



# WONALANCET OUT DOOR CLUB

## THE FOREST MANAGEMENT ISSUE : PART I A SPECIAL TWO PART SERIES CELEBRATING 125 YEARS OF WODC

### Reflections on the White Mountain Forest Centennial

by David Govatski

The White Mountain National Forest will celebrate its 100<sup>th</sup> Anniversary on 16 May 2018. The story behind the creation of this crown jewel of New England is fascinating. The journey from the cut over and blackened lands that nobody wanted to a recreational paradise is dramatic. The White Mountain is one of the most popular national forests in the nation to visit, currently covering 12 percent of the land base of New Hampshire and providing an economic engine for the region.

The celebration of this notable event is being planned now with a variety of partners. The Museum of the White Mountains at Plymouth State University will host an exhibition from April to September 2018.

Presentations and field trips are being planned along with the development of portable exhibits to showcase the forest in New Hampshire and Maine.

The question arises today if we truly fathom what a treasure we have. When we look up at the green-carpeted mountainsides do we value that scenery? It was the headwater streams of four major rivers that the battle for conserving this land was fought over. I fear that we may have become complacent and take the clean water in our streams and the wildlife in the forests as normal. We sometimes overlook the careful work of land managers operating with the consensus of citizens. We sometimes overlook the work of volunteers who maintain our trails in our dash toward the mountaintops.

### The Story Behind the Scenery

The challenge of creating an 800,000-acre National Forest in New Hampshire and Maine by purchasing private land from willing sellers was an enormous undertaking. First you needed the support of the public along with local and state governments and then you needed Congressional approval to enable the expenditure of public funds for the public good.

The Weeks Act Centennial in 2011 provided the story of how citizens convinced our representatives to support this conservation

effort. The Weeks Act succeeded not just in New England but in the southern Appalachians as well. The Weeks Act of 1911 continues to be the enabling legislation for new acquisitions today in all parts of the country.

### The Background

A decision was made by NH Governor Harriman and the NH legislature in 1867 to sell off the last of the public domain lands in the White Mountain region. The price was 15 cents an acre in 1867, or about \$2.36 in today's money. The money was used to pay for public schools. Unfortunately, the legal title of the land was not settled and the court cases over disputes cost more than the sale's value.

Starting in 1872, Joseph B. Walker gave a speech to the Board of Agriculture on the need to conserve and protect the lands in the White Mountains. Walker gave two more speeches in 1891 and

one in 1894 to the American Forestry Association. Citizens of New England were already aware that in 1891 then President Harrison began to designate "Forest Reserves" from public domain land because of the need to protect the watersheds from over harvesting and over grazing. A growing chorus asked for similar protection in the populous eastern United States. The difference though was that in the west the land already belonged to the federal government and in the east the land was largely privately owned.

### The Broadside that launched the White Mountain Conservation Movement

The spark that touched off the fierce campaign for protecting

the White Mountains came from an unlikely source. It came from an Episcopal minister, who titled himself as the "Missionary to the Head Waters of the Merrimack River". The writer was the Reverend John Edgar Johnson of North Woodstock, NH. Johnson published an inflammatory broadside called the "The Boa Constrictor of the White Mountains" on the symbolic day of July 4, 1900 against his target, the New Hampshire Land Company.

The broadside had the desired effect. The timing was right and the stars were aligned. A group of well-connected citizens organized the Society for the Protection of New Hampshire Forests in 1901. They hired a young forester by the name of Phillip Ayres who led the effort to create a White Mountain National Forest. Ayres was an effective leader and galvanized support from many other like-



*Dave Govatski getting GPS coordinate to the NH State Champion White Spruce at the Pondicherry National Wildlife Refuge*

minded groups including the WODC and the Federation of Women's Clubs, The Grange, and leaders of industry.

Philip Ayres and others worked tirelessly with a Massachusetts Congressman by the name of John Wingate Weeks. Weeks was born in Lancaster, NH and knew first hand what was going on in the mountains. Weeks and Ayres were helped by the American Forestry Association and joined forces with similar groups in the southern Appalachians who also desired national forests for their mountains.

The battle for passage was long but in 1910 the House approved the bill followed by the Senate in early 1911. The legislation was given the title of the Weeks Act for its floor manager, Rep John W Weeks (R-MA). President Taft signed the bill on March 1, 1911. The Weeks Act allowed for the creation of Eastern National Forests and unlike the western forests has taken nearly a century to acquire meaningful amounts of land.

### **The Streamflow Controversy**

The land acquisition stage could not start until the "Streamflow Controversy" was settled. The issue was whether floods and low summer flows were caused by denuded hillsides that covered a large area of the White Mountains. At one corner stood the forestry leaders including Gifford Pinchot and Philip Ayres and at the other corner were the Army Corps of Engineers and US Weather Bureau.

A fascinating study was made using ten stream gaging stations in the White Mountains. Some of the stream gages were in Waterville Valley and others were in the Pemigewasset Valley watershed. Remains of some of these the stream gages still stand a century later, forgotten shrines overgrown with moss and vegetation. Benton MacKaye worked as a forester studying the stream flow problem and later became famous for proposing the creation of the Appalachian Trail.

A scientific study of this magnitude should have taken many years but the public was impatient. The preliminary results determined that at the Burnt Brook site near Thoreau Falls found "that cutover and burned over areas melted snow faster in the spring and thus stream flow could be affected". The preliminary and somewhat weak results were enough for Congress and they began appropriations to acquire land in the White Mountains.

### **The White Mountain Forest Reserve**

The US Forest Service set up headquarters in Gorham, NH in 1912 at what is now Libby's Restaurant on Main Street. Forester William Logan Hall led the effort to acquire land from willing sellers. The first tract of land was acquired in January 1914 in Pike, NH. Soon other tracts of land including a large tract on the Northern Presidential Range were acquired.

In four short years starting in 1914 the hard working team of government land appraisers and surveyors acquired over 360,000 acres of land. This made the forest reserve sizable enough to manage as a national forest. President Woodrow Wilson signed Proclamation Order 1449 on May 16, 1918 establishing the White Mountain National Forest (WMNF).

The early organization of the WMNF focused on continued land acquisition, forest protection and restoration. The forest headquarters remained in Gorham and four ranger districts were soon created to help administer the land. The ranger districts were named for towns and included the Bartlett, Gorham, Twin Mountain and Woodstock Ranger Districts.

Forest Guards were hired to conduct on the ground management. Their title implied that they were there to protect the forest. Forest protection was the primary work in the early decades and forest guards also fought forest fires, built trails, dealt with poachers and prevented timber theft. Guard Stations were established by 1915 at Swift River, Glencliff, Woodstock, Gale River, Israel River, Peabody River and Wild River. By 1942, there were 14 guard stations usually staffed by two men whose job it was to protect the forest and provide recreational opportunities to the public.

The use of guard stations slowly ended after World War 2 because of the availability of motor vehicles, better roads and the desire to be home at night with the family. Only two guard stations remain and they are the 1923 era Fabyan Guard Station on the Cherry Mountain Road and the Cold River Guard Station at the former Brickett Place in Evans Notch.

In 1936, Forest Supervisor Clifford Graham renamed the Ranger Districts using the historic Indian names for important rivers. The Bartlett District became the Saco and moved to a facility in Conway. The Gorham District became the Androscoggin, the Twin Mountain District became the Ammonoosuc and the Woodstock District became the Pemigewasset and moved to Plymouth. A fifth District was created in 1946 using the Evans Notch District name.

The 1930's were also the time of the Great Depression and the Civilian Conservation Corps, with a total of 16 camps operating on the National Forest. An additional three camps were working on state forest and parks and two more worked on private forestlands nearby. Each camp was designed to employ 200 men aged 18-25 and were run by the military with the US Forest Service providing technical supervision. The crews completed many major projects including campgrounds, trails and other facilities.

America's entry into WW2 ended the need for a CCC program although three of the camps were put to other uses. The Stark CCC camp was converted to a Prisoner of War camp for German soldiers captured in North Africa and Europe. The Peabody and Thornton CCC Camps were converted to Civilian Public Service (CPS) camps. The CPS enrollees were opposed to war for religious reasons but wanted to serve their country in other ways. The American Friends Service Committee, commonly called Quakers ran the CPS camps. The CPS crews were able to do much of the work of the Forest Service staff that were off fighting in the war.

### **Post World War II Era**

After the war the demand for timber increased. Building homes for the returning GI's called for increases in the timber harvesting. In the 1960's the Forest Service made a decision to increase the amount of even-aged forest management. A number of large clearcut units over 200 acres in size caused a break in the usual harmony between the Forest Service and local citizens and conservation organizations.

The late 1960's were marked by the rise of the Environmental Movement brought about in large part by the Cuyahoga River in Ohio catching fire several times and oil spills off the coast of Santa Barbara, California. The pressure had been building for several years over air and water pollution. Books such as Silent Spring by Rachel Carson alerted citizens to the dangers of pesticides. The 1960's and early 1970's period was also marked by the Anti-War Movement over Viet Nam and the Civil Rights Movement sparked by killings of civil rights workers and leaders in the South.

### **The Establishment of Scenic Areas and Wilderness**

The White Mountain National Forest served then as now as a place where people could get away from the troubles of the world and backpack on the many miles of trail. But even here the demands for wild areas grew louder. Several Scenic Areas were designated in 1961 on the 50<sup>th</sup> Anniversary of the Weeks Act where motorized recreation and timber harvesting were prohibited. The Great Gulf became a Wild Area in 1963. In 1964, landmark legislation was enacted called the Wilderness Act where Congress had the power to designate Wilderness and the Great Gulf Wild Area was automatically designated as a Wilderness with just over 5,000 acres.

The Forest Service came up with the concept of wilderness and primitive areas as far back as the 1920's. Internally the idea of taking land out of production was an anathema to some in the Forest Service. An insight into the divergence of opinions is a 1926 Inspection Report of the White Mountain National Forest by Assistant Regional Forester R. M. Evans who expressed surprise that

over 100,000 acres of land had been taken out of the timber base. Evan's view about national forest management was more utilitarian than those working on the White Mountain National Forest. Evan's expressed his concerns and went on to say that *"it would be unwise to let it be publicly known that we had anything in mind, for each local organization or individual would immediately put forth his own pet wild area."*

Forester William Logan Hall wrote to the Chief of the U. S. Forest Service in 1919 describing his efforts. *"Acting under your instructions, I have endeavored to work out a practical plan for retaining the original forest growth on the crucial area of privately owned land in the White Mountain Purchase Unit. On the remaining private lands in the White Mountain Purchase Area, in view of the probability of their subsequent acquisition by the Federal Government, in view of the essential nature of their forest as watershed cover, and in view of their recreational importance, a determined effort should be made to retain the original forest growth on areas of considerable size."* What Hall was describing was his strategy to acquire lands that retained the original forest.

In the 1920's informal agreements were being made by WMNF foresters to prevent logging or road building on several especially scenic areas that had been acquired for the WMNF. These informal agreements worked for four decades until official designations and formal management plans were made starting in 1961. These informal agreements to protect certain scenic and old growth forest areas were what R. M. Evans was expressing concern about.

Nine Scenic Areas were designated on the WMNF with the last one being the 6,100-acre Mount Chocorua Scenic Area coming about as a result of the 1986 Forest Management Plan. In addition to over 17,000 acres of Scenic Areas the WMNF has 148,000-acres of Congressionally designated Wilderness. Controversy remains as to how much is enough and this shows no sign of abating.

### **The Greatest Good Controversy**

Gifford Pinchot was the first Chief of the US Forest Service. In 1905 he advised how the new national forests should be run. He said that national forests *"should be managed for the greatest good, for the greatest number, in the long run."* Defining what is the greatest good is the hard part that managers have constantly struggled with. How many ski areas, trails, timber harvests, roads or Wilderness should there be? Society is not unified in answering these questions. The use of public involvement and forest planning tries to answer these questions but never to the full satisfaction of those involved.

### **Future Challenges**

The earliest challenges in managing the WMNF involved protecting the forest and restoring the land from the disastrous fires of 1903. Fire towers were built, telephone lines installed and access trails built. Improving forest stands for future use became a priority. As recreation use grew, new campgrounds were established and on a very limited budget. The CCC was able to accelerate development of facilities.

Starting in the 1970's challenges were made regarding harvesting timber on public lands. The National Environmental Policy Act of 1969 or NEPA provided for substantial public involvement. New types of forest specialists were hired including archaeologists, biologists, botanists, hydrologists and soil scientists. The NEPA documentation required for a timber sale, now termed "vegetation management" became onerous. This led in the 1990's to what was termed "analysis paralysis" and the loss of traditional allies in the forest products industry.

The NEPA work remains but even bigger challenges have arisen. The new challenges relate to the effects of climate change, motorized recreation demands, and a budget that fails to meet the needs of the forest.

Climate change is probably the biggest challenge that the Forest Service faces. The effect of climate change on forest health is

more severe than most people are aware of. Visiting a western forest will show you what is happening. Millions of acres of forest are dead or dying due to insect pests such as the mountain pine beetle that are ravaging trees stressed by a warming and drier climate. Forest fires are increasing in intensity and the cost of fighting these now consumes over half of the US Forest Service budget.

The WMNF is not immune to the effects of climate change. The lack of early snow is allowing forest fires to start later in the season. The 2004 Lucy Brook Fire and 2016 Covered Bridge Fire were burning in November when decades ago we typically had snow on the ground.

The WMNF and much of the northern forest region also have insect pests, some of which are overlooked by casual observers. The WMNF is in the midst of an outbreak of the balsam wooly adelgid, an invasive exotic insect killing balsam fir trees. This aphid like insect appeared in the early 1990's and now is killing off one of the most common trees on the WMNF. Our winters now lack the prolonged periods of cold weather needed to suppress these insect pests.

These subjects will be explored further as we celebrate the WMNF Centennial in 2018. We hope that you will become involved in the centennial and look forward to the next century of public forest stewardship.

David Govatski has retired\* after 33 years in the U.S. Forest Service, serving in a variety of positions around the country, largely as a forester and fire management officer. He is a former AMC Hutman and an early "Red Liner" who hiked every trail in the AMC White Mountain Guide. David also served in the US Army and reached the rank of Master Sergeant. He is an avid hiker, backcountry skier, canoeist (if that's a word), and historian. He's a naturalist, with a strong interest in the Alpine environment who has worked recently in Alaska, Canada and Iceland . . . in addition to New England. He spent several summers working on trail crews and continues to volunteer and maintain hiking and ski trails in New Hampshire and Vermont. He's the co-curator of the upcoming "People's Forest: The Centennial of the White Mountain National Forest" exhibition at the Museum of the White Mountains., and a founding member of Keep the Whites Wild: <https://www.keepthewhiteswild.org/>

\* maybe "retreaded" would be a better term

**WODC Annual Meeting  
Sunday, August 20th**

**Potluck at 5 in the Grove  
Meeting at 6:30 in the Chapel**

**Your voice will only be heard  
if you attend.**

## For the Birds

by Jessie L. Dubuque

(Assistant Ranger, Wildlife Biologist, Saco Ranger Station)

The White Mountain National Forest serves many uses: it provides clean air and water; it is home to fish, wildlife, and plants; it offers opportunities for recreation and for solitude; it supplies vital timber products.

To manage such diversity, ensuring that the needs of the whole ecosystem are met, the Forest Service develops a Land and Resource Management Plan (Forest Plan). Foresters, wildlife and fish biologists, landscape architects, archaeologists and historians, botanists, soil and water scientists, hikers, rock climbers, skiers, engineers, and many others contribute to the Plan, determining what areas of the Forest are suitable for the many uses sought by the public.

Planning requires the development of a Land and Resource Management Plan (the Forest Plan), a document which sets the broad framework for activities on the Forest. The Forest Plan establishes a Desired Future Condition, sets Goals and Objectives, and provides Standards and Guidelines. Forest Plans are reviewed continuously and revised approximately every fifteen years. The White Mountain National Forest completed its most recent Forest Plan revision in 2005.

Monitoring and evaluation help determine how well Forest Plan direction is being met, how resources are changing, and whether changes to the Forest Plan are needed. The effort and research summary detailed below serves to inform researchers who study climate change and the effects on local bird species.

Wildlife ecologists who study the effects of climate change assume, with support from several studies, that warming temperatures caused by climate change are forcing animals to move either northward or upslope on mountainsides to stay within their natural climate conditions. But a new study of lowland and higher-mountain bird species by wildlife ecologists Bill DeLuca and David King at the University of Massachusetts Amherst now reports an unexpected and "unprecedented" inconsistency in such shifts. The majority of the mountain bird community responded against expectation and shifted downslope despite warming trends in the mountains. They say the result "highlights the need for caution when applying conventional expectations to species' responses to climate change."

Yesterday's unprecedented 80 degree day and watching a pair of sharp shinned hawks foray in my backyard has got me thinking about the arduous hiking I'll be doing shortly. I awake before the sun on a fair weather day's in June and head out to one of 42 separate transects along targeted hiking trails to conduct biennial high elevation breeding bird surveys. Using five-minute point counts, at fixed survey locations between 740 meters (about 2,440 feet) and 1470 m (4,800 ft.), these surveys have been conducted by trained observers from the White Mountain National Forest annually from 1993 to 2000, then on odd years from 2003 to present. For a point count, all birds seen or heard are identified and recorded as being either less than or greater than 50 meters from the observer. This coming June, I will survey a total of 120 locations on 6 separate transects. In total, 768 locations on 42 separate transects along hiking trails will be surveyed.

All of this information has fed into the dedicated research analyzing 28 bird species including yellow-bellied flycatcher, white-throated sparrow, winter wren, Swainson's thrush, Nashville warbler, yellow-rumped warbler and dark-eyed junco and measured the elevations of their distribution along 42 mountainsides in the White Mountains of New Hampshire from 1993 to 2009. The authors report that as predicted, the upper elevation boundary of nine out of 16 lowland species showed evidence of shifting upslope an average of 99 meters [about 325 feet] over the study period. But, they add, "contrary to our expectations, nine out of 11 mountain birds shifted their lower boundaries **downslope** an average of 19 meters [about 62 feet] over the 17-year study period."

DeLuca and King say that although other studies have found species shifting either downslope or toward the equator, the opposite of expectations given the warming climate, theirs is the first to find that the majority of the bird community is responding contrary to these expectations. And, DeLuca says of the unexpected shift among many bird species, "This is really important information for mountains in the northeastern U.S. like the White Mountains, Green Mountains and the Adirondacks. It helps to confirm that human activities like climate change, pollution and land management are affecting the distribution of mountain species."



*Jessie and a radio collared fisher, during earlier work in Oregon.*

One possible explanation for the observation might be changes in forest composition. For example, red spruce and paper birch have declined (due in part to acid rain) in the ecotone, the transition between the lower elevation deciduous forest and the higher elevation coniferous forest, and "the void left by the decline of spruce and birch has, in part, been filled by balsam fir." Further, "all of the high-elevation species we found to be shifting downslope are closely associated with balsam fir," meaning these birds may be following suitable habitat.

Reference: William V. DeLuca, David I. King. *Montane birds shift downslope despite recent warming in the northern Appalachian Mountains*. Journal of Ornithology, 2016; DOI: 10.1007/s10336-016-1414-7



*High Elevation's Poster Child: Bicknell's Thrush*

## **The Bambi School of Forest Management**

**by Susan Goldhor**

"Forest Management" is a loaded term. When we "manage" the forest, who or what are we benefitting? And who are we kidding? We live in a country that has always exhibited a split personality, equally brutal and romantic, so why should our approach to FM be different? Of course, both brutality and romance are emotional rather than rational. I'm a scientist but I come from a family of psychotherapists, and it occurred to me, thinking about the history of American FM, that perhaps their way of approaching it would make more sense than mine.

Once we got past colonial days where the forest was the enemy (read Simon Schama's *Landscape and Memory*), and needed to be rooted out with the same energy and for the same reasons that those settlers attacked witchcraft and original sin, we developed an evolving set of management myths that have had lasting destructive consequences for the nation's forests. My current theory is that these are essentially all based on *Bambi*, a film that emerged from the Disney studio in 1942. The overwhelming impact and long-lasting emotional legacy of this film have far outweighed any puny efforts of FS and academic researchers to insert logic and data into the picture.

On the off chance that you don't remember the plot highlights, adorable Bambi faces two big threats. First, he's orphaned. Who among us never sniveled away a few tears when poor Bambi's mom got offed by a mean hunter? Well, maybe the number of hunting licenses would have diminished without Disney's assistance. And who knows if the NRA's switch from giving lessons in hunting safety to making sure that automatic weapons are available for use on civilians, is a cause or an effect. What we do know is that states like Ohio and Pennsylvania admit (well, their FS personnel realize; no one else is admitting anything) that their forests are doomed because of the overpopulation of deer. We have about 3 deer/square km; suburban areas in those states are up as high as 18. All that delicious and free venison on the hoof and no one wants to eat it because you'd have to kill and butcher Bambi or his family members first. For years, Fish & Game has been giving licenses for killing bucks only, so that no one would bear the onus of killing Bambi's mom, and also to maintain the deer population. (Hey, guys! Bambi's a buck!) What they should have been working on was maintaining the hunter population. At least Ohio has wised up a bit; you can kill a buck in Ohio now only after you've killed a doe. But the deer population is still way ahead of the hunter population. So undergrowth in those forests consists solely of one or two species of browse-tolerant plants, and essentially no tree seedlings. (Interestingly, there *are* refugia from the deer siege: the tops of tall boulders, which deer can't reach and which may host up to 25 plant species. Alas, boulders don't usually support tree growth up to the point of seed production since the trees tend to topple over before reaching that level of maturity.) When deer are excluded by fencing, all the original forest trees, shrubs and forbs return, but that can only be done on limited acreage and someday -- since seeds in soil don't survive forever -- they won't return, even under protection. I like to think that our local deer population is in synch with our ecosystems, but even NH is losing hunters, and Dave G. pointed out to me that certain native orchids are being wiped out by over-browsing.

Smokey the Bear! This lovable guy, born in 1944 (Walt Disney actually lent his characters to fight fires for a year but then the FS had to come up with its own), was created because the second big trauma in Bambi's life is a forest fire (set by careless hunters). Smokey was a rational notion that morphed into a disaster for those of the nation's forests that depend on fire to regenerate. Of course, the human tendency to build homes in or near scenic areas has also had an effect on this. The FS researchers in PA and OH have shown that although deer are primarily responsible for forest ecosystem loss, fire suppression is secondarily to blame. And if the smaller fires are stopped, sooner or later you get a really big one, that wipes out both the forest and the fire-fighters. Climate change is helping here. Dave G. tells me that half of the FS budget goes for fire-fighting these days, which doesn't leave much for the rest of management. No wonder they'd like to log some salable product.

But we do have a big advantage here and that is that our iconic forest, no matter how battered and bowed by history, emotion, invasive pests and climate change, is in one big piece which is managed by professionals. In places like PA and OH, where the forest exists largely as small, privately owned plots, it's essentially impossible to implement any rational management scheme. Plus, much of our forest is in wilderness status, meaning that the only scheme that can be implemented is the no management scheme. And here, I have to make a confession, which is safe since probably no one is still reading. I announced this topic of forest management in order to aim a broadside at the Forest Service, which I saw as the enemy of good forest management, since I (along with Chris Conrod) define that as leaving the forest to its own devices. What I didn't realize was that the FS is filled with folks who share this vision. In putting together this issue, I got to meet and talk to a number of FS people and was embarrassed (but pleased) to find out that they're intelligent, thoughtful and trying their best to save the forest, despite budget cuts, inadequate staffing, and unforeseeable (and frequently emotional) dictates from above. Keep in mind that the FS is -- bizarrely enough -- under the aegis of the Department of Agriculture. (In fact, USDA recently tried to take away the FS pine tree logo and substitute a department-wide logo of what appears to be a corn field. This awful idea has been vanquished, with Dave G. fighting bravely in the ranks, but it does tell us what the FS is up against since if anything is the opposite of wilderness, it's a corn field. So please join me in support of our FS ranger/naturalists; forces for facts, research and rationality, caught -- like us all -- in an unpredictable and emotional and environmental climate.

# The Truth About Wildlife Management

by Chris Conrod

Wildlife Biologist and Curmudgeon (what would we do without him?)

First off, let's get one thing straight: you can't manage wildlife. They have minds of their own and they're not interested in what we humans want (see my previous diatribe about loons). Wildlife management is really people management, which is just as futile. Let's face it, within societal values, wildlife is relegated to somewhere under the back seat of the bus. How many times did you hear any wildlife – or even environmental – issues mentioned during last year's presidential election fiasco? And then when you get the few people who really care into a room to discuss wildlife issues, you won't see any consensus. Questions like how many deer are enough, how many bears are too many, how many can we shoot or trap – these can all lead to some heated arguments. And at both the state and federal levels, politics overrules science. But, all that said, I suppose it's worth asking the wildlife scientists for their views.

The “experts” list the three major threats to wildlife as habitat loss, habitat degradation, and loss of connectivity (habitat fragmentation). I could do an entire rant on connectivity so I'll save that for another day. Let's focus on habitat loss and degradation. To start, is there really a difference between the two? In terms of numbers, particularly species population, I suppose there's a difference between “fewer” (degradation) and “none” (loss). But I think that contorts reality. The truth lies more in something Mark Elbroch once told me: “We don't DESTROY habitat; we CHANGE habitat.”

When I bought my small piece of land in Tamworth and converted it to a residential lot, I drove out the whip-poor-will but invited the robin and phoebe. I reversed the balance of small mammals by favoring gray squirrels and chipmunks over red squirrels and snowshoe hares. I attracted foxes and raccoons at the expense of bobcats and fishers. The term habitat loss means nothing unless you are discussing a specific species. And likewise, the forester's favorite hash tag, “habitat improvement”, is only meaningful when you have a specific goal in mind.

We humans have been causing large scale habitat change from the moment we first arrived in New England. Prior to the European invasion, the Indians had developed an agrarian culture, raising corn, squash and other crops. They would clear and use a field for about eight years, until the soil was depleted, and then abandon that spot and clear another field. The result was an increase in various early successional habitat types, which increased exploitable game populations such as grouse and turkey. The heath hen was another beneficiary of Indian clearings but, because they were too tasty and easy to hunt, by the mid 19<sup>th</sup> century the Europeans managed to wipe them out from everywhere but Martha's Vineyard.

The heath hen ultimately went extinct about 85 years ago, but that was just a drop in the bucket compared to all the changes the European immigrants made. Wholesale, permanent clearing for row crops, pastures, hay fields and orchards resulted in what was predominately an even mix of open/grassland and mature forest. Early and mid successional habitat types (brushy areas, dense sapling to pole sized trees) were severely reduced in area. Augmented by extensive hunting pressure, this change in habitat resulted in a new composition of wildlife species. Species that were formally rare or absent became commonplace. This was most noticeable among the birds, including meadowlarks, upland sandpipers, northern harriers and purple martins. Others, such as grouse and vesper sparrows, declined in numbers.

And then, starting in the mid 19<sup>th</sup> century, the farmers came to their senses and moved to the Midwest, where there is actually some real soil, rather than sparse sand and loam mixed in with the ubiquitous rocks. As fields were abandoned, the early successional habitat eventually became the prevalent habitat type, reaching its maximum extent in the mid 20<sup>th</sup> century. The grouse, vesper sparrow and others rejoiced, reaching their highest ever population numbers. But as the term implies, successional habitat is temporary and, at present, its extent is lower than it was in 1600, before the European invasion. Oddly enough, the best habitat sources for some vulnerable early succession species, such as the New England cottontail, are electricity transmission line clearings and abandoned gravel pits. On top of that, a great deal of what was open farmland is now developed. The upland sandpiper has been relegated to one or two large airports, the only places where they can find a hundred acres or more of the unobstructed open land they require.

So what it comes down to is, from the day our predecessors first set foot on this continent, the driving force in wildlife “management” has been totally unintentional. We don't manage wildlife; wildlife manages to adapt to our oblivious actions. And they will continue to do so. We can rest assured that we will know the human population has reached its zenith when we are awash in brown rats, cockroaches and bedbugs.

But meanwhile, there must be something we, as landowners, can do to encourage our present wildlife community. Barring species specific management actions, the best advice I've heard came from Matt Tarr, who is currently a wildlife conservation biologist at UNH: Look at what your neighbors are doing and do the opposite. Matt isn't implying that your neighbors are doing it wrong. He is acknowledging that, in a developed landscape, the best we can do is have a mosaic of habitat types: fields, forest, puckerbrush, beaver ponds, all intermixed with the various wetland types that we really shouldn't be meddling with.

I'm all for following Matt's advice but it leaves out one of the rarest habitat types in New Hampshire: the deep, mature forest, with heaping dollops of old growth. Some animal species best prosper when there is an expansive area of it. The only good buffer for a deep, mature forest is more deep, mature forest. I think that's the greatest benefit of federally designated wilderness. I question whether the current wilderness management practices meet the aesthetic and spiritual intent of Aldo Leopold, but in terms of preserving some semblance of the original landscape and biotic communities, wilderness and “forever wild” reservations are essential. Some people would say those are unmanaged forests. But I say it's a critical management tool.

## The Spring Trails Report

Winter seems to be developing annual characteristics that vary quite a bit from year to year. This past winter we received 110" of snow, compared to the 39" of the previous winter. Skiers and winter hikers were very enthusiastic.

Our trailwork plans this season will concentrate on Annual Maintenance. We are also looking at some smaller projects on the lower sections of both Blueberry Ledge Cutoff and Dicey's Mill that may require Jed's expertise. There are no plans for a major trail reconstruction project this summer. We will again hire members of Jed's crew to help us with Annual Maintenance. The trail relocations last season on both the Bennett Street Trail and Brook Path seem to be holding up well.

As usual we'll host 4 Volunteer Trailwork days on:

- Saturday May 20 (WODC Spring Trails Day),
- Saturday June 3 (National Trails Day),
- Saturday July 15 (New Hampshire Trails Day), and
- Saturday September 30 (National Public Lands Day).

We'll meet at the Ferncroft Parking Lot at 8:30AM on all our Trailwork Saturdays. Bring water, food, gloves, and clothing appropriate for the weather. Most of all, be prepared to spend a day outdoors deriving satisfaction from a job well done.

If you want more information on any of our trail projects contact Jack 323-8913, [jackw@g4com.com](mailto:jackw@g4com.com) or Fred 284-6919.

WODC members have supported our commitment to perform Wilderness Monitoring stints in the Sandwich Range Wilderness. Maintaining that wilderness environment and spiritual refuge requires dedication and effort on our part. We'll need volunteers again this season to spend a day monitoring the Wilderness for the values we hold dear. If you'd like to help contact Jack at 323-8913, [jackw@g4com.com](mailto:jackw@g4com.com)

**Jack Waldron**, Trails Chair (and, although he's too modest to say it himself, President)

## WODC ORDER FORM

(SHAMELESS COMMERCE & STOCKING STUFFER DIVISION)

PLEASE MAIL COMPLETED ORDER FORM TO:

WODC MEMBER SERVICES  
HCR 64, BOX 248  
WONALANCET, NH 03897

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QTY	DESCRIPTION	PRICE	TOTAL
	WODC Patch	3	
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	Unfolded WODC Map & Guide	9	
	3 or more unfolded Maps - each	7	
	WODC Historical Collection (CD)	25	
	"Serene Green" Cotton T-shirt (Old Logo) Specify M, L or X-L _____	18	
	Synthetic (silky) Navy Blue T-shirt (New Logo - see design on website). Specify M, L or X-L _____	18	
	New Memberships (not for renewals!) <input type="checkbox"/> Pathfinder <input type="checkbox"/> Steward <input type="checkbox"/> Trail Blazer <input type="checkbox"/> Five Year	15.00 25.00 50.00 250.00	



**Editor's Ramble:** I'm generally a fast reader but I've been taking my time with *The Hidden Life of Trees* by a German forester named Peter Wohlleben. Maybe because the information in this book is so amazing that after each chapter, and sometimes after each part of a chapter, I have to stop and catch my breath and think about what I've just read. If you read it -- and I strongly recommend that you do-- you will never think of trees or the forest in the same way again.

Peter worked for more than twenty years for the German Forestry Commission before becoming the forester for a small German town. Either he was amazingly lucky or he's amazingly persuasive; either way, he's managed to convince the town that they should not harvest timber but should conserve their forest towards old growth status. He's been smart and creative about how they can make money from it, using it as a green burial ground and also hosting tourists and campers, many of whom have probably never before seen a natural forest with trees of different sizes and species, snags and rotting logs. And, during the years of developing these policies, he's lived with his trees, trying to learn their ways. His forest is mostly beech and he has much to say about beech trees. Beeches are affectionate family members, taking care of their relatives, preferring tight packing in the forest, and ensuring that resources are equalized by not overgrowing a neighbor's canopy, as well as by foot and fungal networks that share both nutrients and information. But, kind as they are to their family members, beeches are cruel to other types of trees, crowding out both their roots and the light reaching their leaves.

The first sentence in this book is, "When I began my professional career as a forester, I knew about as much about the hidden life of trees as a butcher knows about the emotional life of animals." But the combination of introducing tourists to his forest, creating an ancient forest preserve, and hosting research by Aachen University, led him to create a new type of management. He writes, "When you know that trees experience pain and have memories and that tree parents live together with their children, then you can no longer just chop them down and disrupt their lives with large machines. Machines have been banned from the forest for a couple of decades now, and if a few individual trees need to be harvested from time to time, the work is done with care by foresters using horses instead. A healthier -- perhaps you could even say happier -- forest is considerably more productive. . . The trees are breathing a collective sigh of relief and revealing even more of their secrets. . ."

I realize that these excerpts may sound like whacked out forestry. It isn't. Peter's a real forester and his statements are backed up by references from the scientific literature. His book may be ahead of the curve (although not by much given the recent attempt by a large number of plant scientists to start a Society of Plant Neurophysiology), but I'm seeing more and more research showing that plants do most -- perhaps all -- of what animals do. But they do it differently and much much more slowly, so we don't see it unless we look very carefully over very long periods of time. That's what Peter Wohlleben has done.

Finally and on a different topic, I'd like to take this personal space to tell all of you that this year will be my final one as Editor. The fall issue will complete eight years of my voice and my choice. It's been a privilege and a pleasure but it's time for the next voice, and I hope that one (or more) of you reading this will volunteer. **Susan Goldhor**



**Wonalancet Out Door Club**  
HCR 64, Box 248  
Wonalancet, NH 03897