



Linking a Landscape

Story and Photos by
Anne Schwartz

It's late afternoon, and fine snow is sifting down into Joan and Bill Hildreth's woods in Montgomery, Vermont. Their property lies within a large expanse of forest on the edge of the northern Green Mountains. Four times a year, the Hildreths and their neighbors walk a three-mile route here, searching for animal tracks, claw marks, rubbed bark, and other signs of wildlife. In particular, they are on the lookout for evidence of black bear, moose, bobcat, and other animals fond of large, unfragmented blocks of forest.

The Hildreths monitor a section of forest that includes oak and beech stands, wetlands, a line of rocky cliffs, and a large stream – landscape features that attract different wild animals. It usually takes five hours for them to cover this transect, but today I'm getting an abridged version. With us are foresters Nancy Patch and Charlie Hancock, fellow members of the conservation group Cold Hollow to Canada.

Bill points out a paper birch with four parallel diagonal scratches – bear. “Before we took tracking, I walked by this tree a hundred times and never saw the claw marks,” he said. Tramping through the snow, we come across a trail of widely spaced prints in clusters of four. Joan sets down a waterproof tracking guide with life-size illustrations and measures the prints. Everyone agrees it's a fisher. “We found a fisher scent post,” Bill recalls, explaining that it is a spot where this member of the weasel family marks its territory and communicates



Looking from Canada into Vermont.

with potential mates. Eager to share their discovery, Joan and Bill lead us up a hill to what turns out to be a tiny tree stump. Squatting down, Joan waves me over to see the fine hairs caught in splintered wood.

Later, a series of roundish footprints catches Patch's eye. Everyone stops. "This one looks really classic," says Patch, pointing out the asymmetrical toe pattern and lack of claw marks that indicate a feline instead of a canine. "We know bobcats are in the area, but they're not very common," says Joan. "We're pretty excited if we see cat tracks."

Cold Hollow to Canada is a volunteer organization focused on education, land-use planning, forest management, and land conservation in seven towns in eastern Franklin County. On a small scale, they're working as citizen scientists to gather data on wildlife habitat. Members train with professional tracker Susan Morse, and then record animal comings and goings on the Cold Hollow website. Over five, ten, or 15 years, the data they collect will help identify important wildlife corridors in the region.

On a larger scale, they're working with landowners who wish to conserve their forestland and with towns to encourage them to incorporate forest conservation into their town plans. They've helped establish conservation commissions in three towns, and are working with local governments to develop zoning bylaws that would minimize forest fragmentation. All of this is in service of a larger goal: to maintain the ecological connections in the Northern Appalachian/Acadian forest, the great northeastern forest of the U.S. and Canada.

From global to local

Growing up in Enosburg, Vermont, near the Canadian border, Nancy Patch always knew she wanted to be a forester. She became the first girl in her high school to study forestry, after fighting to take the vocational classes. She still lives in Enosburg, on 200 acres of woods in a small house that her husband, a logger, built. A consulting forester for 20 years, Patch is now the Franklin-Grand Isle county forester for the state of Vermont. She serves on the Enosburg Conservation Commission, and has long been involved in local conservation issues.

Patch recalled the “aha” moment that led to the start of Cold Hollow. In April 2008, she attended a presentation given to the commission, about the research of Two Countries, One Forest – a collaboration of Canadian and U.S. organizations seeking to conserve and restore the Northern Appalachian/Acadian forest. This region encompasses 80 million acres along the spine of the Appalachian Mountains, from the Adirondacks to Nova Scotia. Its woods, wetlands, and waterways harbor a rich diversity of plants and animals, support much of the region’s economy, and define its way of life. Although 5.4 million people live within its bounds, nighttime satellite images show vast expanses of dark.

The region’s biological diversity depends on these expanses. Wild animals need safe pathways between habitat blocks so they can disperse to new territory, mix with different populations, and diversify their gene pool. So far, the Northern Appalachian region has lost very few of the species found in colonial times. But this could change if the forest’s fabric is further frayed by suburban and industrial development.

Two Countries, One Forest identified five large, ecologically irreplaceable zones that tie the entire forest together but are at great risk of being fragmented. One of them is the 1.8-million-acre Northern Greens, where Vermont’s Green Mountains flow across the border to Quebec’s Sutton Range. “It was an eye-opener to see that what we do in our community makes a difference in a global way,” said Patch.

Soon, the Enosburg Conservation Commission was inviting people in the area to identify lands they valued the most. “People were circling places they liked to hunt and fish, places they liked to hike, places that were really important to the wood products industry,” said Hancock, a young forester who had recently moved to the area to take over Patch’s consulting business. “You got a lot of overlap. Certain areas started to pop up as being a really important part of our region.” It turned out that the places people cared about were also essential for wildlife.

At a subsequent meeting, volunteers stepped forward to start a region-wide group to protect those places, naming it after the landscape it covers, from the southern Cold Hollow Mountains to the Canadian border.

To guide their land conservation efforts, Cold Hollow’s steering committee created a map based on analyses by Vermont Fish & Wildlife, the Vermont Land Trust, and a regional conservation group called the Staying Connected Initiative. The map shows high-value habitat blocks and connecting pathways, overlaid with parcel boundaries to help people see where their properties fall in the larger landscape. Cold Hollow’s members connect landowners with government agencies and conservation organizations that can help them conserve and manage their forest for wildlife.

The group is also building ties across the Canadian border. During my visit, I drove with Patch and Hancock 15 miles to Sutton, Quebec, for lunch with Louise Gratton, chair of Two Countries, One Forest, Charles Weldon, a Sutton city councilor, and Mélanie Lelièvre, executive director of Appalachian Corridor, which created and assists a network of local land trusts in southern Quebec. Over quiche and salad, they swapped strategies for crafting town bylaws to limit forest fragmentation and talked about their vision for the region they share. “The more land that can get conserved in the Green Mountain linkage in the Sutton Range,” said Patch, “the better our habitat will be in the southern part, and vice versa.”

Pieces of the puzzle

Driving around eastern Franklin County you see forest everywhere, but a map of land ownership shows a patchwork of smaller parcels, and very little of the forestland is protected from development. Jay Peak, the popular ski resort just across the county line, is expanding and attracting second home development. Montreal is an hour and a half



Regional Conservation Partnerships

Regional conservation partnerships like Cold Hollow to Canada are flourishing throughout the region – in New England there are 38. Two umbrella partnerships, Two Countries, One Forest and the Staying Connected Initiative, work across the entire four-state, three-province Northern Appalachian ecoregion.

To learn more:

Wildlands and Woodlands

www.wildlandsandwoodlands.org/rcpnetwork

Staying Connected Initiative

stayingconnectedinitiative.org

Two Countries, One Forest

www.2c1forest.org



Clockwise from top: Cold Hollow to Canada group outing; Charlie Hancock points at otter scat; Nancy Patch and a bounding fisher's tracks; confirming the tracks.



away. So is Burlington, Vermont's largest city.

Though the low-density development typical in northern Vermont may not seem to change the landscape dramatically, studies show that it has a major impact on the quality of wildlife habitat for miles around. A house site and its associated roads create opportunities for predators (including household pets) and invasive plants that diminish forest diversity. It also brings human activity that many animals avoid.

Many of the large parcels of forestland in the region have been conserved – most recently the 936-acre Jackson Valley property in Jay, where the purchase of a conservation easement closed a major gap in the Northern Greens wildlife corridor. But funding to conserve smaller properties, which make up most of the remaining unprotected forest, is harder to come by.

A conservation easement keeps the land in private ownership, restricting development but allowing timber harvesting and other sustainable uses. But even if a landowner is willing to donate the development rights, the costs of doing the transaction – appraisals, legal and closing fees, and stewardship costs – are often prohibitive. Cold Hollow can help landowners navigate the process or group parcels together to improve the odds of attracting funding.

At the end of 2012, Cold Hollow completed its first land conservation project, called Adams Pond, which was made possible by funding from Staying Connected and the Vermont Land Trust. Patch and her husband, together with two neighbors, donated easements on their properties to the Trust, protecting three almost contiguous parcels totaling nearly 500 acres.

Meanwhile, the group's wildlife monitoring programs, workshops, hikes, and potlucks have been laying the groundwork for future habitat protection and stewardship. "We are planting seeds that might take ten years to bear fruit," said Patch. "A lot of what Cold Hollow has done is to build a foundation of appreciation for our forests."

The group recently received a grant for a pilot project to organize neighbors to do cross-parcel forest management. "The idea is to put our heads together and look at managing the landscape holistically," said Hancock. "Everybody can manage for their own uses, whether it's for grouse habitat or more intensive timber management. One landowner's plan can complement the others."

"It's a social connection, too," said Patch. "If you're doing work on the land with your neighbor, all of a sudden you know your neighbor better."

Wildlife without borders

It was late afternoon and still snowing when we emerged from Bill and Jan Hildreth's woods. The snowstorm blanked out the mountaintops in the distance. Patch, Hancock, and the Hildreth's were exuberant from the afternoon's finds. They had seen fresh tracks of bobcat, fisher, and mink, three of the eight species on their list.

They had also seen tracks of a snowshoe hare – the main food source for the Canada lynx, listed under the Endangered Species Act as a threatened species. "This bodes well for lynx," Patch said.

Though the lynx was never abundant in Vermont, the southern end of its range, it has long been absent from the state. Maine has the only confirmed breeding populations in New England. But the species is known to travel up to 200 miles, and recent sightings in northeastern Vermont raise hopes it might return to the Northern Greens.

Whether or not lynx return, a network of wild forest across the northeastern U.S. and southeastern Canada is the pathway for all manner of plants and animals to move and adjust their ranges, especially as the climate changes. Cold Hollow's landscape is a major strand binding that web together. Here, in the woods they call home, Patch, Hancock, and the others are working to keep it connected.

"We live at a crossroads for wildlife," said Patch. "Without the links in our area, we will lose that forest as a whole."

Anne Schwartz is a writer who specializes in land conservation, parks, and the environment. She is the author of *Rescuing Wetlands Close to Home: Ten Stories of New England Landowners*.