



The Newsletter of the Francestown Land Trust, Inc.

Fall 2023

What do wetlands do for us?

AS A YOUNG boy in elementary school, I longed to be outdoors tromping through woods and fields, following brooks and climbing tall trees, so I could see the world around me. When I finally got home from school, I'd head straight through the woods to my favorite place to explore, a wetland—more specifically, a red maple swamp. I would move through the swamp slowly or sometimes just sit on one of the small islands and watch. There was a myriad of creatures to see—I'd always find something new and exciting.

But wetlands are more than fascinating places, here are some of the important benefits they deliver:

Biodiversity. Making up just six percent of the Earth's surface, wetlands are home to about 40 percent of the world's species, including many endangered and threatened species. According to the National Park Service, about one-third of U.S. endangered and threatened plant and animal species need wetlands to exist. In addition to habitat, wetlands act like “biological supermarkets” that feed many birds and mammals. Migrating birds depend on wetlands for food to build fat reserves for their long flights south.

Climate change. Wetlands help to mitigate climate change. They are one of the Earth's most productive ecosystems and store enormous amounts of carbon. As carbon sinks, they store more carbon than they release; the destruction of wetlands releases all that stored carbon as CO₂.

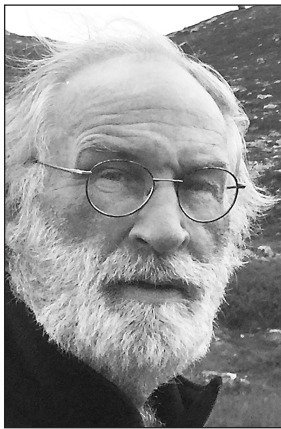
Flood protection. New Hampshire has seen a record number of flash flood warnings this year, with June and July of 2023 the rainiest since 1885, when record keeping began. Fortunately, our wetlands help mitigate the impact of so much rain. They act like biological sponges by holding, then slowly releasing, large amounts of flood water. Wetland vegetation also slows the speed of flowing water, to further reduce its impact. Wetlands along the Piscataquog River, for example, both absorb and slow the velocity of water to help stabilize stream banks and reduce erosion downstream.

Water quality. Wetlands improve water quality for people and wildlife by absorbing pollutants. They trap suspended sediment,

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A Letter from the Chair



Fall 2023

Dear Friends and Neighbors of the Francestown Land Trust,

Wow, what a difference a year makes! Last Fall, we were hoping to recover from drought after an unusually dry and sunny Summer. This year has brought record rainfall. In fact, the number of flash flood warnings issued in New Hampshire in July 2023 alone surpasses the prior record for an entire year.

The ongoing risk of flooding has highlighted the importance of wetlands as natural sponges that mitigate the effects of heavy rains. In this newsletter, Barry Wicklow looks at how wetlands provide extraordinary wildlife habitat, in addition to buffering our waterways. Paul Doscher writes about how a recent US Supreme Court ruling that reinterprets the 1972 Clean Water Act and its purview raises questions about how we protect and regulate our wetlands here in New Hampshire.

The Francestown Land Trust works to preserve wetlands, as well as forests and agricultural land, in perpetuity, through conservation easements and fee ownership. (We currently have a number of exciting projects in the pipeline that we hope to be able to tell you about soon. Stay tuned!)

Also in this issue, we invite you to get acquainted with two new members to our Board of Directors: Marsha Dixon and Tim Coffin. Along with Dennis Rodier, who recently joined our Board, they have already injected a lot of much-appreciated new energy to our

meetings and operations. For example, we have begun to take a fresh look at our 'Bylaws' and 'Standards & Practices' and to explore ways to make the best use of our membership database.

After the pandemic put such a damper on in-person gatherings, we are again hosting live events to re-engage with our membership. This effort kicked off with an "FLT Member Appreciation Luncheon" held at Marsha Dixon's home in September. We are also continuing to collaborate with the George Holmes Bixby Library, the Francestown Conservation Commission, and *The Francestown News* to support the Joan Hanchett Nature Series. Please let us know if there are other types of programs and events you would like to see us sponsor.

The FLT, which was founded in 1986, currently stewards more than 3,000 acres in Francestown and surrounding towns. Operating as an all-volunteer organization keeps FLT overhead costs low, but we do have obligations to steward our protected properties, maintain adequate insurance coverage, and stay current with the property taxes on our fee-owned parcels. Your donations of time, money, and membership fees are all instrumental in covering our operating costs, supporting educational and recreational events, and funding new projects.

The best way to get acquainted with our work is to get out on the land and enjoy it. Many of our holdings have well-marked trails and maps are available at the library, as well as on our website: francestownlandtrust.org. If you'd like to become more involved, our work plan includes invasive plant removal, habitat improvement, trail work, and annual monitoring visits to our holdings. To volunteer, please send us an email at: info@francestownlandtrust.org.

We hope that you are staying high and dry, and getting at least a little time in the sun—when it deigns to appear.

Larry Ames, Chair
Francestown Land Trust

Welcome new FLT Board members!

THE FRANCESTOWN LAND TRUST is pleased to announce that Tim Coffin and Marsha Dixon have joined the FLT Board of Directors. "We feel fortunate indeed that these two energetic and well-qualified people are volunteering their expertise, time, and energy to the FLT," says Larry Ames, Board Chair.

Tim Coffin has been a resident of Francestown since 2015. His interest in land conservation comes from a life-long love of hiking and canoeing throughout the Northeast. His professional background is in public finance, working with investors and local governments to finance essential public projects, including clean water and open space. He served two terms on the Governing Board of Ridley College in Canada, where he chaired the Advancement Committee through the planning and launch of a major capital campaign. He



completed the UNH Extension Coverts Training Program in 2023, which trains volunteers in forest stewardship.

Marsha Dixon is retired with 16 years of real estate experience and over 25 years of financial and benefit consulting experience. She is an avid outdoor enthusiast and enjoys hiking and cross-country skiing the many trails in Francestown. She is deeply committed to the conservation efforts and the stewardship of the lands of the FLT and the Town. Marsha served on the Board of the Old Meeting House in Francestown for five years and as its Chair for two years. She was a member of the Francestown Select Board for three years, serving as Chair for one year, and she served as an ex-officio member of the Planning Board for one year. She is dedicated to Francestown and enjoys helping make the community a sustainable place to live for generations to come.



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

Wetlands in New Hampshire after the Supreme Court ruling

IN LATE MAY, the U.S. Supreme Court issued a ruling in a case brought by landowners in Idaho in which the court dramatically changed a portion of the purview of the 1972 Clean Water Act.

The “Sackett Case” challenged the authority of the EPA and Army Corps of Engineers (which jointly administer the part of the Clean Water Act that regulates wetland dredging and filling) over the denial by the EPA of the Sacketts’ permission to fill in a wetland lot adjacent to a lake in Idaho.

Aside from the legal arguments, many expert scientists and conservation interests have decried the court’s definition. While there are wetlands that are isolated and unconnected to navigable surface waters, it’s clearly wrong to presume that if a wetland doesn’t have a surface water stream or lake connection that what happens to it doesn’t impact surface waters.

Lakes, ponds, streams, and rivers are inextricably linked to underground water as it flows through sand and gravel and even



There has been much made of the court’s ruling. The majority opinion redefined what is considered a water or wetland that is covered by the act. Under the new ruling, a wetland must have “a continuous surface connection to navigable waters” to be under the jurisdiction of the law.

The court also ruled on this subject previously, and the rule-making associated with that SCOTUS decision was and is the subject of controversy. The Obama administration wrote a definition that recognized the ecological and hydrological links of wetlands to surface waters even if they are not connected on the surface. The Trump administration withdrew that rule, substituted a developer friendly version, and a federal court threw it out. Another version more protective of wetlands and ephemeral streams has been proposed by the Biden administration.

This most recent SCOTUS decision has created considerable reaction and poses uncertainty about how the Clean Water Act will be applied to wetlands across the United States.

bedrock. What happens in a wetland near a stream, even if the only connection is through groundwater, has a direct and significant impact on the quality and quantity of water in the stream. Drain or fill a wetland and it no longer can hold flood waters, store surface waters that slowly percolate into the ground, and provide inflows to keep streams clean, cold, and flowing. Allowing unregulated dredging and filling in wetlands, especially in river valleys, will inevitably damage the water quality of the river, in direct opposition to the goals of the Clean Water Act.

The court’s decision goes against the basic goals of the Clean Water Act.

For us here in New Hampshire, the question arises: “Will this change how we protect and regulate wetlands in our state?” To get a read on the answer, it’s useful to know the history of wetland regulation in New Hampshire.

Before the Clean Water Act, the New Hampshire Legislature passed a water

Wetlands in NH *Continued on page 5*

What do wetlands do for us? *Continued from page 1*

process fertilizer runoff, and decompose organic waste before it enters open water. Wetlands can be vital in maintaining stream flow during dry periods, and some wetlands help recharge ground water and aquifers.

Recreation, education and research. People are drawn to wetlands to hunt, fish, birdwatch, and photograph wildlife. Wetlands are valuable outdoor classrooms for students learning environmental and ecological principles. They are also excellent research sites.

Preventing wetland destruction

The EPA reports that since 1700, about half of all the wetlands in the contiguous 48 states have been drained for agricultural or

other uses. Major losses of wetland occurred in the 1950s through the 1970s. Although we now understand the vital roles that these ecosystems play, about 80,000 acres of wetland are still lost each year to development.

Unfortunately, a paved road now runs through the red maple swamp that I explored as a boy and much of the area was drained to make way for a housing development. It's time to appreciate the value of wetlands and to be especially vigilant about preventing their destruction.

Barry Wicklow

FLT hosts donor appreciation luncheon

ON SUNDAY, SEPTEMBER 24TH, the Francess town Land Trust hosted a donor appreciation luncheon to thank members, outline conservation plans, and preview upcoming projects. A Town map showing conserved parcels (by the FLT and others) provided a graphic representation of work to-date and areas of specific interest.

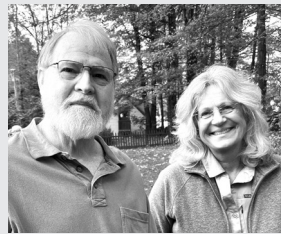
The FLT depends on the generous support of donors to do its work. Member donations fund the operations that protect the conservation, recreational, and agricultural value of existing easements and fee-owned properties and they enable the pursuit of new conservation projects.

During the donor appreciation event, Chair Larry Ames introduced the FLT Board of Directors and each board member described their role and some of the organization's successes over the years.

Greg Neilley, Treasurer, reviewed finances over the last 10 years. He described how \$258,000 in general donations provided the operating funds needed to stay in business and bring in \$1.47 million of grant funding for conservation projects—an impressive return on investment!

Ben Haubrich, Land Manager, previewed upcoming projects and emphasized the value of public access to most properties for recreation, including hunting, fishing, hiking, biking, and snowmobiling. FLT trails were particularly important during the height of the pandemic, when there was a significant increase in usage.

Hannah Proctor, on behalf of our Outreach and Development Committee, described how the FLT collaborates with other organizations to sponsor programs, such as educational walks,



lectures, and school activities. Major partners include the Francess town Conservation Commission, the George Holmes Bixby Library, and *The Francess town News*.

Scot Heath, a founding director of the FLT, spoke about his role in identifying projects and acting as a liaison to land owners.

Marsha Dixon, on behalf of the Outreach and Developments events-subcommittee, was the event host. She thanked everyone for their support and attendance and recognized easement grantees.

Members were able to discuss their concerns, future project ideas, and suggestions for public outreach activities with directors while enjoying delicious food. Attendees also participated in a drawing for door prizes, featuring FLT swag and our own FLT maple syrup. Many expressed thanks for the opportunity to gather with others in our local conservation community.

pollution control law in 1969 (RSA 482-A) that resulted in the establishment of rules and regulations over the dredging and filling of wetlands. That authority now resides in the wetlands bureau of the N.H. Department of Environmental Services. The bureau recently sent out a communication that says the SCOTUS decision does not affect either the enforcement of our New Hampshire law or the state's definition of wetlands. Ted Diers, the assistant director of the NHDES water division, has said simply, "Nothing changes, right now."

That said, we don't know what changes in federal regulations might be forthcoming from the EPA or the Corps of Engineers, and some projects in New Hampshire need both state and federal permits. Those permits are administered jointly by the state and feds.

There will be more to come on this issue. But Diers said one thing that's very important to remember: "The way to protect wetlands is to really PROTECT them." That happens at the local level. Towns and cities can adopt wetlands buffers, setbacks, and aquifer protection ordinances. Wetlands can be permanently conserved with conservation easements and public ownership.

Diers reminded us that the state wetlands law comes into play "at the end of the pipe." It regulates how and where wetlands are impacted when a development is proposed. Our wetlands law does not say "no development" but rather NHDES can only determine how the impacts are dealt with.

While it's fair to complain that the Supreme Court is wrong on the science and its decision will result in the destruction of important wetlands in many parts of America, we are fortunate here in New Hampshire to have the tools to both protect wetlands and their critical functions, and when that's not possible, minimize or mitigate the impacts in order to ensure the myriad of benefits our wetlands provide are not lost.

For now, at least, the battle over wetlands protection and the Clean Water Act will play out primarily in other states.

Paul Doscher

Paul Doscher lives in Weare, New Hampshire. He is a retired conservation professional and former college professor who taught environmental policy and regulation. This article was previously published on June 20, 2023 in New Hampshire Bulletin (<https://newhampshirebulletin.com>).

Getting to Know the Eastern Bumble Bee

WHEN YOU LOOK out onto your garden in late Summer, one insect you're likely to see is the common Eastern bumble bee. Like all bumble bees, common Eastern bumble bees are social insects. Several dozen to several hundred live in a colony founded by a single queen.

The life of a colony begins in April or early May, when a new queen emerges from hibernation. She has spent the winter under loose soil or leaves, her body protected by glycol, a kind of antifreeze she produces that prevents ice from forming in and rupturing her cells.

The newly emerged queen feeds on pollen and nectar from early Spring flowers to build her protein and energy reserves. Then she begins building a nest, often in an abandoned chipmunk or mouse burrow, rock pile, or, sometimes, even in an empty bird house. After lining the nest with grass and hair, she begins to lay eggs in wax balls laden with pollen and nectar. The queen feeds and cares for the first brood of larvae until they develop into female worker bees, who will then care for the next brood of workers. At this point, the queen no longer leaves the nest, but continues to lay eggs, so that the colony grows as each successive brood of worker bees hatches and begins to gather pollen and nectar and care for the colony.

As the Summer begins to wane, the queen produces males and new queens who leave the colony. The males leave in search of new queens and die soon after mating. The newly mated queens feed heavily on early Fall pollen and nectar (see photo).

When October frosts whiten the landscape, the old queen and her entire colony will die. New queens, now hibernating below the leaves, will arise to form their own colony in the Spring. Not all queens and not all young colonies survive.

Vanishing bumble bees

Bumble bees are one of the most important pollinators of flowers and crops. Unfortunately, bumble bees are disappearing worldwide, due to habitat loss, pesticide use, climate change, and disease. According to the Xerces Society, 28 percent of bumble bee species in North America are threatened. For example, in the last two decades the once widespread American bumble bee has declined by almost 90 percent—even vanishing completely from many states, including New Hampshire.

Researchers at the University of New Hampshire report that three other bumble bee species have declined "drastically" in our state—including the federally endangered Rusty Patched bumble bee—and a fourth species shows "significant" decline.

You can help

To survive, bumble bees need to be able to feed on flowers from early Spring through Fall. You can help nourish new queens by planting early-blooming Spring flowers, such as Dutchman's breeches, wild columbine, bloodroot, and wild geranium. You can help fortify queens before hibernation by planting late-blooming Summer-to-early-Fall flowers, such as blue lobelia, closed gentian, common sneezeweed, and New England aster. Choose plants that are pesticide-free. Leave some areas undisturbed to serve as nesting and overwintering habitat. Enjoy watching these important pollinators from April through September.



New queen Eastern bumble bee feeding on blue lobelia

Barry Wicklow



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UPCOMING EVENT



Joan Hanchett Nature Series *presents*

**Landscape Impacts in New Hampshire
from the Glaciation to the Present**

When: Friday, November 10, 6:30PM

Where: Francestown Town Hall

Presenter: Mike Gagnon

So many factors have influenced the landscape and ecology of New Hampshire over the past 10,000 years, beginning with the end of the last glaciation. Mike Gagnon, Extension Forester and Field Specialist in Natural Resources for the University of New Hampshire Cooperative Extension in Hillsborough County, will discuss how our forests and wildlife communities are influenced by natural disturbances and physical factors such as climate, weather, topography, and soil.

Discussion will include how ecological communities change

over time through the natural process of succession and how this is influenced by disturbance, both natural and man-made. He will look at how the combination of land use impacts and land use change, both natural and man-made, have impacted the ecology of New Hampshire as we know it today.



Mike works primarily with communities and private landowners to educate them on forest resource issues to help them better meet their stewardship goals. Mike received his master's degree in natural resources & forestry from the University of New Hampshire and is a NH licensed Forester and NH Licensed Pesticide Applicator.

The Joan Hanchett Nature Series is a free program for adults and children of all ages. It is sponsored by Francestown Land Trust, George Holmes Bixby Library, *The Francestown News*, and the Francestown Conservation Commission.