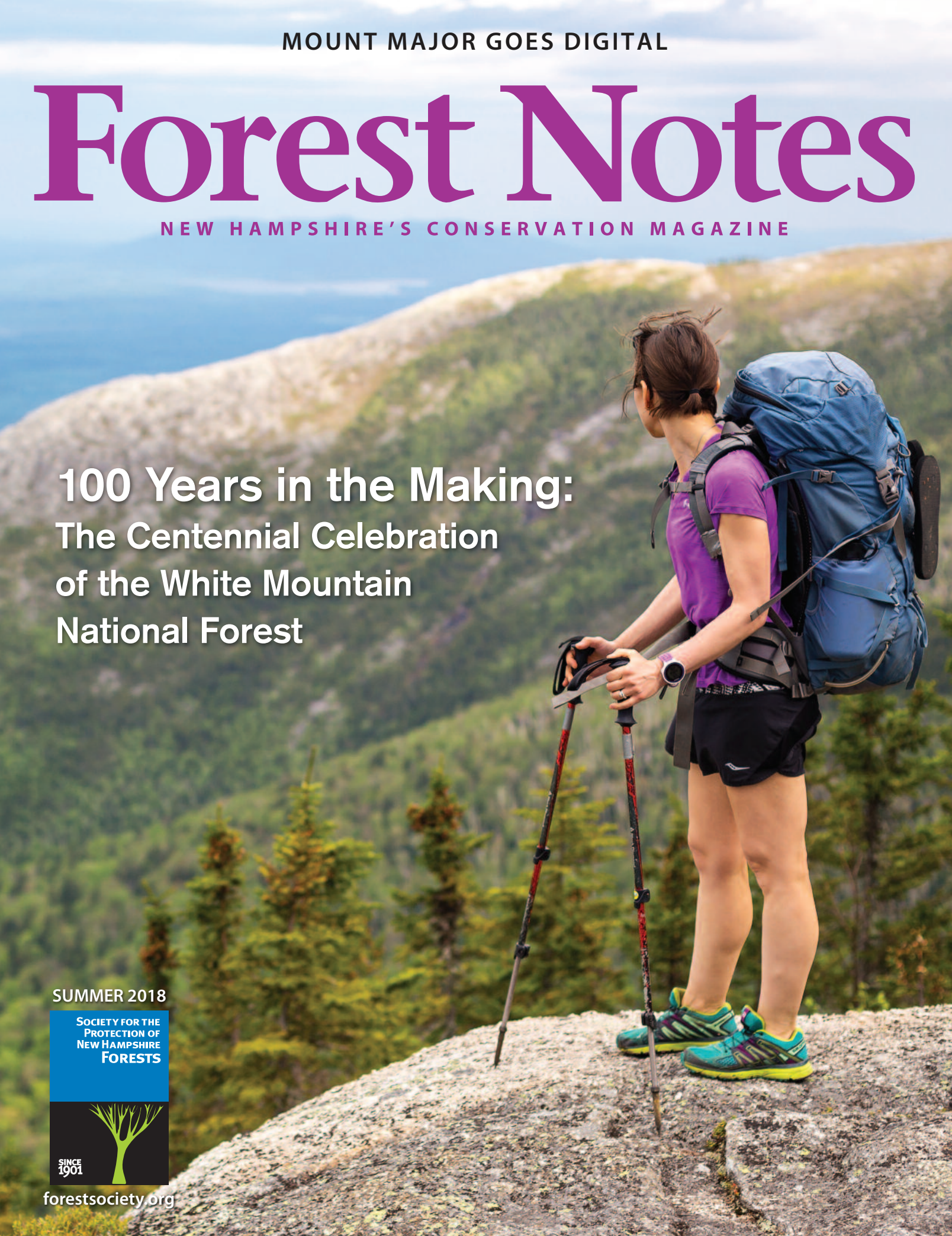
MOUNT MAJOR GOES DIGITAL

Forest Notes

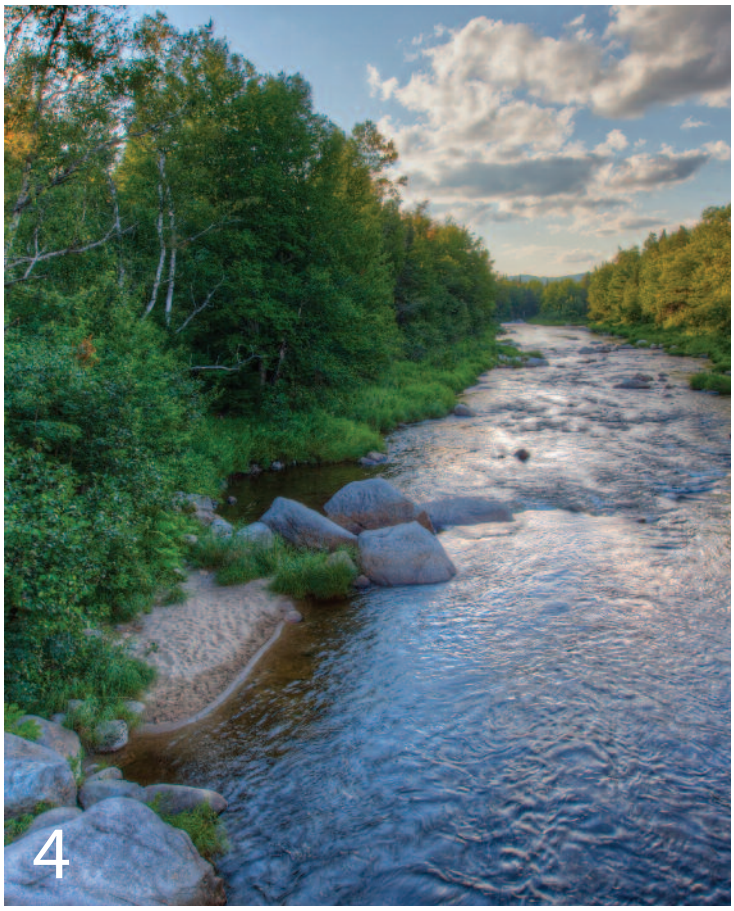
NEW HAMPSHIRE'S CONSERVATION MAGAZINE

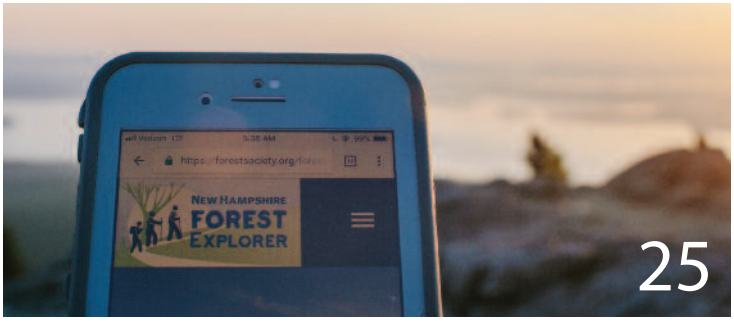


100 Years in the Making:
The Centennial Celebration of the White Mountain National Forest

SUMMER 2018

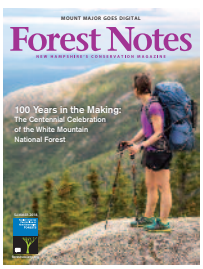
SOCIETY FOR THE PROTECTION OF NEW HAMPSHIRE FORESTS
SINCE 1901
forestsociety.org





FEATURE

DEPARTMENTS



On our cover:
A backpacker takes in the view from the Baldface Circle Trail in the White Mountain National Forest.
Photo by Ryan Smith.

Standing Our Ground

"To perpetuate the forests by their wise use and their complete reservation in places of special scenic beauty." (Annual Report, 1904)

Since our founding in 1901, the Forest Society has fulfilled this mission by embracing both sustainable forestry and the conservation of wild areas. We pride ourselves on being pragmatic problem solvers, bringing people together who may not agree, to craft solutions that work for New Hampshire. We value the benefits of good forest management and we believe it's important to set aside wilderness areas where nature rules.

But sometimes a proposal is so egregious, so harmful to New Hampshire's forested landscapes and way of life that we must stand our ground.

Our founding was one such time; the logging in the "white hills" was causing devastating fires and wild swings in water flow in the Merrimack River (read "It's Never Too Late to Conserve" on page 4). It affected not only tourism, but the industries dependent on the power of the mighty Merrimack. We formed coalitions with others who fought long and hard for legislations to protect the eastern forests, including the White Mountain National Forest (WMNF), which is celebrating its 100th anniversary this year.

Nearly 60 years ago, we objected to the proposal to build a four-lane interstate highway through Franconia Notch. The proposed highway threatened the iconic state park and the stability of the (now dearly departed) Old Man. The price to pay for a speedy trip to the North Country was too dear. The fight was a decade long, eventually resolved in a compromise that both improved transportation and maintained the beauty and integrity of the Notch. It remains the only three-lane interstate in the system.

Fast forward a couple decades and Northern Pass, a joint project of the former PSNH (now Eversource) and Hydro-Québec, marches into the Granite State and proposes a powerline transecting our state through the rugged, wild North Country, the WMNF, and the backyards of businesses and homes in central and southern neighborhoods. With a tin ear, Eversource held "listening sessions" to promote the project. But Granite Staters weren't persuaded. Nor was the Forest Society.

We didn't object to power coming from Quebec, but it was literally our ground they proposed to despoil. Three of our forest reservations (Washburn Family Forest in

Society for the Protection of New Hampshire Forests
A nonprofit membership organization founded in 1901 to protect the state's most important landscapes and promote wise use of its renewable natural resources. Basic annual membership fee is $40 and includes a subscription to *Forest Notes*.

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The Forest Society proudly supports the following organizations:

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Clarksville, the Kaufman Forest in Stark, and The Rocks in Bethlehem) were threatened by the project proposal along with numerous conservation easements and our beloved White Mountains. We could not stand by for an ill-conceived and unnecessary power line with towers well above the tree line.

We met with Eversource representatives testing for a meaningful compromise, but it was clear the power company wasn't interested. They had money, lots of it, and a barn full of lawyers.

We stood our ground knowing that New Hampshire citizens were with us, in many cases leading us. They are the true defenders of New Hampshire's landscapes and way of life. Time and again they came forward to tell state and federal regulators that Northern Pass as proposed was wrong for our state. Communities voted against the project at town meetings and intervened at the Site Evaluation Committee. When Northern Pass wanted us to believe that the project was inevitable, Granite Staters stood their ground.

Then, on February 1, after 70 days of testimony and cross examination, the Site Evaluation Committee voted 7 to 0 to deny the project a certificate (permit). It was a stunning defeat (although decidedly *not* sudden) for Goliath and a win for New Hampshire.

We remain vigilant, understanding that Northern Pass will likely appeal. But it's clear that the Forest Society, its members, trustees, staff, and friends will stand our ground.

Jane Difley is the president/forester of the Society for the Protection of New Hampshire Forests.

THE WOODPILE—NEWS NOT SO NEATLY STACKED

Note from Executive Editor

You may note that with this Summer issue of *Forest Notes*, we skipped right over our usual Spring issue. I want to apologize for that while noting that our plan is to provide a special issue later in the year.

I also want to offer a fond farewell to Brenda Charpentier, who has been the editor of *Forest Notes* for the last few years. She infused the magazine with superior storytelling and connected our work to people. We already miss her.

Joining us as the new editor is Ryan Smith. Ryan comes to us from the Appalachian Mountain Club, where he was managing editor of *AMC Outdoors* magazine. He's also worked as a graphic designer for the Massachusetts-based Trustees of Reservations. Ryan is an accomplished photographer and video producer with a passion for outdoor recreation and conservation.

We also welcome Emily Lord on staff as our digital outreach manager, a new position that reflects the increasing importance of engaging our constituents and members online.

Emily came to the Forest Society from UNH Cooperative Extension where she was the stewardship outreach coordinator, and before that she worked for the New Hampshire Association of Conservation Commissions as education director/program manager. In addition to being a natural storyteller and talented photographer, Emily brings a wealth of experience that will aid our collective effort to maximize the use of our websites, Forest Explorer (read "A Major Moment" on page 25), e-news, and social media to advance our mission.

I hope you enjoy this and future issues of *Forest Notes*, sign up for our e-newsletters, or visit our website to read web-exclusive content.

—Jack Savage, Executive Editor

PHOTO CONTEST DEADLINE!

Enter your favorite shots taken on a Forest Society reservation OR on any property conserved through an easement with the Forest Society **by September 15** for a chance to win free passes to Lost River Gorge and Boulder Caves or a Forest Society hat, and to have your photo published in the 2018 autumn issue of *Forest Notes*.

All volunteers, members, and friends of the Forest Society are encouraged to enter. For contest rules, visit forestsociety.org/photocontest.

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IT'S NEVER TOO LATE TO CONSERVE

BY JACK SAVAGE

We tend to take the White Mountain National Forest (WMNF) for granted. It seems like it's always been there, and it's hard to imagine that it wouldn't survive us and many more generations to come.

But it was just 100 years ago this spring that the WMNF was officially established when President Woodrow Wilson signed it into existence.

That's not a long time in the life of a forest.

Originating high on a shoulder of Mount Washington, the Ammonoosuc is one of several rivers whose headwaters are in the White Mountain National Forest.

Photos this page and following by Jerry and Marcy Monkman/EcoPhotography.

The Pemigewasset Valley, known for logging camps and forest fires in the early 1900s, now boasts a dense forest full of hardwood and softwood trees.

AT the time of the official establishment of the WMNF, forestland east of the Mississippi River was getting cut far too aggressively by lumber barons who gave little thought to long-term management. Slash (woody debris left over from logging operations) would frequently catch fire, exacerbating problems with runoff in streams high in the watersheds, and thus rivers downstream in Manchester and Concord.

The Appalachian Mountain Club, among other organizations, had been advocating the protection of the White Mountains for decades prior to its designation. To support their effort, the Forest Society was founded in 1901 in large part to advocate passage of federal legislation to protect land in the region. After a hard-fought battle by the Forest Society's first president/forester, Philip Ayres, and many others, the milestone legislation, known as the Weeks Act, passed in 1911.

Whereas western national forests could be established by designating lands already owned by the federal government, eastern forestland was in private hands. Through the Weeks Act, Congress enabled the government to buy lands from willing private landowners to create national forests east of the Mississippi. The first land purchased to become part of the WMNF was acquired in Benton in 1914. In 1918, President Wilson signed federal proclamation creating and adding the WMNF under the jurisdiction of the nascent U.S. Forest Service.

In 1929, Ayres was still pushing the pace of conservation when he reported that the 482,848 acres conserved by then "constitute only about twenty percent of the areas needed to regulate the flow of navigable streams rising in the Appalachian Mountains. At this rate, the original program adopted in 1911 will be consummated in the year 2010, a record not creditable to the people of the United States."

He went on bemoan that "when the first plans originated in 1900, the total area now contemplated could have been had… for less money than already has been expended on one-fifth of the property."

It's an old truth about conservation: Opportunities to protect critical resources today, while sometimes expensive, will cost far more to protect in the future. Jane Difley, current president/forester of the Forest Society (and only the fourth since 1901), provided 21st-century perspective on resource protection at the opening of "The People's Forest" exhibit at the Museum of the White Mountains when she noted in her comments that the WMNF we have today "reminds us that it's never too late. We can resurrect a natural resource and protect it when we commit to doing so over the long term."

Today, the nearly 800,000-acre WMNF we know—and shouldn't take for granted—is a prime example of the purpose of a national forest "to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations."

1901 New Hampshire Governor Frank West Rollins and eight other concerned citizens form the Forest Society with a mission of protecting the WMNF from logging and subsequent forest fires.

1905 U.S. Forest Service is formed.

1908 The Forest Society helps the state to buy Crawford Notch.

1911 After a decade-long campaign led by the Forest Society and other conservation groups, President William Howard Taft signs the Weeks Act authorizing the federal government to purchase land from private owners if the purchase was deemed necessary to protect headwaters.

Photo-scenic New Hampshire, *"My, how you've grown..."*

BY DAVE ANDERSON

SCENIC beauty is a hallmark of the White Mountains today, in part because of early 1900s glass slide photos of New Hampshire's forests turned moonscapes. By contrasting photos of the blackened stumps, bare soil, and erosion in the Whites with European-style plantation forestry, then in its infancy, the Forest Society's first president/forester, Philip Ayers, tapped the emotional power of these images to campaign for passage of the Weeks Act. Though the forest was far from regenerating what it had lost, voices like Ayers spoke up for and displayed the promise of a greener, healthier forest for all.

Also in the Forest Society's archives are photos from nearly 60 years ago, which reveal how the past six decades of forest growth and succession have changed the forest from bare to dense. The craggy peaks and ridges of the White Mountains are unmistakable in the backgrounds of these old archival photos. Granite virtually unchanged today. But more remarkable is the forest occupying the *middle distance*, a forest wholly different from the one we know today even if composed of the exact same trees! Distant views are now more difficult to find from roadsides hemmed-in by tall trees, including the 60-foot-tall yellow birch and American beech and the 90-foot-tall white pine and red spruce.

The species composition of the forest has shifted from sun-loving balsam firs, pin cherries, aspens, and white birches to more shade-tolerant and long-lived trees: beech, red maple, sugar maple, and yellow birch along with spruce and hemlock. What once were sunbaked, clear-cut mountainous slopes are now cloaked in cool shade. The sheer volume of wood growing today is evident in the larger diameters of the growing trees as compared to the pole-sized, pulp-log pipsqueaks of the '40s and '50s.

Surely our forester predecessors would admire the fine stands of hardwood saw timber today. They would also likely cringe at the prospects of threats from afar: air pollution, acid deposition, climate change, and the combined effects of invasive, exotic insect pests on an aging forest. Old white birches, teetering on the verge of 120 years old, are dying from advanced age, stress from extreme White Mountain weather, and the annual assaults of insects, namely, birch leaf miner or bronze birch borer. These native insects were better tolerated when birches were young and vigorous.

While looking back, we can't help but think ahead. The promise of *our* White Mountain National Forest is a legacy of foresight by its founders. Now it's our turn to keep promises.

>> GET OUT!

Celebrate the 100th anniversary of the White Mountain National Forest by visiting the Museum of the White Mountains' "The People's Forest" exhibit running until September 12, 2018.

See page 12 for more exciting anniversary events.

1914 The Forest Service acquires the 7,022-acre E. Bertram Pike Tract in Benton, N.H., the first tract of land acquired for the WMNF.

1918 President Woodrow Wilson signs Executive Order 1449 creating the WMNF. The forest was now 360,638 acres in size, all purchased since 1914.

1924 The Clarke-McNary Act extends the federal government's ability to purchase lands necessary for the production of timber as well as for the protection of headwaters forests.

1928 The Forest Society and the state buy Franconia Notch.

A black-and-white photo from 1932 depicts Mounts Madison and Adams taken from the "Moore Brook Reservation" by famed White Mountain photographer Guy L. Shorey. The photo is captioned "North slope of the White Mountains once threatened by axe and fire." In washed-out tones, like a grandparent's old photo album of the same era, the Shorey photos contrast with our sense of the White Mountains today. In the foreground, a much shorter and youthful forest of birch, spruce, and fir lies beneath the looming northern Presidentials.

Eighteen years later, in black-and-white images from a collection dated October 1950, the young White Mountain forest is still strikingly young. The photos appear in a collection of the NH Highway Department called "Old Back Roads" and titled with "Taking the long way home: US Route 3 from Lancaster to Groveton." The supple, arching roadside white birches, a legacy of fires and heavy logging, would become nearly as synonymous with New Hampshire as the Old Man of the Mountain.

1933

President Franklin D. Roosevelt signs an executive order to create the Civilian Conservation Corps. The purpose was "to relieve distress, to build men, and to build up the nation's forest resources." By July 1, 1933, 300,000 men had been put to work. There were 16 CCC camps on the WMNF employing thousands of young men and local workers.

1959

Kancamagus Highway is completed connecting the towns of Lincoln and Conway.

1961

During the celebration of the 50th anniversary of the Weeks Act, Forest Service Chief Richard McArdle designates six Scenic Areas, "places of outstanding or unique beauty that require special management to preserve their qualities," on the WMNF.

1964

President Lyndon Johnson signs the Wilderness Act into law.

The foreground of the 1950s-era photos includes a highway: symbol of progress. The highway promotional photos also include shiny, new American cars—what other kind of cars were there? "Sawyer Highway in Woodstock" (at right) features chrome hubcaps on Detroit-made beauties: A Ford Galaxy and a Ford Falcon parked in the foreground with the majestic Franconia Ridge in the background. A photo with the written caption "Kangamangus (sic) Highway White Mts" lacks autos but includes roadside white birches glowing golden-yellow in Kodachrome autumn splendor—a pot of gold beckoning beyond an arching yellow highway centerline. For nostalgia's sake, old cars on new highways *seem* quaint. But their hidden power would bring what is now an estimated 6 million visitors to the White Mountains annually. The 1950s photos depict evolution of New Hampshire tourism where the successors to the railroads and grand resort hotels became automobiles and roadside motels.

The Kancamagus Highway opened in 1959 when two long stretches of dead-end of road were linked, creating a connection between I-93 in Lincoln and Route 16 in Conway. "The Kanc" was paved in 1964. In the winter of 1968, it was plowed for the first time. Forests grown in on remote slopes, once laid bare by White Mountain lumbermen (as seen in the photo at left of Mount Hancock), now provided rugged scenery as seen from sticky vinyl seats of family sedans and station wagons during summer vacation or leaf-peeping excursions.

1989

Mount Washington's alpine gardens are designated as a Research Natural Area for its arctic-alpine plant community.

2002

National Audubon Society designates the WMNF as an Important Bird Area (IBA) for its "globally important" high elevation spruce-fir habitat for birds, including Bicknell's Thrush.

100 YEAR ANNIVERSARY

Totaling 750,000-plus acres, 10 Scenic Areas, and 6 Wilderness Areas, the WMNF celebrates its 100th anniversary.

2018

You can help create a vision for the next 100 years of the White Mountain National Forest. Use the hashtag #WMNFNext100 to provide feedback and to help set priorities for the future of the forest. Use #ReadyFor2118 to share where you are taking the forest, through community activities, how you promote sustainable management, or demonstrating how you'd like to see the forest enjoyed by future generations.

SOCIETY FOR THE PROTECTION OF NEW HAMPSHIRE FORESTS

SINCE 1901

FOREST SOCIETY 2018 PHOTO CONTEST

CALL FOR ENTRIES

Enter your best shots taken on a Forest Society reservation or easement land for a chance to win free passes to free passes to Lost River Gorge and Boulder Caves or a Forest Society hat, and to have your photo published in the 2018 autumn issue of *Forest Notes*.

FIRST PLACE 2017

"Gryphon Enjoying an Early Morning Paddle in Late October," by Sheila Goss. Taken at Grafton Pond Reservation.

The top three winners will be chosen in these categories:

Lovely Landscapes
Your best shot highlighting the forest, fields, waters and mountains you find on our conserved properties.

Having Fun Outdoors
People enjoying our conserved land.

Dog Heaven
Dogs having their day on our conserved land.

Flora & Fauna
Wildlife, plants or other beautiful natural resources you encounter on our conserved lands.

Young Shutterbugs
Photos of any subject taken on our conserved lands by anyone under age 18.

Submission deadline is September 15

Photos (clockwise from top left): Eliza Cowie, Kirsten Durzy, Bart Hunter, Jerry and Marcy Monkman/EcoPhotography.

Lost River Gorge and Boulder Caves, North Woodstock.

Go to **forestsociety.org/photocontest** for rules and how to enter!

Photos courtesy The Gundalow Company.

From left, River Rats campers explore the rocky shore and build fairy houses on Sagamore Creek.

A Farm for All: Late-Summer and Fall Events at Creek Farm

By Alayna Signorello

On a beautiful Saturday morning in mid-June, a group of intrepid birdwatchers, led by David Blezard of the New Hampshire Audubon's Seacoast Chapter, huddled on Sagamore Creek's shoreline, heads tilted skyward, trying to catch a glimpse of the tidal area's resident bald eagle hunting for breakfast. As if on cue, the group spies the majestic bird taking off from an island in the creek. The eagle soars high above the group with its prey tightly clenched in its talons, and in a matter of seconds, it flies out of sight. After a brief silence of appreciation, the group, beaming with excitement from their close-encounter experience, floods Blezard with an assortment of questions about eagles as they continue their birdwatching tour.

It's these invaluable moments of wonder, curiosity, and dialogue that the Forest Society is striving to create more of at its 35-acre Creek Farm reservation in Portsmouth. To continue offering these experiences at the farm, the Forest Society is collaborating with a wide range of volunteers and organizations this summer and fall to offer outdoor recreation, environmental science, and art programming for the whole family.

In July, Portsmouth's Gundalow Company returned to the farm for the second straight year of hosting its popular River Rats Day Camps for children ages 5 to 13. The camp connects youth to Creek Farm through hiking, art projects, kayaking, swimming, and fort-building. Campers can expect to see something new every day, and it's this element of surprise that Gretchen Carlson, Gundalow Company program manager, notes why kids return wanting more. "Creek Farm provides the perfect place for kids to explore the natural world. From mud flats and salt marsh to forests and fields, the variety of habitats at Creek Farm inspires exploration and encourages discovery," says Carlson.

Also at the farm this summer, Shoals Marine Laboratory offered a series of three free talks about land, air, and sea. Located on Appledore Island in the Isles of Shoals, the lab offers hand-on research opportunities for undergraduate students in marine biology and environmental science. The series culminated with a trip to Appledore with a marine mammal expert on August 12.

For those in search of exercise and mindfulness, a Taiji group, led by Liz Korabek of Gateway Taiji in Portsmouth, practiced on the shore of Sagamore Creek on Wednesday mornings in June, July, and August.

Visitors can take inspiration from Creek Farm's diverse beauty by joining local volunteer artists in late August for painting and drawing classes. Then later this fall, join the staff from Maine's Center for Wildlife, along with their animal ambassadors, to learn about wildlife conservation and rehabilitation, and why places like Creek Farm are prime wildlife habitat.

Creek Farm is a learning environment for everyone, from families looking to explore the woods and shoreline to adults seeking a meditation practice or engaging with experts in ecology and conservation. Come out to the farm to see what you can discover.

Alayna Signorello is Creek Farm's seasonal education coordinator.

Learn More

For more information about summer and fall events at Creek Farm, visit forestsociety.org/cf.

White Mountain Museum events

Join the Museum of the White Mountains this summer for exciting anniversary events. Programs are free and take place at the museum in Plymouth, N.H., unless otherwise noted. *For details, visit plymouth.edu/museum-of-the-white-mountains.*

AUGUST 22 | 5:30-7 P.M.

Going with the Flow: Conserving Resilient and Connected Landscapes

To track a rapidly changing climate, plants and animals must relocate to survive. In 2016, The Nature Conservancy (TNC) completed an analysis of "Resilient and Connected Landscapes for Terrestrial Conservation." This first-of-its-kind study maps climate-resilient sites, confirmed biodiversity locations, and species movement areas (zones and corridors) across eastern North America. The study uses the information to prioritize a conservation portfolio that naturally aligns these features into a network of resilient sites integrated with the species movement zones, and thus a blueprint for conservation that represents all habitats while allowing nature to adapt and change. Dr. David Patrick, TNC director of conservation programs, will provide an overview of the approaches used in developing this conservation portfolio and discuss how the data layers can be used to identify priorities for different conservation tactics, including land protection and mitigating the effects of roads. The presentation will finish with looking at the role of northern forests, including the White Mountains, in helping to conserve biodiversity at a continental scale in a changing world.

AUGUST 29 | 2–4 P.M.

Ossipee Pine Barrens Fire Ecology Field Trip

With support from the WMNF, TNC has been working for over 25 years to protect and restore the globally rare Ossipee Pine Barrens. Join TNC's Director of Stewardship & Ecological Management Jeff Lougee to learn about the unique plants and animals of the pine barrens, and how prescribed fire is being used to maintain the ecosystem. The 2-mile hike will explore an area managed with controlled burning.

Space is limited. For details and to register, e-mail Rebecca at rrenman@plymouth.edu or call 603-535-3210.

5 Hikes in 5 Weeks Autumn Series

Join the Forest Society this fall for our popular guided hiking series. *Registration required. Detailed directions and parking instructions will be sent with registration confirmations. To register, visit forestsociety.org/events.*

SEPTEMBER 18 | 2-5 P.M.

Lost River Gorge, North Woodstock

Help us celebrate the White Mountain National Forest's 100th birthday at the Forest Society's oldest property. This special event features guest speakers from the White Mountains Attractions Association, Plymouth State University, Museum of the White Mountains, and the U.S. Forest Service. Tour the gorge's stunning scenery, geology, and rich cultural history from 3 to 4:30. Refreshments will be served from 4:30 to 5. A reception will follow.

Adults: $16. Children (12 and under): $12. Fee includes Lost River Gorge group admission fee.

OCTOBER 6 | 10 A.M.–1 P.M.

Moose Mountains Reservation, Middleton

Hike 1,178-foot Phoebe's Nable on this 2.5-mile loop hike. You'll walk by cemeteries and historic cellars holes in the heart of this beautiful 2,475-acre reservation, learning about how the property was conserved and other interesting natural history as you go.

Adults: $8. 18 and under: Free.

OCTOBER 10 | 10 A.M.–1 P.M.

Muster Field Farm, Sutton

Join Steve Paquin of Muster Field Farm, forester Tim Wallace of River Edge Forestry, and Forest Society staff on this easy walking tour of the 252-acre Bob Bristol conservation easement held by the Forest Society. Historic Muster Field Farm is a working farm with extensive gardens, seasonal vegetables, open fields, and restored historic buildings including the Matthew Harvey Homestead. Learn about forest management goals, wildlife habitats, and recreation. Plan ahead to visit the farm stand for seasonal produce.

Adults: $8. 18 and under: Free.

OCTOBER 18 | 10 A.M.–1 P.M.

Monson Village, Milford

Take a step back in time at the 270-acre Monson Center. Visit the restored Gould Clockmaker's Shop to meet Monson descendent Russ Dickerman and hear the story of "Monson Center," which lasted from 1737 to 1770 as the earliest, inland Colonial-era settlement of Dunstable, part of the Massachusetts Bay Colony. The walk will visit cellars, a beaver pond, and a seasonal nesting rookery for Great Blue Herons.

Adults: $8. 18 and under: Free.

OCTOBER 28 | 10 A.M.–1 P.M.

Madame Sherri Forest, Chesterfield

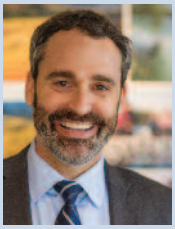
Just in time for Halloween, join us for a haunted-history tour of the Madame Sherri Forest. We'll visit the site of Madame Sherri's former Château-style castle, learn about the property's colorful cultural and unique natural history, and hike to Indian Pond along the Ann Stokes Loop Trail.

Adults: $8. 18 and under: Free.

For a complete list of summer and fall events, check out forestsociety.org/events.

Register for the Forest Society's 2018 Annual Meeting
Saturday, September 29 at Southern New Hampshire University, Manchester

KEYNOTE SPEAKER:



Andrew Bowman, President of the Land Trust Alliance

As president of the Land Trust Alliance, Bowman provides national leadership for a network of more than 1,200 conservation organizations with 12,000 staff, 15,000 board members, and 5 million members. He works to advance legislation and lobby Congress to increase funding for conservation and manages $4 million in grant-making each year. Bowman leads a dynamic executive team and manages the board of directors and three advisory councils.

Join us for afternoon field trips, an excellent dinner, and an evening presentation at Southern New Hampshire University in Manchester. Field trips options are below. Please see back cover for registration details.

1. "Something Wild" on The Merrimack River
1–3:30 p.m.

Join NHPR's Something Wild co-hosts Chris Martin and Dave Anderson for a look at the wild side of downtown Manchester. Learn about the history of the river, the mill buildings, and the return of wildlife to the heart of the city. We'll visit the Manchester Historic Association Millyard Museum in historic Mill No. 3 and Amoskeag Falls. Participants will also learn about urban raptors, namely, Peregrine Falcons and Bald Eagles, and the fish ladder at the falls, where more than 15 fish species inhabit the river today.

A half-mile walk along the Riverwalk in addition to walking at the museum and falls. Museum fees apply.

2. Forest Management and Research at Whittemore Reservation, Lyndeborough
1:30–3 p.m.

Forest Society Forester Gabe Roxby will show participants the results of a recent timber harvest conducted in winter 2017 on the 118-acre Whittemore Reservation. The timber harvest was a part of a Natural Resources Conservation Service cost-share contract and a site for two separate research studies. The first study examined how quickly the timber in blown-over white pines are invaded and degraded by bark beetles and sap-staining fungus. The other study measured cut trees to determine how much wood is utilized by mills and how much is left in the woods.

A half-mile hike on skid trails with lots of stops to talk about the reservation.

3. Protecting Regional Drinking Water Supply at Manchester Water Works
1:30–3:30 p.m

Forest Society Vice President for Land Conservation Brian Hotz and Manchester Water Works (MWW) Forester John O'Neil will talk about the protection of drinking water supplies during a visit to the proposed 1,870-acre Tower Hill Pond Conservation Easement, a portion of the 8,000 acres owned by MWW. Despite being located only a few miles from downtown Manchester, the tract contains miles of undeveloped pond shoreline, dozens of vernal pools, hundreds of acres of prime wetlands, and habitat for rare or threatened plants and animal species. Miles of internal trails are used by the public for mountain biking, hiking, dog walking and running.

An easy 3.9-mile loop hike around Tower Hill Pond.

4. The Hooksett Riverwalk Trail
2:30–3:30 p.m.

With direct undeveloped frontage on the Merrimack River, the 116-acre Hooksett Riverwalk Trail provides community open space and protects water quality and wildlife habitat along the Merrimack. The Conservation Commission along with local Boy Scout Troops have collaborated over the last few years to improve trails and bridges throughout the property. The Hooksett Conservation Commission and students and teachers at Hooksett Elementary School are working on an interpretive trail designed by students to complement the existing trails.

A flat, easy hike, approximately one mile round-trip, on a trail network along the river.

5. Tour of The Treehouse Collaborative at the SNHU Arboretum
2:45–3:45 p.m.

Join us for a special tour of SNHU's outdoor classroom, The Tree House Collaborative. This on-campus southern New Hampshire pine and hardwood forest is typical, yet notable, in close proximity to downtown Manchester. Students and staff have documented 25 tree and woody plant species to qualify for accreditation as an arboretum. Cultural history features include stone walls, a white pine pasture tree, and the remains of early woods roads. The outdoor classroom has been almost entirely community funded to build out trails and provide educational tools including data loggers, monitors, and game cameras.

An easy one-mile hike on flat trails and woods roads.

>>> Registration deadline is September 21. Please register early as space is limited. Detailed driving directions and meeting locations will be emailed to registrants. See back cover for registration options. Visit forestsociety.org/2018-annual-meeting to register and for more details.

The Forest Society thanks the following businesses for their generous support.

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American International Group, Inc.
Ameriprise Financial Employee Gift Matching Program
Amica Companies Foundation
Autodesk Foundation
Automatic Data Processing, Inc.
BAE Systems Employee Community Fund, Inc.
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CA, Inc. Matching Gifts Program
Cadence Design Systems, Inc.
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Dell Employee Giving Program
ExxonMobil Foundation
FM Global Foundation

Matching Gift Companies (continued)

Gartner, Inc.
GE Foundation
Goldman, Sachs & Co.
Google, Inc.
Graham Holdings Company
Grove Street Fiduciary, Inc.
Hewlett Packard Company Foundation
The Home Depot Foundation Matching Gift Program
Honeywell International, Inc.
IBM Corporation
Intel Corporation
Jefferies, LLC
John Hancock Financial Services, Inc.
JPMorgan Chase Foundation
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SOCIETY FOR THE PROTECTION OF NEW HAMPSHIRE FORESTS
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And many thanks to those businesses who give less than $250.

The Forest Society…Where Conservation and Business Meet

For information on business memberships, please contact Susanne Kibler-Hacker at (603) 224-9945 or via email at skh@forestsociety.org.

Photos this page and following by Jerry and Marcy Monkman/EcoPhotography.

The Forest Society's latest conservation easement at Emery Farm protects 1,700 feet of scenic frontage on Route 4 and 2,500 feet of tidal frontage on the Oyster River and Smith Creek.

Protecting Memories at Emery: Latest Easement Conserves Food and Habitat

By Ryan Young

Emery Farm in Durham has been a part of the fabric of New Hampshire's seacoast for generations; in fact, it's been run and operated by the same family for more than 350 years. The farm store sells fruits, vegetables, pumpkins, Christmas trees, and local goods made by surrounding artists. This year, the Forest Society bought an additional 36-acre conservation easement from landowners David Hills and Catherine McLaughlin-Hills, permanently protecting the agricultural land and its important river frontage along Oyster River.

"Our family is happy to see this easement come to completion. We have always tried to make the right decision for the land, the environment, our children, and future generations," says Hills. "We are humbled with the opportunity to keep land in its present state. This is the land's natural state, and honoring the land has been respected by native cultures for many generations before our family settled here. Protecting Emery Farm from development and allowing it to continue its long history of farming, timber harvesting, and being a gathering place for locals is the right decision," he notes. "We are very happy with the outcome."

The Hills graciously sold the easement at a price significantly below market value. The conserved tract of land includes the fields and pasture on the southern side of Route 4 across from the farm store and

With its recent conservation easement at Emery Farm, the Forest Society protected important land along the tidal Oyster River (left) and land surrounding the property's local-favorite farm stand.

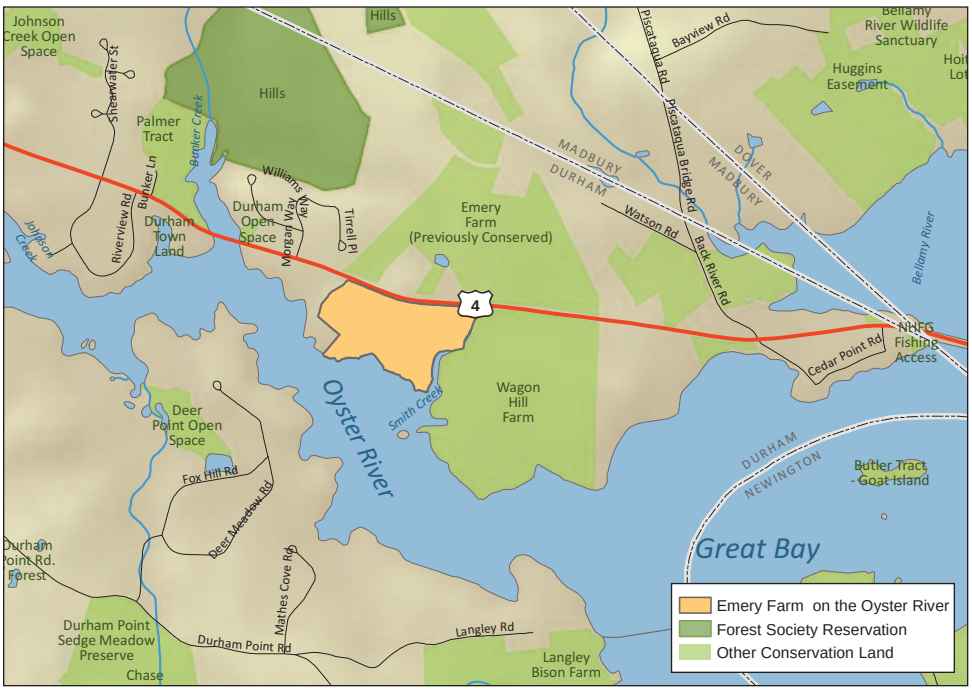
next to Wagon Hill Farm. The easement helps to protect 1,700 feet of scenic frontage on Route 4 and 2,500 feet of tidal frontage on the Oyster River and Smith Creek.

This latest easement is the third and final phase of the effort to protect the historic farm. In 2003, the family conserved a 129-acre woodlot that is now owned and managed by the Forest Society. Then in 2006, the Hills conserved 59 acres of agricultural land surrounding the store with a separate Forest Society-held conservation easement. The Great Bay Resource Protection Partnership, the Nature Conservancy, and the Forest Society have partnered with the Hills family on each of these transactions.

David Hills is the tenth generation of his family on this farm where he'll still own the farm and can manage it for agriculture, forestry, recreation, and wildlife. He has leased the land to Bill and Brad Towle for the last 27 years. This relationship will continue, along with leasing the farm store to Holly Philbrick Craig, who started leasing from Hills last year.

The location of this parcel upstream from Great Bay Estuary along the tidal Oyster River and Smith Creek made the protection of this land a high priority for the Forest Society. The easement will also help keep the land used for agriculture, preserving the vital connection between the community and local food.

The Nature Conservancy of New Hampshire and the Great Bay Resource Protection Partnership have been instrumental partners with the Forest Society in securing the conservation easement and raising project funding. The easement was purchased with significant financial contributions from our partners, including the USDA Natural Resources Conservation Service, the New Hampshire Land and Community Heritage Investment Program, the Town of Durham, the Thomas W. Haas Fund of the New Hampshire Charitable Foundation, the Lewis Family Foundation, the Great Bay Resource Protection Partnership, Great Bay 2020, and more than 50 contributions from Forest Society members.



Ryan Young was formerly the strategic projects manager for the Forest Society.

Left: *Bill Lee sits next to an ancient white oak tree on the slopes of Leavitt Mountain. The old tree serves as a porcupine den for resident porcupines.*

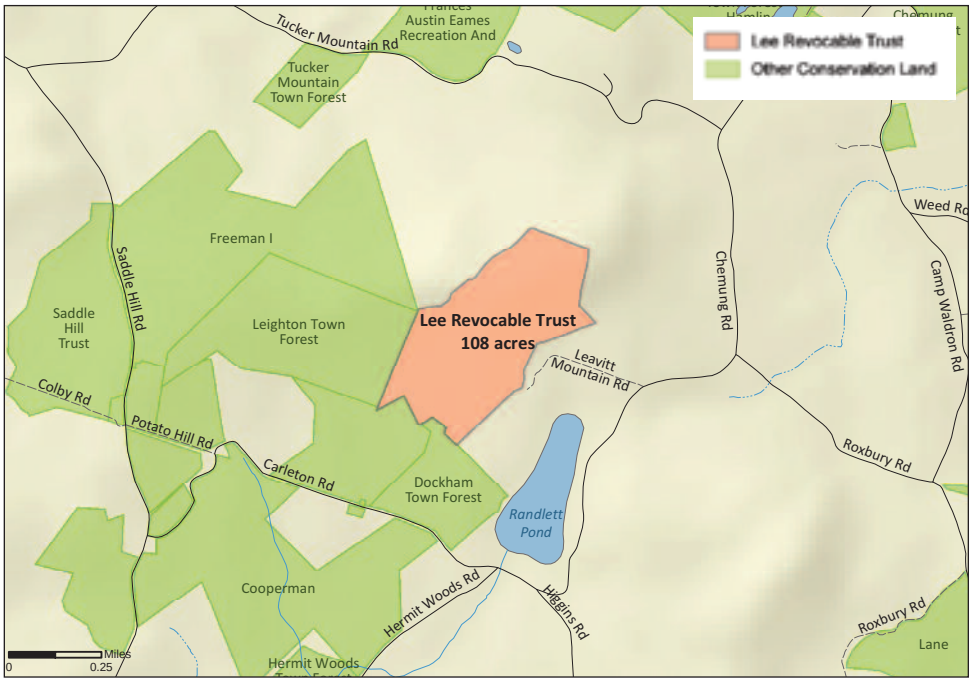
Right: *Tom Howe inspects a small stand of red oaks on Leavitt Mountain.*

Leaving it Alone: Meredith Mountaintop Conserved Forever

By Tom Howe

The top of Leavitt Mountain, the highest point in Meredith, N.H., has been conserved forever thanks to the generosity of Bill and Linda Lee, who placed 109 acres under a conservation easement with the Forest Society in 2018.

The addition of this easement with four other previously conserved tracts of land creates a conserved block of 566 acres in the Chemung District. The easement has many special features, including a stand of rare, old red spruce on the mountain's ridgeline, a band of ancient red oaks just off the summit, ledges favored by bobcats in winter, and 1,400 feet of frontage along a beaver pond frequented by great blue herons.



Climbing Leavitt Mountain is family ritual. From their house at the end of Leavitt Mountain Road, the trails to the top start right out their back door. Bill and Linda's kids hike it regularly, and now when they arrive for family gatherings with their own kids in tow, another generation is making a beeline for the top.

"Our love of this place prompted us to make this donation to the Forest Society," says Bill. "Our spirits reside here. It warms our hearts to see our children come back with their own kids to enjoy the land, forest, and wildlife."

Tom Howe is the senior director of land conservation at the Forest Society.

A Couple Committed to Conservation

By Diane Forbes

Henry "Hank" and Freda Swan of Lyme, N.H., cared deeply about conserving New Hampshire's forests and landscapes. They demonstrated their commitment to conservation through many years of membership and service to the Forest Society, to numerous other conservation organizations, and through public service to their community, locally and statewide.

As president of Wagner Forest Management, Ltd., a regional leader in sustainable forest management of more than 2 million acres of forests in New England and Canada, Hank led the company for 20 years with professionalism, knowledge, and dedication that was valued and respected by many. Hank served on many boards in his time, including working quietly, yet persuasively, on the Forest Society's board of trustees.

Freda also served for several years as a Forest Society trustee and as chair of the Land Protection Committee, supporting staff and their projects with enthusiasm and constructive comments. She was a stalwart of the committee, employing a straightforward, no-nonsense approach, and was a very knowledgeable leader.

Hank and Freda understood the urgency of permanently protecting cherished landscapes with partner organizations before development took hold.

In the late '80s, Hank encouraged the Forest Society to move quickly to protect lands surrounding Big Island on the southern end of Lake Umbagog in Errol, which subsequently helped to create the Lake Umbagog National Wildlife Refuge.

In 1986, Freda successfully convinced 15 land-owning neighbors on Breck Hill Road in Lyme to donate conservation easements on approximately 400 acres of land to preserve the agricultural soils and scenic qualities of the area.

Hank and Freda Swan (at right) worked tirelessly to conserve special places, including land surrounding Lake Umbagog's Big Island (above).

New Hampshire is the state we all can cherish because of the selfless and tireless efforts of stewards like Hank and Freda. Before they both passed away in 2017, Hank and Freda provided bequests to the Forest Society and other conservation organizations that share their conservation philosophy. The Forest Society is grateful for Hank and Freda's 40-plus years of guidance, support, and especially for their legacy gift, which will enable us to continue the conservation and stewardship of the lands they loved.

Diane Forbes is the senior director for development at the Forest Society.

LEAVE A LEGACY

If you would like to consider the Forest Society in your estate planning, please contact Susanne Kibler-Hacker for a confidential conversation by calling 603-224-9945 or emailing skh@forestsociety.org.

Nancy and Carl Martland

Sugar Hill, N.H.

Members since 1999

Nancy and Carl are among the 10,000 members who helped the Forest Society protect more than one million acres in New Hampshire. To join them, return the envelope in this issue or contact Margaret Liszka at 603-224-9945.

Photo by Jeremy Barnaby/www.picturenh.com.

"We've both loved New Hampshire's landscapes since we were kids enjoying family vacations camping and hiking in the White Mountains. Carl climbed his first 4,000-footer when he was eight. Forty-two years later, with just a few left to climb, he planned to finish the job on his fiftieth birthday. We spent two weeks in the Franconia area bagging peaks, discovered Sugar Hill, and fell instantly in love. We found something we thought was gone forever: pristine farms and fields, preserved historic buildings and landscapes, and spectacular mountain views. We bought an old farm there in 1997 and a new chapter in our lives began.

We didn't expect to be called to activism by our land, but when a subdivision was planned for the woods around our neighborhood, we got together with our neighbors, bought the land, placed it under easement, and went on to form the Ammonoosuc Conservation Trust. We were thrilled to be involved in that successful local effort.

When Northern Pass threatened the conserved lands and beautiful landscapes of the North Country, the Forest Society leapt to their defense, and we were happy to join in. A conservation easement is only as good as the determination to defend it. The Forest Society's unwavering commitment to defending its lands and the landscapes of New Hampshire will inspire us for the rest of our lives. We are proud to be a part of its work."

SEC Shoots Down Northern Pass Transmission Line

By Jack Savage

For those in the room who had been fighting for eight years against a proposed scar across the Granite State known as Northern Pass, it was hard to believe that the end might be truly near. On Thursday, February 1, the New Hampshire Site Evaluation Committee (SEC) voted unanimously to deny a Certificate of Site and Facility. The subcommittee hearing the case subsequently adjourned.

"Despite the largest application in the history of the SEC and more than 70 days of testimony, Northern Pass could not overcome a fundamentally flawed concept," says Jane Difley, Forest Society president/forester.

During the SEC deliberations that day, the subcommittee members weighed in informally about where each of them stood regarding one of the key standards the applicant must prove. The statute says "The site and facility will not unduly interfere with the orderly development of the region…"

The applicant has the "burden of proof" that the proposed project won't unduly interfere.

It was unanimous—all seven concluded individually that Northern Pass did not meet the burden of proof based on the record. After a lunch break, the subcommittee returned and ultimately voted 7-0 to deny the certificate.

Despite the largest application in the history of the SEC and more than 70 days of testimony, Northern Pass could not overcome a fundamentally flawed concept.

Written Decisions

At the end of March, the SEC issued its formal 287-page written decision to deny the application, summarized at the end:

> *The Applicant has failed to prove by a preponderance of the evidence that the site and facility, as proposed, will not unduly interfere with the orderly development of the region. In coming to this conclusion, we considered all relevant information regarding the proposed Project, including potential significant impacts and benefits.*
>
> *In order to issue a certificate, this Committee would have to find four things: (i) the Applicant has adequate financial, technical, and managerial capability to assure construction and operation of the Project in continuing compliance with the terms and conditions of the Certificate; (ii) the site and Project will not unduly interfere with the orderly development of the region with due consideration having been given to the views of municipal and regional planning commissions and municipal governing bodies; (iii) the site and Project will not have an unreasonable adverse effect on aesthetics, historic sites, air and water quality, the natural environment, and public health and safety; and (iv) issuance of a certificate will serve the public interest. See NH RSA 162-H:16, IV. As we concluded that the Applicant did not meet its burden in demonstrating that the Project would not unduly interfere with the orderly development of the region, we could not grant a Certificate even if the Subcommittee were to find in favor of the Applicant on the remaining three prongs. There is, therefore, no need to go further. The Application for a Certificate of Site and facility is DENIED.*

Even a preliminary reading of the decision to deny Northern Pass revealed the extent to which Eversource failed to make their case under the law. And to the extent that the broad opposition—individuals, communities, and organizations like ours—successfully argued was what anyone with common sense already knew: that a transmission line of this scope and scale does not belong in New Hampshire.

Reverberations in Massachusetts

Eversource and Hydro-Québec, partners in the Northern Pass project, had been counting on a guaranteed contract with the state of Massachusetts for the electricity that would have been delivered over the proposed transmission line. But soon after the New Hampshire SEC decision, Massachusetts pivoted to an alternative project proposed in Maine.

This statement was posted on the Mass-RFP website on March 28: "The Electric Distributions Companies ("EDCs") have terminated the conditional selection of the Northern Pass Hydro project ("NPT Hydro"). The EDCs are in the process of concluding contract negotiations with the New England Clean Energy Connect 100% Hydro project ("NECEC Hydro") and intend to execute agreements with NECEC Hydro for submittal to the Department of Public Utilities, assuming negotiations are concluded successfully."

NECEC is a partnership between Hydro- Québec and Central Maine Power. Eversource's loss of that contract makes any potential comeback on the part of Northern Pass even more difficult.

Avenues for Appeal

Following the written SEC decision, Eversource exercised its right to file a Motion for Rehearing at the SEC. On May 24, the SEC took up that Motion, voting unanimously to deny that request.

The written decision denying the Motion for Rehearing was then issued by the SEC on July 13, triggering a 30-day period in which Eversource has the right to appeal the SEC decision to the New Hampshire Supreme Court.

Eversource has indicated publicly that it intends to appeal to the Supreme Court, and those opposed to the Northern Pass proposal, including the Forest Society, have pledged to fight on. If the state Supreme Court would take an appeal, it could be 12 to 18 months before any ruling.

"Northern Pass was a fundamentally flawed project and we believe the SEC made the right decision to deny a permit, and were right to deny the motion for rehearing. We will continue to defend New Hampshire's landscapes," said Difley. The Forest Society continues to solicit donations to fund the legal battle.

The Forest Society intervened in the SEC Northern Pass docket and has opposed Northern Pass as proposed throughout the seven-and-a-half-year saga, and is represented in the proceedings by BCM Environmental & Land Law, PLLC with Amy Manzelli as lead attorney.

For updates, visit forestsociety.org.

Jack Savage is vice president of communications and outreach at the Forest Society.

Never Doubt

By Susan Schibanoff

In October 2010, New Hampshire residents were stunned by an announcement in the local newspapers that the state's largest electric power company (a subsidiary of New England's largest utility) had teamed with Hydro-Québec, the crown corporation responsible for making Canada the world's second largest producer of hydropower, to build a new visually-jarring, high-voltage power line across our land and through our beloved, iconic landscapes. Project sponsors informed us that the new line, vaguely named "Northern Pass," would be operational in 2013. It sounded like a fait accompli. Yet, on February 1, 2018, New Hampshire state regulators unanimously voted to deny a permit to Northern Pass.

What happened? Why had these powerful corporations not prevailed? Margaret Mead's famous dictum "Never doubt that a small group of thoughtful, committed citizens can change the world" offers part of the answer. Her belief that lasting transformation comes from the ground up, that power lies in the people, not in governments or in corporations, is widely shared. But Mead never spelled out the means by which such latent power can be activated. The grassroots opposition to the Northern Pass project provides one model. Self-education, a very large tent, and a deeply embedded common cause all played key roles.

Photo by Jerry and Marcy Monkman, EcoPhotography.

Posted homemade signs opposing Northern Pass were hard to miss in the North Country.

Soon after their initial announcement, company representatives began appearing in town halls on the proposed route to promote the project in "information" meetings that imparted precious little actual information. In particular, the project's net benefit—advantages minus the disadvantages—was not discussed. Nevertheless, some citizens quickly gave their consent through apathetic silence, "done deal" fatalism, or outright support—the latter always in return for the promise of gain. But another group of citizens withheld their consent in order to study the proposal. It soon became clear that Northern Pass was not in New Hampshire's interests, and the project would cause grave harm.

In December 2010, people opposed to Northern Pass began presenting information meetings, also held in town halls. (We had no funding.) These tutorials

Never Doubt continued on page 23.

Photo by Jerry and Marcy Monkman, EcoPhotography.

The Forest Society joined forces with NH Fish and Game to preserve Moose Mountains Reservation in Middleton and Brookfield.

New Commission to Study the Effectiveness of Fish and Game

By Matt Leahy

During its 2018 session, the New Hampshire Legislature approved Senate Bill 48, legislation to establish a commission to study the efficiency and effectiveness of New Hampshire's Fish and Game Department. The Forest Society supported SB 48, and, subsequently, Governor Sununu asked the Forest Society to represent the land conservation community seat on the commission.

Some may ask why the Forest Society is interested in the future of Fish and Game. The answer to this question can be found in the commonalities of our missions: The Forest Society's mission is to "perpetuate the forests of New Hampshire through their wise use and their complete reservation in places of special scenic beauty." In keeping with New Hampshire tradition of making private lands accessible for hunting and fishing, we encourage these sports on our forest reservations. The mission of Fish and Game is to act as the guardian of New Hampshire's fish, wildlife, and marine resources.

Fish and Game's strategic plan notes that "New Hampshire has a wide range of naturally occurring habitats and healthy, naturally functioning ecosystems," and it directs the Department to "continue to conserve and protect priority/critical habitat through fee acquisition and easements." Protecting New Hampshire's landscapes has always been the motivating force behind the Forest Society's work. With the direct support of Fish and Game, the Forest Society has been able to successfully complete a number of important land protection projects around New Hampshire. We are, in other words, partners.

However, over time, the Department's statutory responsibilities have grown to include 1) managing Fish and Game properties, including 76,751 acres of wildlife management areas and conservation easements; 2) protecting the state's game and nongame wildlife resources and their habitats; 3) enforcing all laws and rules governing Off-Highway Recreational Vehicle (OHRV) use, in addition to all laws and rules governing fish, wildlife, and marine resources; 4) conducting education programs and training workshops; 5) overseeing both marine and inland fisheries; and 6) conducting search-and-rescue operations.

These tasks represent a major expansion of duties since the Legislature established the Fisheries Commission in 1865 in order to restore migratory sea fish. The challenge is that Fish and Game is mostly self-funded, and the source of these funds is not keeping pace with the cost of the services they provide. As the Department

succinctly stated in its 2017 Biennial Report, "Responsibilities continue to increase, and the cost of doing business goes up, but our revenue does not." While Fish and Game does receive some funding from New Hampshire's General Fund ($750,000 in both FY 2018 and 2019) the revenue to support its $31.5 million budget comes mostly from hunting and fishing license fees and federal sources such as Wildlife and Sport Fish Restoration funds.

The Forest Society believes the Department's current funding structure is not sustainable. Consider what may happen if the number of people who buy hunting and fishing licenses remains flat, if health care costs for both active and retired Fish and Game employees continue to rise, or if federal funding, which accounts for approximately one-third of its budget, shrinks?

The consequences from these tight budgets surely will weaken the Department's capacity to steward the State's wildlife resources, to manage public wildlife conservation lands, to enforce OHRV laws, and to lead search-and-rescue operations. The state is already feeling the effects of this situation. For example, as of July 1, 2018, Fish and Game has 34 conservation officers, plus 4 more who are in training, even though it is authorized to have 50 field officers. This understaffing of a position that really is the face of the agency is stressing its ability to enforce Fish and Game laws and regulations, including those dealing with OHRV laws and rules.

The State needs to act now and the SB 48 Study Commission is the vehicle to do this. The Forest Society believes the study represents an opportunity to achieve two important outcomes: First, it will better inform the public about the challenges facing Fish and Game. After all, the public needs to better appreciate the many benefits to our state's quality of life that come from a well, and broadly, supported wildlife agency. Second, it will bring together the hunting and fishing communities with the stakeholders interested in Fish and Game's responsibilities beyond the stewardship of fisheries and game species. The process outlined in SB 48 will facilitate this collaborative process.

While this study commission is not the first attempt in recent years to review the operations of the agency, we are hopeful it will be the last. It is time to find workable solutions for the Department's long-term sustainability.

Matt Leahy is the Forest Society's public policy manager.

Never Doubt continued from page 21.

usually featured four or five speakers who volunteered their time to educate others on various aspects of the project. Presenters researched the esoteric subjects related to energy production, transmission, and markets, and they passed on this knowledge to anyone who wanted to listen and learn. These meetings continued through 2015 and culminated in the work of the pro se intervenors in the New Hampshire Site Evaluation Committee "trial," who frequently knew more about the facts than did the out-of-state experts hired by Hydro-Québec.

The grassroots educational outreach was truly open to all. It encouraged a nonviolent, peaceful response based on informed opinion; and it remained strictly nonpartisan. As the national political climate grew increasingly bitter, not once did project opponents engage in partisan backbiting. Our ranks swelled and our tent constantly expanded to include everyone.

Social scientists would say that our approach to resistance succeeded by erecting no barriers to participation, ideological or physical. Young and old, male and female, rich and poor, people of all political persuasions felt both able and comfortable to join in. Airline pilots who'd flown all over the world sat side by side with dairy farmers who'd never left their home county—and each was equally valued for their contribution. There was no party line, no approved method of opposition or message, only a common color: blaze orange. How to express resistance was left to individual imagination. Creative approaches blossomed: hand-made yard signs, banners, bumper stickers, a giant helium-filled balloon, buttons, hats, postcards to politicians, T-shirts, songs, documentaries, op-eds and letters to the editor, petitions, marches, one sit-in, and even an elaborate installation across the border in Québec.

Such heterogeneity fostered broad participation, but it ran the risk of fragmentation. What held us together and kept us motivated for over seven long years of resistance? Simply put, we looked out our windows every day and saw what we were fighting for: the forest. A central defining feature of those who choose to live in New Hampshire is that we love "the forest" in the myriad ways it manifests itself: the mountains, the landscape, the natural beauty, the recreational opportunities and tourism, the rural life, the escape from cities.

Two centuries ago, New Hampshire was the first state whose wild beauty attracted the attention of the "father" of American landscape painting, Thomas Cole, who clambered through Crawford Notch in 1827 to sketch and then paint the area's natural wonders. A century ago this summer, New Hampshire was the first of only three states in the Northeast to create a national forest that preserves our landscape. To rephrase Margaret Mead, no one should ever have doubted that, in this century, New Hampshire's people would come together to defend the forest. It is both our legacy and our future.

Susan Schibanoff, professor emerita at the University of New Hampshire, is making plans to collect the documents and artifacts associated with opposition to Northern Pass in an archive based in Sugar Hill and her hometown of Easton.

Blazing Her Own Trail

By Carrie Deegan

Hannah Boisvert never envisioned working for the Society for the Protection of New Hampshire Forests. A native of Concord, N.H., Boisvert had heard of the Forest Society, but she was unaware of any internship opportunities that exist within the organization nor did she think it would be the right fit for her. "My friends used to ask me what kind of job I want when I'm older, and I'd say, 'I'm not sure, but definitely not for a nonprofit!'" Boisvert thought nonprofit work was all about calling people to beg for money, but after interning with the Forest Society for two summers, she cheerfully admits her fears may have been misguided.

Boisvert has always spent time outdoors. Her parents often brought her and her sister camping and hiking when they were growing up. So when she was hired last summer as an outreach intern on Mount Major, she felt right at home planning and leading hikes on one New Hampshire's most iconic mountains. "The best part of the job was just being out there talking to people," she says. "Mount Major attracts so many different kinds of people, and everyone has their own reasons for being there." When she wasn't interacting with visitors, Boisvert helped the Forest Society beta-test its new browser-based interpretive hiking guide for smart phones, New Hampshire Forest Explorer (read "A Major Moment" on the following page).

This summer, the Wheaton College senior returned as a business intern to learn more about the inner workings of the Forest Society. Boisvert is designing constituent surveys, marketing upcoming events, and conducting research for a documentary film. "Hannah is terrific," raves Diane Forbes, senior director for development, who's been working with Boisvert to create a robust database of potential corporate partners and sponsors. "It's amazing how quickly she has been able to work through the data," Forbes says. As long as she is learning and experiencing new things, Boisvert says she is happy. "I've been working on projects I never could have suggested to my [college] advisor, and I can't believe how much I have already learned in the first few weeks of summer," she notes.

Photo: Forest Society Files

Hannah Boisvert (right) and Natalie Duncan pose for a photo during their Mount Major internship last summer.

After graduating, Boisvert aims to find a job that combines her background in business administration with her passion for the environment. On her first day as an intern this summer, Boisvert learned that Forest Society President/Forester Jane Difley also started at the organization as a summer intern, developing a forest management plan for Gap Mountain Reservation in Jaffrey and Troy, N.H. "That was surprising, but also very cool to hear," Boisvert says. "It gives me so much hope for my future." And if all goes according to plan, it will be a future working in the field of conservation.

Carrie Deegan is volunteer and community engagement manager at the Forest Society.

The Forest Society is committed to providing enriching internship experiences for students and others. To learn more about the Forest Society's internship program, visit forestsociety.org/internships.

A Major Moment: Mount Major's New Digital Experience

Story and Photo by Emily Lord

The mountain that everybody hikes is now a place where everybody can learn thanks to the Forest Society's New Hampshire Forest Explorer for smartphones. Created in 2017 to promote visitor education and recreation experiences at Forest Society reservations, including Alton's Mount Major and Portmouth's Creek Farm, Forest Explorer is your one stop shop for deepening your understanding of the world around you.

Forest Explorer makes it easy to gain access to enhanced trail and informative maps right from the trailhead. Simply load the Forest Explorer webpage (forestsociety.org/fe) using the browser on your phone and then enter your email address to get started. Before embarking on a hike of 1,785-foot Mount Major, users can choose from four unique trail experiences, all of which track your location as you hike and allow you to share your trip on social media. Here's a primer on what you'll find in the Mount Major Forest Explorer.

1. Seeking is Fun

Families with kids or even those who are kids at heart will enjoy the Mount Major digital scavenger hunt. Participants try to find points of interest along the trail while hiking and using the Forest Explorer digital map. Make it a friendly competition to see who can find the next point first.

2. Are We There Yet?

Try the "Just the Maps" experience to track your progress during your hike of Mount Major. Hikers can identify where they are on the trail and how far they have to go to reach the summit. What better way to stay motivated? *Pro tip:* Make sure to refresh the "Just the Maps" webpage to see your current location.

3. Wonder No More

Why did a steel cable end up in a tree? Who built the stone hut on the summit? Why do some pine trees cluster branches on one side of their trunks? Try the "History, Forests, and Wildlife" experience, to discover the answer to these questions and to learn about many other fascinating points of cultural and environmental history along the trail. Highlights include many overlooked sites in addition to many prominent landmarks sure to spark your curiosity. *Pro tip:* No signs or markers are along the trail to signify the points of interest, so be prepared to see the next landmark by clicking on the upcoming waypoint to read the description and see a photo.

Online

Learn more about the Forest Reservation Challenge at forestsociety.org/challenge.

4. Take it Up a Notch

Reading about different trail experiences will help you pick the best route for your interests. Maybe you want to avoid peak crowds and try a quick hike after work. Choose the "Sweat, Share, and Compare" experience to discover the quickest and most heart-thumping route up the Boulder Trail. The points of interest in this experience include good places to take a water break, where to get your sprint on, and places to enhance your exercise with a few fun facts and features you'll want to share with friends.

5. Keep Track

Whether you're trying to complete the Forest Society's Forest Reservation Challenge or looking to recommend a trail to a friend, Forest Explorer users can log in anytime to see past activities.

Emily Lord is digital outreach manager at the Forest Society.

BETA TESTERS WANTED!

Do you have a smartphone and love to hike? This fall, help the Forest Society beta test Forest Explorer at other properties. No experience is necessary, but a background in digital media and technology is helpful. For details, visit forestsociety.org/volunteer or email Emily Lord at elord@forestsociety.org.

The Forest Calcium Cycle

Story and Photos by Dave Anderson

Tom Howe, Forest Society senior director of land conservation, is a reliable provider of compelling and sometimes gruesome natural objects. Recently, Tom left a weathered hollow femur, likely from a deer, on my desk for me to study. The bone was pockmarked with gouges from coyote canines, the fang-like pointed teeth, and smaller parallel scrapes from mice and possibly porcupine incisors, the chisel-shaped front teeth. In early spring, antlers, claws, and teeth of winterkilled animals emerge from beneath the melting snow providing rodents—mice, chipmunks, and squirrels—as well as larger mammals—raccoons, opossums, and coyotes—with a critical source of concentrated nutrients after a harsh winter.

In a way, antlers and bones are the forest equivalent of a Flintstones Chewable Multivitamin for wildlife. Antlers are made up of protein, fat, fiber, and hard-to-obtain minerals, namely, calcium and phosphorus. Calcium is vital for teeth and bone and supports nerve function, muscle contraction, vision, blood clotting, and lactation. Phosphorus is important for teeth and bone growth and helps produce protein for growth, organ function, and energy storage.

Speaking of *The Flintstones*, these minerals also originate from a place called "bedrock" and are distributed through an elegant, natural recycling system. Calcium and phosphorus are originally obtained by herbivores, including deer and moose, eating bark, twigs, buds, and leaves of mineral-rich plants. Plants obtained these minerals from soils derived from the weathering of, you guessed it, bedrock. Calcium is a critical limiting nutrient for forest growth in typically low pH, depleted, nutrient-poor soils. And when your soils are generally considered poor in calcium, as they are here in the Granite State, the ecosystem needs to identify other ways to capture this mineral.

An antler "rub" is where a buck polished its antlers on a small tree, rubbing off vestiges of summer velvet and leaving a territorial scent mark from glands on its forehead. Typically, bucks scrape sapling trees up and down, breaking off branches, fraying the bark, and smoothing the trunk.

Ashes to ashes, dust to dust…

On the subject of ashes, evidence from New Hampshire's Hubbard Brook Experimental Forest (HBEF) indicates nutrient cycling in forest soils of the Northeast Region continues to suffer from acid deposition from sulfur and nitrogen compounds in precipitation, think acid rain and fog. According to *Acid Rain Revisited*, the 2001 publication of the Hubbard Brook Research Foundation (HBRF), "Acid deposition is caused primarily by the emission of sulfur and nitrogen oxides from the burning of fossil fuels by electric utilities and by motor vehicle emissions. Emissions of sulfur dioxide are highest in the mid-western U.S., with seven states in the Ohio River Valley accounting for 41 percent of total national emissions in 1997." [1]

The report details include how acid deposition has altered and continues to alter soils in parts of the Northeast in three important ways:

1. Acid deposition depletes calcium and other base cations from the soil.
2. Acidification facilitates mobilization of dissolved inorganic aluminum into soil water. Aluminum can become concentrated to the point of being toxic to growth.
3. Acidification increases accumulation of sulfur and excess nitrogen in the soil.

[1] "Acid Rain Revisited: Advances in Scientific Understanding Since the Passage of the 1970 and 1990 Clean Air Act Amendments," *Science Links*™ (Hubbard Brook Research Foundation, 2001), vol. 1, no. 1.

Bones of small rodents and animals, such as this hollowed deer femur, move critical minerals up the forest food chain.

"In the past 50–60 years, acid deposition has *accelerated the loss of large amounts of available calcium from the soil* at the HBEF and (at) other acid-sensitive areas in the Northeast." The acid neutralizing capacity (buffering) of soils is reduced and lower levels of alkaline ions cause nutrient imbalances which reduce trees' capacity to respond to stresses such as insect infestations or droughts.

Ash particulates bound-up in precipitation transport and deposit the sulfur and nitrogen oxides into New Hampshire forest soils. Calcium is mobilized to neutralize acid deposition, becoming less available to growing plants and negatively impacting forest productivity and health. According to the research at Hubbard Brook, "The loss of sugar maple crown vigor or the incidence of tree death increased on sites where supplies of calcium and magnesium in the soil and foliage were the lowest."

Think of thinning sugar maple foliage and a regional New England decline in maple health as an expression of mobilizing calcium. If forest trees and soils contain incrementally lower levels of available calcium and higher levels of toxic aluminum, plants are working harder to obtain nutrients found in the antlers of foraging ungulates, which grow new antlers annually, and bones of short-lived rodents.

As I sat at my desk pondering the femur bone Tom had left me, it was impossible for me to deny the importance of what I held in my hands. I took a couple photos of the bone and returned it to the forest later that day for more animals to gnaw on and for more people to find and observe.

Naturalist Dave Anderson is director of education for the Forest Society.

DID YOU KNOW?

Shed antlers of moose and deer are discarded relicts of territorial defense and dominance. Once shed, antlers sustain the life of other creatures, albeit temporarily, before their bones also join the endless recycling of critical minerals, including calcium and magnesium.

Photos by Jerry and Marcy Monkman, EcoPhotography.

A kayaker explores a section of the Merrimack River near Stillhouse Forest.

The Stillhouse Forest Project

By Jack Savage

The Forest Society is working to acquire a new 234-acre reservation in Canterbury and Northfield with more than 5,300 feet of frontage along the Merrimack River. This amazing property is rich in conservation values and is accessible from the river by canoe and kayak.

Stillhouse is in a unique position to become a paddling destination suitable for picnics, exploration, and nature study.

The land is predominantly forested with a small wetland, a perennial stream, and an island separated from the rest of the property by a flooded channel. It is home to several exemplary natural features, including rare sand plain, flood plain, and river bluff communities. The reservation provides excellent wildlife habitat and its conservation would also afford protection to water quality and anadromous fish in the Merrimack River.

This property is an important scenic resource that is highly visible from the river. Given the proximity of several public boat launches, Stillhouse is in a unique position to become a paddling destination suitable for picnics, exploration, and nature study.

The Stillhouse Forest earned its name due to its unusual history. Local lore suggests that the property was home to an illicit moonshine still and was the secret hideout for the gang who perpetrated the 1950 Boston Brinks robbery. Billed as the "Crime of the Century," the $2.7 million theft was, at the time, the largest in United States history.

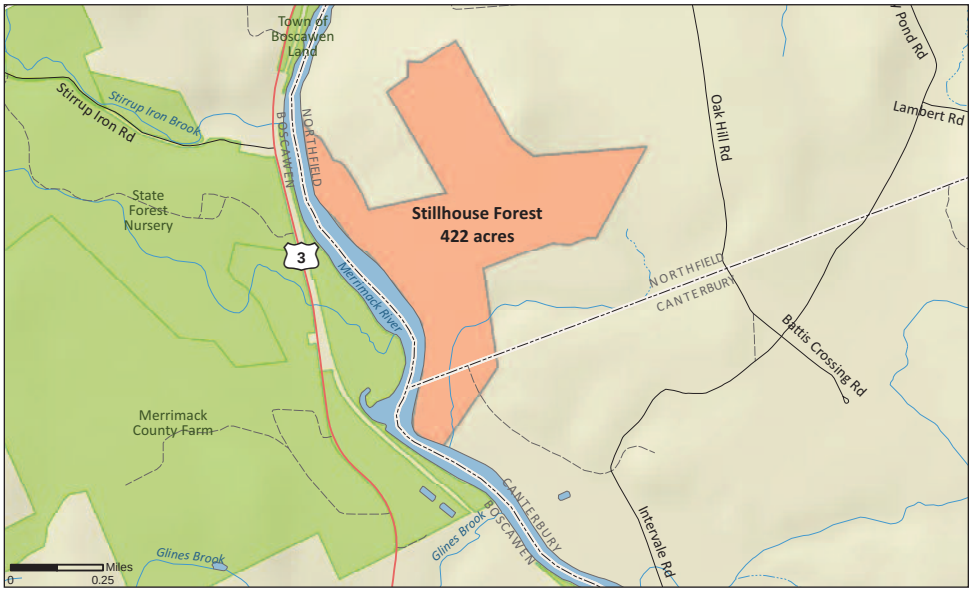
Conservation of land along the Merrimack River is a high priority for the Forest Society, New Hampshire Fish and Game, the New Hampshire Department of Environmental Services, and the Merrimack

Left: *Paddlers can marvel at the Merrimack River's steep bluffs near Stillhouse Forest.*

Right: *A silver maple floodplain forest rests quietly next to the Merrimack River in Northfield, N.H.*

Conservation Partnership. We are fortunate to have the opportunity to conserve such a spectacular stretch of undeveloped riverfront so close to Concord.

The Forest Society is launching a $300,000 campaign to support the acquisition and stewardship of the Stillhouse Forest. Your gift early in this campaign will enable us to demonstrate the public support for the project necessary to secure foundation grants. Please consider contributing using the form below or online at forestsociety.org/stillhouse. Thank you for your support.



☐ YES, I WANT TO HELP PROTECT STILLHOUSE FOREST

Name: _____

Address: _____ Town/City: _____ State: _____ Zip: _____

Telephone: _____ Email: _____

☐ Enclosed is my tax-deductible contribution for $_____

☐ VISA ☐ MasterCard Number: _____ Exp. date: _____ Security code: _____

Please mail the completed form to: Society for the Protection of New Hampshire Forests
54 Portsmouth Street, Concord, NH 03301. Or donate online at forestsociety.org.

For more information, contact Susanne Kibler-Hacker at 603-224-9945
or via email at skh@forestsociety.org.

Thank you for your help!

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Join us for the Forest Society's 117th Annual Meeting

SATURDAY, SEPTEMBER 29 • MANCHESTER

(From left) Liz Linder Photography, Jack Savage.

From left, the Hospitality Center at Southern New Hampshire University; a view from the shore of Tower Hill Pond in Candia and Auburn.

HIGHLIGHTS:

1–3:45 p.m. FIELD TRIPS

- **"Something Wild" on The Merrimack River | 1–3:30 p.m.**
- **Forestry and Research at Whittemore Forest, Lyndeborough | 1:30–3 p.m.**
- **Protecting Drinking Water at Manchester Waterworks | 1:30–3:30 p.m.**
- **Hooksett Riverwalk Trail | 2:30–3:30 p.m.**
- **SNHU Arboretum Tour | 2:45–3:45 p.m.**

4–7 p.m. ANNUAL BUSINESS MEETING

- **Registration and Reception**
- **Business Meeting**
- **Dinner**
- **Awards, Program, Keynote Speaker Andrew Bowman**

COST: $55 per person

Registration deadline is September 21.

Pre-registration is required. There will be no on-site registration. Please register early as space is limited. For more information and to register, please visit forestsociety.org/2018-annual-meeting or contact Linda Dammann at 603-224-9945 x325 or ldammann@forestsociety.org.

See page 13 for field trip options!

REGISTRATION DEADLINE: SEPTEMBER 21

TO REGISTER:

Sign up online at forestsociety.org
OR
Contact Linda Dammann at (603) 224-9945 x325
or ldammann@forestsociety.org

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