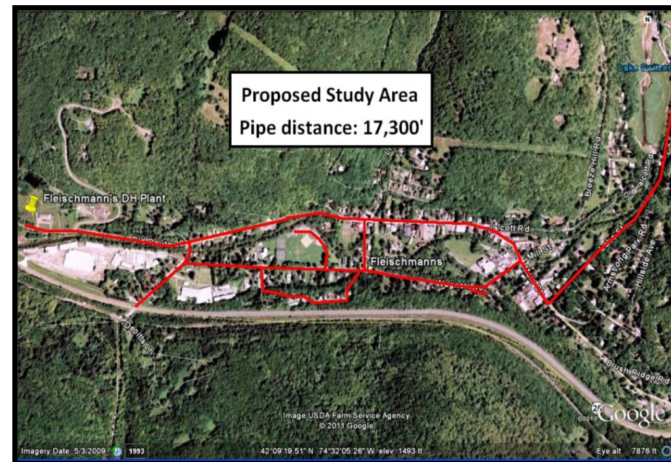


The Catskill Forest Association, Inc.'s Impact to the Catskills' Economy:

1. Recommended a forester to more than 50 people throughout the Catskills.
2. Explained NY State's Forest Tax Law to more than 80 landowners so that they could make a decision on whether to enroll or not. CFA helped those that chose to enroll to do so.
3. Explained and helped more than 30 people with decisions surrounding conservation easements to ensure that they retained as many rights as they could while getting as much money for the easement as they could.
4. Performed more than 20 On-Site-Visits giving people advice on ways to improve their property for their own enjoyment as well as offering them ideas on income opportunities.
5. Prevented people from taking that first offer from a logger or forest products company. Helped them choose a forester that put the timber up for bid. We saved at least 15 to 20 people between \$10,000 and \$80,000 each and got a better job done. CFA is providing somewhere between \$500,000 and \$1,200,000 of additional income to landowners throughout the Catskill Region on an annual basis.
6. Developed the new "Woodland Use Guide" – probably the best thing for small woodlot owners since motherhood and apple pie! It's so good that CFA is in the process of copyrighting it. CFA's intern, John McNaught (from Delancey – now a student at Paul Smiths), was a major part of developing it.
7. Began a new program with field cams, \$25 plus mileage to set it up for a week on a member's property, then pick it up and give the pictures/videos to the landowner.
8. CFA's Forest Festival is growing. The Festival started as part of the Cauliflower Festival in 2009. CFA started the Catskill Forest Festival in 2010 and held the 4th annual Forest Festival this July. This festival makes people aware of the value that the region's forest and all of its products provide to all of us, as well as giving them ideas on deriving income and providing work for people.
9. WIOX weekly "From the Forest" broadcasts with Ryan & Jim started on Sept. 1st of 2010. We have done 154 shows to date and have only missed 6 shows over that time.
10. Additional vehicles to educate people throughout the region:
 - CFA's Web Site
 - "Facebook" – 450 "friends" and increasing.
 - "Vimeo" – Short films
 - "Watershed Post" – first ones to set up a "sponsored content section" where we post many articles and videos.
11. CFA is working with many organizations and communities to insure that forestry is considered in developing land use regulations, and growth... ensuring that forest landowners are not negatively impacted financially.
12. Learning from other organizations to keep up with changing times so that CFA can give the best, most up-to-date and honest recommendations and guidance.

13. New endeavor to help communities as well as large complexes such as hospitals, schools, churches, etc. to minimize their dependence on thermal energy fuel sources from outside the region and lower their fuel costs. One such project is underway in Fleischmanns, NY and should be able to be duplicated where-ever natural gas is not available. This will have a TREMENDOUS economic impact in the Catskill Region!

Biomass Fleischmanns Woody Biomass District Heating System



- Supply thermal energy to 170 year-round buildings (351 year-round residents and business owners and about 500,000 sq. ft.) and 35 seasonal buildings for space heating and hot water through over 17,000 ft. of super-insulated, buried supply/return pipes.

- The initial feasibility study has just been completed and was funded by the DEP and US Dept. of Energy.

- Project Partners:
Catskill Forest Association - initiator
State Univ. of NY College of Environmental Science & Forestry
Biomass Energy Resource Center

Advantages of district heating with woody biomass:

A. Lower cost in fuel. – up to 75% in some cases! These hard-dollar savings often make the investment in biomass heating technology a win-win for facilities and customers looking to reduce operating costs and energy expenditures, combining environmental stewardship and good economics.

B. Direct savings to the building owner by avoiding the capital equipment expenses for replacement of fuel tanks and boilers, and the time & expense of yearly maintenance.

C. Time savings in price-shopping and negotiating yearly contracts with fuel suppliers.

D. Low heating fuel price escalation compared to other sources, as well as being more predictable. The price of wood fuel is not tied to world energy markets or unstable regions.

Continued on Page 12.....

Defining Forest Health



What is **forest health**? We are bombarded by a variety of natural resources organizations – like the one I am employed for – about the importance of maintaining or improving forest health. However, it seems few take the steps to define what "forest health" actually is. Forest health can be as arbitrary as other terms and words used throughout natural resources jargon: pollution, toxicity, sustainability, natural, wilderness, primitive, pristine, open space, preservation, and conservation, etc. Adirondack wilderness activist Bob Marshall once remarked that "wilderness" was an area that took two weeks to traverse by horseback without crossing a road. Does this fit your definition of wilderness? What about "toxic?" One may ask, "Is substance X toxic?" It depends upon how many parts per million it takes to cause harm, but "harm" must first be defined too. The terms preservation and conservation have been so misused that they have been mostly rendered meaningless.

A preservationist fences in a forest and stands proudly beside its caged ecosystem, only to realize that what is inside the fence continues to change behind his back, and often undesirably. Is this what you intended to preserve? In college we were taught that conservation meant "wise use" of natural resources, but being "wise" means

different things to different individuals. The lists go on and are beyond the scope of this article, but allow me to fixate on this one, "forest health."

Forest health can be as subjective as the aforementioned words and terms. Some define a forest's health by its resilience to disturbances, while others by its mere biodiversity in flora and fauna. Many who make a living in the woods base their definition upon the products that can be ascertained from thereof. At the Catskill Forest Association (CFA), we believe it is a mixture of all these parameters. However, since most of the forest is owned by private forest landowners, it will ultimately be the landowner that decides what the appropriate standard of health should be. For most landowners, it seems that forest conditions containing mature trees exhibiting very little pest damage meets their standard of forest health. Others are simply satisfied that it is not a parking lot, or a field.

It has been the responsibility of the CFA to connect individuals and landowners to their forest so that they can better visualize and realize some kind of standard of forest health. It is our goal to enhance the "health" of one's forest in a way that it is able to afford the greatest amount of opportunities given its present conditions. Therefore, one general definition of an extremely healthy forest is one that affords the landowner many opportunities: maple sugaring, wood products, wildlife habitat, recreation, forest edibles, hunting opportunities, etc. As opportunities increase for the landowner – in general – so do the opportunities for the non-human component as well. In order to meet a wider variety of forest uses or opportunities, differing forest types, age classes, and species composition are required.

In other words, as forest uses diversify, so too will forest types and the flora and fauna associated with them, benefitting both humans and forest ecosystems in general. In the 19th century, most landowners homogeneously desired a pasture for feeding livestock, and the diversity in forest types was drastically reduced, if not removed in many areas. Today, it seems many landowners are biased towards older, mature trees where cutting or burning is limited. Although this bias has not been as severe as the former pasture days, it too has reduced both our opportunities and the potential diversity in flora and fauna.

Last week, I had the opportunity to go camping in the Catskill Forest Preserve's **Slide Mountain Wilderness Area**, where I was able to devote plenty of time to thinking about "forest health." Tramping around I couldn't help but to ask the question, "Is this a healthy forest?" Fresh in the back of my mind was a recent CFA woodswalk on American ginseng. Last

weekend, CFA brought its members onto state land and showed them where they might find this wonderful plant. Although illegal to harvest there, the intention was to show landowners ginseng's preferable conditions so that they might plant it on their own properties that afforded similar conditions. The forest contained mature trees of sugar maple, red oak, ash, and basswood. The forest floor contained an abundant and diverse mix of tree seedlings and herbaceous growth. The opportunities there were many. It could be tapped for maple syrup. Poor quality trees could be thinned out in order to enhance the growth of valuable timber crops. Larger cuts could be made in order to provide young forest habitat to enhance certain wildlife species since young tree seedlings were already present. Forest edibles and medicinals abounded: ginseng, nettle, mushrooms, to name a few. Mature red oak trees could be released from competition in order to enhance acorn production for hungry wildlife while enhancing hunting opportunities. The options were many there. Clearly, this forest offered many opportunities. It was a healthy forest.

Now back to my camping experience. I had a great time camping in this **State Wilderness Area**, but I was there for many reasons, besides measuring its forest health, to go into here. But, was it a healthy forest? No and yes. It depends what the question is and what the expectations are of the individual. However, in many ways, it did not meet my expectations. Unlike the ginseng woodswalk, this area lacked a healthy understory. The only tree seedlings found growing were mostly American beech, striped maple, red maple, and fern. There should have been others, but the deer had already eaten them. There was very little herbaceous growth, since herbs never grow beyond the deer browse height of five feet. Although many blame the scarcity of ginseng on poaching, the white-tailed deer does browse it, as fresh nibbles testified on our ginseng walk.

Some forests are healthier than others for a variety of reasons. Some are plain lucky since they exist in an area where deer browse pressure is low for a variety of reasons coupled with good site conditions. However, the forest health conditions experienced during my camping trip are not exclusive to that area. Unfortunately, they are growing. Humans have relinquished their role as participant in the forest to random natural disturbances and the white-tailed deer. Forests that contain both little sunlight and high deer browse are most at risk of affording fewer opportunities into the future. Vegetation that requires abundant sunlight – berry and nut species – or does not grow above deer browse height are most at risk. In general, areas that have experienced limited hunting and forest management for a few decades or more are even more at risk. In many cases, the conditions created under these circumstances are a forest floor containing



Healthy understory as a result of a heavy harvest called a shelterwood cut. (Photo by Jim Waters)

only plant species – native and non-native – found unpalatable to deer. Such a forest may be offering **diminishing returns** or opportunities into the future – perhaps a true definition of unsustainability.

On a brighter side of things, all of this can be avoided. We should not simply blame deer and the undesirable vegetation they leave behind. It is currently illegal to cut trees on state forest preserve, so enhancing forest health there is out of our hands for now. Besides, many people travel there not to measure forest health, but to seek solitude and exercise, or so I think. However, if you own a few acres or more, you can make a difference. Forests can be made “healthier” by knowing which trees should be cut, which should be left behind, when, where, and how many. As in a garden, the proper allocation of sunlight can bear many fruits of one’s labor, and how fruitful is a garden left to random disturbances and deer browse anyway? If you are interested in measuring and possibly improving the “health” of the forest on your property, contact CFA. We might be able to shed some light on the matter.

www.catskillforest.org

**2013 CFA Annual Meeting at Harak –
Logging**



Doug Handy’s Presentation on Logging was just as entertaining as it was informative!



Executive Director thanking summer intern, John McNaught for his tremendous contribution over the 2013 summer. John received a log bench as an award.

CFA’s Annual Auction brought in quite a lot of income while providing great entertainment.



2013 CFA/Audubon Workshop



2013 CFA Apple Tree Pruning and Cider Making Workshop



2013 Catskill Forest Festival — Another Great Success!



CFA's 3 year old wood stove is for sale. We made the switch to pellets.

Vermont Castings "Encore"

Heating Capacity—Up to 1,800 sq. ft.

Max BTUs/hr—65,000

Burn Time—12 hrs

Log Size—22"

Ash Pan—Side-swing

Efficiency—78% at 1.5 g/hr (Non-Catalytic)

Rear interior casted heat baffle has a crack in it, but otherwise stove is fine. Come take a look at it on the porch of CFA's office. All accessories are included. (8"

stove pipe) ~~\$600.00~~ **\$400.00**



CFA 'T' shirts:

Adult—\$15

Children — \$12

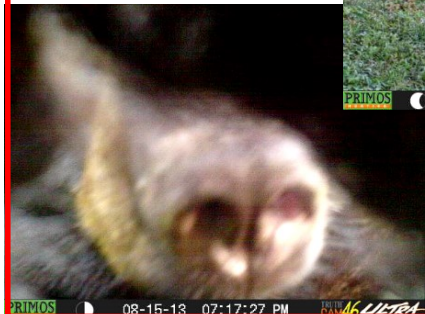


CFA Hat — \$15



Purchase a personalized, four foot log bench for \$100. Call Michele to order. Let her know what you want to be routed onto the benches' seat.

CFA will set up a field cam for a week for CFA members. Cost is \$25 plus mileage.



Call Michele at 845-586-3054 to schedule it. 1st Come—1st Serve Basis.

E. Purchase heat, not fuel. The customer purchases the actual amount of thermal energy used, as measured by a Btu meter, rather than the fuel required by the boiler (i.e. energy output rather than fuel input). Since all boilers waste heat through their chimneys and seasonal inefficiencies, the actual amount of heat energy required for any given building will be less than is used as purchased fuel in a conventional system.

F. Air quality improves as does community livability. When emissions from a single, well-managed plant replace uncontrolled stack emissions, from boilers and furnaces in many individual buildings. Also the size of the system makes it possible and economically feasible to install best available technology and emissions control equipment.

G. Revitalized Communities. District energy infrastructure and stable energy rates improve a communities' business climate. Local businesses can become more competitive with lower energy costs, which can help to revitalize downtowns and urban core areas helping to alleviate sprawl. Using biomass as the fuel source, district energy can help build & support sustainable infrastructure.

H. Reliable equipment. District energy systems have an unparalleled record of reliable service. They are well-managed, central operations using multiple fuels, having backup boilers and standby power at the central plant.

I. Reduced Environmental Risks. Consolidate fuel storage to one location compared to numerous onsite storage tanks. Tanks as well as the incendiary devices pose fire hazards and carbon monoxide threats as well as the risk of dislodging in the event of a flood. (Resulting in lower insurance costs for the building owners.)

J. Local fuel supply will lead to increased economic opportunity in the region.

K. Support of local economies will contribute to the overall fiscal health of the community through additional purchases, jobs & an increased tax base.

L. Decreased susceptibility to interruptions in fuel supply. Dollars remain in the local economy and studies have shown that most local dollars tend to be spent 5 times over before leaving the area. The businesses associated with wood supply (logging operations, trucking companies, sawmills and tree removal operations) tend to be locally owned, retaining profits in the regional economy. These activities contribute to the local tax base. A study funded by the Northeast Regional Biomass Program found significant economic benefits from using wood for energy:

For each 1,000 tons of wood used, the following is added to the local economy:
Total net income increases by \$73,573
1.45 jobs are created in addition to the existing job market
\$3,579 is paid in state and local taxes

M. More local jobs – other sources of fuel provide extraction and processing jobs outside the region. By contrast, jobs associated with biomass fuel extraction, processing, transportation are all within the local and regional economies and provide direct support to landowners, the forest products industry and agricultural sectors. Woody Biomass is the most intensive job producer of all types of energy by far, yet costs less than all but natural gas.

N. Enabling support for local forest products industry & practicing quality forestry. With only markets for the best trees, forests are often high-graded or

harvested to remove only the highest grade wood. Markets for low-grade wood can help create incentives for quality forestry and preserve current land use practices. Harvesting the low-grade trees can help improve the forest quality and economic return over time through sustainable forestry practices.

- Assuming that the district heating plant were owned and operated by the Village of Flieschmanns, 50% of the \$12 million capital cost could be covered by state, federal, DEP and foundation grants, the remainder would be financed via 20- year bond, the first year price for delivered heat were set at a 15% discount compared to heating oil, and prospective heat customers would not be charged any "hook up" fee, the district heating plant business would be cash flow positive in 2 – 4 years.

- When a typical resident burning 800 gallons of oil can save 15% for delivered heat compared to continuing to heat with oil or propane, this equates to roughly \$500 in savings in year one. Over the course of 20 years, a typical home owner would save over \$26,000. A commercial sized building that uses 3,000 gallons of oil annually would save over \$1,800 in year one. Over 20 years, this building owner would save nearly \$100,000.

- The next step is to get people in the community to understand and buy into it. There will be a short presentation as well as a Bus tour on Nov. 23rd to a facility (The Hotchkiss School) just over the border in Connecticut. CFA is also paying for and having a professional film made that can be used for the Fleischmann's community as well as many other areas in the Catskills.

Hospitals – Schools – Businesses – Homes:

Just imagine the positive consequences for Delaware County and the entire Catskill Region!!!



Biomass Power Plant at a school complex in Hartford, NY (photo taken by Jim Waters)

males are normally larger. They can weigh between 8 and 13 pounds, while females between 4 and 6 pounds. The largest recorded fisher is supposedly 20 pounds. The morning I saw my fisher, I witnessed his ability to **turn on a dime**. They have extremely mobile ankle joints that allow them to turn 180° quickly. In addition, they are equipped with four paws, each decked out with fine tree climbing and hunting gear that would make any bow-hunter jealous. Each paw has claws on 5 toes with pads for traction that allow the fisher to easily climb trees face-forward, both up and down the tree. The paws are large in proportion to their body – like snowshoes – which makes traveling and hunting during winter's snowy days a little easier too. For the most part, they live a life of solitude, but when the urge to breed takes over, a gland located on the hind paws secretes an odor used to find a potential mate.

Fishers are perhaps best known for their unique ability to hunt and kill porcupines. As many already know, porcupines are full of quills. However, the fisher overcomes this defense trait by repeatedly attacking or biting its face repeatedly with its 38 sharp teeth. Porcupines try to evade fishers by climbing a tree and facing away from the attack. However, as previously mentioned, fishers are great climbers. Where snowshoe hares are found, so will fishers too since they prey upon them quite often. In the Catskills, snowshoe hares seek the dense cover found atop the higher mountains where balsam fir and red spruce are. Bobcat, fox, and coyote are not as agile as the fisher is, to navigate between the young growth required to successfully catch a rabbit.

Although some say that fishers will occasionally kill a raccoon, bobcat, or turkey, they spend most of their time hunting smaller mammals such as squirrels, mice, voles, rats, shrews, and grouse.. Although fishers are excellent hunters, they are generalist omnivores. When the opportunity arrives, they will feast on nuts, berries, mushrooms or the remains of deer or bear left from a bow-hunter. Fishers, like other wildlife, used to be scarcer only a short time ago. The fur of the fisher is beautiful and was used in the early 20th century for scarfs and neck pieces. Despite a loaf of bread costing less than 10 cents in the 1930s, fisher pelts were receiving a price more than \$400. These high prices enticed more trapping of the fishers where they could be found. In order to preserve the species and meet this high demand, some began farming fishers for their hides. However, farming fishers was difficult business since many did not understand the fisher's complicated reproductive trait of delayed implantation. Coupled with trapping – and perhaps more significant to the reduction and near extirpation of fishers – was habitat loss. As previously mentioned, fishers require some mature woodlands for denning and hunting. Most of the Northeast's natural capital in the early 20th century was in livestock, and the pastures they required.

After World War II, both pelt prices and the agricultural industry fell and so began the regrowth of the region's forests, which has led to the present near extirpation of the cow and its replacement with deer, turkey, coyote, bear, bobcat, and... fisher.

So, I didn't see the **Old Buck of the Mountain** that morning hunting, but I did see a fisher, and remembered another reason why I was out there, 30 feet high in a tree – to relax and let the woods come to me. Most people in the Northeast will never see one. They are solitary and do most of their hunting at night. As long as they keep away from my chickens – who are contained inside a woven-wire fence – I will look forward to seeing this fellow solitary hunter again. www.catskillforest.org



The **fisher** (*Martes pennanti*) is a medium-sized mammal native to North America. It is a member of the mustelid family, commonly referred to as the weasel family. The fisher is closely related to but larger than the American Marten (*Martes americana*). The fisher is a forest-dwelling creature whose range covers much of the boreal forest in Canada to the northern fringes of the United States. Names derived from aboriginal languages include **pekan**, **pequam**, and **wejack**. It is also sometimes referred to as a **fisher cat**, although it is not a feline.

The Bow-Hunter and the Fisher Cat

By: Ryan Trapani



Tom Dziekan is pictured here in his Bow-Hunter's Tree Stand.

A few days ago I was sitting comfortably at thirty feet high in an oak tree. Archery season for hunting **Big Game** opened on October 1st, and I was waiting for the white-tailed deer to come my way. It was a warm and rainy morning that offered little promise of seeing deer, but still I remained optimistic. Deer movements are less when it is warm out, probably because their winter coats easily over-heat their bodies after any exertion. To save energy, they bed down and wait for more comfortable weather. When hunting, one must remain hopeful and remember that **anything can happen**, and often it does when one least expects it. Such is life, and how I met my wife!

On this morning I had already been sitting in wait for a couple of hours as my optimism and faith in my pursuit began to be questioned. "Why am I out here?" I asked myself. "Isn't there something I could be doing at home that would be a better use of my time?" "It's too warm and rainy for the deer to move." "They're probably thinking, 'stupid human, should have stayed home.'" "I could be eating breakfast with my wife." And then it happened. Quite often it seems that something is sensed before it is heard and registered as **something**. I looked around curiously, for what I yet did not know. I then heard a faint sound coming from straight ahead. My heartbeat picked up in anticipation. "At last, a deer", I thought. A small crunch and crinkle and out came not the old swamp buck I was looking for, but instead a black kitty cat. Or was it? No, this was no cat, but rather my first confirmed sighting of a fisher (***Martes pennanti***).

I believe that I have seen a fisher before, but never with absolute certainty. The fisher came busting out into plain view and stopped just under the tree I was perched up in. He (or she) looked around as if it too sensed something before actually identifying anything. He stood for a while looking around, unaware of me since I was located slightly upwind of him. He continued on his way crossing right beneath me, until he either crossed my tracks or caught my wind. He quickly turned 90° one way – running forward about 10 yards – and then another 90° back into the direction he came from and out of sight.

Fishers – sometimes called "fisher-cats" – ironically seldom eat fish. Their name is derived from an English corruption of a Dutch name – **fisse or visse meaning** – since it resembled the European polecat. However, at a quick glance they certainly could be mistaken for a black cat. The fisher is in the **Mustelid** family, or weasel family. Fishers only exist in North America and can be found trans-continently through Canada with isolated pockets in the Appalachian, northern Rocky, Adirondack, and Sierra Mountain ranges of the United States.

For the most part, they are a forest-dweller and stick to mature woodlands that offer plenty of organic material, or woody debris on the forest floor, to seek food and cover in. Perhaps another reason why they are found in mature woodlands is that females often choose cavities of mature trees for denning in. After breeding during March or April female fishers undergo a remarkable reproduction cycle called **delayed implantation**. The gestation period is delayed until mid-February and then lasts for about 50 days. Newborn kits are dependent upon their mother's milk for about 8 to 10 days. After 5 months or so, the mother pushes them off where they become the solitary hunters of the deep, dark forest.

Fishers blend in well under the shady canopies of mature trees, especially hemlock and spruce found in areas of our region. Like most animals in the weasel family, they are long bodied and low to the ground, which is another reason why hemlock stands may be preferred. In the winter time, snow depths can be drastically less under hemlocks which can make traveling easier. Fishers can reach lengths between 3 and 4 feet. Both sexes are brownish black in color. Around the face and belly is more brown fur, while their backs are darker. Fishers are browner during the summer, but then undergo molting in November where they grow a darker, winter coat. Deciphering between males and females is difficult, but

The Yellow Birch Mountains

by Michael Kudish



A yellow birch tree. (Picture by Ryan Trapani)

John Burroughs, in his essay "Birch Brownings" (written in June 1868 and published in an anthology, *Wake Robin* in 1871), refers to the Catskills as the "Birch Mountains" because of the abundance of yellow and black birch. Because black birch is (and probably was - even in Burroughs time) not nearly as widespread in the region as yellow birch, I refer to the Catskills as the "Yellow Birch Mountains".

In three recent articles for the *CFA News*, I have written about eastern hemlock (winter 2008-2009), balsam fir (combined issues fall 2012 and winter 2012-2013), and red spruce (spring 2013). I am completing the quartet with yellow birch, all four species having been present and already abundant in the Catskills by 13700 years ago.

(Before I begin, may I make a correction to a reference cited at the end of my previous article – "How the Catskills Got Spruced Up", spring 2013, page 14? The date of the issue for Ryan Trapani's article on red spruce in *Kaatskill Life* was winter 2011-2012, not winter 2011-2013).

In the last two issues of *CFA News*, I wrote about the post-glacial migrational history of balsam fir and red spruce. These two conifers are not, and never were, widely distributed throughout the Catskills. They had most likely migrated in from the southwest (fir), and from the southwest and south (spruce). They form distinct bands when plotted on a map, bands which I call pathways, with a gap in the East Branch Delaware watershed in between the pathways.

Yellow birch's distribution today :

Yellow birch is different from spruce and fir. It is distributed widely today throughout the whole Catskill region. It is most abundant along the high ridgelines, generally above 2800 or 2900 feet. It is increasingly more abundant with increasing elevation - not

because of elevation itself, but rather because of ecological factors that are enhanced by increased elevation; poor soils, frequent storm damage, and lack of competition from other tree species.

Yellow birch is only moderately tolerant of shade (although it is the most shade-tolerant of all our birches) and grows best where competition from other more shade-tolerant tree species - such as sugar maple, beech, eastern hemlock, and red spruce - is least. High on the ridgelines are plentiful bedrock ledges, talus slopes, boulders, and shallow soils where even beech, black cherry, and red maple have trouble obtaining enough water. These are not the best sites for yellow birch either, but it can survive on them. Its magnificent root system, resembling twisting golden elephant trunks, can withstand droughts better than any other northern hardwood.

In the eastern Catskills where spruce and fir are present, yellow birch mixes in with them in openings in the forest where ice, wind, and snow damage regularly occur. In the western Catskills where spruce and fir are absent, yellow birch often grows alone, or with shrubs, on the poorest sites.

Yellow birch also occurs at the lower elevations – on middle slopes and in valleys between about 1000 and 2800 feet, but typically in lesser numbers. Here it follows largely human disturbances such as abandoned pastures, forest fires, clearcuts etc., i.e. places where sunlight is plentiful.

In first growth sites and on sites which have only been high-graded (i.e. taking out the largest, best growing trees and leaving the poorest) on middle slopes, yellow birch



The Yellow birch has the ability to seed itself on rocks and logs. In this case, it was a log that has completely disintegrated. (photo by Ryan Trapani)

will become established in small openings in the forest – called canopy gaps - where a few sugar maple, beech, hemlock, and/or red spruce have fallen or been harvested.

Not only does yellow birch tolerate the most water-stressed sites, it can also tolerate the most water-logged sites. Of the 92 bogs, fens, and swamps that I have studied, 74 of them have yellow birch present.

Yellow birch historically: in peat bogs as fossils

Yellow birch was already widely distributed throughout the whole region between 13700 and 12000 years ago. I assume that it also had migrated in from the south post-glacially, as did the spruce and fir. Of the 92 bogs, fens, and swamps radiocarbon-dated in the region, 41 of them contain yellow birch fossils. This species was, and still is, the most common hardwood in the wetlands, followed by red maple.

The oldest fossils I have found for yellow birch are 13700 years in Bog #315, near West Settlement Brook in the Town of Roxbury. Fossils from two other bogs, #380 (near the headwaters of Mill Brook) and #302 (also near West Settlement Brook) have dates of over 13000 years. These bogs are not at particularly high elevations – between 1660 and 2260 feet.

Yellow birch can be identified by its fossils - especially by bark, wood and twigs - left behind in the peat (peat accumulates in the bog over the millennia). Yellow birch bark chips are most distinctive because of their shiny, metallic-looking yellow color. They do not resemble anything else and hardly decompose after thousands of years.

Yellow birch wood, however, is a different story. It rots faster than the bark. One can see this frequently in the woods today on fallen birch logs: a yellow sheath of intact bark surrounds a nearly-rotted core of wood. When whole yellow birch twigs are exhumed from bogs, rotted wood frequently appears to be rolled up in a sheath-like wrapper of bark, the bark fully intact and almost as fresh as when the twig fell into the wetland.

Sometimes, after thousands of years in a peat bog, yellow birch wood often turns into a black shiny, metallic-looking material resembling coal or charcoal. Yellow birch wood, in the early years of this study, therefore used



Yellow Birch—Typical young tree's bark.

to fool me; I thought that it was charcoal and that the bog had burned. Now, in order for me to conclude that there was indeed a burn in a bog, the charcoal must be from some conifer, or from the wood of some other hardwood.

Further reading

For those CFA News readers requiring more detail on the identification, ecology, and uses of yellow birch, fortunately much information abounds. In my home library file on this species, I find that three CFA staff members have written four articles during the last fourteen years:

Dinnie Sloman in Kaatskill Life, winter 1999-2000, page 59.

Jim Waters in Kaatskill Life, summer 2003, pages 58 and 59.

Jim Waters in CFA News, fall 2003, pages 8 and 9.

Ryan Trapani in Kaatskill Life, spring 2013, pages 66-69.



“LIKE” Catskill Forest Association on Facebook!



We've also set up a Vimeo account where we post videos for you to enjoy.

(vimeo.com/channels/fromtheforest) — no spaces!

In addition, check out the www.watershedpost.com site,

click on “sponsored content”, then “From the Forest”.

EXECUTIVE DIRECTOR'S MESSAGE

BOO!!!!,

This summer and early fall has been a stellar period for CFA! All of our workshops were packed and we were extremely busy at all of the festivals and events that we took part in. John MacNaught, our summer intern, did a spectacular job! He will be returning next summer, between his Junior & Senior years at Paul Smiths as CFA's "Wildlife Specialist". He was a big help at all of our events as well as being instrumental in developing CFA's new **“Woodlot Management Guide”** program. (For a description of this program refer to the Spring Issue of **“CFA News”**.)

This year's Catskill Forest Festival was even bigger and better than previous year's. Thanks goes out to all of the volunteers necessary to make this event such a success, as well as to all of the vendors that were a part of it.

CFA is continuing to push the idea of using woody biomass for heating large buildings and even community heating districts. The district heating project that CFA initiated in Fleischmanns is now finished with the feasibility study phase. It will be capped off with a Nov. 23rd bus tour of a facility currently being operated. We are making a professional video of this tour along with interviews. This film will be used to bring those that can't be on the tour up to speed as well as for other communities in furthering our efforts. (For more on this project and other ways CFA is contributing to the economic viability of the Region see pages 8 and 12 in this issue.)

I want to take this opportunity to specially thank CFA's Board of Directors. They were a lot of help to the staff in coming up with ideas and getting their hands dirty at most of our woodswalks and events as well as performing above & beyond the duties they have had in the past. Thank you all!

I hope that you have enjoyed the fall foliage this year. It was particularly striking. And good luck to all of you hunters this fall hunting season! I hope that you all don't use cold weather as a reason not to stop in and say hello or ask us for our help. We work outside all year round.

Naturally, *Jim Waters*

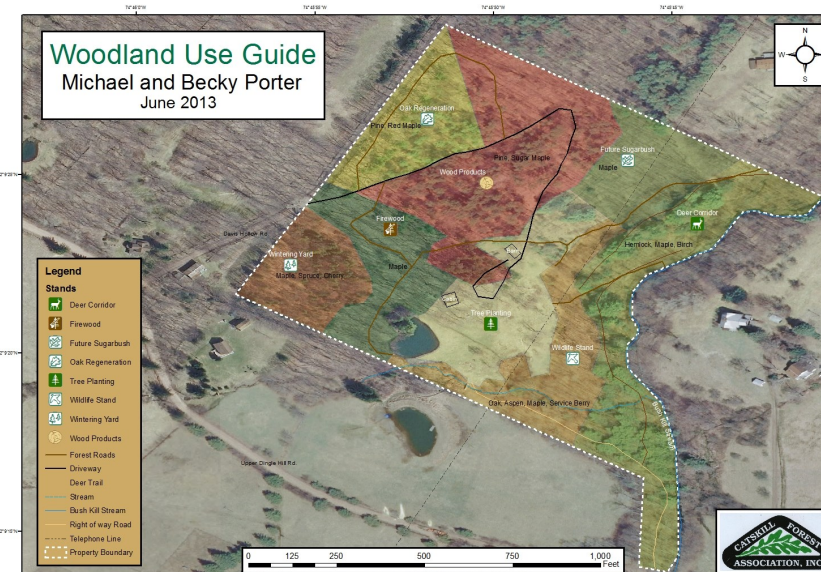


Listen to “From the Forest”, Wednesday evenings from 6 pm to 7 pm with Jim & Ryan. Streaming on the Internet — go to: wioxradio.org.

In an effort to broaden our membership rolls and increase awareness, CFA is offering an incentive to existing members to recruit new members. Because each of us know other landowners with forested acreage or who have other interests, this is a good opportunity to recruit a new member.

CFA offers so many services and opportunities that it seems logical to encourage new membership. In addition to being part of an organization that promotes long term forest health and vitality there are many other reasons to join; onsite visits, marking for timber and firewood harvests, educational programs, the Forest Festival (held this year on July 27), “From The Forest” airing weekly at 6 PM on WIOX radio.org or FM 93.1 or Channel 20 on MTC cable, and many other educational workshops.

As an incentive to our members, CFA will give a CFA ball cap to anyone successfully recruiting a new member. Anyone reaching a friend or neighbor with acreage may contact the CFA office to receive a registration package. Upon submission of the package to CFA offices, a neat ball cap will be sent to the successful member.



New Woodland Use Guide Program:

Detailed maps, stand descriptions and recommendations, unique features' locations and descriptions. Lots of pictures included. GIS mapping and GPS locations of all features!

The cost is as follows and includes a free one-year membership:

Less than 10 acres = \$500

10 acres to 20 acres = \$650

Over 20 acres up to 30 acres = \$ 750 +

Call CFA at 845-586-3054, M-F, between 9am and 4pm to learn more and schedule the work!



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Ryan Trapani, Education Forester

Subscriptions: *CFA News* is mailed quarterly to members of the Catskill Forest Association. If you are interested in joining CFA, give us a call, visit our office or fill out and mail in the form on the back cover of this publication. Contact information is located above. Please submit address changes to Michele at the address above.

SPECIAL ANNOUNCEMENT!

For a CURRENT listing of CFA's
EVENTS you must visit CFA's Website!
[**www.catskillforest.org**](http://www.catskillforest.org)

Cover Photo:

***Mountain Views and 2013 Catskill Forest
Festival (Photos by Jim Waters)***

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Welcome New Members!!!

2013 **July**

Julia Reischel & Lissa Harris – Margaretville
Gal Peleg – Liberty
Jeff & Arlyne Beck – Margaretville
Ann Agranoff – Margaretville
Helen Ringeisen – Grand Gorge
Mary MacNaught – DeLancey
David Northcutt – Margaretville
Elaine Young – Andes
Gene Rosa – Arkville

August

Matt Maloney – NH
Carl Cangialosi – Roscoe
Mark & Kathryn Gancasz – Margaretville
Doris Myers – Grand Gorge
Dan Finch – Roxbury
Harry & Linda McCartney – New Kingston
Larry Reilly – Fleischmanns
Judith Colie – Margaretville
Rusty Balcom – Fleischmanns
Brian Swanson – Bovina Center

September

Artie Martello – Halcottsville
George & Lucille Stonebridge – Roxbury
Marc Bodine & Cassandra Wright – Margaretville
Joan & Dennis Hesse – New Kingston
Nicholas & Gail Ciccarello - Franklin
Nathaniel Gillespie - DC
Frank Melani - CT
Warren Schaich – Walton
Robert Cavinee – Halcottsville
William J. Lehn Land Surveying – Arkville
Seung Suh – Andes

October

Rod Spangler, Millers Sawmill – Bovina
Sue Ordinetz - VT
Walter Lienhard - Andes

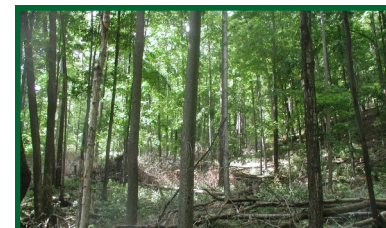
CFA Tree Marking Program!

This is a great way to get an area marked that will provide you and others with firewood as well as improve the health of your forest. You are welcome to join us during the marking to learn how to do it yourself. This could save you money down the road as it will sharpen your understanding of forest management and you will be developing your own tree selection skills. Thinning out the forest will make it more resistant to insects and disease, a better water filter, better wildlife habitat and increase the value of the timber.

WE MARK ALL YEAR-ROUND!!!

DETAILS:

1. You must be a CFA member.
2. AN "ON-SITE-VISIT" FEE OF \$200 (INCLUDES MEMBERSHIP RENEWAL FOR ONE YEAR) PLUS MILEAGE will be charged for selecting, designating on the ground the area to be marked, and determining the acreage to be included.
3. After reviewing the forest management plan (if there is one) and taking into account the landowner(s)' objectives, a prescription for that stand will be recommended by the representative and the marking guidelines agreed upon by both the representative, the landowner(s)' forester (if there is one) and the landowner.
4. A maximum of 10 acres will be marked for each landowner in any one calendar year.
5. A FEE OF \$100 PER ACRE WILL BE CHARGED FOR THE MARKING.
6. The trees marked will be the trees that are considered "crop" trees (These are the trees that are the "keepers".) They will be marked by tree-marking paint at or just below eye height, most of the way around the bole of the tree, and on the stump.
7. It will then be up to the landowner to remove or kill all of the trees without paint. In most cases these trees will not be useful for anything but firewood. There may be an occasional saw-log tree, but unless there are a sufficient number of them, it will not be worth-while to have them delivered to a mill. The goal with this program is to improve the forest by removing the "weed trees". In some cases the trees can be left as fertilizer and wildlife habitat.
8. In the case that the landowner does not want to do the work themselves, a list of professionals will be given to them by CFA to contact in order to have the work done.
9. There is a limited amount of this we can get to, so sign up soon! Fill out the application below and mail it in. We will call to schedule.



A thinning typically removes about 4 to 5 cords per acre. If you had 10 acres marked, that would be about 45 cords of firewood being made available to you! That means that for an on-site fee and somewhere around \$10/cord you would get a rare and valuable educational experience along with the wood marked by a professional forester from CFA.

CFA is holding several special programs in chainsaw safety and use for landowners. (See the Calendar of Events on CFA's web site.)



CFA TREE MARKING APPLICATION

Name _____

Address of Property _____

Email address _____ Date _____

Phone Number and best time to call, where you can be reached during the weekday _____



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Arkville, NY 12406



The Newsletter of the Catskill Forest Association, Inc.
Volume 31, Number 3 & 4 - Summer & Fall 2013



INSIDE THIS ISSUE:

FEATURE ARTICLE!!!

CFA's Economic Contributions to the Catskills

"The Bow Hunter & the Fisher Cat"

"Forest Health"

"The Yellow Birch Mountains",
by Dr. Michael Kudish

MEMBERSHIP APPLICATION

I believe in enhancing the quality of the forest land in the Catskill Region through proper forest management.
To that end, I am interested in joining the Catskill Forest Association and supporting its efforts.

Name _____
Mailing Address _____

Phone #: _____ E-mail: _____

Membership Categories (Select the level & if you'd like, make an additional donation):

Membership	\$50 + \$ _____
Contributing	\$75 + \$ _____
Business / Supporting	\$100 + \$ _____
Supporting	\$150 + \$ _____
Sustaining	\$250 + \$ _____
Benefactor	\$750 + \$ _____

Do you own land in the Catskill Region? Yes _____ No _____

Property address: _____

Telephone #: _____ County: _____
Total acres: _____ Forested acres: _____ Pond Y / N Stream Y / N River Y / N

Would you like a CFA forester to come to your property to walk it with you, making suggestions and giving you impartial and confidential advice? (IT JUST COSTS \$200 PLUS OUR MILEAGE AND THE \$200 INCLUDES A FREE ONE YEAR MEMBERSHIP.) Y / N

(If so we will call you to schedule an appointment.)

Amount enclosed \$ _____

All membership dues and donations are fully tax deductible to the extent allowed by law. A copy of the most recent financial statement filed with the New York Department of State is available upon request.

