and rougher, but interesting. You may return the way you have come, or continue on if you choose. White pine trees, like the mature tree here, are evergreen trees. They are an ancient line of trees that were present on Earth long before today's common oaks and maples. Their needles grow in bundles of five, easy to remember as there are five letters in the word "white". This is the common native pine in Connecticut. Once America's most valuable lumber tree, it is used today for trim inside most houses. Could this tree be the parent of the younger pines nearby?

NOTE: The Nature Trail makes a very sharp turn to the left, uphill, at the junction of the Yellow / Nature Trail and the Red Triangle Trail.

14. SANDSTONE BOULDER – This large sandstone boulder was once part of the bedrock of the Sleeping Giant. The glacier tore it loose and moved it to the present location. The bedrock from which the boulder came is called sedimentary rock because the materials from which it was made were deposited by water. These materials were eroded from ancient mountains and washed into the lowland which is now central Connecticut. This process took millions of years, and thousands of feet of material were piled in the valley and compressed and cemented together. The evidence that proves the origin of the rock is visible in the layers of the boulder. Running water will deposit sand in just such layers and, at times, swifter currents carry and deposit heavier pebbles.

15. HEARTWOOD ROTS FIRST – The object of interest at this number is a hollow stump. As a tree increases in age, often two distinct regions will appear in the wood. The outer layers, called sapwood, are lighter in color and are primarily responsible for the transport of water and nutrients. The inner layers, called heartwood, are darker in color and primarily used for storage. When a tree dies or is cut down, the stump or log that remains will decompose. Sometimes, however, the heartwood will decompose more rapidly than the sapwood leaving a hollow stump (as you see here) or a hollow log. Sometimes the heartwood in a living tree will decay and the tree will become hollow, but will continue to thrive.

16. CHRISTMAS FERNS – At the base of this rock and lining both sides of the trail for the next few feet are clumps of large ferns**.** Ferns have leaves (called fronds), stems and roots, but no flowers. They reproduce by spores which form on the undersides of the fronds or on separate special fronds or stalks. If you are present at the right time of the season, you will see dot-like structures on the undersides of these Christmas ferns. They are like pillboxes that are full of minute spores which will form new plants. The Christmas stocking shape of the pinna (leaflet) will help you to identify this fern again. This fern is evergreen, so look for it in all seasons.



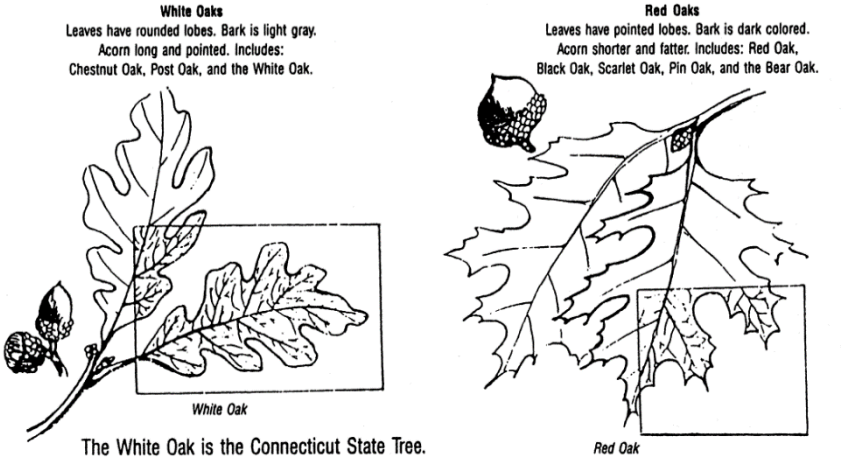
Frond

Pinna, shaped like a Christmas stocking

17. BEECH – Here you will find one of the most handsome deciduous trees in the forest, the American beech. Its smooth blue-gray bark is unmistakable, but so often shows the scars of thoughtless persons who carve their initials on the trunk. Acts of vandalism such as this detract from the natural beauty of our forests, and the wounds leave the tree open to infection and invasion by fungi, bacteria and insects.

18. BURL ON BASE OF TREE – At the base of this two trunk oak tree you can see a bulbous growth covered by bark. This growth is called a burl. Most burls form on the roots of trees but it is not uncommon to see them on the trunks and branches as well. It is believed that these growths occur when a tree has suffered an injury from an invasion by insects or fungi. The tree responds to the stress by rapidly forming wood in the area of the damage. This may help to isolate the rest of the tree from the injury.

19. WHITE OAKS AND RED OAKS – All oaks belong either to the white oak group or the red oak group. This oak is a white oak and just ahead on the left about 10 feet in is a red oak. If you can learn to place an oak into one of these two groups, you have taken your first step in identifying these oaks For greater ease in identification, learn the following.



These oak drawings are by Pam Fairclough and are the courtesy of the White Memorial Conservation Center; Litchfield, Connecticut.

20. BLACK BIRCH – Black birch (sometimes known as sweet birch) is the most common birch of southern New England. Black birch may be easily recognized by the horizontal ridges or lenticels on its bark. Also, young trees have a smooth, nearly black lustrous bark, but mature trees, such as this one, have wavy, scaly, plated bark. Its twigs are very aromatic, hence its other name, sweet birch.

21. TREES WITH FORKED TRUNKS – This is a red oak tree with two trunks. Several trunks on the same tree often produce an interesting pattern. When a tree grows from a seed it will, under normal conditions, produce just one trunk. However, under certain other conditions more than one trunk might occur. For example, if the main trunk is cut off a number of new sprouts may come up from the stump. If an insect damages the terminal bud on the tip of the sapling, a tree with two or more trunks may grow. And, if disease kills the main trunk, the stump may put up several sprouts some of which will grow into new tree trunks.

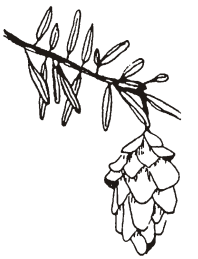
22. MICROHABITAT – In the crotch at the base of this trio of tree trunks note the small hollow that often contains a tiny reservoir of water. When water is present it serves as a perfect breeding site for mosquito larvae.

23. BROKEN TREE SHOWING TORN XYLEM – This tree, located about 25 feet in on the left side of the trail, was shattered by the force of the tornado's winds and now reveals what the wood of a tree is truly made of. The splintered shards of the trunk that you see here consist of thick-walled tubes called xylem. As a tree's trunk grows in diameter, the oldest xylem dies and becomes the central heartwood which provides support and stability to the tree. Newer, living xylem is added around the older xylem and is the sapwood of the tree. It serves to carry water and minerals from the base of the tree upwards to the rest of the tree.

24. DOWNED TREE SHOWING INSECT DAMAGE – Here is a broken tree showing extensive insect damage. On the right side of the trail is the dead stump of the tree, and on the left side of the trail is the chunk of the tree that has fallen away exposing what is left of the tree's interior. You can see the intricate network of passageways in the remains of the wood. This is the work of carpenter ants but is often confused by some as the work of termites. While termites are also active in dead trees, they are almost always found in moist, rotting logs, and seldom give any evidence of their presence. Carpenter ants, on the other hand, are usually found in very dry dead trees and often betray their presence with tiny holes in the trunk and piles of sawdust at the base of the tree. Carpenter ants use the dead tree primarily as a home for the colony, but do not feed on the dead wood as do termites.

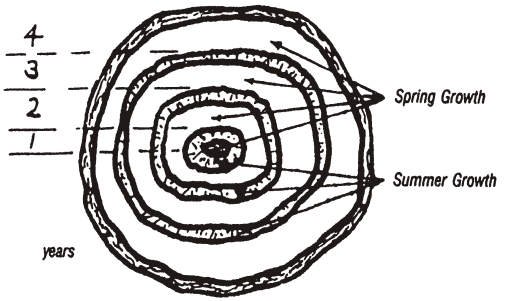
25. TRAP ROCK BOULDER – This large greenish-grey boulder is trap rock. This is the second of the two major kinds of rock found under the soil of central Connecticut. It is the rock that forms the body of the Sleeping Giant. This rock is hard and dense and does not erode as easily as the softer, weaker sandstone. Most of the higher elevations of central Connecticut are formed from this rock. Trap rock, or basalt, originated miles deep in the earth as molten, fluid material. It is known as igneous rock because it was formed by fire or heat. The molten rock was forced up through cracks in the sandstone. Some of it reached the surface and flowed out, hundreds of feet thick. Some forced its way between layers of sandstone to form a huge sandwich. The material forming the Sleeping Giant welled up through a great crack and pushed up overlying layers of sandstone which wore away exposing the trap rock and giving the Sleeping Giant its present form.

26. HEMLOCK AND THE HEMLOCK WOOLLY ADELGID – This small tree and another about 50 feet in on the left are Eastern Hemlock trees. These trees are needle leaved evergreens. Hemlocks prefer moist, cool sites and are tolerant of some shade. Unfortunately, the hemlocks of Connecticut have been under threat from the Hemlock Woolly Adelgid, an insect which was introduced into the United States from Japan and first discovered in Connecticut in 1985. Similar to aphids, this insect sucks sap from the tree weakening it and causing extensive damage and death to these trees. However, recently, researchers at the Connecticut Agricultural Experiment Station in New Haven have reported massive die-offs in Connecticut's Hemlock Wooly Adelgid population. This seems to have been caused by the stretches of extremely cold weather (single digits and below zero temperatures) that Connecticut has experienced in the past few winters. This is good news for the hemlock trees and may allow these young hemlocks to grow and mature.



27. SUGAR MAPLE – The sugar maple is almost synonymous with New England because of its vibrant orange and red autumn color. The sugar maple is not characteristic of drier hillsides of southerly exposure such as this, but would be found more often on hillsides of northerly exposure, such as the other side of the Sleeping Giant. It is an important source of lumber for the manufacture of fine furniture and for the production of maple syrup.

28. GROWTH RINGS ON CROSS SECTION OF TREE TRUNK – The cut off tree trunk seen here on the left side of the trail came from yet another tree that was toppled by the 2018 tornado. This piece of tree trunk shows the tree's growth rings. In the spring, a tree produces the widest part of its growth ring which is light in color. Then, in late summer, growth slows which is shown by the narrower, darker part of the growth ring. Thus, one season's growth consists of one ring with two shades of color. Can you tell the age of this tree when it fell?



29. GLACIAL PLAIN VIEW – The view here is easiest to see when the leaves are off of the trees but you can also see the plain below as you walk down the Tower Path and approach the parking area. Stretching away south from the Sleeping Giant is a glacial plain (Quinnipiac University occupies the closest part of it) that was formed during the period when the last glacier covering Connecticut finished melting about 15,000 years ago. The Sleeping Giant was part of a dam which held back a lake of water from this melting glacier. A spillway opened west of the head of the Giant, and through this spillway poured the water from the lake laden with sand, gravel, and clay. This material then spread out between the hills below the Giant. In places on this plain, great blocks of ice were buried under the sand and gravel, and were insulated so that they melted very slowly. When they did melt, the sand slumped in, leaving depressions called kettles. The valley of the Mill River is a series of such kettles, and Lake Whitney occupies a number of them. A kettle may be seen on the west side of New Road, by the Regional Water Authority gate.

30. AMERICAN CHESTNUT – Four feet ahead about 8 feet in on the right is a rock numbered 30 at the base of a small tree. Small trees such as these are all that are left of one of Connecticut's finest forest trees. The chestnut blight (a tiny parasitic fungus) was introduced in 1919 and almost exterminated the American chestnut because the tree had no resistance to it. Many old roots survive and still send up sprouts, although the original trunk may have been dead and gone for over half a century. These young sprouts may reach a height of 10 to 20 feet before succumbing to the fungus.

31. LIFE ZONES – Here on the left side of the trail is a path to a knoll. This little knoll demonstrates, in a small area, three of the life-zones or communities of the Sleeping Giant. You can actually mark the boundaries of three communities:

1. A south facing slope that dries quickly after a rain.
2. A comparatively level upland with poor, shallow soil unable to support a diverse group of plants.
3. A steep north slope retaining moisture from rain to rain. Here plants grow that require this constant moisture and can subsist with a minimum of sunlight.

In the future when you encounter different life-zones or communities, you may be able to determine why they are found where they are, if you consider the following factors:

1. The amount of moisture retained in the soil after a rain.
2. The depth and type of soil.
3. Whether a slope faces north, south, east, or west.
4. The elevation.
5. The latitude.

Note: Retrace your steps back to the point where the Nature Trail joins the Tower Path and proceed on the Tower Path uphill to the right.

32. BARE ROCK SUCCESSION (LICHENS AND EARLY MOSSES) – Succession is a series of continuous changes which occur in a community over a long period of time. The process is an orderly change in which groupings of plants and animals are replaced gradually by new and different groups, until the whole character of the community is changed. Each successive stage is able to appear only because the previous organisms have changed the environment in such a way that they themselves can no longer tolerate the new conditions, ushering in a community that can thrive in the new environment. Eventually, the environmental conditions remain stable and the organisms of this climax community, simply replace themselves.

Under normal circumstances the time needed for a complete successional series to take place in one location can be longer than a human lifespan. However, we are fortunate to be able to see most of the stages for this type of forest (oak-hickory) within a distance of only a few hundred feet. This is possible because the soil on the bedrock that makes up the Sleeping Giant is very thin and is periodically removed in small landslides. The result is a series of rock exposures of different ages that represent different stages of succession.

Here we see the earliest stage, which consists mainly of blue-grey patches of lichens and small, low-growing clumps of mosses. Only these plants can survive here where there is no soil for larger plants to take root.

33. BARE ROCK SUCCESSION (LATER MOSSES AND EARLY GRASSES) – In this second stage we see much larger mosses and small grasses. These can now take root because enough eroded material has been trapped by the lichens and small mosses of the first stage to allow a deepening of the soil.

34. BARE ROCK SUCCESSION (LATER GRASSES, SHRUBS AND SMALL TREES) – In this third stage more soil has accumulated and been enriched by the addition of organic matter from the decomposition of previous plants. Larger grasses, shrubs, and small trees have replaced the earlier plants and little of the bare rock is left uncovered. The importance of soil to a community can't be shown any better than in these stages of succession. Not only does the increased depth and quality of soil provide for the physical establishment of higher plants, but the value of the soil as a reservoir for moisture is demonstrated. In the first stage there is no place for storage of moisture, but with each successive stage the moisture content of the soil increases.

35. BARE ROCK SUCCESSION (LARGE TREE) – In this final stage we see the larger trees of the climax forest. Enough soil has accumulated to permit their growth. However, if you look carefully at the exposed roots of this tree, the frailty of this climax forest can be seen. Note that actual depth of soil between the bedrock and the base of the tree is really very shallow. For this reason, trees usually do not grow to their potential height where the land slopes. The root system is simply too shallow and eventually strong winds in a storm may topple the tree when the height to root system has been exceeded. As you continue on the trail, note how the taller trees are usually located on more level sections of land.

36. TALUS SLOPE – Looking to the right of the Tower Path and to the left below the cliffs of the Giant's head you can see a tumble of large jagged rocks and boulders. These came from the apparently solid basalt rock of the cliffs which are really laced with a network of tiny cracks that appeared as the trap rock cooled and shrank as it formed. Water can enter these cracks and when it freezes and expands during the winter it forces the rock apart and loosens the surface blocks. Through many seasons of alternate freezing and thawing the rock is split apart and gravity then pulls great blocks down the slopes. This is part of the process of erosion which has gone on since the last glacier retreated. The fall of rocks is not often observed, but you can see where recent blocks have fallen as the face of the rock will be a dark gray in color where a rock has been dislodged. Over time, trap rock then weathers to a lighter rusty brown color.

NOTE: At this point the Nature Trail now begins its descent and follows the Tower Path back down to the beginning of the trail.

37. OPENED AREA RESULTING FROM DOWNED TREES – Here on the right side of the Tower Path as you proceed down you can see a large area in which most, if not all, of the mature trees were blown down or broken in half by the tornado of 2018. The area is now open to the sky and is filling with shrubs and young trees rapidly growing and competing for sun, water and nutrients. What was once a climax community of oak-hickory forest has been set back to an earlier stage in succession. But unlike the early stage of bare rock succession that you can see at Station 32, there is still an abundance of intact soil here. Although it will be many years, it is quite likely that there will be another oak-hickory climax forest covering the ground here.

But, while this area is open, take a moment to look up at the sky. You will likely catch sight of a bird such as a red-tailed hawk or turkey vulture soaring on the thermals that rise from the ground.

38. MOUNTAIN LAUREL SPROUTING FROM CUT TRUNKS – Along the Tower Path many shrubs and trees have been cut down in order to keep the path clear. Here on the left you see the cut trunks of several Mountain Laurel shrubs which are actively sending up new leafy stalks from the roots and the trunk itself. If these shoots are allowed to grow, the plant will live and resume a shrub-like shape.

39. MOUNTAIN LAUREL GROVE – Here along the left side of the Tower Path you will see many shrubs with twisty trunks. They are called Mountain Laurel. This native woody shrub is evergreen with tough, leathery leaves that can withstand the cold and dry winds of winter. It can grow in forest shade, reach a height of 15 feet and live up to 100 years. Look for its clusters of pinkish blooms in late spring to early summer. These lovely flowers have been designated Connecticut's state flower.

We hope that you have enjoyed this Self-Guiding Nature Trail. Tell your friends of its possibilities. Further explore other items of nature, as this trail guide provides only a taste.

There are 32 miles of hiking trails on the Sleeping Giant which have been established and maintained by the Sleeping Giant Park Association. The trails are often steep and rough. They should be undertaken only with the proper footwear and if you are sure that you are in good physical shape. A pamphlet describing the trails is available free at the bulletin board between the parking lot and the beginning of the Tower Path.

The Sleeping Giant Park Association schedules 7 official group hikes in the spring and 7 in the fall. The dates are posted on the bulletin board near the beginning of the Tower Path or on the Sleeping Giant Park Association's web site at www.sgpa.org.

The Sleeping Giant Park Association has been acquiring land on the Sleeping Giant since 1924 and giving it to the State of Connecticut for this park. We invite you to join us in this on-going endeavor.