

CFA NEWS



The Newsletter of the Catskill Forest Association, Inc.
Volume 29, Number 1 - Winter 2011



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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

Cover Photo: Both photos taken from Peekamoose. [west of West Shokan, NY] Large picture - to south - Roundout Valley. Small picture - to West - Van Wyck in foreground. (photos taken by Ryan Trapani)

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Falls along West Hubble Hill Rd. in Margaretville. (photo taken by Jim Waters)

Welcome New Members!!!

October 2010

Gordon Blau – Fleischmanns
Dan Horowitz – Monroe
Stamford Golf Club Junior Golf, Inc. – Stamford
Iginio Maracich – Swan Lake

November 2010

Donald Odell - Arkville
Hanford Mills Museum – East Meredith
Village of Fleischmanns
Emilio Sanchez

January 2011

Leon & Caryn Rosenberg – Fleischmanns
Chris Greenan – Andes
Gary Rosa – New Kingston
Richard Crowley – Bovina

February 2011

Lawrence Connell – Claryville

EXECUTIVE DIRECTOR'S MESSAGE

Wow, what a winter! The Catskills seemed to have eluded the heavy snows...it's been cold and we've had very frequent dustings to 8 inches of snow. No thaws to speak of, so there may be some heavy melt-offs with resultant flooding.

CFA has lots going on this year. Check out the web site for events. Mark your calendar for **July 30th**—The Catskill Forest Festival in Margaretville. Tons of fun! (Tons of metal equipment making lots of noise!) Find out more about it on CFA's web site and be sure to check out the video of last year's festival on the Home Page. Also, if you have not listened to CFA's weekly radio show you owe it to yourself to do so. It's called 'From the Forest' and it airs every Wed. evening at 6pm. You can tune in by going to www.wioxradio.org. This year's annual meeting should prove to be a great time. We are going to have a pig roast and "bring a plate to pass" event. Details will be forthcoming later, but set the date aside now — **Sept. 10th!**

There is also being introduced a new cost sharing program much like WAC's for those landowners downstream from the City's reservoirs in the Delaware River Watershed Basin. CFA will be responsible for administering it in NY. More info will be coming out on this soon. It's called the "Common Waters Fund". You can call us and/or go to: www.commonwatersfund.org/welcome for more info. We're very excited about this opportunity for landowners to receive technical aid as well as funding for forestry projects ranging from TSI work and road restoration to planting and deer exclosures.

CFA will be starting a fund-raising campaign this year to repair and paint the outside of CFA's building in Arkville. It is badly in need of work and it has been postponed far too long. You will receive a request letter in the mail from us. We have not had a fund-raising campaign for a number of years now, but find ourselves in a position of

having to do so now. I certainly hope you can find it in your budgets to lend CFA a hand in this endeavor.

Have a great spring and we hope to see you at one of our many events or trips in the woods. It's off to collecting Sap! Come visit Ryan's sugaring operation as well as other local ones on Saturday, March 19th.

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: www.wioxradio.org. Soon CFA members will be able to listen to archived podcasts on CFA's website: www.catskillforest.org



WHAT A DEAL!

Gifts For A New Member:

Package 1 -- Any of the Membership Levels at a 20% discount for the first year.

Package 2 -- Package 1 together with an on-site visit for \$80 (\$20 off the normal rate of \$100) plus the normal mileage fee of \$.51 per mile.

Package 3 -- Packages 1 and 2 together with tree marking at \$40 per acre (\$5 off the normal rate of \$45 per acre) for a maximum of 10 acres.

Gifts For Current Members:

Package 4 -- An on-site visit for \$80 (\$20 off the normal rate of \$100) plus the normal mileage fee of \$.51 per mile.

Package 5 -- Package 4 together with tree marking at \$40 per acre (\$5 off the normal rate of \$45 per acre) for a maximum of 15 acres.

This offer expires on the 1st of August, 2010. All visits and marking appointments need to be scheduled by the 1st of September, 2010, but may be scheduled after that date. Call Michele at (845) 586-3054 to arrange the gift timing. CFA will give you a gift letter or mail it directly to the recipient with a message from you. All gifts must be pre-paid to CFA.



FROST LINES



Observe the frost on trees at the higher elevation and little frost on the trees in the foreground at a lower elevation..

Last autumn many areas throughout the Catskill region experienced a poor acorn crop that left many species of wildlife such as deer and squirrels with very little to feed upon. Red oak is the most common oak tree found in our region. The acorns of red oak require two growing seasons to mature and are therefore dependent upon the previous springs' growing conditions. In comparison, white oak requires only one growing season. In the last two years the higher regions of the Catskills have experienced late frost each spring creating poor crops for both fruit and nuts such as apples and acorns. Although many factors are responsible for whether there is a successful crop, frost can be a significant one.

Frost-lines can be most easily recognized during the winter months atop mountains and ridges. *Frost* occurs when water vapor such as in the form of fog encounters solid surfaces that are below the freezing point. These solid surfaces can be trees, shrubs, rocks, airplanes, power-lines or the beard upon your face. Frost can be explained quite well when describing the warm air exhaled from a human's breathing and the nearby hairs of a beard. As warm or above freezing air containing water vapor is exhaled, it may encounter the hairs of a beard which on a cold day are below freezing. The encounter results in a frosty beard. I experienced this one fine evening when riding my bicy-

cle in 8° F temperature! When I arrived at my destination, I was donning a thick and full frosty mug.

In general, there are three types of ice (frost). They are distinguished by how the super-



You can see some soft & hard rime on these branches.

cooled water droplets form as they encounter objects of horizontal or vertical surfaces. The three basic ice formations include (1) soft rime; (2) hard rime; & (3) clear-ice. Soft rime is the least dense of the formations and is easily shaken off from vegetation. It appears feathery or spiky and is

milky and crystalline resembling sugar. Soft rime occurs when fog encounters objects, such as tree branches during conditions of calm or light wind and when temperatures are between 28°F and 18°F. The formations mostly occur on the windward side of a tree. Since soft rime is the least dense of the formations it normally causes little damage.

Hard rime occurs during similar temperature conditions, except under windier conditions. Hard rime appears less milky than soft rime. It is also more difficult to shake off and slightly denser too. Throughout the winter months, a hike up one of the Catskills high peaks will usually contain a summit of trees encased in soft and/or hard rime. The lower limits of the frost-line vary from year to year, but can almost always be found above 3500 feet (above sea level). In such places, the feeling of being in a *winter wonderland* can be experi-



There is evidence of Clear Ice on these branches.

enced quite easily there. The aesthetic qualities of soft and hard rime can be appreciated since damage to vegetation, especially in higher elevations where most fruit and nut trees cannot be found, is normally negligible.

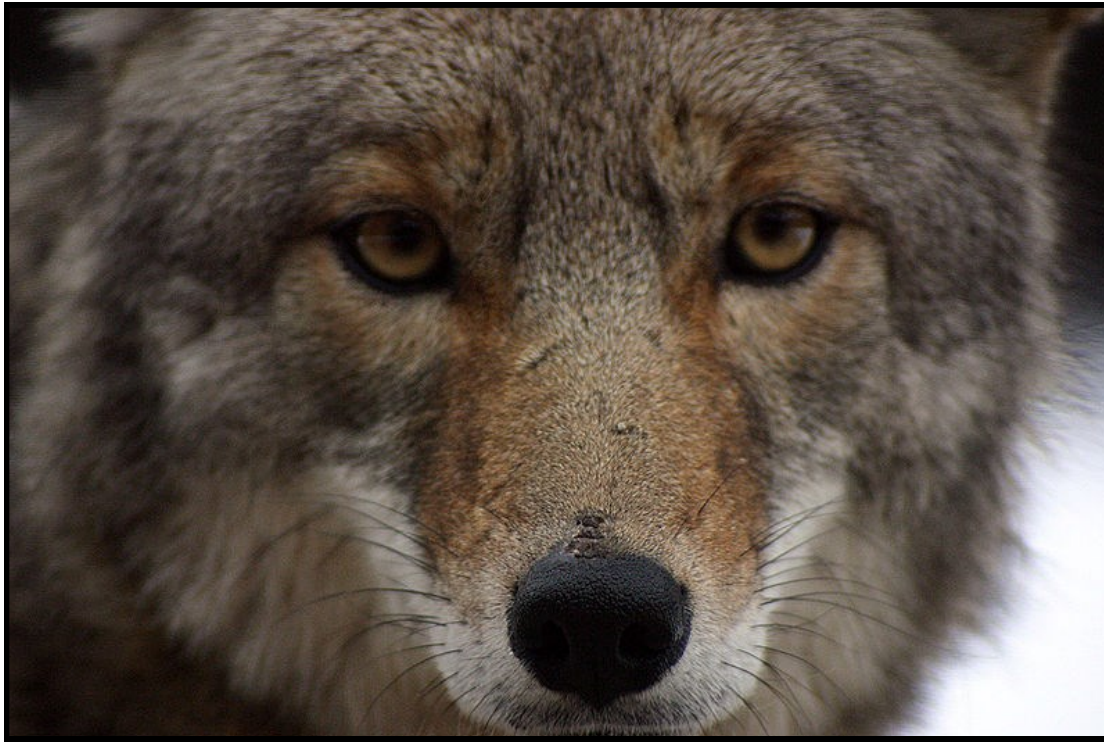
The third ice formation is clear-ice and is the densest of the formations and therefore can cause significant damage. As its name implies, it resembles ice-cubes that cling or encase structures or vegetation. Clear-ice develops under similar conditions creating soft and hard rime except under slightly higher temperature ranges (32°F and 27°F). Since the super-cooled water droplets freeze at a higher temperature, more water is retained that coat whatever surface they come in contact with. Branches, power-lines and structures may become overwhelmed by the weight of the freezing and collapse.

Similar to clear-ice, is glaze-ice which is even denser and causes the most damage. Glaze-ice is a smooth, transparent ice that completely coats whatever object it comes in contact with.



Glaze-ice does not develop from the exposure of fog and cool objects such as with soft and hard rime, and clear-ice. Instead, it develops in winter when rain or freezing rain precipitates and comes in contact with below freezing objects. Since it occurs only during rainy events, the most water is retained, creating a dense, heavy encasement. When glaze-ice is coupled with windy conditions, damage can be severe. Vegetation is especially vulnerable to breakage during the dormant season when limbs are already brittle. Specifically, white pine trees are susceptible to clear-ice and glaze-ice since its needles catch the ice and the limbs are structurally weak. Trees that are in close proximity to people, persons and property should be assessed often, especially before the fall and winter seasons when clear-ice and glaze-ice are not uncommon. Damaged branches from ice should be properly pruned to preserve the health of any tree or assessed for take-down when necessary. Call CFA and schedule an *On-Site Visit* whether you are concerned about the condition of a particular tree(s) or an entire forest. www.catskillforest.org

Coyotes, Coydogs and Coywolves?



It is not uncommon to hear someone remark in our region that they thought they saw a wolf. Although what they saw probably was *mostly* a coyote. According to Roland Kays of the New York State Museum and researchers at the State University of New York College of Environmental Science & Forestry (SUNY ESF) eastern coyotes do have some wolf DNA.

According to Kays the eastern coyote is a newcomer in the northeast. Previously our region was inhabited with the coyote's larger competitor: the wolf. Wolves had been extirpated by land clearing for agriculture and bounty hunting to reduce predation on farmers' livestock. Shortly after, coyotes began migrating eastward from the Midwest and reclaiming territory previously dominated by wolves.

Farm abandonment that has resulted in early successional forest habitat in the last 50 or so years has created conditions conducive to many small mammals such as mice, rabbits, weasels and deer. As many of these prey species became abundant, the opportunity of a predator to occupy this predator-vacant habitat became more feasible. The eastern coyote has adapted to these conditions with shining colors. But is it all coyote?

Some refer to the coyotes as a coy-dog. Researchers conducting DNA and radio collar studies throughout New York State and Mississipp-

pi have found that this is not true. In New York State, they did find that eastern coyotes do have some wolf DNA. As the coyote migrated eastward, those coyotes that followed a northern route around the Great Lakes had interbred with wolves in Ontario. The coyotes then preceded south and crossed the St. Lawrence River into New York State and New England. The few female coyotes that crossed the river are responsible for coyotes now abundant from Maine to Long Island. Although this new type of eastern coyote has some wolf DNA, it only accounts for less than 3% of its total genetic make-up. It is still mostly coyote. Wolves are larger animals weighing over 100 lbs with larger mouths and skulls for hunting predominantly large herbivores. These genes account for the slightly larger eastern coyote. Western coyotes normally weigh between 20 – 30 lbs, while eastern coyotes normally weigh between 35 – 45 lbs. Eastern coyotes also have wider mouths and skulls than western ones. Being mostly coyote they weigh ½ as much as a wolf. They can be distinguished from wolves by their pointier nose as well.

The birthing season for eastern coyotes is from January to June. Breeding occurs mostly during the month of February and young are born 60 – 63 days later. A female coyote will give birth to a litter containing anywhere from 2 – 10 coyotes, but 5 – 6 on average. Litters containing

more pups become common after coyote numbers have been reduced which is why it can be extremely difficult to reduce their general numbers. Young coyotes can disperse over 100 miles from their place of birth surviving off of a wide variety of food sources adding to its extremely adaptable nature and overall success.

The infamous reputation coyotes often have is due to the food sources they are believed to prey upon, namely deer. Coyotes are random, opportunistic omnivores. Extensive research has been conducted by SUNY ESF and Mississippi State University using radio telemetry (collars) on coyotes in order to track their patterns and eating habits. What they found has surprised many, especially deer hunters who oftentimes blame coyotes for reducing their numbers. Although deer dominate the coyote's spring and winter diets, most of the feeding occurs during time periods when deer carrion is readily available. Hunter-killed deer and automobile-killed deer especially during the rut provide coyotes with plenty of carcasses to feed upon. In the spring, coyotes prey upon new born fawns. Fawns that are eaten are quickly replaced as deer numbers can fill population voids quickly. Although some coyotes have learned to take down adult deer, their impact on deer numbers is currently insignificant.

Still, the perception that coyotes are reducing deer is alive and strong. According to the Quality Deer Management Association, if you want to see more deer, don't shoot coyotes! You may actually make the problem worse. Remember, coyote litter sizes will significantly increase in average number after population declines, and quickly restore the overall population. Unlike deer, coyotes regulate their population in-house since dominant males will kill unrelated pups on sight.

Impacts from coyotes can best be buffered by practicing good forest management and quality deer management. Practicing good silvicultural treatments (clear cuts, thinning cuts, shelterwood cuts etc.) will enhance diversity in woodland habitats. By providing diversity in forest age, size and species composition found in young, mid and late successional growth, shade-tolerant and shade-intolerant plants can provide valuable food and cover sources for a variety of wildlife. Think blackberry, tea-berry, white oak, chestnut oak, cherry, elderberry, raspberry, chestnut, blueberry, huckleberry, nannyberry, laurel, honeysuckle and more. Coyotes are opportunistic and eat both meat and plants. By providing good habitat for squirrels, rabbits, mice and voles to live in, pressure will be reduced upon deer when they can feed on a variety of berries and small mammals. Also, early successional growth provides great cover for does to drop and hide their fawns in fur-

ther reducing fawn predation from both coyotes and bears. This is the positive outcome humans can provide for wildlife by surgically implementing disturbances in the forest where vegetation immediately returns. Beavers do it too, but we have more toys to perform the process and do not have to live in water-confined homes.

The other tool humans can use is a rifle, bow or shotgun. Sex-ratios in our New York deer herds are extremely unbalanced. Does outnumber bucks by 3 – 1 or greater. What does this mean? It means that during the breeding season when a doe goes into estrous, the bucks will literally run themselves ragged trying to service each and every doe. When there is too many does per buck, some does do not get serviced or bred until a 2nd or 3rd estrous cycle which translates into a late fawn drop in the spring and a tired, worn out buck. When does are bred *on time*, fawns are dropped during a short period of time in the spring overwhelming predators such as bear and coyotes. Also, fawns born *on time* are given plenty of time to fatten up for the upcoming winter. Therefore, more does must be harvested, while younger bucks passed up in order to reach sexual maturity. And by reducing the deer population, other wildlife will have more food and cover in the forest understory to share and perpetuate the forest's bounty.

Coyotes are beautiful animals and extremely adaptable. Eastern coyotes are wolf enough to take down an occasional deer, but coyote enough to adapt to human pressures and fragmented woodland habitats. Coyotes are abundant throughout New York State and still they manage to evade our sight most of the time. For more information visit www.catskillforest.org.





COUNCIL OF FOREST RESOURCE ORGANIZATIONS

*Landowners, Forest Products Industry, and Professional Foresters
Working Together to Improve New York's Forest Resources*

CFA is again taking part in The Council of Forest Organizations' Forestry Awareness Day in Albany. Jim is Chair of this organization.

It is important during this upcoming year or two of great change to make sure that our legislators in Albany understand the many issues that forest landowners are faced with in New York.

Please consider going along with us on Monday, May 2nd to help make our legislators more aware of our plight. Three board members have committed to going with staff to do this. Numbers make

a big difference!

Contact our office at (845) 586 3054 to find out more and coordinate for the day. It's both fun & rewarding.

Below is the agenda that all could agree on being important to the industry as well as the forest owners.

PLEASE COME WITH US!

New York's Forests Could & Should Make a Significant Contribution to Improving New York State's Financial Recovery as well as Continuing to Provide all of the Environmental Benefits to the State's Residents as a Whole.

Without attention to the business climate in the State where many forest industry firms are located, the viability of many rural communities is in jeopardy. Without correction of some land use and taxation policies, many forest owners will lose their lands and forests and many of these will be converted to less desirable uses that degrade the environment.

The Council of Forest Resource Organizations urges executive and legislative branches encourage and legislate (when necessary) the State's Agencies to take the following actions to support employers and landowners in contributing to the health of the economy of New York and local communities as well as ensuring that forests continue to provide all of the State's residents with "Open Space", clean water and recreation:

- ▶ Develop property tax and assessment legislation that is fair and equitable, that encourages long term forest management, and prevents forest owners from being put into a position of having to parcelize, liquidate or convert their forest resources. (This is occurring now at an alarming rate.) Do not cap the tax rate on public lands. This will only redistribute the tax burden to the rest and put additional incentives on private landowners to parcelize and convert the land use away from forest.
- ▶ Provide DEC with the necessary resources to sustainably manage the State Forests in line with the April 2007 State Comptroller's report (especially in the areas of meeting recommended harvest levels) and support the DEC's service forestry program to encourage private forest owners to responsibly manage their forests (through dispersal of funds to contract out much of this work).
- ▶ Provide budget support for forest-related programs especially the Department of Agriculture and Market's, Department of Environmental Conservation's and Empire State Development's newly created Wood Products Development Council & the Department of Conservation's Forest Utilization & Marketing program. Also promote & expand local use of locally produced forest products through favorable policies & financial incentives.
- ▶ Aggressively combat invasive pests, especially insects and pathogens, which are compromising the health and economic viability of our forestlands and urban forests through coordinated efforts with State and Federal agencies.

David B. Elmore



1941—2011

David B. Elmore, 69, a long-time CFA Board Member, passed away on Friday, Jan. 14, 2011, at his home with his wife, Barbara, at his side. Born May 8, 1941, in Honesdale, Pa., he was the son of the late Larue and Gertrude (Hoar) Elmore of Damascus, Pa. He graduated from Damascus High School in 1959, and from Millersville University in 1963. He taught Industrial Arts/Technology at Charlotte Valley Central School from 1963 until his retirement in 1989.

In addition to his involvement with CFA as past president and long-time treasurer, he was past president and member of the Charlotte Valley Teachers Association; past president and treasurer of the former Davenport Water Company and an Eagle Scout.

While not a farmer himself, he bemoaned the passing of so many family dairy farms. He raised cultivated blueberries and made many blue bird houses. He enjoyed riding



Dave alongside Ryan at the Meredith Dairy Festival.

his bicycle on the Pinellas trail in Florida and kayaking on his pond in Davenport. One thing that many of us did not know is that Dave enjoyed raising, training and competing Bassett Hounds in field trials for 30 years.

We knew Dave as an active steward of the land. He had planted thousands of trees in his lifetime, managed his forest by thinning and harvesting trees from it and was an avid supporter of the CFA. He rarely missed a board meeting and took a very active part in workshops, festivals and fairs. He put his woodworking skills to work for CFA in the form of many projects from making signs and auction items to building blue bird boxes for CFA's use as a sale item. His love of the forest and unquenched thirst for knowledge about it was admired by all. His contributions to the Catskill Forest Association will be remembered and appreciated for many decades to come. He will be greatly missed by the association and especially the staff. He was considered a co-worker as well as a board member. He was also a good friend.

He is survived by his loving wife of 28 years, Barbara (Empey) Elmore; his sister, Miss Joan Elmore of Honesdale, Pa.; and by his in-law family, Ken and Jacque Empey of Cullen, Susan Stetson of West Oneonta and Michael Empey, also of West Oneonta.

The CFA will be building and erecting blue bird boxes with his name engraved on them.



Dave made the signs that are clear-coated wood ("The Robert Lindsay Bishop Building" and "43469") on the front of CFA's office building.



A sign that Dave specially made for the 1st Annual Catskill Forest Festival.

So long Friend.....

'til we meet again.....

"Easy Does It" : Venison Roast



This recipe is taken from *Making the Most from Your Deer*, by Dennis Walrod. I highly recommend this book for learning more about processing your freshly harvested deer into butchered meat, soap, or as a deliciously prepared meal.

The recipe can be easily prepared and does not take much time. Start by using a large piece of meat such as from the hind quarter or the backstrap. Remove any tallow (fat) or silver-skin. Residual tallow tastes bitter and may be the culprit of mixed reviews on venison. Next, brush mustard onto the entire steak. If it is a strip, then use string to roll it up. There is no need to baste with liquids, since the roast will baste in its own juices after the mustard has hardened and created a seal. This seal also prevents the meat from drying out which is critical when cooking a lean meat such as venison. Roast in the oven using a roasting pan at 350°F. If a meat thermometer is used, roast until it reads at least 145°F. A 2 pound piece of meat should take approximately 30 – 45 minutes. It is better to err on the side of undercooking than to over

-cook since the meat is so lean. Check doneness after removing from oven and remember that the meat continues to cook after it is taken out as well. Serve hot or save for leftovers of sandwich meat.

Nutrition Facts:

Serving Size: 4 ozs

Amount per Serving

- **Calories** 128 (Calories from Fat 19% **Daily Value**)
- **Total Fat** 2.2g **3%**
- **Saturated Fat** 0g **0%**
- **Cholesterol** 70mg **23%**
- **Sodium** 0mg **0%**
- **Potassium** 0mg **0%**
- **Total Carbohydrate** 0g **0%**
- **Dietary Fiber** 0g **0%**
- **Protein** 27g **54%**

Est. Percent of Calories from:

Fat 15.5%

Carbs 0.0%

Protein 84.4%



Source: Lance Armstrong Foundation

Read more: <http://www.livestrong.com/thedailyplate/nutrition-calories/food/generic/venison-roast/#ixzz1DTsnCC2r>

Firless Summit of Graham Mountain

by Dr. Michael Kudish, a forest historian



View from top of Doubletop towards Graham Mountain.

One of the most perplexing puzzles in studying the history of Catskills forests has been why the summits of Balsam Lake and Doubletop Mountains have balsam fir-dominated caps while the summit between them, Graham Mountain, is dominated by ridge hardwoods – mainly black cherry, beech, yellow birch, red maple, and mountain ash. All three peaks have summit elevations within 150 feet of each other and the distance, by air, between Balsam Lake and

Doubletop Mountains is barely four miles. I cannot imagine even a minor climatic difference among the three summits.

Slide Mountain's east shoulder:

The clue that finally solved the mystery came not from these three peaks, but from Slide Mountain, seven miles to the east. A photo on page 106 of Bob Steuding's new book, *The Heart of the Catskills* (Purple Mountain Press, 2008), immediately caught my attention. Bob had been standing on Friday Mountain and snapped a picture looking west towards Slide's east flank. The lower elevational limit of the balsam fir cap on Slide Mountain was abrupt and horizontal, with only scattered groves and individual fir trees below in the ridge hardwood forest. I had assumed for forty years that the fir population on Slide Mountain gradually decreased as one descended the east flank, but no.

I had to re-climb Slide Mountain to check this abrupt forest boundary for myself. I started from the West Branch Neversink, climbed over Slide's summit, and descended the precipitous east flank down to the 3800-foot level. I then turned around and looked back up. In less than one minute, I understood.

The abrupt fir forest boundary is at the 3900-foot level, just above the spring along the hiking trail (now called the Burroughs Trail) to Cornell Mountain. Standing near the spring and looking up, I found the wall of sandstone and

conglomerate above me overbearing. Ladders had to be installed along the trail to assist hikers scrambling up and down the wall. On these ledges and up to the summit is a cap forest of almost pure balsam fir, with only scattered paper birch. The firs are growing largely on a pile of stones, a pile only one or two feet thick, over the bedrock. There is little clay and silt here to hold water. It is a site of drought-prone soils, despite having the greatest mean annual precipitation in New York State! Wind, ice damage, and snow damage are severe on these ledges, the stunted firs surviving in a very hostile, exposed environment.

Below me were ridge hardwoods – mainly beech, black cherry, yellow birch, paper birch, and red maple – on slopes noticeably less steep, with soils several feet deep and



Balsam Fir on Doubletop Mountain.

less stony. More silt and clay were present to hold water. In addition, around the spring were two herbaceous species characteristic of seeps and streambanks found commonly at much lower elevations in the Catskills: false hellebore and tall meadow rue. Stunting was much less here, too, because of less exposure to snow, ice, and wind.

Slide Mountain's west shoulder:

I climbed back over Slide's summit and started descending Jimmy Dutcher's Steps Trail. The fir cap continued down (interrupted only by a small hardwood-dominated seep in the vicinity of where the Burroughs Trail diverged off to the south) until I reached the spectacular lookout atop the high ledge at the 3660-foot level. From the lookout, I could see Doubletop and Graham Mountains. Directly below me, I could also see a forest of nearly continuous ridge hardwoods – black cherry, beech, red maple, yellow birch – with only a few scattered fir. The lower limit of the fir cap on the west flank of Slide was just as abrupt as the one on the east, also atop a high ledge, but at a lower elevation.

As I continued down Jimmy's steps, I thought back to the morning's ascent up the Burroughs Trail. There were widely-scattered fir from the trailhead along the West Branch Neversink until I attained the 3600-foot level. Here was the first place where the trail encountered a bedrock wall (although not quite as high as the wall on the east flank) and, sure enough, crowded atop the wall were the balsam fir. I had not thought much of it that morning, but now it all made sense.

Hikers are not the only ones finding difficulty in climbing Slide's walls:

To better understand why only the balsam fir dominates the summit of Slide Mountain, one needs to learn a

little about the forest history of the Catskills since the end of the Ice Age. This is not easy to do because no people were around to record it. The rings of living trees go back at most four hundred years and we need to go back fourteen thousand! Plant fossils preserved in bogs can tell us what trees were growing in the bogs in the past, but not those trees growing on the surrounding well-drained sites.

One can learn also from studying contemporary forests much farther north – in Canada and on the high peaks of the Adirondacks and mountains of northern New England. These forests are dominated also by balsam fir. Balsam must have been one of the first trees to invade these areas after the Wisconsin Ice Sheet melted. The eastern (and very far western) Catskills I doubt were any exceptions.

Balsam fir were capable in time of climbing up the walls of Slide Mountain, and the other eastern high peaks, onto the summit and surviving – but not thriving – there, under the poorest of growing conditions. The ridge hardwoods, requiring better soils and less exposed conditions, could not survive above the walls; they stopped climbing at the base of the walls and stayed there. The fir atop Slide had no competition.

What happened to the fir forests below the walls? On these better sites, the ridge hardwoods were competitive. One would think at first that balsam fir, as tolerant of shade as the hardwoods or even more so, could have out-competed them and survived in great numbers. But balsam fir has a weakness – a characteristic which reduces its competitive ability....its longevity. Balsam fir is old when people are old – about one hundred years. Beech, yellow birch, red maple, and black cherry can live twice, sometimes almost three times, as long. Balsam fir trees growing up under the shade of hardwoods can wait only so long until a gap in the canopy occurs and the sun shines in.

Application of the fir cap theory on Doubletop and Balsam Lake Mountains:

So, how can Slide Mountain teach us about Doubletop, Balsam Lake, and Graham Mountains? Doubletop Mountain also has high wall ledges which encircle the peak. No matter from which direction a hiker climbs it, the last one hundred feet or so of ascent before the nearly flat double summit is reached is up a series of cliffs which most hardwoods could not climb.

In addition, Doubletop Mountain has a small bog in the notch between its two tops. Bogs are not conducive to ridge hardwood growth. Yellow birch and red maple could tolerate, but not thrive in, the water-saturated, oxygen- and nutrient-depleted, acid soils. Beech and black cherry have no tolerance to these wetlands at all. The firs, able to tolerate the poor growing conditions, could survive better than yellow birch and red maple. Fir seeds, produced in phenomenal numbers, shower the whole summit. Fir reproduction not only in the bog, but on the surrounding well-drained areas, is in the form of nearly-impenetrable thickets.

Balsam Lake Mountain had posed a different puzzle than Doubletop. It has only a partial wall around it – mainly on the north and west. In fact, the shoulders from some directions are only moderately-sloping, e.g., along the trails ascending from the east and south. Yet Balsam Lake Mountain is also dominated by balsam fir, averaging above the 3600-foot level. Why? Some other factor must have prevented the ridge hardwoods from climbing onto and taking over the summit by out-competing the fir, but what was that factor? ...Bogs!

There are three of them. Dense thickets of balsam fir both in and around the bogs are capable of keeping most hikers and hardwoods out! The fir population on this mountain is reproducing and maintained as it is on Slide and Doubletop Mountains. In fact, it shows remarkable stability, neither expanding or retreating anywhere on the summit.

Fir caps on the eastern peaks:

Like Doubletop and Balsam Lake Mountains, most of the eastern Catskill high peaks also have this conifer distributed over them as fir caps, beginning on surrounding formidable high ledges and climbing on to the summits.

Graham Mountain differs from its neighbors:

Graham Mountain has almost no walls. There is a high ledge only in a small area on the northwest flank with an adjacent small fir grove about 100 feet below the summit. Hikers climbing Graham Mountain from almost any direction (except northwest) will find it steep, but not precipitous. So did the hardwoods. Graham Mountain has no bogs.

Both features, high walls and bogs capable of maintaining fir populations but keeping out hardwoods, are missing on Graham. The hardwoods had no trouble taking over the summit....and what a summit! This is the highest-elevation fir-less summit in the Catskills. The pygmy forest of yellow birch, red maple, black cherry, beech, and mountain ash is unique in all the Catskills, and perhaps in the north-eastern United States. The trees are grotesquely gnarled, twisted, deformed, and stunted. Repeated wind, ice, and snow damage is severe. On the most exposed sites on the northwest shoulder, the hardwoods cannot attain heights exceeding yours.

The other all-hardwood western Catskills peaks:

Hikers who are familiar with the western Catskills peaks and ridgelines know that none of them has a balsam fir cap: the Beaverkill Range, Mill Brook Ridge, Woodpecker Ridge, Dry Brook Ridge, Belleayre, Halcott, Vly, Bearpen, Plattekill, and Pisgah – all above 3300 feet elevation. Why?

After a forty-year struggle to try to understand the fir-less western peaks and the fir-less East Branch Delaware Valley, I may have finally solved the problem. Studies of plant fossils preserved in the peat of three bogs and fens at least 12000 years old are beginning to give us an answer. Balsam fir fossils at the oldest bottom layers of three of these wetlands, one located along Mill Brook in the Town of Hardenbergh and two along West Settlement Brook in the Town of Roxbury, are absent. This suggests that either (1) the fir was never on the western high peaks and East Branch Delaware Valley at all after deglaciation, or (2) the fir was so few in number and so widely-scattered that peat sampling so far has not included any of its remains. If additional bogs, dating back to at least 12000 years, are found in the western Catskills and also lack any fir fossils, then we can be more certain that this conifer was never here.

Balsam fir probably migrated into the Catskills from the Poconos of Pennsylvania not as one single massive population (as it must have migrated into the Adirondacks, northern New England, and eastern Canada where it is still nearly everywhere today), but rather as a series of large strands, appearing as southwest-to-northeast-trending belts or bands if we were to plot them on a map.

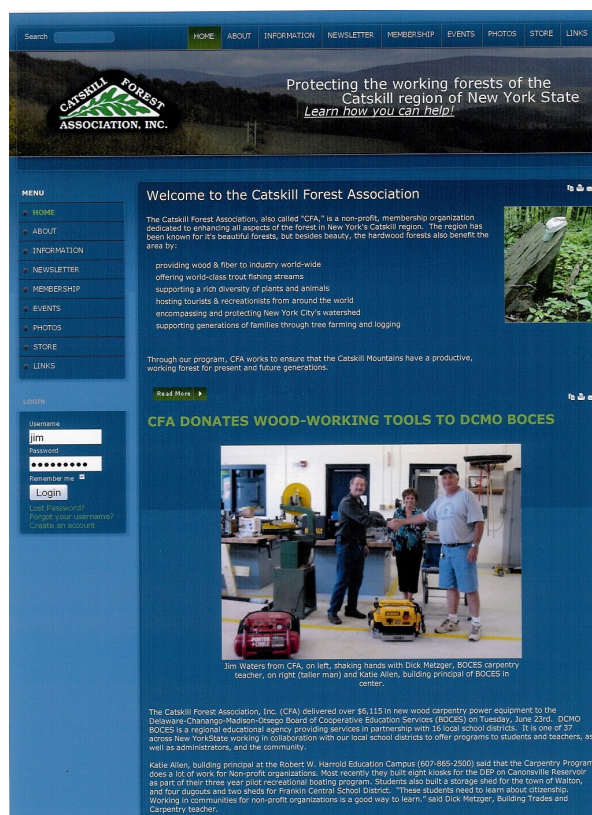
The major balsam fir strand is in the eastern Catskills where the firs today are in remnant groves; examples described above are on Balsam Lake, Doubletop, and Slide Mountains. The other, smaller fir strand is in the far, far western Catskills – as scattered groves on the plateau mainly in the Town of Harpersfield in Delaware County, northeastward into the Towns of Jefferson and Summit in Schoharie County.

In between the two fir strands is a region - the western Catskill peaks and the East Branch Delaware Valley – which most likely was, and still is, firless.

Therefore, in those areas of the Catskills today where fir is absent, it is absent because of two very different reasons: In the eastern Catskills, it is absent because it was replaced primarily by sugar maple, beech, ridge hardwoods, and eastern Hemlock. In the western Catskills, it is absent because it was probably never there to begin with.

CFA's WEBSITE:

www.catskillforest.org **CHECK IT OUT!**



If you have not received an email with your user ID and password or if you have lost it please send an email to: cfa@catskill.net with the following information:

1. Name
2. e-mail address
3. Home Address
4. Telephone Number

Without this information you will not be able to access the areas open to members only or purchase from the store with the member discount.

Check out the Catskill Forest Festival Video on the Home Page!!!

ALSO....Soon for CFA members only there will be links to our "From the Forest" Radio Podcasts!.

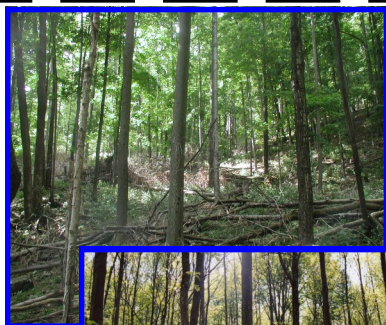
CFA Tree Marking Program!

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 \$100 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 \$45 per acre will be charged for the marking.
6. \$15 of this \$45 can be claimed as a tax deductible contribution to CFA, a 501-c-3 not-for-profit organization.
7. 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.
8. 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.
9. 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.
10. 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 _____



PO Box 336
Arkville, NY 12406

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 and spend 3 hours walking your forest, making suggestions and giving you impartial and confidential advice? (It just costs \$100 plus our mileage to do so.) 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.