



Woodlands for Wildlife

Volume 20 Feb 2009

A newsletter of Vermont Coverts: Woodlands for Wildlife, Inc.

Ice Storms and Salvage Logging

by Ian Martin, class of 2008

Should woodland owners consider salvaging timber damaged by the ice storm that struck southern New England last December?

As a woodland owner and Forest Ecologist, this question was very much in mind as I surveyed both my own and my clients' forests in Windham County following the storm. My initial impression was that the icing was fairly consistent across aspect and slope, though varied in thickness by latitude and elevation.

Ice damage to trees, however, was not consistent and appeared to vary considerably. In general, severe ice damage, tip-ups and whole crown snap-offs, were concentrated in areas where forest structure was discontinuous; along field edges, roads, and power line corridors. Damage consisted of minor to moderate crown damage and isolated tip-ups in interior woodland areas where forest structure was more continuous and where tree canopies are mutually supporting.

The latter observation did not hold for areas that had been recently thinned or on east facing slopes of 30% or more. These areas seemed to experience substantially more damage than other interior areas.

On my own Newfane property, the two areas where I've cut firewood in the past two years suffered the highest damage. One firewood cut thinned the overstory in a two-acre stand of birch, maple, beech, and cherry.

continued on page 3

Vermont Woodlands, Carbon Emissions and Global Warming

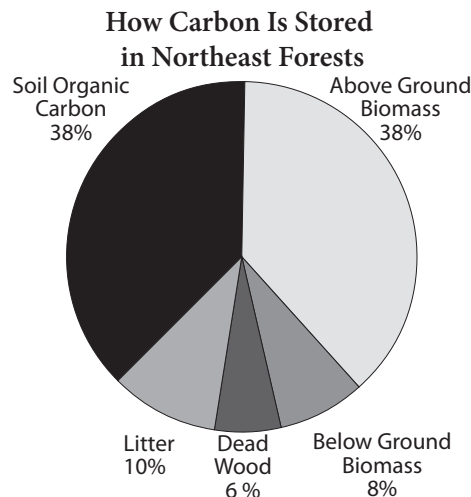
by John Evans, class of 2002

An excellent lecture on carbon sequestration at the Vermont Coverts annual meeting in 2008 by Chittenden County Forester Mike Snyder, provided a comprehensive primer on the subject.

One finding is that when we follow Coverts recommendations to manage woodlots in ways to create a diversity of habitat for wildlife we also are doing the right thing for the environment.

Carbon is accumulated when leaves take in carbon dioxide and water during photosynthesis and convert it to sugar, which is carbon-based. Some of the sugar is used for energy, converted back into CO₂ and released into the atmosphere.

Much of the accumulated carbon is stored in the living wood of the tree or in leaves and branches that fall to the ground. The pie chart below shows that most of the sequestered carbon is stored in forest soil, litter, dead wood and below ground biomass.



About 38% of the carbon is stored in living wood, or the above ground biomass.

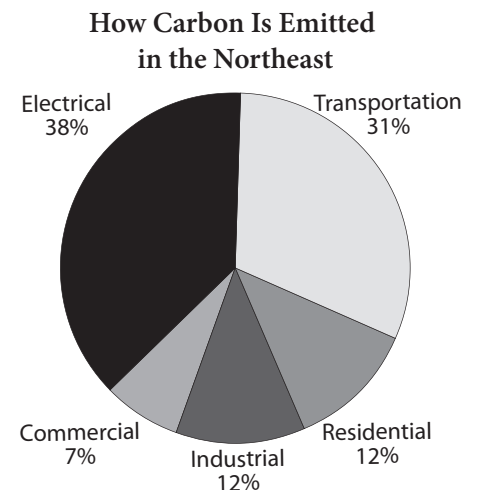
In Vermont, a state with large areas of forest, the forestry practices we use and the land development strategies we pursue are important factors in reducing atmospheric carbon and slowing down the rate of global warming.

The Governor's Committee on Climate Change has recommended a number of initiatives to achieve these objectives.

These initiatives include expanding the forest area covered by management and increasing the production of high quality, high density wood for use in durable wood products, such as building materials and furniture. The carbon stored in wood in this form is not released back into the atmosphere.

Another initiative relates to reducing the loss of carbon sequestration poten-

continued on page 2



Global Warming

continued from page 1

tial because of clearing forestland and converting it for development.

Snyder in his talk to Coverts emphasized general forest management guidelines that will increase levels of carbon uptake and carbon storage.

Practices include steps to increase tree growth and to restore understocked stands. Extending cutting and rotation cycles, for example from 10 to 15 years, encouraging the growth in the largest trees and re-allocating basal area to larger diameter tree classes are among the suggested forest management tools.

Landowners are encouraged to manage for structural complexity and diversity with a multi-layered canopy, a higher density of dead or snag wood, and leaving coarse woody debris on the ground.

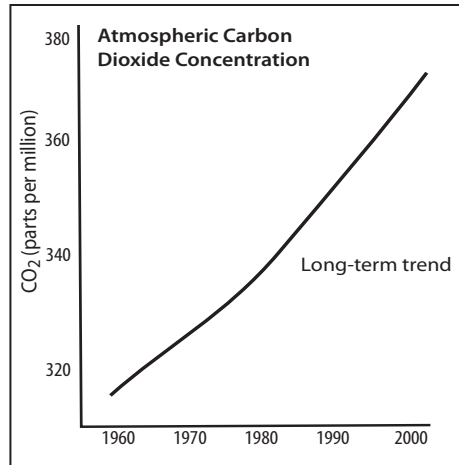
An important factor to keep in mind is that carbon is naturally released to the atmosphere by the process of decomposition and decay of leaves and woody debris. This is a normal part of the carbon cycle. However, the rate of carbon release is accelerated when soils are unnecessarily disturbed during logging and transporting logs to the landing.

The choice of harvesting equipment and the strategies used to protect soil and site health can make a difference.

Speed and efficiency have been the determining factors in determining what equipment is used with a goal of maximum profitability. In the future, we may have to consider a better balance

between speed and efficiency and the need to reduce soil disturbance and site damage.

The chart below is a familiar graphic of the rapid increase in atmospheric carbon dioxide in recent decades. The implications of the trend line for the future of Vermont forests are cause for concern.



Stewardship and the Carbon Cycle

The interesting finding, of course, is that when we manage forestland to increase the rate of tree growth, expand the diversity of tree species and take steps to create new habitats for wildlife, we also are making positive steps in our own backyards to contribute to the reduction of greenhouse gases.

Accelerating regeneration, planting new trees and expanding buffers along streams are just a few of the many individual actions we can take as responsible stewards of the land to help reduce the threat of global warming.

Coverts Fund Raising Drive Update

We'd like to thank those of you that have already made your contribution. To date our annual fund drive has raised \$20,450 from 162 donors.

Our goal for this year is \$24,500 from 210 contributors. The goal is attainable, even in these uncertain economic times.

Right now, because of a matching grant offered by one of our supporters, every dollar you donate will count as double.

Please think of all that Coverts has to offer you, your neighbor, your community and the state. Donations can be sent to the Middlebury office. We need your support.

President's Message:

A Quiet Fascination

by John McNerney

It's 2004, several years after I attended my Coverts Cooperator Training. My son, Peter (about two at the time), is "helping" me drag brush to a pile. After a bit, I notice that Peter has stopped working, and is standing motionless a short distance away, staring at something just out of my sight over the hill. I call a couple of times, but get no response. Our 140-pound dog pads over to check on him, then sits beside him, also motionless, staring in the same direction. The curiosity proves too much for me, especially since neither boy nor dog tend to quietly admire things from a distance.

I walk over and stand next to them. The object of their fascination is a doe grazing in the grass about 50 feet away. My arrival finally spooks her. She makes a few jumps into the taller brush/grass. She freezes for a moment, then bounds through the brushy "edge" and vanishes deeper into the woods, followed by two fawns who have been hiding in the tall grass all along.

Even five years later, this little episode stands out in my mind. One of my goals with our land is to use it as a resource to expose and educate my children about the outdoors and wildlife. I credit Vermont Coverts with providing me the information and know-how to make this happen. The area is one I keep open but delay mowing to provide cover for ground nesting birds and other wildlife. The brushy area as well as the sapling-covered edge is one frequented by grouse, woodcock and other animals. The delayed mowing, soft edge, and "messy" woods are right out of the Cooperator training... This stuff really works!

It's experiences like these that keep drawing me further into Coverts. I'm continually amazed at the amount of

Ice Damage

continued from page 1

A number of birch had tipped-up and several beech snapped. The other firewood cut was a small overstory removal of about one-quarter acre. The dominant red maple overstory was removed and an understory of pole sized sugar maple and beech were released. The poles were heavily damaged by ice, with several snap-offs and many spring poles that did not recover following ice melt. Comparable damage to pole sized trees was not seen in an adjoining area where the overstory remained intact.

On a property I manage in Guilford, I observed an exception to the generalization that intact stands appeared to be less susceptible to damage. On an east facing 30%+ slope at 1400' elevation, there was considerable damage to a 50-year-old stand of high quality red oak, sugar maple, and ash.

Domino Effect

It appears that a lack of downslope support for ice laden trees led to tip-ups and some domino effect where one tip-up would take 1 to 10 additional trees with it. These tip-up piles were nearly all associated with a logging road cutting across at midslope.

As for species susceptibility to damage, paper birch, and beech, particularly those heavily impacted by beech bark disease, appeared to suffer the highest degree of catastrophic damage (tip-ups and bole snaps), while white pine, black birch, yellow birch and red maple showed moderate to severe crown damage (where 50% or more of the crown is

damaged). Oak, ash, sugar maple, and black cherry for the most part only exhibited minor to moderate crown damage (less than 50% of the crown lost).

Despite the damage caused by ice, woodland owners should not rush into salvage logging operations. A U.S. Forest Service study following the severe ice storm of 1998 in northern New England found that 100% of sound, healthy trees, even those losing 75% or more of their canopy, were still alive and healthy 5 years after the storm. Over-mature paper birch, however, or trees with prior damage from logging or disease were not as likely to recover from crown loss of 50% or more.

Additionally, trees with crown damage of 25% or less showed no decline in productivity (trees with 50% or more crown loss did decline in productivity depending on species).

The message to woodland owners is that despite the apparent catastrophic damage to trees, especially in conspicuous places along roads and power line right-of-ways, the long-term damage to forests hit by the storm is not what we would expect. Most trees can recover.

It is important to reassess impending management activities, for even though most trees will recover from ice damage, additional injury or stress from logging operations could hamper recovery. A last consideration for woodland owners is that the timber value of trees with severely damaged crowns, even trees that do not recover, can be salvaged up to 3 years after the event with no decline in timber quality.

President's Message

continued from page 2

good information this organization has put me in touch with. I'm fascinated by how Coverts explores the interface between wildlife, logging, recreation and other activities in Vermont's woodlands.

As I've become more involved in the Coverts Council and now as Coverts' new president, I've realized that Vermont Coverts is about much more than just providing information. It's about connections to an amazing network of people and organizations. Exposure to the wide array of people's experiences and expertise keeps me motivated to make a difference on my own land and in my own neighborhood.

I hope that Coverts is helping you to recapture the excitement of learning about Vermont woodlands and wildlife that many of us experienced during our initial three-day Cooperator Training workshop. You'll find that we are expanding the number of workshops we sponsor to help you continue your forestland education.

Coverts Receives Grants

Vermont Coverts has already received two grants for 2009. The first is \$1000 from International Paper Company to help offset the purchase of resource books given out at Coverts Training Programs. The second is a \$5000 grant in cooperation with Audubon Vermont's Together Green Program with funding from Toyota. These monies will be used to bring Stewardship Workshops into the northern Green Mountains.

E-mail Updates

Coverts has been sending out e-mail updates to Cooperators and Friends with information on workshops and issues of interest to Vermont forest landowners. If you are not receiving these e-mails and would like to, please forward your e-mail address to lisa@vtcoverts.org.

General Recommendations for Ice Damaged Trees

If crown loss is:

11% to 50%

Retain or thin to leave best trees.

50% to 75%

Tree is at risk. Retain and reevaluate within 5 years.

>75%

Remove most hardwoods within 5 years. Sugar maple and ash on good sites may recover, if they don't have logging wounds or other pre-existing defects. Remove conifers with broken main stems within 1 year.

Paper Birch 11% to 25%

Retain or thin to leave best trees.

>25%

Remove within 5 years.

If tree, all species, is uprooted or on the ground:

Salvage within 1 year.



Woodlands
for Wildlife

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Calendar of Upcoming Events

Vermont Coverts Cooperator Training Program

June 5–7 at Coutts-Moriarity Camp, Derby.

September 11–13 at Kehoe Conservation Camp, Hydeville.

Landowners learn about sound forest management and wildlife stewardship. The training offers landowners classroom and field opportunities to learn about enhancing their land for wildlife and other benefits. They also learn about reaching out to neighbors and communities to encourage forest stewardship. For more information or an application, contact Lisa Sausville, Executive Director, P.O. Box 81, Middlebury, VT 05753; (802) 388-3880; lisa@vtcoverts.org.

Apple Tree Release

February 28, 9 a.m. – noon at Dead Creek Wildlife Management Area, Addison, VT.

Join County Forester Chris Olson and Wildlife Biologist Dave Sausville to learn the art and science of apple tree release. Not only will you see how to accomplish this task, you will have an opportunity to take saw and pruners in hand. You will be ready to go home and try releases on your own property. Pre-registration is requested. To register, call or e-mail Vermont Coverts; 802-388-3880; lisa@vtcoverts.org.

Forest Management Strategies and Bats

Thursday May 14, 5 p.m. – 9 p.m. at Dead Creek Wildlife Management Area, Addison.

Vermont Fish and Wildlife Biologist Scott Darling and LIP Coordinator Jane Lazorchak will instruct participants on being a bat habitat steward. After a brief classroom presentation we will go out in the field to try and net some bats and see these creatures up close. To register call or e-mail Lisa Sausville at Vermont Coverts: 802-388-3880; lisa@vtcoverts.org.

Selling Timber from Your Forests and Timber Taxation

Thursday, March 19, 8:30 AM – 4:00 PM at Marsh-Billings-Rockefeller National Historical Park Forest Center, Woodstock.

Morning Program only & lunch (8:30am – 12:30pm) \$25/person or \$35/family couple

Afternoon Program only & lunch (12:00pm – 4:00pm) \$25/person or \$35/family couple

Both Programs & lunch (8:30am – 4:00pm) \$40/person or \$60/family couple

Student rates are \$15 for either program or \$20 for both. To qualify for student rates, individuals must be currently enrolled.

Pre-registration is required. To register, contact Vermont Coverts at P.O. Box 81, Middlebury, VT 05753 and specify that the registration is for the Woodstock workshop. Please make checks payable to Vermont Coverts. For late registration (after March 6), call (802) 457-3368 x30.