

The Newsletter of the Francestown Land Trust, Inc.

Spring 2018



White Pine Weevil

Good Bug, Bad Bug!Which is which?

Weevils or Blister Rust?

Ever wonder why some pine trees look the way they do?
Big gnarly old pine trees with multiple forked trunks and

crooked branches—like the one in the photo below—are sometimes called "bull pines" or "wolf trees." While not valuable as timber, they add character to the landscape and provide habitat for wildlife.

These peculiar-looking pines are the result of infestation by a

small native insect pest—the white pine weevil. The weevil larvae feed on the main leader of the tree, killing it and deforming the tree. The larvae may continue to attack other top shoots or subsequent leaders that try to form causing even more deformation. When the tree reaches a height of 20 feet or so, the attacks stop and the tree is left to mature into these oddly branched old giants.

White pine blister rust is a different and deadly problem for white pines and a few other pine species—it is a non-native fungus brought in on seedlings imported from Europe back in the early 1900s. Once the trunk of a tree is infected the tree dies.

Around 1920, some 50 percent of pines in some areas of New Hampshire were believed to have been impacted. The fungus requires an alternate host plant—a gooseberry or currant—in order to produce the spores that infect the pine tree. The spores are carried by the wind. In an effort to

control the spread of the fungus, New Hampshire, along with several other states initiated a massive effort to eradicate the alternate host plants. A widespread forestry program commenced around 1917

Weevils or Blister Rust? Continued on page 4

Not all Beetles are Bad ... Get to Know a Good Beetle, *Galerucella* spp.

In the Piscataquog River Watershed, which as you Galerucella spp. know, includes Francestown, a beetle is hard at work for a good cause. If you see it on purple loosestrife, either as an adult beetle or in its larval form, you can take heart, because it is eating the leaves of this New Hampshire invasive plant.

Galerucella spp., native to Europe and Asia, was introduced in many states, including New Hampshire, following a long research program

at Cornell University, where its specificity to purple loosestrife (and not other plants) was confirmed.

In the mid-1990s, the NH Department of Agriculture (DOA) released *Galerucella* spp. onto state-owned properties. The results were encouraging; purple loosestrife plants exhibited noticeable damage from the leaf-eating beetle. With DOA guidance, the Piscataquog Land Conservancy (PLC) (at the time, Piscataquog Watershed Association or PWA) began its own beetle propagation and release program in the Watershed. Three release sites were in Francestown.

Galerucella beetles and their larvae eat the purple loosestrife leaves, and if damage takes place year after year, the plants lose their vigor, become stunted, and reduce their seed production. As you might assume, the goal is to have some amount of control over the purple loosestrife, not necessarily to eradicate it. After all, in Europe, purple

loosestrife and the beetle live harmoniously together, with the happy result being that the beetle keeps the plant in-check, not allowing it to get out of control and overtake the habitats that it prefers: wet-

Not all Beetles are Bad ... Continued on page 3



A "bull pine" or "wolf tree".

UNH Forester to talk about "The Big 3" invasive tree pests at FLT Annual Meeting

Ethan Belair, UNH Cooperative Extension's Hillsboro County Forester, will speak at the FLT's Annual Meeting on Thursday, June 7th at The Old Meeting House in Francestown.

Doors open at 6:30 for light snacks; the meeting Asian long-horned beetle begins at 7pm. He will present *NH Bugs: The Big Three*, a talk covering the Asian long-horned beetle, emerald ash borer, and hemlock woolly adelgid.

All three invaders are pests of forest and landscape trees that could have a devastating economic impact on the landscape and economy of New Hampshire. Our state, which is 80% forested, relies on healthy trees for its tourist, maple syrup, and nursery industries, which are valued at more than \$2 billion a year and provide

15,000

jobs. What's more, these pests can interrupt the natural succession of our native forests, opening up areas to other non-native invasive plants and further disrupting the ecology and food web.

Ethan, who works with landowners throughout Hillsboro County, will talk about what we can do to prevent the invasion of the insects that aren't yet here, such as the ALB—and manage those that are, such as the EAB and HWA. In addition to helping landowners in the county manage their forests, combat invasive species, create wildlife habitat, understand forestry laws and taxation, and fully appreciate our forested lands, Ethan is a speaker for the NH Coverts Project Speaking for Wildlife.

Thank you, Martine

It is time to extend a heart-felt and appreciative thank-you to Martine Villalard-Bohnsack, who is stepping down from the FLT Board after three years of service.

Martine has been a force behind the popular Joan Hanchett Nature Series, as well as the fascinating guest-speaker programs at our

Annual Meetings. You can thank Martine for

the delightful presentations on fishers, birds, bats, wildcats, butterflies, caterpillars, and loons!

We will miss Martine's love of all things botanical——sharing her expertise as a Professor Emeritus of Biology at Roger Williams University; as well her artistic perspective——as a talented illustrator and member of the Lone Mountain Artists group.

Thank You & Happy Gardening, Martine!

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Founded in 1986

Why Do Animals Do That?

Audrey Eisenhauer, Education Director for the Squam Lake Natural Science Center, was the March 30th guest speaker for the Joan Hanchett Nature Series program "Why Do Animals Do That?"

The presentation, held at the newly renovated Town Hall, included three live animal ambassadors: a striped skunk, a tiny saw-wet owl, and a possum.

Everyone in the audience of 68 people, including 15 little ones, was enthralled by the animals and Audrey's dynamic, fascinating, and knowledgeable commentary.

Among many interesting facts, we learned that the skunk spray can travel 15 feet or more. Fortunately, the beautiful, well-behaved female skunk had had her glands removed and posed no threat

We also learned that when a frightened possum plays "dead," its behavior is not the result of a voluntary reflex, but a neurological response.

Once again, Francestown children displayed their good manners and an impressive knowledge of local wildlife, peppering the speaker with thoughtful questions.



Did You Know?

Trail maps of the Rand Brook Forest, Schott Brennan Falls Reserve, Crotched Mountain and Miller/Dinsmore Brook Conservation Area, as well as the Francestown Wildlife Action Plan map can be downloaded from francestownlandtrust.org

The Chairman's Letter

Dear Friends and Supporters of the Francestown Land Trust,

While many of us enjoy the winter, others only tolerate it, and still others see it as an endurance test. Mother Nature really teased us in February with days of bare ground, cloudless skies and temps reaching into the 70s—only to blanket us with snow the next day.

By now, we are all ready for spring.

The days are longer, the air feels warmer, streams are running with the melting snow, birds are again chirping in the morning, plants are pushing up through the soil, and some critters are coming out of hibernation. On an Easter Day hike in our woods, we noticed large bear tracks in the snow.

These are the days to take advantage of the many properties which FLT has preserved and continues to protect for your enjoyment. Check our website at www.francestownlandtrust.org to find directions and maps of some of our properties. While on the site, please also read about what we do and how we do it.

Some recent examples:

• FLT co-sponsored (with other town organizations) two more programs in the Joan Hanchett Nature Series. (See page 2, *Why Do Animals Do That?* and page 3, *Learning About Loons*). The

attendees, whose ages spanned nine decades, enthusiastically engaged in learning about the animals and habitats around us. How fortunate we are in Francestown that we need only go outside our doors to access an amazing variety of wildlife and open spaces.

• By the time you read this, FLT expects to have closed on our most recent project—Crotched Mountain West. This project will protect the last large parcel of land (approximately 120 acres located in Bennington) on Mount Crotched. The project was made possible by the support of numerous individuals and organizations, including a \$75,000 donation from LCHIP. It is especially satisfying to know that it will help to protect the mountain forever.

Many individuals and organizations have given time, talent and financial support to FLT over the past 30 plus years.

I thank you for your participation in these efforts—and for your very important support.

Please join us at our annual meeting on June 7th to celebrate another year of endeavor and success. (See page 2)

Chris Rogers, FLT Chair

Not all Beetles are Bad ... Continued from page 1 lands and newly disturbed sites.

The concern, of course, is that the thick growth of purple loosestrife, both above and below water line, chokes out native plants and reduces or eliminates nesting places, open swimming areas, and food sources for wildlife. What was a diverse ecosystem of plants and animals becomes a more monospecific habitat and the ecological balance of our

So, back to the good beetle, or beetles in this case, as *Galerucella* spp. includes two possible species;

native wetlands changes.



Galerucella spp. on Purple Loosestrife.

G. calmariensis and *G. pusilla*. The only real difference between these two brown beetles is that one has a black triangle on the body and the other a dark stripe. They are both small, about 2-4mm in length, and spend their entire life on and around purple loosestrife. Adult beetles live for up to 10 weeks and overwinter as adults in the duff or topsoil layer surrounding Purple loosestrife. They emerge in the Spring, mate and lay eggs on the undersides of Purple Loosestrife leaves from May to June and then die. Eggs hatch in 2-3 weeks and the emerging larvae, looking like small bright yellow and black caterpillars, immediately begin to feed on emerging leaf material. Mature larvae move to the soil, pupate in the summer, emerging as adults in August and September, only to feed heavily on the Purple loosestrife again before heading for the protection of the soil for overwintering.

If these beetles and their larvae are earning their keep, their eating habits eventually weaken purple loosestrife plants resulting in diminished plant stands. This gives native species a fighting chance to get reestablished and restore the natural diversity of the wildlife habitat. Now that's a good beetle!

Hannah Proctor

Learning About Loons

Harry Vogel, senior biologist and executive director of New Hampshire's Loon Preservation Committee, captivated an audience of 72 at the October 27, 2017, Joan Hanchett Nature Series at the Francestown Elementary School with his presentation on the research, management, and public education efforts involved in restoring the loon population in New Hampshire.

Harry described the monitoring of loons by the Loon Preservation Center staff and volunteers in over 350 New Hampshire lakes.

The good news is that management efforts to benefit loons are paying off. The numbers of adult loon pairs, nesting adults, chicks hatched, and chicks surviving have gradually increased since the onset of the LPC program in 1975.

The bad news is that lead poisoning continues to kill adult loons. Lead from nowbanned fishing tackles and lead-headed jigs represents the largest cause of known

adult loon mortality in New Hampshire. In addition, our loons face dangers from: the high mercury levels in New Hampshire waters, organic contaminants (dioxins, furans, PBDEs, PCBs, PFOS, DDT, chlordane and other pesticides and insecticides), monofilament fishing lines, collisions with boats and personal watercrafts, climate change (increase in temperatures and rising water levels), loss of habitat, human disturbance, and, of course, natural pathogens and predation by other animals.

Despite the recovery progress of the New Hampshire loon population, loons remain a threatened species in our state. Efforts, such as the LPC's Loon Recovery Initiative, are also working to help loon populations make a full recovery and thrive in our state.

To become part of the statewide protection effort, visit the Loon Center in Moultonborough, NH, join the Loon Preservation Committee (www.loon. org), and consider volunteering to monitor loons in our area.

2017 Francestown Land Trust Financial Report

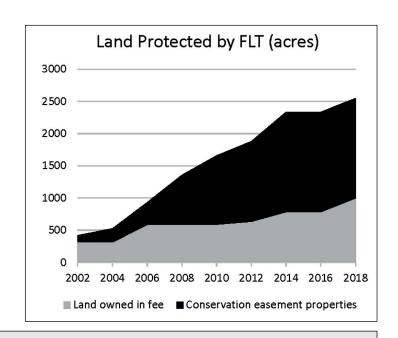
preliminary, unaudited

Statement of Income and Expense

Income Loss on real estate -22,919 **Expense** Member relations and education 3,089 General operating costs Land maintenance **Project Expenses** Total 2017 Net Gain/Loss -231,394

Statement of Financial Position

Non-fixed Assets Cash and short-term investments
Investments (stewardship funds) 288,898
Total Non-fixed Assets
Fixed Assets Fee owned land (996 acres) 1,081,396
Total Fixed Assets
Total Assets
Liabilities and Equity Temporarily Restricted Net Assets 1,603 Unrestricted Net Assets
Total Liabilities and Equity 1,684,233



Weevils or Blister Rust? Continued from page 1

and continued on into the 1970s to remove or destroy those plants, with the sale or planting of them prohibited.

In the 1930s, the Civilian Conservation Corps was involved in efforts to control both of these problems—removing and burning tops of pines infested with white pine weevils and mapping, removing, and destroying currant and gooseberry plants.

Though white pine blister rust is still around today it did decline

significantly thanks to these efforts. Blister rust-resistant cultivars of currant and gooseberries were eventually developed and allowed to be grown in some areas, including New Hampshire, with a permit. However, testing done a few years ago found rust present on some of these supposedly resistant varieties. New Hampshire has again placed a ban on planting the berries and researchers continue to monitor the situation.

Betsy Hardwick

Thank you to all our previous year's Donors

The Francestown Land Trust is dependent upon, and deeply appreciative of, community support. Whether you are a Francestown resident, a neighbor in the region, or you just have a special place in your heart for our town and its wild places, we would like to express our gratitude to all who have supported us during this past year:

Beverly Abbott Meredeth & Leonard Allen American Legion Post 5 The Blanchard Foundation (L. Hawkins directed) Brewster & Elizabeth Ames Larry Ames & Jay Hale Mary Ellen Ames Abigail Arnold Pamela Avery Tom Badgley Judith Badot & Ron Cheney Harry & Susan Bailey Merrill & John Beauchamp David & Catriona Beck Ruth Behrsing & Peter Jones Robyn & Michael Beisang Paula Bellemore & Paul Susca Gerri Bernstein & Philip Sadler Iane Blanchard Chuck Bohnsack & Martine Villalard-Bohnsack James & Eleanor Bosman Ron & Jane Bowman Stewart & Carol Brock Herb Bromberg Neal & Agneta Brown Tim & Dianne Buirge David Butler Frank Byrne Kathy Byrne Meade Cadot & Sandy Taylor Mary Frances & H. Robert Carey Roger Cawley Timothy & Amy Coffin David Courtright & Julie Saganich Elizabeth Grace & Mark Couturier Janine & David Cowell Sara Cox and Jeff Gorton Richard Crawford Henry & Martha Cruciani Leslie & Lee Davis Heidi Dawidoff

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Join Us at the FLT Annual Meeting

FLT Annual Meeting
Thursday, June 7
Light snacks at 6:30 pm • Meeting begins at 7 pm
The Old Meeting House, Francestown NH
New Hampshire Bugs: The Big Three

Ethan Belair the UNH Cooperative Extension's Hillsboro County Forester and a speaker for the NH Coverts Project "Speaking for Wildlife" will be discussing New Hampshire Bugs: The Big Three, the Asian longhorned beetle (ALB), emerald ash borer (EAB), and hemlock woolly adelgid (HWA).

Learn how to identify and prevent the invasion of the harmful exotic insects that aren't yet here, like the Asian longhorned beetle, and manage those that are, including the emerald ash borer and the hemlock woolly adelgid.

Join our email list to learn about our upcoming events. Contact us at info@francestownlandtrust.org to be added to this list.

