CFA NEWS

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Welcome, New Members!

CFA Welcomed 83 new members this quarter! Thank you for your new and continued support!

As a member you can see upcoming events and learn more about programs at; www.catskillforest.org .
Refer a friend or neighbor to the Catskill Forest Association and receive gift from us.

From the President's Desk - Fall 2022
A Story about Succession

By: Mike Porter - Board President

This past summer, Becky and I traveled across the country fulfilling a commitment and dream of getting away. We had originally planned on going to Alaska but COVID put a damper on that plan for two years. This year we decided we would travel come hell or high water. In a sense, we got both. The northwest was unusually wet and deserts were green and rivers were high. In fact, Yellowstone had historic flooding the week after we visited there. We saw the repercussions of the flooding on several on our forays. The "hell" came when we visited a region of Idaho called Craters of the Moon. Craters of the Moon National Monument is a protected area the size of Rhode Island and was formed by a lava flow and eruption that occurred 2,000 years ago. My first response to seeing it was, "This is weird" and the welcome sign also said the Monument was "weird."

My choice of topic came as we traveled around Craters. On one stop we climbed a black cinder cone that was formed during the eruption 2,000 years ago. From the bottom of the trail the climb looked intimidating but we decided to go. On the way up we passed NO vegetation or signs of life. As we reached the top of the cinder cone I was totally surprised to see a lone Limber Pine on the top overlooking the surroundings.

There were a few shrubs in low spots but the Limber Pine stood as a sentinel overlooking the surroundings. My thoughts went to how has this tree survived to grow so large in such an inhospitable location. Upon returning to our campsite at the Monument, I began my search for the answer to my thought. Having been a science teacher in my past life, I knew the answer all along but wanted to find the answer in the natural surroundings. I had

to find evidence of succession occurring in the region. Succession comes in two "colors," primary and secondary. Primary succession occurred as the oceans and earth weathered and eroded creating soil to support the new life forming on earth. Secondary succession occurs when an ecosystem's plant life is interrupted by some type of disturbance. Here in the Catskills, the retreat of the glaciers some 10,000 years ago set off a successional change that has resulted in the forests we have today in our natural areas. Recolonization occurred as soon as the ice melted and soil was deposited by the melt-water from the glaciers. It did take several thousand years for things to really resemble our present forests but it happened as the textbooks tell us.

Sitting in my lawn chair in the shade created by our camper, I looked around intently to see what hints were presented to help answer my question. Looking across the road through the campground I saw a single stemmed wildflower growing out of the basalt that is the volcanic rock making all the black. The basalt had been broken up by the weathering processes of time and had provided a single place where this flower could successfully germinate. The limited availability of water must be concentrated in this small isolated location. Next thought was a question about whether or not this could happen on a larger scale all over the lava flow. What should I look for? Let's see what I found out.

I took a walk and found that in depressions all over the place there were small plants succeeding in the art of survival. Here is a grass clump with a couple flowers nearby. This was a larger depression with more "soil" for the plants to grow in. As I looked around in the region I saw larger and larger areas with more "soil" and more plants. I wondered how diverse the plant life could become and as I studied the area, I found evidence that there was quite a diversity of plant life growing successfully in various places around the

Monument. There were several really pretty wildflowers in some areas and in others there was nothing. Remember the cinder cone at the beginning of this message. There was nothing there until I reached the top of the cone. I guess slope and exposure to sun must be a factor as well as "soil" and water availability.

The variety of plants became quite astounding as I explored further. I never really identified any plants because of time constraints but got lots of photos to aid in my message. It turns out the adaptations of the plants are quite interesting and specialized. On the flat grounds the flowers are equipped with extra long roots to reach the limited water. Also, the plants are spread out so that they are not too dense to use up all the water that is available. This is also a trick that sage and cacti use to survive in desert areas. When we were at Craters of the Moon there was a major wildflower bloom occurring because of the availability of water. Even sage was blooming in the deserts. Had I been there in a drier time, I might not have been able to explore what was going on here. I was very fortunate.

Now, what about that tree on the crater. It was a survivor. How many seeds had dropped on that crater and germinated and then not survived? How long did it take for that tree to grow? How long will that tree survive in the harsh climate of central Idaho? When you think about all the factors that have to align for a tree in that harsh environment, it is a surprise when one or more survive. Simply change the conditions and trees were way more common. In "hollows" and small valleys there were many trees that had a chance to survive and reproduce. It was a true study in succession to observe and record the outcomes of the changes.

How can I relate my visit to Craters of the Moon National Monument to the Catskills, you might ask? The Catskills were in a similar situation after the last glacial period. The glaciers had quite literally stripped all the soil from the bedrock and it was not until the glaciers began to retreat that

soil was deposited by melt-waters that life began to return. Had the Catskills been in an arid region, things would have been similar to Craters of the Moon. The Catskills are not similar, as there is plenty of precipitation and groundwater to supply all the plants that have the opportunity to grow here. If Craters of the Moon were more humid, the repopulation of the region would be much further along and not nearly as interesting. I consider myself fortunate to have visited Craters with the outlook of a person who has knowledge of succession and its ramifications.

As I look around the Catskills, I see lands that have reached a near climax situation as the forests of the state land are becoming stagnant in terms of succession. They have been allowed to "evolve" to a point where there is "no place to go." The trees of our forests are species that are preventing change from occurring as they are "satisfied" within their situation and are not overtaken by other species. This is the Climax Forest. Our forests do need to have their succession interrupted by events like fire, flood, other natural disaster or cutting if they are to be productive and provide habitat for wildlife and the flowers and trees we are accustomed to seeing and enjoying.

Think about the issue of deer in the Catskills. It is a common mis-belief that there are too many deer because of an over-browzing issues. More correctly, there is a deer shortage because they have created a shortage of food by over-browzing. Because of the over-browzing, there is no available food in the understory of our forests making the deer search for food in the villages and hamlets and near the streams where people live. Any preferred food sources for deer are not reproducing because of deer eating the seedlings almost completely. We see lots of deer because they are living in our back yards and fields rather than in the forest where they would starve due to lack of food. Just one example of how deer have become an issue in the Catskills.

As you have read, my experiences in Craters of the Moon National Monument can be related to life in the Catskills by the convoluted process of succession and the problems with succession in both environments. In our Catskills, we have ample water, soil, and climate to allow growth to occur, the problem is that the deer are stopping growth in the forests by browsing all the seedlings.

Islands in the Forest

By Ryan Trapani - Director of Forest Services

It was back in 2004 when two NYS DEC Assistant Forest Rangers and one Forest Ranger were stumped about the identification of an evergreen shrub on Panther Mountain. It's amazing how often plants can fool you about their ID when viewed out of context. If we had seen this same plant in a housing development or landscape planting, it would have been easily identified. It was American yew (*Taxus canadensis*). Its other name – though less commonly used – is ground hemlock, since it appears as a small hemlock "running" or "arching" close to the ground. Perhaps you might better know this plant by its green "hemlock-like" needles, but peculiar and poisonous red "berries." In any case, we rarely saw yew back in the deep woods, let alone in the Slide Mountain Wilderness Area. In fact, this plant is rarely seen throughout some US states at all. For instance, the commonwealth of Pennsylvania (PA) believes yew has been extirpated from within its boundaries. But why?

Yew, or ground hemlock – as you might expect – does not grow beyond the reach of hungry deer or several feet high. Therefore, it is always within easy pickings of this forest dweller. PA has some terrible deer browse and ground hemlock – a preferred plant by deer – has been put to pasture there. While you might be feeling superior to PA, don't get your hopes up. Yew has also become scarce in New York State. We saw it that day in the woods since we were literally on top of a mountain, above 3,500 feet in elevation where deer are scarce.

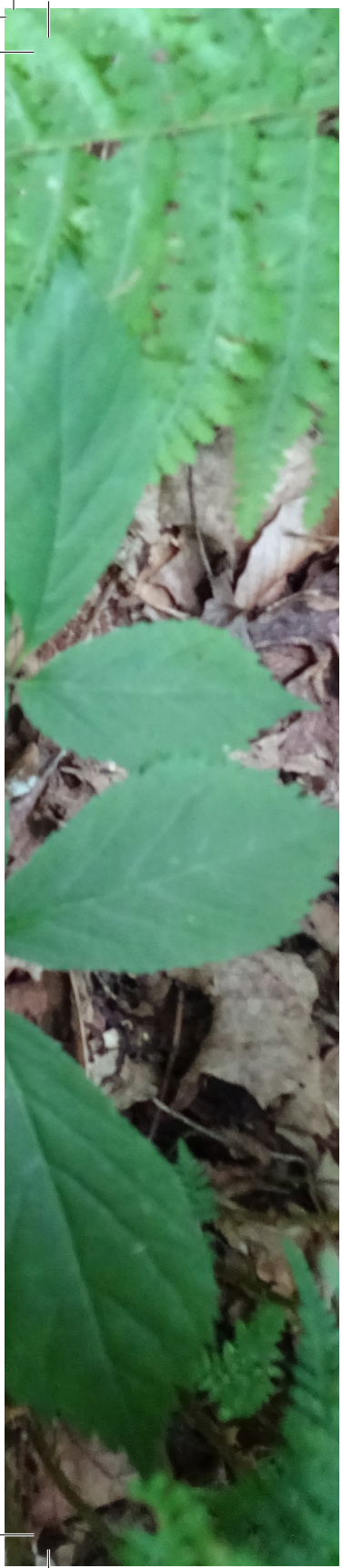
I have since seen this ground hemlock growing in other areas of the Catskills. Normally it will be on the side of a steep ravine or cliff where deer are less likely to venture. This got me thinking about "islands in the forest." These "islands" aren't true islands or separated by water. Instead, they represent metaphorical islands of land separated or detached in some way from browsing deer. Let's go into a few examples of these "islands" you might see in the Catskills.

Example Islands

First are north-facing slopes. Most deer browse is intense from autumn through spring when grasses and green growth is less accessible. To save energy, deer will frequent south-facing slopes more so than others. North-facing slopes are exposed to less sunlight and remain frigid in comparison. Therefore, browse is normally worse on south-facing slopes. I don't think that it's an accident that ginseng hunters prefer north-facing slopes, or that sugar maple seedlings seem more abundant there too. Some of this could be due to site conditions, but deer do browse both plants.

Another example of an "island" are cliff-faces or "cliff-towers" where cliffs are separated from adjoining land. On these you'll often find plants deer like to eat, such as red trillium. Last week I was looking down a cliff-face that contained a "room" that indented into the side of a cliff. Inside this sinus of the mountain were many red trilliums growing, protected from deer. Last year, I finally found an American ginseng in central Ulster County. Central Ulster has some awful browse pressure, and I've never found any there before despite the soil or site being awesome for growing 'shang. Despite this site being on a "deer-preferred" southwest-facing slope, one ginseng remained. Tucked beneath a cliff-face was a small American ginseng, that turned out to be almost 100 years old.

One more "island" in the forest or on the mountain are mid-slope areas. Anecdotally, I feel that browse can be less on these non-descript areas off the beaten path where deer might normally travel. For instance, deer will more often travel or navigate the mountain to burn the least amount of energy. "Saddles" between two heights-of-land are areas a deer might often go. They may also contour a slope if there is a "shelf" to walk on; Something peculiar to these mountains. Or they might walk a ridge down or up. But a steep slope with no breaks or "shelves" to walk upon can be outside a deer's purview. Last week, I finally found another ginseng in an area I don't normally find them on due to deer-browse; It was on a mid-slope. I also found a bunch of sugar maple seedlings and red trillium; All highly preferred by the white-tailed deer. I happened to be going through this area



because I was following a compass-bearing straight up the mountain to get to a certain location. I wasn't paying any attention on saving energy, but rather spending it liberally and pumping the 'ole heart some.

Other Islands

Other potential "islands" in your neck of the woods may actually be "islands" separated from deer by water. Or they might be due to both water and roads. For instance, I was on a property last week in Ulster County that was barred off by the Esopus River on one side and State Route 209 on the other. The member's hosta plants were untouched. Other "islands" might be surrounded by awesome habitat that keep deer busy and satiated. I remember one guy who owned 100 acres-plus of ridge-forest in the Town of Plattekill. I never saw such awesome forest regeneration of maple and oak since. I think his regeneration was mostly due to being surrounded by apple orchards which kept the deer's bellies full enough to keep from dumpster-diving on tree buds. Another "island" may be the "wreckage" or coarse woody debris left behind after a microburst, hurricane, or silvicultural clear-cut. The downed woody debris creates an "obstacle course" for deer to navigate and an incidental shelter for young tree seedlings and other palatable plants to grow. One more island I've been wanting to explore are those stretches of forests growing in the median of interstate highways. These roads are like concrete rivers that must keep deer-pressure down, and I wonder if forest regeneration beneath them reflects this. I'd have to get permission from the DOT before pulling over and taking a hike there though.

SUGAR (MAPLE) SHALE SANDWICHES – A NEW CATSKILLS FOREST TYPE

By: Dr. Michael Kudish - Forest Historian

A new forest type has recently been discovered in the Catskills, previously unknown and undetected because of its rarity. Only two sites have been found so far, but there must be at least several more waiting to be discovered. Will you discover the third site? And the fourth?

Allow me first to describe high-elevation isolated sugar maple groves determined by seeps and springs; these are not rare and have been known for decades.

Then let me describe the high-elevation isolated sugar maple groves NOT determined by seeps and springs. These are very rare and have just been discovered during the last year or two. Instead of seeps and springs, the cause seems to be shale bedrock and soils derived mainly from them. I call them sugar shale sandwiches.

HIGH ELEVATION SUGAR MAPLE SEEP AND SPRING GROVES:

High elevation sugar maple groves may be familiar to hikers in the Catskills High Peaks. A list of eleven of them appears in The Catskill Forest: A History (Purple Mountain Press, 2000) on page 32. These groves range in elevation from 3080 feet on Indian Head Mountain to 3820 feet on Hunter Mountain. They are on level, or nearly level, terraces where abundant water flows out from the base of ledges (i.e. at seeps and springs). The key words here are "flows out" because sugar maple cannot tolerate stagnant water such as in a swamp or bog. The difference between a seep and a spring is that while a spring is the beginning of a narrow brook, a seep is a wide sheet of water emanating out of the ground at the base of a ledge.

Along with the sugar maple is an array of its herbaceous seep and spring species (see CFA News, volume 36, number 4, winter 2018-2019, pages 16 to 18 for some detail): nettles, blue cohosh, white snakeroot, tall meadow rue, false hellebore, sweet cicely, Virginia waterleaf, sweet-scented bedstraw, jewelweed.

THE INTERRUPTION IN THE SUGAR MAPLE FORESTS: LEDGE AND BOULDER FOREST

As one climbs a Catskills peak, one soon reaches the upper limit of the lower slope sugar maple-dominated northern hardwood forest. The hiker then enters a very different kind of forest growing on ledges

and over boulders. This ledge and boulder forest in the eastern Catskills consists of red spruce, balsam fir, yellow birch, paper birch, mountain and striped maples, and mountain ash; there is often a shrub thicket here, too, clinging to the ledges and boulders: chokecherry, beaked hazelnut, two species of mountain holly, wild raisin, hobblebush, azalea, and red elderberry. In the central Catskills, the spruce and paper birch are absent. And in the western Catskills, the fir is absent, too, so the ledge and boulder forest consists mainly of yellow birch, mountain and striped maples, mountain ash, and the array of shrubs.

One would think that this ledge and boulder forest would continue all the way to the summit, but it sometimes doesn't. Where it doesn't, surprise! We are in sugar maple again – either in a seep or spring, or in one of the newly-discovered sugar shale sandwiches.

What is important here is that these high-elevation sugar maple seep and spring groves are separated from the sugar maple-dominated nearly continuous northern hardwood forests at the lower elevations, generally below 2500 feet, where the deep soils hold enough water to support the maple. The separation is a ledge and boulder forest, creating an interruption or discontinuity in the sugar maple forest.

As the hiker continues to climb up to the summit of the peak above the sugar maple high-elevation grove, he or she returns to the ledge and boulder forest.

SUGAR SHALE SANDWICHES

This is the newly-discovered forest type. It is still sugar maple, it is in still high-elevation groves, and it is still surrounded both below and above by ledge and boulder birch-mountain ash forests (some with fir or spruce-fir). But it is NOT a site with a spring or seep.

I was climbing the northeast slope of Blackhead Mountain in October of 2020 with Marc Wolf, Director of the Mountain Top Arboretum in Tannersville, NY (Marc has been on WIOX's radio program, From the Forest, several times). I wanted to re-examine the high-elevation sugar maple grove that I had passed decades ago when I was a graduate student. We found it beginning at 3560 feet. Marc continued a little on up the Escarpment Trail while I stopped to look carefully at the site. Then he heard yelling and came quickly running back down the trail to find out what was the matter. I almost never yell in the woods, but when I realized what I was looking at, I could not help it.

This sugar maple grove was different. Yes, there was both be-

low and above spruce-fir-birch forest and shrub thicket on the steep ledges and talus, plus lots of boulders. But this particular sugar maple grove, along with its ground cover species, was not particularly steep. It wasn't perfectly level either; it had a gentle slope. I saw no flowing water emerging from the ledges above; it was not the expected seep or spring. There were hardly any boulders. It continued on up to 3640 feet.

Then I looked down at my feet. The Escarpment Trail had been eroded down to bedrock at this point, probably because of heavy human foot traffic over the decades. The bedrock, instead of gray sandstone which creates the ledges and boulders both below and above, was soft red shale. Then I noticed that the glacial till soil over the bedrock was derived mainly from the red shale.

"What is going on here?", I thought. Shale soils hold more water than sandstone soils, enough water to support a sugar maple forest. In the spruce-fir-birch forests both below and above, the rocky, bouldery shallow sandstone soils hold inadequate water for the maple; the spruce-fir-birch-mountain ash forest with its shrub thickets can survive on it.

I called this grove a SUGAR MAPLE SHALE SANDWICH, or SUGAR SHALE SANDWICH for short. The "sandwich" refers to the fact that the sugar maple grove (like cheese, peanut butter, or meat) is sandwiched between two forests of ledge and boulder spruce-fir-birch-mountain ash-shrub thickets, one below and one above (like two slices of bread). One might also think of a soft red shale layer sandwiched between two layers of hard, gray sandstone bread.

The spruce-fir-birch-shrub thicket ledge and boulder forest continues from 3640 feet all the way to Blackhead's 3940-foot summit.

DID BLACKHEAD MOUNTAIN'S UPPER SLOPES AND SUMMIT ESCAPE THE LAST GLACIATION?

Soils derived from rock and sediments in place (i.e. NOT moved by glaciers, water, or other factors) are called residual soils. Residual soils are most abundant south of our glaciated region; they differ from our Catskills glacial soils where the ground-up bedrock and other material was moved by the ice and dumped elsewhere as glacial till. My first reaction was that this sugar shale sandwich was on residual soils, suggesting that the last (or Wisconsinan) glacier had not climbed as high as the shoulders and summit of Blackhead. Some geologists feel that the upper slopes and summit of Slide Mountain were not glaciated;

had I found a second such peak? I was afraid to present this wild, wild idea to geologists, but now I don't have to because of what I saw on Vly Mountain this spring.

VLY MOUNTAIN'S SUGAR SHALE SANDWICH

On May 30th this year, I climbed Vly Mountain's northwest slope to learn how high up on the southwestern shoulder the log roads climbed. I had left the sugar maple-dominated forest at 3100 feet and entered a yellow birch, striped and mountain maple, mountain ash ledge and boulder forest along with its shrub thickets; I thought this forest would continue to the 3520-foot summit. But it didn't. Instead, I began to see sugar maple ground cover species underfoot at 3380 feet. That's odd. I asked my colleague: "Do you see sugar maple in the overstory? Look for a spring or seep". Sugar maple was indeed in the overstory, but there was no spring or seep. Below my feet the herd path had eroded down to red shale bedrock. The soil was derived mainly from shale. The slope was more gentle and nearly boulder-free. I immediately thought: "A second Blackhead?" When we continued up to the summit, of course the forest returned to yellow birch-mountain ash-shrub thicket on the shallow, bouldery sandstone soils – in this case at 3400 feet.

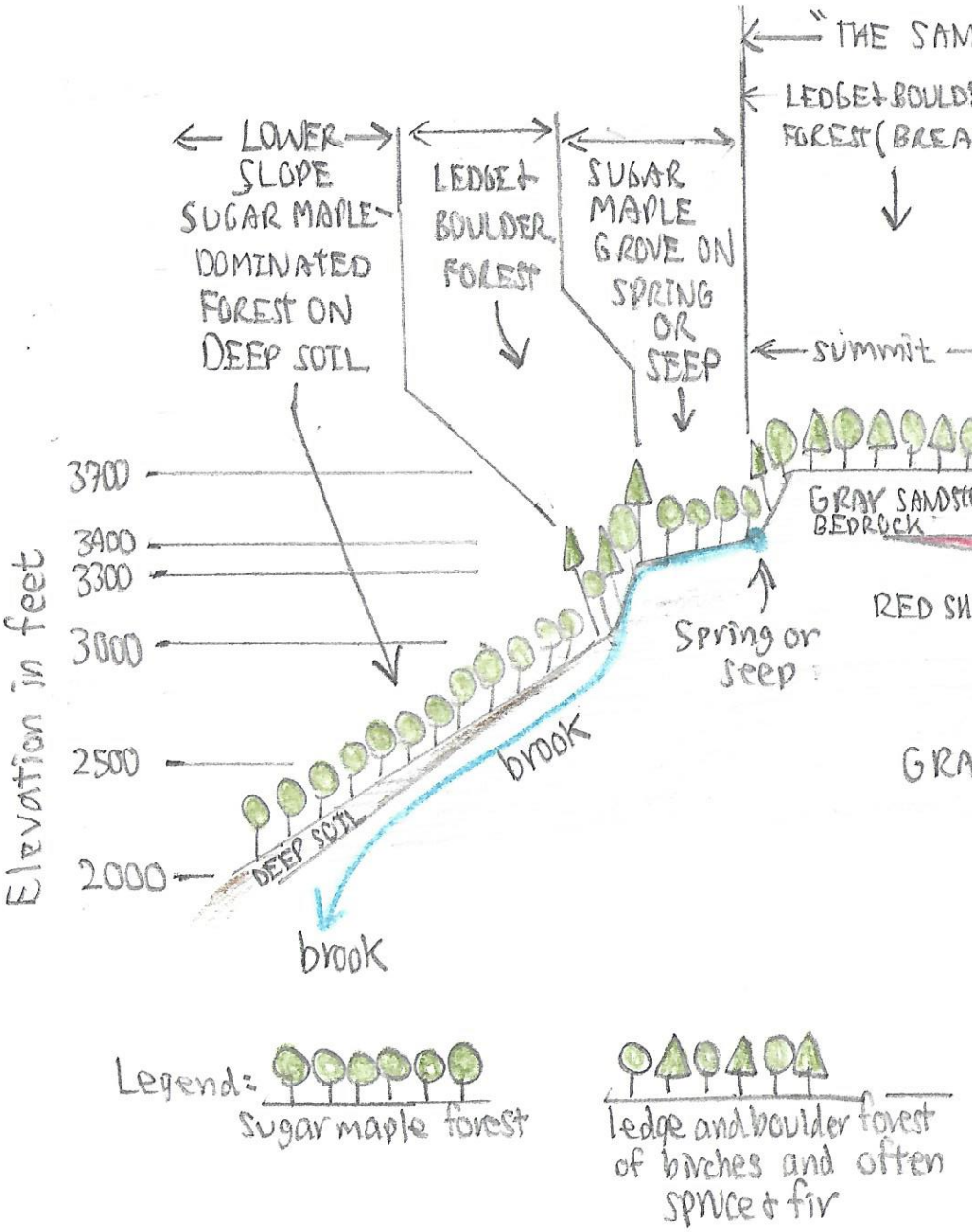
FORGET THE LACK OF GLACIATION

Vly Mountain is therefore the second peak I found that has sugar shale sandwiches. Blackhead is not unique. I can hardly imagine Vly's summit and upper slopes not being glaciated during the Wisconsinan period. Then why should Blackhead have emerged out of the ice?

Now I, and I hope you also, will be searching for more sugar shale sandwiches and reporting them. Red shale is rarely exposed at the surface; look for places where trails and stream beds are deeply eroded. Footnote: This is Mike's 50th article for CFA News, the first appearing in 2008.

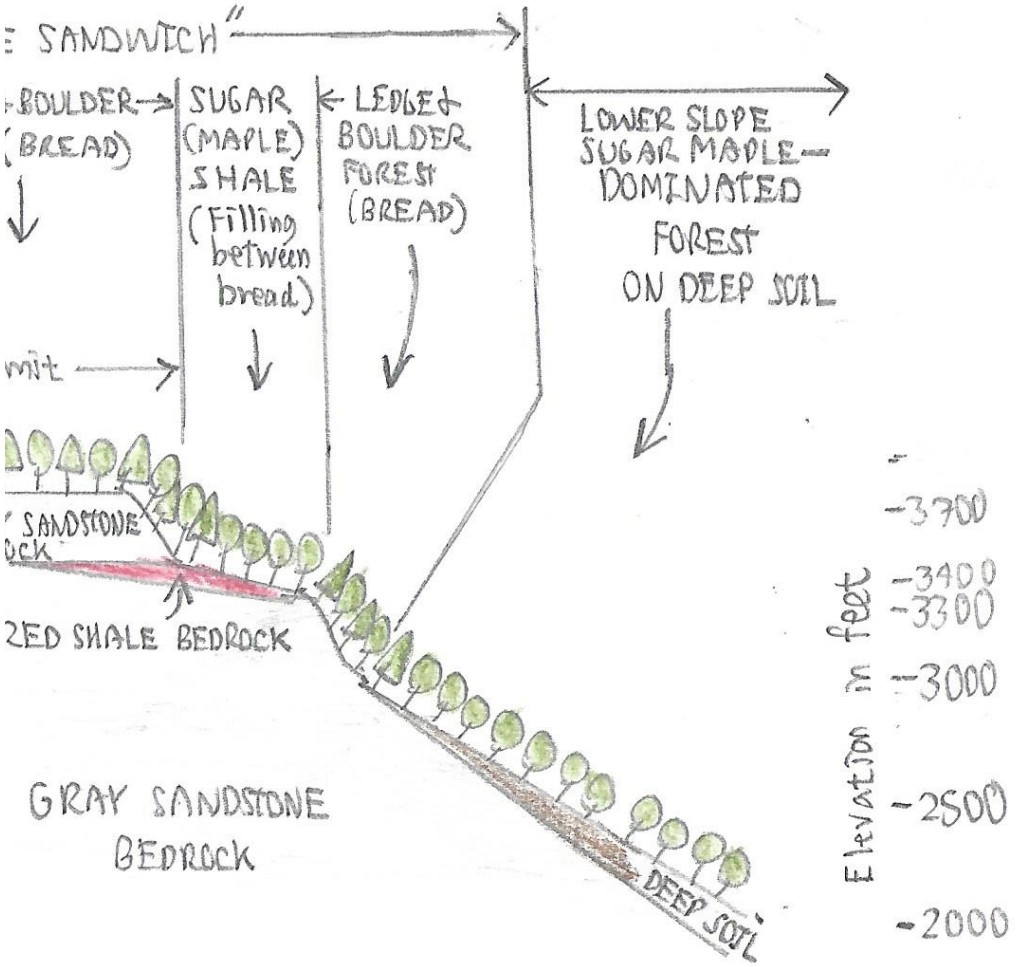
SUGAR (MAPLE) SHALE SANDWICHES

Here's a theoretical Catskills peak showing a Sug
and a "Sugar (Maple) Shale Sandwich" on the other.



Michael Kudish for CFA News, 40, 3, Summer 2022

x Sugar maple spring-seep on one slope
ther. Vertical exaggeration several times.



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Letting Nature Take Its Course

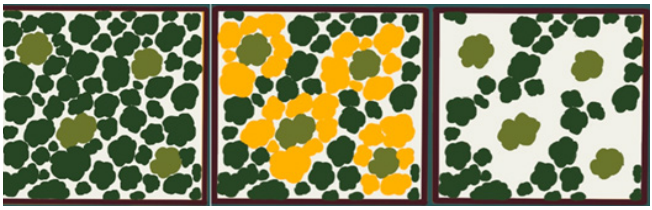
By: Zahra Bellucci - Education Forester

Before I decided to return to school to pursue a career in forestry, I was a vegetable farmer. While vegetable farming requires an infinite amount of skills and can include an equally infinite amount of tasks, there's one task that I can confidently say I've spent way more time doing than any other—weeding. One of the greatest challenges in successfully growing high-quality crops is pressure from competing vegetation. As I'm sure we all know, the word "weed" does not refer to any one plant in particular—it simply refers to any plant growing in a place we don't want it to grow. This doesn't mean that a "weed" is an inherently bad plant, or that it doesn't serve an important function elsewhere in the landscape, just that it doesn't align with our objectives for a given area. It seems obvious to any farmer or gardener that if you want to grow a specific plant or crop, you have to find some way of reducing or removing weeds. We often don't think twice about plucking lambsquarter or dandelion out from a bed of beautiful flowers or carrots or lettuce; we know it must be done in order to give our crops adequate growing space. Certainly, some farmers have more of a tolerance for weeds than others. But it's undeniable that the more you allow weeds to take up space in your farm or garden, the greater the sacrifice you are making on the quality and health of your crops.

Weeding Your Woods

So, how does this relate to forestry? Many of us who did not grow up with an exposure to forestry and the basics of forest management were likely told a similar story, either through schooling or through media—forestry means logging, logging means land-clearing, land-clearing means environmental destruction, and cutting down trees is wrong. I don't remember who it was, but I can remember being asked an interesting question while I was still in forestry school—"What made you switch from farming to forestry?" If we take a step back and look at where the U.S. Forest Service is housed in the hierarchy of the federal government, it's under the Department of Agriculture. From a broad perspective, forestry is farming. While it may seem that I am just referring to the management of timber—where a tree would be a "crop" that a logger is harvesting—there are other parallels to be drawn. In forestry school, we are taught about a practice called "crop tree thinning" or "crop tree release". Without going into too much detail, this thinning method essentially involves developing criteria for choosing specific trees within a forest based on a landowner's

objective, and cutting around these trees to provide them with room to continue to thrive. Replace the word "forest" with "garden", "landowner" with "farmer", and "tree" with a vegetable of your choice—sound familiar?



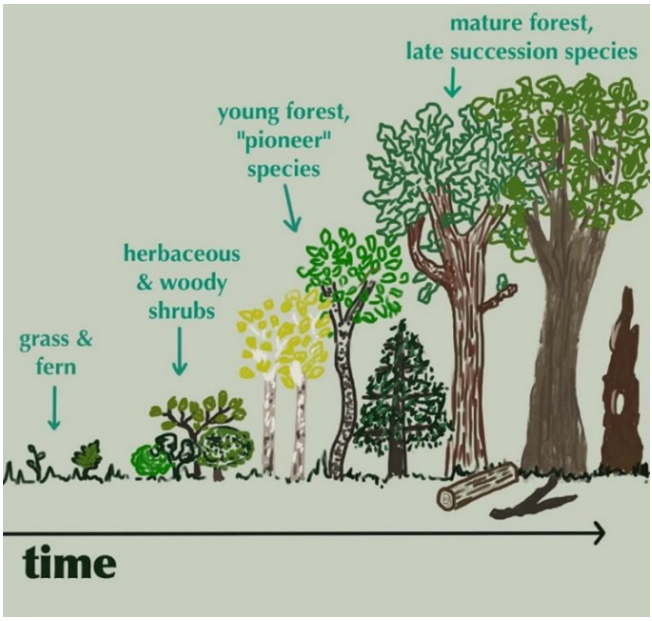
Visual example of crop tree release before, during, and after.

This is by no means limited to timber production. For example, one of the most common landowner objectives is managing for wildlife. In this instance, oaks, hickories, or cherry trees may be considered "crop" trees to promote due to the fact that all produce a valuable food source enjoyed by many wildlife species. Just as you might pull out the dandelion in your vegetable patch, thinning your forest can promote certain trees over others. A common sentiment I have heard from landowners when considering land stewardship is that they would like to "let nature take its course". Included in this sentiment is also a reluctance to cut trees. However, I think this is often based on the idea that "nature" does not include humans, and that human influence on the landscape almost always guarantees damage to its health. I should be clear that I'm not blaming anyone who shares this sentiment, nor do I believe that taking a hands-off management approach in your forest is inherently bad or wrong, but I think it's important to be informed about what nature's course actually is.

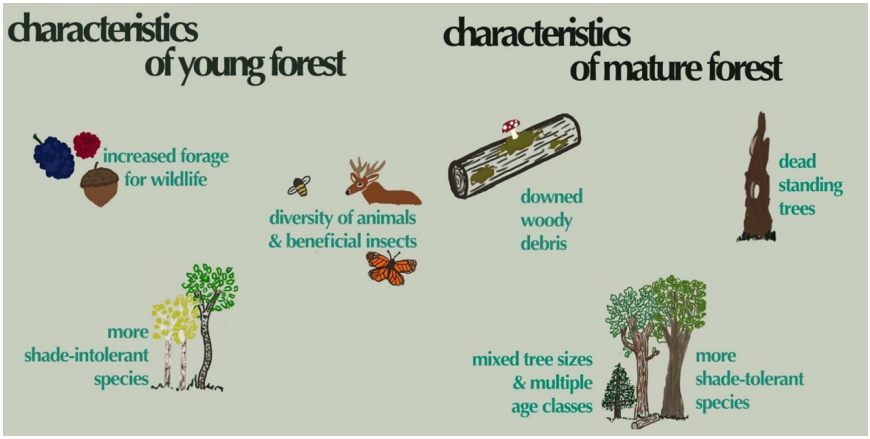
Forest Succession

Let's take another step back. If you've been a member of the Catskill Forest Association for some time, forest succession is likely a concept you've heard about before. For those not familiar, I'll try to paint a concise picture. Forests are not stagnant ecosystems. They follow a relatively predictable timeline if left to their own devices. If you were to abandon an old farm pasture and allow it to return to forest, as was the case with much of the land in the Catskills at one point or another, the first trees to dominate would be shade-intolerant species. Intuitively, this makes sense—trees that need the most sunlight to grow will do so when the most sunlight is available. As time continues, the species composition of the forest will generally move from shade-intolerant to shade-intermediate trees, and from shade-in-

termediate to shade-tolerant trees, barring any disturbance that would create an opening in the canopy. The shade-intolerant species simply can't compete and eventually become overtopped by more shade-tolerant species before dying off. In our forests, this means that "letting nature take its course" is the same as promoting this shade-tolerant forest cover type—typically made up of mostly American beech, yellow birch, sugar and red maple, and hemlocks. Again, this isn't necessarily a bad thing. There are many beneficial characteristics of mature forest that young forest simply cannot provide.



However, the same can be said in reverse. If a landowner wants to promote wildlife in their forest, there needs to be a sufficient amount of edible forage present—enough to overwhelm the critters' appetites. Most trees and shrubs that produce a fruit or nut—things that wildlife love to eat—require full sun to do so; they're shade-intolerant. After all, it takes a lot of energy to produce something so tasty and nutrient-dense. Therefore, in order to provide this edible forage for wildlife, there needs to be enough sunlight for these species to grow, and in order for there to be enough sunlight, openings need to be created in the canopy. These openings can certainly be caused by natural disturbances rather than human influence, but for the most part these disturbances are so few and far between that they aren't enough. We can accelerate these processes by cutting trees ourselves—creating strategic patch openings within the forest where sunlight can reach the forest floor and the food sources produced by a younger forest can thrive.



Differently aged forests offer different benefits to the environment.

This Land Is Your Land

As mentioned by CFA's Program Manager John MacNaught in the last newsletter, it's time to move beyond "set-it-and-forget-it" when it comes to forest management. Human influence on the landscape doesn't automatically mean destruction. In fact, I would argue that humans are in no way separate from nature—we're apart of it. We have coevolved with our forests and they depend on us just as much as we depend on them. Native Americans have long since manipulated forested landscapes to maintain an abundance of food and wildlife in order to survive, which in turn provided other benefits to the health and function of the forest. It's only in relatively recent history that we've decided to completely remove ourselves from the woods, taking a stance of "preservation" and believing that if we just don't touch it at all, it will be better off.

I should be clear that I'm not necessarily promoting one type of forest over another, or young over mature, but rather pointing out that human objectives don't have to be at odds with nature. No trajectory in nature is inherently bad—it's in the interaction with our own needs that they can be defined as beneficial or not. In order to do the greatest good for the greatest number (including humans, wildlife, trees, shrubs, and fungi alike), we would do well to promote a diverse and proportionate mixture of habitat and forest structure where many different species can find what they need. If we leave our forests untouched, and never venture inside to observe, experience, and interact with all that they hold, then we are doing both ourselves and our forests a disservice. We are only perpetuating the illusion of separateness of humans and nature. Perhaps we should all consider what it would look like to remain a part of the course that nature takes.

In Defense Of Firewood In The 21st Century

By: Ryan Trapani - Director of Forest Services

It's almost 90 degrees outside, but ironically, I'm thinking about my firewood. Although spring has grown into summer as I write this, last week or so marked the last and latest fire I've ever had at June 19th. The lows sank into the 40s while the highs reached only the upper 50s with an added dampness in the air that sent me once more to the woodpile. I only stuck in three small sticks, but it was enough to dry things out and warm things up. There is something else too that has been sending my thoughts back to that woodpile.

While I don't have a Tesla, Prius, or brand new F-150 hybrid pick-up truck to brag about, I do have a long stack of firewood and a simple medium-sized Regency front-loading woodstove that I find pretty cool. Firewood is our primary heat. And in the last few months, those two stacks of firewood sure have appreciated in value, mainly savings. The average price of fuel oil in Ulster County is about $6/gallon. The average total gallons used by upstate NYers is roughly 718.

At $6/gallon, that would burn down to about $4,308. In our household, that isn't chump change.

The Cost of Firewood

While firewood might be a savings – especially during high energy costs – it is so much more than that. As one older gentleman once told me, "Firewood is a way of life." While an oil burner is simply shut off or turned on, firewood is a work in progress. Firewood isn't free though; You pay for it in many ways. If you're buying firewood, it can be about $250/cord. For comparison, I have a small ranch house and 4 cords is about all I need. If we consider our above average oil usage/year, then firewood is about ¼ the cost. However, oil's high price today is unusual, and firewood is more like ½ to 1/3 price of oil. If you're cutting it yourself, it's dangerous. The occupation that uses chainsaws the most – logging – represents the most dangerous occupation on land in the US. Cutting firewood demands knowing something about this tool, its sharpness, maintenance, and application. There also needs to be some forethought. Knowing which trees to cut and which to leave can be detrimental to the forest or a huge improvement. Firewood – unlike oil – is bulky or "volume rich." It takes up a lot of space and needs to be seasoned or dried before gaining its maximum heat value. Then, it must be moved into the house where it can be messy. Burning firewood – or rather how you burn – can be anywhere on that wide spectrum of efficiency too. Combustion requires heat, oxygen, and wood. If the burner is impatient and deprives oxygen to trade for longer burn times, then more smoke and heat is lost up the chimney. Poorly burned or smothered fires that occur frequently can lead to house-fires. In addition, burning inefficiently releases more smoke and unburned particles into the air for you and your neighbors to breathe in and potentially complain about. The aftermath of all that burning are ashes that need to be periodically cleaned out. The cycle of cut, stack, season, move, burn, move ashes, move more firewood, repeat, repeat, repeat is well, repetitious. But, in between those steps, is a "way of life" perhaps some find fulfilling.

Firewood's Payback

That brings us to the positive side of the ledger. Unlike other renewable energy sources that trade an on/off switch with fossil fuels,

firewood demands a student, but ultimately teaches something valuable in the end. Let me explain. If you slack in your wood – and don't plan ahead – you'll be penalized in lost heat, come winter. If you rush your firewood – and it's not seasoned – it will harass you when burned in the stove via a hissing sound. The hissing is stuck water vapor that steals heat away from the wood and up the chimney. It also deposits creosote which can lead to chimney fires. Lost heat value means lost money since you're not getting that cord's full heat potential. If you're cutting yourself, maybe you think "at least I didn't pay for it." I've always been an athlete, but firewood has taught me how unnecessarily hard I've been on my body. For instance, in swinging the maul to split firewood, I used to swing as hard as I could. I got away with that for about 8 years. Then my elbow began to sing. It forced me instead to "throw" the maul, not pound it. Also, I now trade off with my weaker left arm. I try also to think ahead on how to limit unnecessary or poor positions when moving or lifting wood. There is a reason wise folks say, "Work smarter, not harder" or "slow is smooth, smooth is fast." I'm learning.

If performed efficiently, firewood can make a man as hard as first growth timber. I'm aiming for third. One more thing on that. I used to go to the gym quite a bit in college. The problem is that most of the exercises there are "linear" since they include machines that simulate real movements. Doing firewood creates enough "muscle confusion" that it seems to strengthen (for me) more efficiently and practically. Everything from the grip in your hand, to your back, legs, and arms. Again, assuming you're not "pounding" your body. Tom Brady may be one of the oldest quarterbacks – and this is quite impressive – but how many can say they do firewood into their 70s or 80s. I knew one older man that lived near a cemetery in Margaretville into his 80s. He sold firewood right up until the end. He was known for saying, "I cut firewood here, so I don't end up there (pointing to the cemetery)." I believe he lived long and ably because he spent so much time doing firewood.

Even when firewood is spent, its work isn't done. Ashes can be used as a liming agent for soil and plants, as a deicer on driveways, or a divot-filler. You can even use wood ashes as lye to make soap with or to buck buckskins. Ashes can even be used to clean the glass door of your woodstove.

I spoke about how firewood forces one to "plan ahead" or use forethought. It isn't a switch like using oil or solar power. Instead, its solar power is locked up in wood fibers that are decades old. Its benefit must be unlocked through forethought/awareness and just hard work; These are two understated benefits of firewood I'll leave off with. In defense of firewood, it is a cultural win and damn good for the forest if applied appropriately. After spending years educating others about natural resources management, I've come to realize just how difficult it is for people to gain awareness about their "environment" or local forest. While some people can gain this awareness by simply hiking around the woods, most I don't think can. A love for the forest is a good start. But, there often needs to be some sort of "economic" or tangible incentive to gain this awareness. It doesn't necessarily have to be money, but something to keep people coming back, even when they might not want to, even when the weather is unpleasant. I have spoken about how fishing drew me back to streams I only used for swimming or hiking as a kid. It was fishing or the hope of gaining a fish that gave me more reason to return. Hunting worked the same way. Sometimes I just didn't feel like going in the woods. But I rely upon deer not just for the experience, but also for meat; I need the meat, no matter my mood. And in doing so, I can't help but to remain connected. Ever notice that farmers seem to have an incredible depth of understanding about their land? It's because they have many reasons to know it. Firewood is the same. It keeps my nose looking at wood and the trees they come from, even when I'd rather sometimes just go inside. If you know which tree to cut and which to leave behind, firewood can provide an incentive to enhance forest health, wildlife habitat, future trees for sawtimber, improve maple sugaring, etc. Besides, firewood must be cut; Winter is coming. And that brings me to my second defense of burning firewood.

Yes, I know. Firewood can seem almost primitive or regressive in today's world. Technology seems to be pushing solar, geothermal, mini-splits, and more, and these technologies are welcomed. Firewood too has progressed technologically, but the woodstove remains fairly simple and affordable for local people. I'll never forget my brother-in-law's happiness in seeing my woodstove. He's a plumber, and after dealing with water issues in baseboard systems or other heating/cooling

systems where water is exchanged, he admired its simplicity. “So much less to go wrong. No plumbing or water exchange. No duct work, nothing.” And who can beat raw heat coming from a stove?

But firewood is so much more than savings. It teaches something perhaps sorely needed today. It teaches self-reliance, independence, living locally, forethought, patience, and hard work. Ironically, it teaches an appreciation too for other energy sources. I know the work it takes to make my heat. Surely, it must take a lot to create our electricity, oil, etc. Surely someone is laboring somewhere to bring it to us. Firewood is something tangible that can be stacked, burned, and bone-warming during the winter. It cannot be simply turned on or off or arrive virtually. It must be planned out and the plan must be stuck to. It rewards when it is practiced correctly, and it punishes when it is not. It can be a great work-out or it can be damaging. It is humbling, just as the forest and its elements are. So, if you’re thinking about doing firewood, don’t just look at the dollars saved. Look at the whole picture. It’s a way of life that’s from the forest, but may carry itself well outside of it too.

Business Member Spotlight!

Amex Bois Franc—Hardwood Inc.
CP 186 succ Bureau-Chef
Plessisville, Québec, Canada
(819) 998-0520

Arkville Caboose LLC
(845) 586-1122

Ashokan Turf and Timber Chainsaws - Logging Supplies - Maple Sugaring Eq.
(845) 657-6395

Catskill Mountain Forestry Services
607-330-5701
catskillmtnforestry@yahoo.com

Coldwell Banker Associate Broker Sue Doig
845.706.4311

Coldwell Banker Timberland Properties
info@timberlandproperties.net
845-586-3321

DELAWARE BULLDOZING CORP.
(607) 538-1185
klafever@delawarebulldozing.net

Dudley Street Entertainment, LLC
sweetsciencecinema@yahoo.com

Field & Stone
607.832.4488

Flowering Sun Ecology Center
floweringsunecology@gmail.com
(802) 303 3745

Freshtown Supermarket
(845) 586-4384

Frost Valley YMCA
(845) 985-2291

Gardens by Trista, Inc.
(607) 588-6762

Left Bank Ciders
150 Water Street, Catskill, NY
www.leftbankciders.org

Eric Dahlberg Construction, Inc
(607) 588-6449

Christopher Hopstock Architecture
adschopstock@gmail.com
646-673-1402

Jeffrey Keiter Landscape Architect
jeffkeiter.rla@gmail.com
(917) 723-8810

Mountain Dog Cafe, LLC
5 Harper Street Stamford, NY
(607) 214-4324

Margaretville Telephone Company
845-586-3311
mtc@catskill.net

NYS Chapter American Chestnut Foundation
https://www.acf.org/ny/

Part 2 Events
(845) 244-0353

PGK Logging, Inc.
(607) 326-6923
pklogger242@hotmail.com

Rose Mountain Cottages
(718) 208-3399

Rush Brook Lodge
rbl@actorsart.com

Sluiter Agency, Inc.
(845) 586-2641

Sundial Studios Architecture & Design, PLLC
(718) 852-6708
kyle@sundial-studios.com

The Hunter Foundation, Inc. / Fromer Market Gardens
518-589-4143

Upper Delaware Welcome Center
(845) 252-3100

White Feather Farm
dallas@whitefeatherfarm.org

Wolf Hollow Camp
(917) 497-7670
mail@gfeazell.com

CFA 40th Anniversary
2022 Work Truck Campaign

As we approach our 40th anniversary we are especially grateful for your part in helping this organization flourish and protect the health and well-being of the forests in our region. Since 1982 CFA has expanded to serve more than 1,100 members who own more than 85,000 acres of private land across the Catskill Mountains.

To continue our mission CFA currently relies upon field staff's privately-owned vehicles and on average, field staff are driving 10K-15K miles per year. Rising costs of fuel, vehicle depreciation, and maintenance costs coupled with increased program activity has made personal vehicle use unsustainable.

That's why we're announcing a new campaign to raise *$50,000 by year end* so that CFA can expand our reach, deliver our programs more effectively, and support our growing staff. We are asking you, our loyal members, for your support to purchase a CFA work truck! Contributions directly impact implementation of our 10 year-round programs that promote knowledge of forest ecology, educate the public and enhance the economy of the Catskill region. Programs and a short description are on the next page.

Will you help today and give any amount? A new truck will allow our staff to safely store chainsaws, pesticides, hand-tools, and other tree care paraphernalia and will support our ability to retain staff. The truck will also serve as a valuable promotional tool as it will display the CFA logo and contact information. Every donation goes a long way to promote the good word of forestry and the Catskill Forest Association, since it will "get around."

Here are some ways you can make a tax-deductible donation:

- Donate online at catskillforest.org/donate
- Call (845) 586-3054
- Send a check to Catskill Forest Association, Inc.
- Stop by the office

Thank you again for your support that helps steward the land for future generations!

Sincerely,
Ryan Trapani
Director of Forest Services

Programs & Services

Learn more at catskillforest.org/programs

Program	Description	Time
Consultations	*One-hour property visits by field staff to help you learn about what your property holds*	All Year
Apple Tree Pruning	*Pruning helps keep apple trees healthy and improves quality and quantity of yields*	Jan. - March
Apple Tree Grafting	*A horticultural technique to help bring old, neglected trees back to fruition*	April - May
Forest Bird Program	*High-Nesting Bird Boxes for ducks, owls, etc. And/or Canopy Bird Feeders that protect against squirrels & bears*	All Year
Invasive Species Management	*Care for trees against invasive insects, and care for forests against invasive plants*	May - Sept.
Portable Sawmill Program	We bring a state-of-the-art portable sawmill directly to your property and mill your logs to lumber, on the spot	Spring - Fall
Property Mapping	Custom property maps highlighting the property features you want to see	All Year
Tree Care: Cabling	Preserving large-sized individual trees with structural defects.	Spring - Fall
Tree Care: Structural Pruning	Establish dominate leader for tree structure.	Spring - Fall
Tree Planting	CFA will find prime placements for up to 3 trees	Spring - Fall
Wildlife Habitat Management	Forestry practices to help improve your woodlot for wildlife	All Year

CATSKILL FOREST ASSOCIATION, INC.
PO BOX 336
43469 State Highway 28
Arkville, NY 12406
catskillforest.org
(845) 586-3054

MEMBERSHIP APPLICATION

Become a member at www.catskillforest.org/membership or send a check/cash with this application to:
Catskill Forest Association, Inc. PO Box 336, Arkville, NY 12406.

NAME: _____

MAILING ADDRESS: _____

_____

PROPERTY ADDRESS: _____

_____

PHONE: _____ **EMAIL:** _____

TOTAL ACRES: _____ **FORESTED ACRES:** _____ **POND [ ] STREAM [ ] RIVER [ ]**

CATEGORIES (PLEASE CIRCLE)

BASIC ($75)	CONTRIBUTING ($175)
Events free or discounted; *CFA News* Subscription; CFA Member Property Sign; Access to CFA Programs	SAME AS BASIC + 10% Discount on Services;
BUSINESS ($200)	**SUSTAINING ($500)**
SAME AS BASIC + 5% Discount on Services; CFA Website Listing; Email Referral Advertisements; Free Booth at Forest Festival	SAME AS BASIC + 15% Discount on Services;

ADDITIONAL DONATIONS

GENERAL OPERATING FUND	**$**
ENDOWMENT TRUST FUND	**$**
SCHOLARSHIP FUND	**$**

Total Amount: $_____