CFA NEWS

SPRING 2018

A PUBLICATION OF THE CATSKILL FOREST ASSOCIATION, INC.

CATSKILL FOREST ASSOCIATION, INC.

CFA NEWS

SPRING 2018

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To reach us:
Catskill Forest Association, Inc.
43469 State Highway 28
PO Box 336, Arkville, NY 12406
Phone: (845) 586-3054
Fax: (845) 586-4071
cfa@catskillforest.org
www.catskillforest.org

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From the Director of Forest Services

When I woke up this morning, it was cold. I could feel the tug-of-war match between cold air outside battling with last night's cooling woodstove. Walking down the hallway, I could feel that cold air creeping in. "I guess I gambled wrongly on how much wood to put in," I thought to myself. It's like a game choosing the "right amount." I don't want to put too little or everyone will be cold; too much and the kids will be sweating in their sleep. When I kiss their wet foreheads on those nights, I know I put too much in. Today tells me "too little."

Those first sticks of wood that go into the stove seem to do so little at first. Cold air is ushering in and seems to laugh at my purpose; it takes a while for the wood to get real hot and throw off some heat. I look outside and this morning it's 5 below zero. The snow seems to sparkle. The sun is just rising on the other side of the house creating shadows on my side. Sure enough, I see shadows of smoke and steam billowing out the chimney. The chimney's silhouette comes into focus and I can see those heat shadows rising more clearly now as dark psychedelic streaks amongst the cold snowy ground. Heat is on its way.

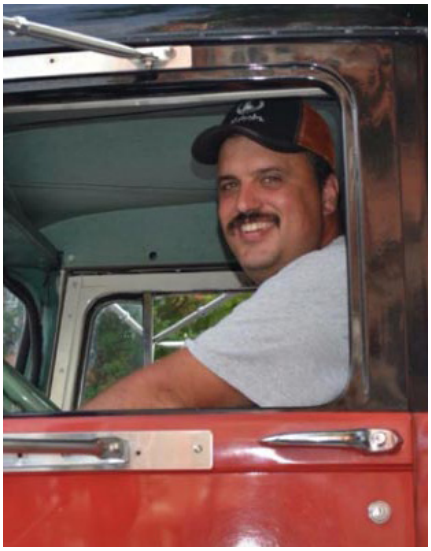
THE 9TH ANNUAL
CATSKILL FOREST FESTIVAL
JULY 28 / 10AM-4PM
MARGARETVILLE PAVILION
www.catskillforestfestival.com

My eyes are mesmerized by the shadowy streaks for a while. I think about the word "shadows." A "shadow" tells us something is there, something behind the shadow, enough to leave its mark. On this morning, I think of one man's shadow and how he left his mark. His shadow was larger than most. His shadow could be seen in some hollow filled with ginseng or ridge-line chasing a buck track. His shadow could be seen intertwined with a falling tree, or skidding logs out with his skidder. His shadow seemed always there helping someone out; plowing a neighbor's driveway, inside at a Town Board Meeting, shining through a cloud of evaporated maple sap, or greeting you for your breakfast sandwich and coffee with a "Hey Ryan."

Guys like Jake Rosa leave large shadows. Jake's laugh could fill up all of Dry Brook. I realized this morning that our mountains were less full and missing Jake's shadow. Breakfast wasn't the same. Our Board Meeting wasn't the same. The forest isn't the same. I know his close friends – which he had many – realize it's not the same. The world could use more Jake Rosas, and we just lost the only one.

I'll miss talking with Jake. I remember at the end of each conversation, he would look down and say, "Well, I suppose..." That was cue for he was leaving; normally to somewhere in the woods that needed cutting. Without warning, we lost Jake suddenly. It seemed I wasn't the only one who misses Jake's shadow; hundreds – if not a thousand – showed up at Jake's funeral services.

Jake Rosa sat on the Boards of Catskill Forest Association, Watershed Agricultural Council, NY Logger Training, and Town of Middletown. He was a Father, Hunter and – more importantly – just an all-around good-guy who seemed comfortable and happy with his life in the Catskill Mountains. Jake was literally from the forest; he breathed it, lived it, and cherished it. We'll all miss you Jake; in the forest and outside of it.



May the Forest Be With You,
Ryan Trapani

Apple Tree Grafting

Grafting season is upon us and we've got new varieties in our inventory. Pick just one, or choose your preferred combination (we can graft multiple types of apple onto the same tree.) Contact us to learn more about grafting and to schedule your appointment. Varieties include: *Asia Pear, Bartlett, Cortland, Crimson Crisp, Empire, Enterprise, Fuji, Gala, Ginger Gold, Golden Delicious, Honeycrisp, Jonafree, Jonamac, Kieffer, Liberty, Mac, Macoon, Mutsu, Open Eye Yellow, Pioneer Mac, Pixie Red, Stayman Winesap, White Astrachan, Winecrisp, Yellow, & Yellow Delicious.*

From the President's Desk

Mike Porter

For my part, I am going to look at the information discussed in the February 2018 NYS "The Conservationist" in an article titled "Unwelcome Introduction? Non-native invasive plants can threaten our Ecosystems". In my years as a high school Science teacher, I spent a great deal of time explaining how complex ecosystem relationships can be. After reading this article and thinking back on my some of my teaching points I learned some new ways of looking at the invasive issue.

If we look at how some invasives can be beneficial to humans as food sources or other beneficial things, we may overlook, possibly, a more important effect on our general ecosystem. Because native species have evolved through time into integral parts of the ecosystem, invasives have not had time to "fit in" to the natural scheme of things. This lack of fit can ultimately damage the natural scheme of things.

A case in point is the bush honeysuckle. It was recommended in the past as a good source of fruit for wildlife. As it turns out, studies have shown that honeysuckle does not support the insect life that native plants in its niche provide to native insect eaters. Even the berries do not provide the nutrition of native species they replaced. Insects provide year round sources of food that is high in protein and fat. If there are no insects in the reproductive season of our Passerine birds, they will not have any food to feed their young and reproduction fails. The fruits supply mostly sugars that provide only immediate energy when long-term energy is needed for survival. If migrants eat sugar heavy fruit in preparation for migration, they will not have sufficient fat reserves to carry them to their wintering destination.

If an invasive plant like the honeysuckle takes the place of a native species on our property, we probably owe it to our wildlife community to try control it so the natives have a place to thrive. CFA staff are now trained and licensed in herbicide and pesticide application to work towards control of invasives. If you have the desire to help wildlife on your property thrive, give us a call and use your free consultation (you will be assessed a small charge for mileage) to discuss your invasive problem on your land.

Black Ash by Mike Kudish

A forester-friend and I were in Bog #309 Brooksburg when I was sampling peat and making a list of extant flora. I noted black ash, *Fraxinus nigra*. He had spent most of his life in the Catskills and had never seen black ash before. I told him that most people haven't either because black ash is an uncommon tree in the region. It is restricted to wetlands – bogs, fens, and swamps - where few people go (see the accompanying map and Table I). In the greater Catskills region I have found it growing today in only 14 wetlands.

I looked through all the back issues of CFA News and Kaatskill Life in my home library and cannot find any articles on black ash (the only exception is a technical article published in 1999 about a population way north in Quebec). The lack of published popular essays about this tree attests to the fact that few people know it.

A BOREAL REMNANT

Black ash is a small- to medium-sized tree, more common in the Adirondacks where I have observed it in more than 40 wetlands. It is more common still in Canada. Geographically, it is a boreal remnant, i.e. a northern tree that, when it migrated north after the last ice age, left behind a limited number of populations in our region that still survive.

ECOLOGY

One wonders whether black ash must grow in a wetland. I cannot answer this because I've not yet seen it out of a wetland. People don't commonly plant black ash as an ornamental, or for any other purpose, on well-drained upland sites.

Some other species which typically grow in wet areas do not require a high water table. If planted, or given a chance to grow on their own, on well-drained upland sites, they do well: examples are sycamore, Bebb's willow, wild raisin, and mountain holly (Nemopanthus). The reason is that these trees and shrubs are shade-intolerant, and wetlands have usually open or semi-open forests. They do not require tons of water all the time; all they need is some sunlight. Black ash, too?

FOSSIL BLACK ASH

In Bog #374 Lon Swamp (see Map and Table I), a beaver meadow at the north base of Twin Mountain, I pulled chunks of wood out of the bottom of the peat in 2004, buried 32 inches down. These wood chunks were different from any other I've found in Catskills bogs. They were definitely not that of a pine, spruce, fir, hemlock, or larch, because they had vessels (also called pores) which are lacking in conifers. Therefore the chunks were from a hardwood, but which? The vessels were concentrated only in the spring (also called early) wood, a condition called ring-porous. All the other hardwood fossils I have found in the Catskills are diffuse-porous, i.e. the vessels are more uniformly distributed throughout the spring and summer (late) wood. Maples, beech, birches, and cherries are diffuse-porous so it wasn't any of those. Hickories and oaks are ring-porous, and butternut is semi-ring-porous, but it wasn't any of those. It had to be an ash, but was different from the wood of white ash. I visited our Paul Smith's College wood technology professor, Francis McAllister; we looked at the wood under his marvelous microscope. Francis said black ash.

Black ash had been in Lon Swamp about 6900 years ago, according to the radiocarbon date of the peat sample. One wonders whether this species might have been more common in Catskills wetlands for some time after deglaciation and has since disappeared in most places.

IDENTIFICATION

Black ash differs from white ash, our most abundant Catskills species of ash, in several ways and is easy to identify.

First, white ash has 5, 7, or 9 leaflets in its compound leaves. Black ash has 7, 9, or 11. So look for a tree growing in a wetland with opposite branches and opposite compound leaves, some of which have 11 leaflets.

Second, white ash fruits (like miniature canoe paddles) are narrower, about seven times as long as wide. Black ash fruits are broader, about five times long as wide.

Third, white ash bark on a maturing tree has the criss-crossing ridges with diamond-shaped furrows. Black ash bark is more scaly, perhaps more like that of a spruce or black cherry, but a paler gray in color. To me, it resembles more a young white oak.

Fourth, the buds are different. The uppermost pair of lateral (side) buds are not placed directly beneath the terminal bud at the end of a twig as in white ash, but rather a short distance (a quarter-inch or so) down.

BASKETS

Black ash wood has a peculiar property, unlike that of other ashes and other trees. It is easily split into its component annual growth rings, forming thin, flat sheets easily bent into strips. Because of this, it is often used for baskets of different types, including pack-baskets for hikers.

EMERALD ASH BORER

I've been told that the emerald ash borer attacks all species of ash, so I guess black ash is included. However, black ash populations are so isolated from each other, and so often isolated from populations of white ash, it seems that the borer will require many years to find them. Perhaps by that time, researchers will have found quicker and easier methods of eliminating the borer.

And even if the borer gets into a wetland, it will find black ash not in continuous groves as white ash on the uplands, but rather as widely-scattered individuals – one here, one there. This makes it more difficult for the borer to locate and attack all the black ash. Maybe we'll be fortunate?

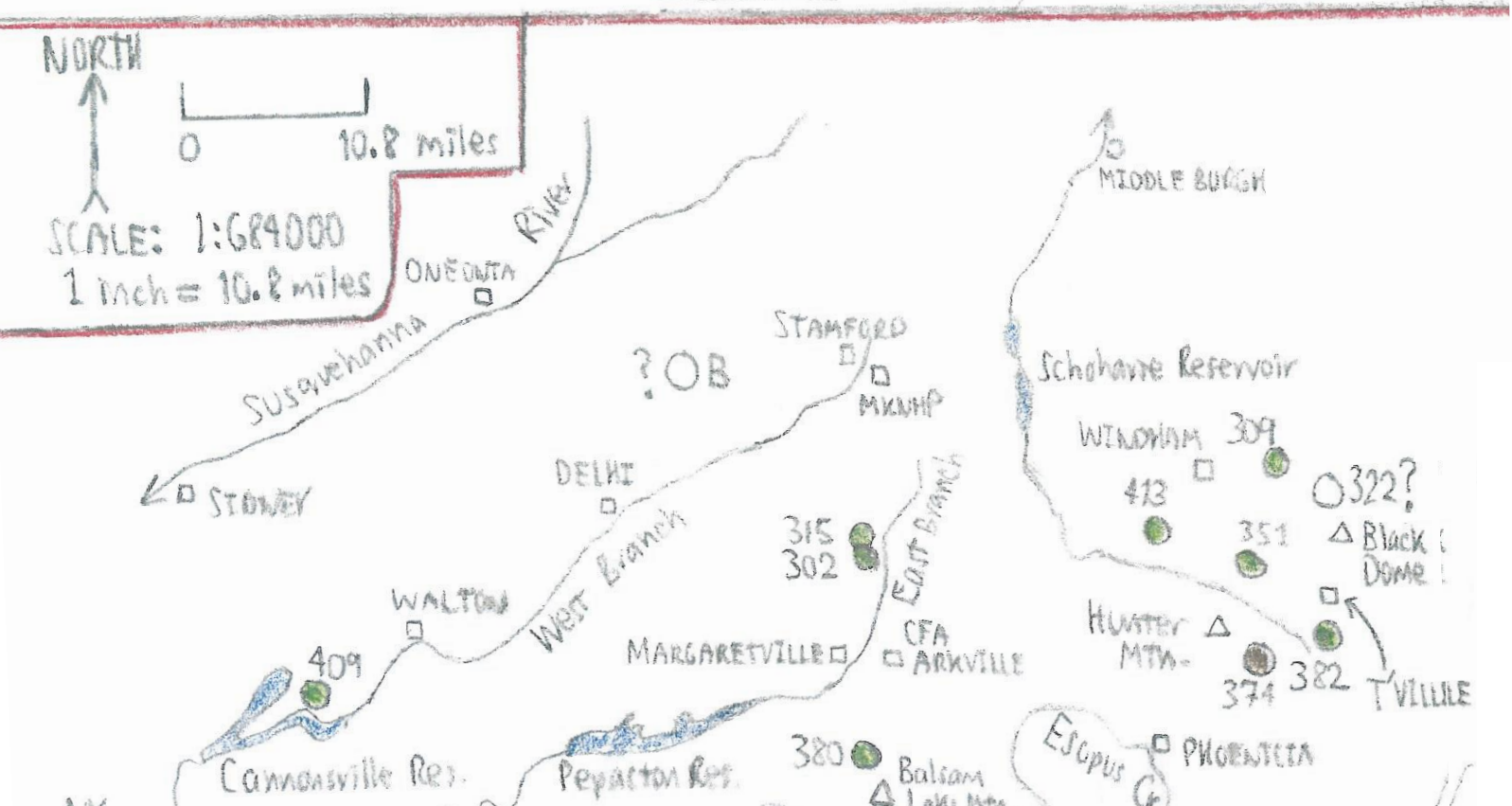
TABLE I: PRECISE LOCATIONS OF BLACK ASH WETLANDS

D = Delaware; G = Greene; S = Sullivan; U = Ulster

Bog #	Name	County	Town	Elevation (ft)	Latitude	Longitude
302	West Settlement, Lower	D	Roxbury	1660	42 16'18"	74 36'00"
309	Brooksburg	G	Windham	1710	42 18'20"	74 18'25"
315	West Settlement, Upper	D	Roxbury	1670	42 16'23"	74 36'00"
322	Maplecrest	G	Windham	2070	42 17'55"	74 10'40"
349	Pacama Vly	U	Olive	710	41 51'55"	74 15'12"
351	Benjamin Notch	G	Hunter	2270	42 13'40"	74 11'20"
374	Lon Swamp	G	Hunter	2030	42 08'15"	74 07'00"
380	Mill Brook	U	Hardenbergh	2260	42 03'57"	74 35'30"
382	Donker Clove	G	Hunter	2350	42 08'18	74 03'48"
388	Briscoe	S	Bethel	1190	41 44'58"	74 50'55"
409	Rock Rift	D	Tompkins	1630	42 05'35"	75 13'35"
413	jewett Center, East	G	Jewett	1930	42 14'15"	74 17'00"
807	Cedar Swamp	U	Warwarsing	1090	41 46'05"	74 26'45"
A	Pine Bush	U	Shawangunk	450	41 36'56"	74 21'07"
B	Roberts Road	D	Kortright	2030	42 23'50"	74 49'20"

BLACK ASH DISTRIBUTION IN THE GREATER CATSKILLS REGION

Michael Kudish for CFA News Spring 2018 2/4/'18



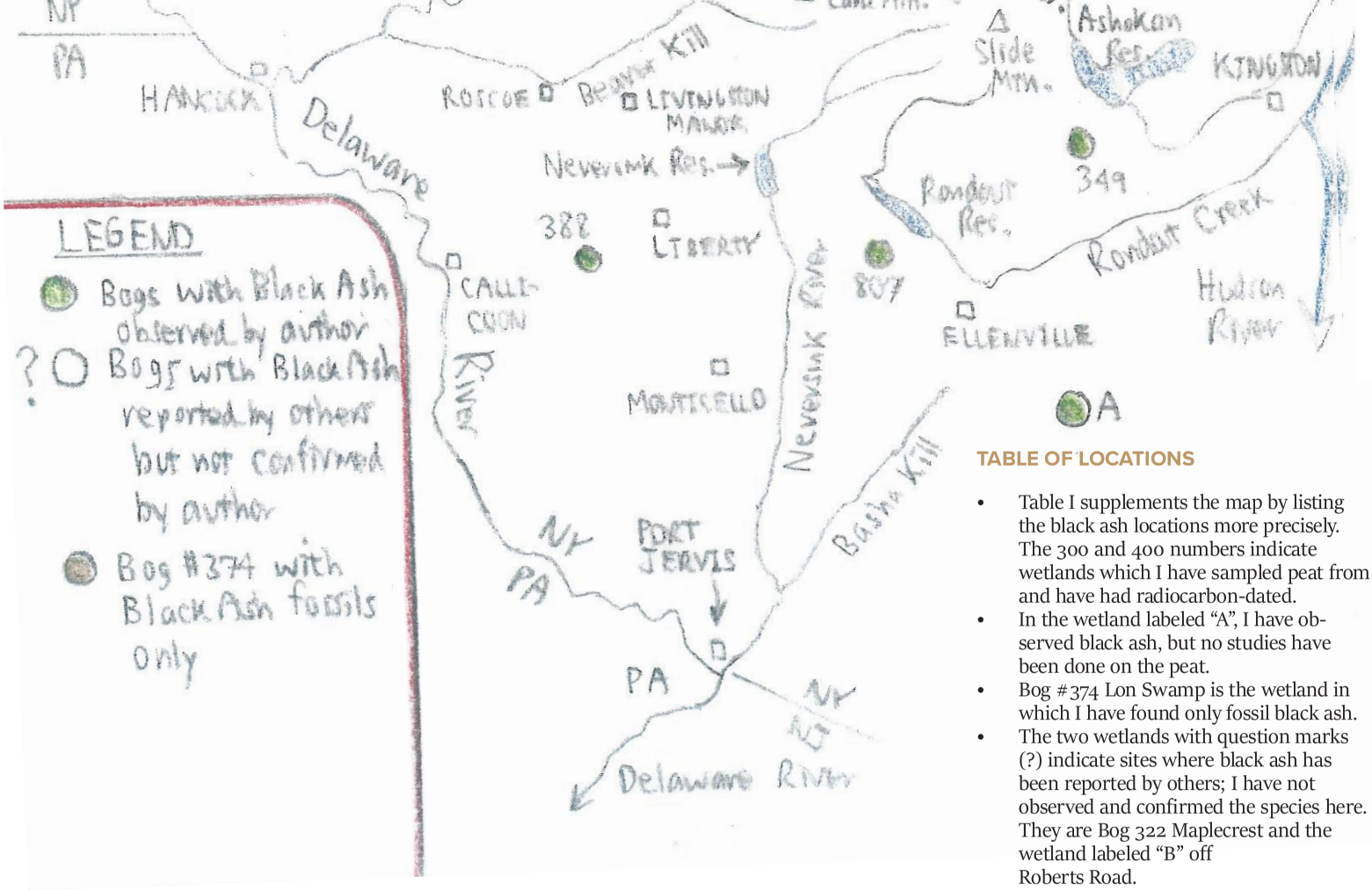


TABLE OF LOCATIONS

- Table I supplements the map by listing the black ash locations more precisely. The 300 and 400 numbers indicate wetlands which I have sampled peat from and have had radiocarbon-dated.
- In the wetland labeled "A", I have observed black ash, but no studies have been done on the peat.
- Bog #374 Lon Swamp is the wetland in which I have found only fossil black ash.
- The two wetlands with question marks (?) indicate sites where black ash has been reported by others; I have not observed and confirmed the species here. They are Bog 322 Maplecrest and the wetland labeled "B" off Roberts Road.

Feeding Deer

Mike DiBenedetto

I recently went on a call with a wildlife re-habilitation friend to pick up a deer that was down and in poor shape. When we examined the deer, my friend determined it was too far gone to save, and it was euthanized. She said this is common: people with good intentions feed deer and it ends up killing them.

How is this possible? Deer, like cows and sheep, are ruminants, meaning that they have a specialized four-part digestive system for breaking down the cells of the food they eat. Their rumen is basically neutral, unlike our stomach, which is very acidic. What ruminants rely on are bacteria and other gut flora to break down the food.

If you change the food, the digesting flora in the gut must also change, and this could take a week or two. In the wild the food sources usually change gradually- a few apples in the fall turns to lots of apples, some green grass in the spring to lots later in the spring, but everything happens gradually. This time of year, the deer are already stressed, mostly eating low carb, high fiber browse in the form of buds, bark, somewhat tender branch ends, hemlock needles, your hedges, and so on. They are relying mostly on fat reserves and may lose 20-30% of their weight over the winter. It is especially difficult on the fawns that have devoted all their resources to growth and have very little fat reserves going into the winter.

You and I see these deer struggling and we might not mind spending a few dollars to get them some corn or feed to help them get through the rest of the winter. If food is put out, they will eat it up quickly for sure, but keep in mind what is happening in their stomachs. With the sudden switch, the bacteria can't break down that new feed. Corn in particular makes their gut very acidic, resulting in bloating and diarrhea and can be deadly.

I know some people are saying they see others feeding deer and it doesn't bother them a bit, very true, but mind you feeding wildlife is illegal for many reasons. A much better solution would be feeding them what they would normally eat through better habitat management. Right now one could start cutting down your firewood trees. All of the supplemental food a deer needs right now is at the top of those trees in the form of buds. Also, try hinge cutting small trees too; This method is excellent for cover and browse that will keep growing deer food for years, it also opens the canopy up allowing sunlight in to further promote good forest growth.

Wood Heating in the Catskill Communities

Collin Miller

Back in January, I went on "From the Forest" – CFA's weekly radio show on WIOX 91.3 – to talk up Modern Wood Heating for Catskill Communities (archived online at catskillforest.org/radio). Much of the airtime was devoted to addressing common questions, "Is there enough wood?" and "What about the smoke?" However, I hope that the takeaway for our listeners centered on some central statistics, worth restating here: 78 cents of every dollar we spend on imported fossil fuels leaves the region; much of it leaves the country. Furthermore, 42% of the fossil fuels we use – namely fuel oil, propane, natural gas or coal – are used to heat buildings. This generates over 50% more Co2 emissions than if those same buildings were heated with regionally made wood pellets.1 Note: Although this study only addressed the impacts of making the switch to wood pellets, comparable statistics should apply to conversions at larger facilities that use wood chips.

Our radio conversation focused primarily on the many benefits of switching to wood heat at the community scale, e.g. schools, hospitals, and small to mid-sized manufacturing. This size of project is where we can generate the greatest collective benefits of community wealth retention,

climate change mitigation, and creation of additional market drivers for improved forest management. It was a lot to pack into an hour-long conversation. When our time on the air was up, I said to myself, "Well, it's nice I got that off my chest, but now what?!"

In my seven years (2009-2016) away from the Catskills, my work took me throughout Northern New York and from rural Massachusetts to interior Maine and all points in between. Despite their beauty and special rural character, virtually all of these places are facing the same challenges as we are here in the Catskills: population out-migration, parcelization, limited access to quality services, opioid addiction, etc. Heady topics for sure. However, during my time there, as a forester and self-proclaimed "knowledgeable wood heat advocate" (wood geek), I tried focusing on the bright spots. I knew of well over 100 institutional-sized wood chip- or pellet-fueled boiler installations in communities just like ours. Whether it was a school, a church, or a commercial business, it became a showpiece of self-reliance and local pride.

I toured one school in Penacook, NH where the school facilities manager told me he buys their wood chips from a logger whose children attend the school. People of all ages knew where their heat comes from and where their fuel dollars are going: they could connect the dots. In all situations, there was one common denominator, a local "champion for the cause. And here in the Catskills, we need more champions.

Expanding on my comments from the radio and those offered here, I would like to leave you with a few ideas on how you might get as excited as I am for the opportunities that exist for facilities in the Catskill Region to consider – or in some cases re-consider - wood heat. If you would like more information, I can "show you around" and help connect you with others in the automated wood heat movement. However, for starters, you can:

- Visit the Northern Forest Center website (www.northernforest.org and navigate to Modern Wood Heat or see a new collaborative site, www.feelgoodheat.org.
- Check out the library

of resources and wood heat case studies at the Biomass Energy Resource Center (www.biomasscenter.org)

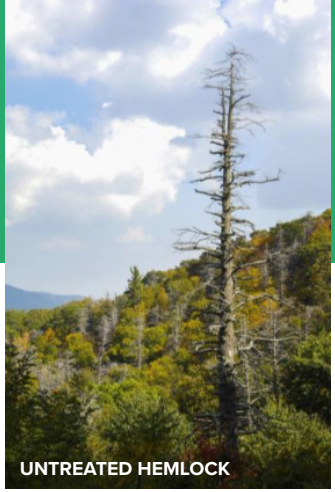
- Learn about NYSERDA's generous incentives for wood pellet boilers and other high-efficiency wood heating equipment (https://www.nyserda.ny.gov/All-Programs/Programs/Renewable-Heat-NY)
- Educate yourself through the following websites, Biomass Thermal Energy Council (www.biomassthermal.org), or the Alliance for Green Heat (www.forgreenheat.org)
- Tell your legislators in Washington D.C. that you support the Biomass Thermal Utilization Act, or BTU Act, which extends renewable energy tax credits to qualifying wood pellet boilers.

I'm guessing that if you are a member of CFA – now approaching 600 strong and covering 65,000 acres of working forestland – you're probably aware of where your heat comes from, and likely proud to say you heat with your very own home-grown, hand-split cordwood. I applaud you. Me too. Now, let us try to take it to the next level in our communities and get more schools, town halls, and businesses heated with wood as well. After all, change begins with conversations in your respective knitting circles. Think global, heat local.

1Source: https://northernforest.org/programs/modern-wood-heat/wood-pellet-greenhouse-gas-emissions-study (March 12, 2018).

Despite the relatively low number of community-scale wood heat installations in the Catskills Region relative to similar regions in the Northeast, some do exist and should be noted. Those that I am familiar with (outside of wood manufacturing facilities) are located at Hanford Mills Museum in East Meredith, Frost Valley YMCA in Claryville, and the Mount Seminary Bruderhoff Community in Esopus.

Collin Miller is an SAF Certified Forester in Delaware County for the NYC DEP, manages a small woodlot and forest farm with his family near Hobart, NY and is a CFA member.
He can be reached at ridgelineforestry@gmail.com.


UNTREATED HEMLOCK

INVASIVE SPECIES PROGRAM

TREE SAVER

CATSKILL FOREST ASSOCIATION, INC.

The Tree Saver service, a sub-section of the Invasive Species Program, was created by the Catskill Forest Association to assist Catskill landowners in the early detection, identification, treatment, and management of trees afflicted with Hemlock Woolly Adelgid, Elongate Hemlock Scale, Emerald Ash Borer, Spruce Gall, and Dutch Elm Disease. The CFA is a Certified Pesticide Business through NYS DEC Business Regulation #16805. CFA Staff are Certified Pesticide Applicators in Category 3A (Ornamental & Turf) and Category 2 (Forests) for treatments listed in the table below.

If you are a Catskill landowner, it's likely you have ash or hemlock trees on your property that are susceptible to the plight of Hemlock Woolly Adelgid and Emerald Ash Borer. Call CFA to schedule a free consultation (+mileage) for an assessment of your trees and to receive an on-site quote for treatments. Removal of a single infested hemlock or ash tree can cost anywhere from $1000-$3000. Treating trees is a safe, environmentally sound, and cost-effective alternative to removal.


TREATED HEMLOCK

DIAGNOSIS	TREATMENT	TIME	CHEMICALS	INTERVALS
HEMLOCK WOOLLY ADELGID	BASAL BARK SPRAY	SPRING/EARLY SUMMER	IMIDACLOPRID DINOTEFURAN	3-4 YEARS
ELONGATE HEMLOCK SCALE	BASAL BARK SPRAY	SPRING/EARLY SUMMER	DINOTEFURAN	ANNUALLY
EMERALD ASH BORER	TREE INJECTION	SPRING/SUMMER	EMAMECTIN BENZOATE	2 YEARS
SPUCE GALL	SOIL DRENCH	FALL	IMIDACLORPID	1 YEAR
DUTCH ELM DISEASE	TREE INJECTION	SPRING/SUMMER	PROPIZOL	1-2 YEARS

CONTACT US TO SCHEDULE YOUR TREE SAVER APPOINTMENT

HEMLOCK WOOLLY ADELGID

TREE INJECTION APPLICATION - $9/INCH

Used to systemically treat pests via injection of chemicals into sapwood. Typically used to treat (1) Emerald Ash Borer (2) Dutch Elm Disease (3) Oak Wilt (4) Apple Scab (5) Anthracnosel etc. Chemicals used include: TreeAgeG4 (Emamectin benzoate), a broad-sprectrum injectable insecticide applied using a chloride channel activator; Propizol, a systemic injectable fungicide 14.3% propiconazole.

EMERALD ASH BORER

BASAL BARK SPRAY - $9/INCH

Used to systemically treat pests via basel bark spray. Normally used to treat (1) Hemlock Woolly Adelgid (2) Elongate Hemlock Scale. Chemicals used include: Zytect (Imidacloprid) used to treat treas infected with minor infestations of HWA, a slower moving treatment that is longer lasting; Transect (Dinotefuran) used to treat trees infect with severe infestations.

SOIL DRENCH - $7/INCH

Used to systemically treat pests via soil drench. Normally used to treat (1) Hemlock Woolly Adelgid (2) Eastern & Spruce Gall Adelgid. Chemicals used include Xytect (Imidacloprid), a slower moving treatment that is longer lasting.

PRUNING - N/A

Pruning is recommended to remove dead/dying branches in tandem with chemical treatments in order to help mitigate pest infestations.

CERTIFIED ARBORIST ISA

ARBORJET Revolutionary Plant Health Solutions

CERTIFIED IN PESTICIDE APPLICATION BY:

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

CATSKILL FOREST ASSOCIATION, INC.
PO BOX 336
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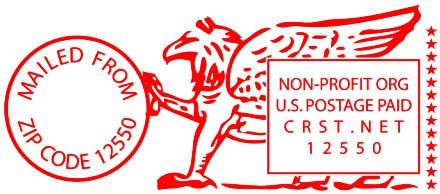
Arkville, NY 12406
catskillforest.org
845-586-3054



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. Dues & Donations are fully tax deductible.

NAME: _____

MAILING ADDRESS: _____

_____

PROPERTY ADDRESS: _____

_____

PHONE: _____ **EMAIL:** _____

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

CATEGORIES (PLEASE CIRCLE)

BASIC ($65)	**CONTRIBUTING ($150)**
Free Consultation; Events free or discounted; CFA News Subscription; CFA Member Property Sign; Access to CFA Programs	SAME AS BASIC + 20% Discount on Services; CFA Totebag
BUSINESS ($200)	**SUSTAINING ($500)**
SAME AS BASIC + 10% Discount on Services; CFA Website Listing; Email Referral Advertisements; Free Booth at Forest Festival	SAME AS BASIC + Free On-Site Visit; 30% Discount on Services; CFA Backpack

ADDITIONAL DONATIONS

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

Total Amount: $_____