

The Newsletter of the Francestown Land Trust, Inc.

Fall 2021

There are gardeners in Francestown who have overridden an instinct for "neat and tidy" with a commitment to garden for biodiversity. These gardeners attempt to let plants, bugs, birds, and amphibians find a natural balance in the landscape.

Encouraging native plants, minimizing the use of herbicides and pesticides, and creating "islands of wildness" are key features of this style of gardening, which is sometimes referred to as "wildto the future of biodiversity, to the native plants and animals of North America and the ecosystems that sustain them."

Islands of Sterility

In Francestown, most of us live in the woods. But that does not mean that our gardening practices are complementary to the natural landscape. In fact, many of us inadvertently create



ing" or "re-wilding." Advocates and experienced practitioners recommend this approach, not only because it brings more activity and interest to your gardens by increasing the variety and abundance of insects and birds, but by contributing to the preservation of wildlife in an era when many species are on a trajectory to extinction.

The theory behind wild gardening is straightforward. Author-gardener Sarah Giles, in an online article about re-wilding, defines it as "restoration of the ecosystem so that biodiversity is encouraged, wildlife thrives, and nature is allowed to take care of itself."

However we view our home gardens, entomologist Douglas Tallamy, argues that "...like it or not, gardeners have become important players in the management of our nation's wildlife." He encourages us to embrace our small homey gardens as a way to "do something that we all dream of doing: to make a difference.... gardens dominated by non-native, "exotic" nursery-grown plants that are alien to our local environment. Many of these plants have been bred to resist insects; in fact, we often select plants that are marketed for that characteristic. These spaces are therefore sterile islands, where native insects cannot reproduce or feed.

But, with fewer bugs, there will be fewer creatures that eat bugs. The natural balance among predators and their food can easily be thrown off, with the result that some bugs get out of control. Often the response is to reach for, and become dependent upon, pesticides. A similar situation faces us when we apply herbicides to attempt to control plants that we find undesirable, aka "weeds." These weeds are often favored by a variety of bugs as habitat and food; when we eliminate weeds, we can skew the balance among the bugs and their predators.

Gardening Continued on page 4

Rewilding: Return of the Apex Predator

The term 'rewilding' seems to be popping up in print and online media more and more often these days.

The concept, coined by Dave Foreman of *Earth First!*—and subsequently adopted by conservation biologists-refers to a top-down approach to the restoration of ecosystems by recreating or protecting the conditions in which "apex predators" thrive.

Apex predators—such as wolves, the great cats, large reptiles, sharks, salmon-play a critical role in shaping the ecosystems in which they reside. These predators at the top of the food

chain generally require large, unbroken tracts of habitat and connectivity between tracts to survive. Catastrophic effects have followed their disappearance from terrestrial and aquatic ecosystems around the world. Their return restores the natural order, increasing overall species diversity and even carbon storage. According to the Rewil*ding Institute*, when apex

predators thrive, they "recreate dynamic, stable, self-regulating, and self-sustaining ecosystems, with near pre-human levels of species diversity."

Local actions

Although rewilding was originally conceived on a continental-scale, it can be advanced at multiple levels-all the way down to individual households and personal actions.

The first step is to identify wild, or nearly wild, core areas where the apex predator is present, or could potentially thrive, and evaluate the health of the ecosystem. The next step is to determine whether past or present human activity presents a barrier to ecological restoration and develop a strategy for addressing these issues, through such means as legal protections; creation of contiguous tracts; elimination of barriers such as fences, roads, dams; and the removal of invasive species and reintroduction of native species.

Needless to say, land ownership, history, and politics can all significantly hinder-or aidrewilding efforts. Below are some examples of actions that could be taken at a local level where appropriate, as described by *Rewilding Britain*: • Protecting, expanding, and connecting ancient woodlands to enable a diverse range of

wildlife to establish and disperse, and increasing carbon storage

- Reducing high populations of grazing animals
- to help trees and other vegetation grow

• Removing fishing pressure and creating proper marine protection to stop dredging and bottom trawling, so that sea life can recover and flourish

• Restoring wetlands and introducing beavers to boost biodiversity, store carbon, and help flood prevention

• Bringing back missing species to plug crucial gaps in the ecosystem and re-forge key relation-

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ships between species (for example, between predators and prey and scavengers)

• Restoring key marine ecosystems, such as kelp forest, seagrass, and oyster beds to boost biodiversity, suck in carbon, and get natural processes working

• Removing dams, so that fish can move freely and the forces of erosions and deposition are allowed to re-establish themselves

• Reconnecting rivers with floodplains, restoring their natural course to slow the flow, easing flooding, and creating habitats for fish and other aquatic and wetland wildlife

 Connecting up habitats and providing wildlife bridges, so wildlife can move and disperse naturally, helping them adapt to climate change and build resilience

• Setting aside large areas for nature so that nature can truly evolve on its own terms, maximizing biodiversity, carbon storage, and essential eco-benefits

• Creating a wildlife-friendly garden and helping wildlife move through it to help nature on a smaller scale

One of the most prominent examples of rewilding in the U.S. has been the reintroduction of wolves to Yellowstone National Park. After the **Apex Predators** Continued on page 5

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Francestown Land Trust, Inc. **Board of Directors**

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A Letter from the Chair



Fall 2021

Dear Friends and Neighbors of the Francestown Land Trust,

This fall, here in New Hampshire, we find ourselves at the tail-end of a very wet summer. In some ways, the rains were a welcome relief from the drought conditions of the last few years, but the unusually high rainfall has impacted farmers and gardeners, as well as homeowners with basements prone to flooding.

One of the consequences of climate change has been the increase in rain events with precipitation levels of 4 inches or more in a 48hour period, the kind of event that leads to flash flooding, rutted back roads, and wet basements. Meanwhile, the western states have been subjected to abnormally hot and dry weather, and a longer and more deadly fire season. Climate change does not affect everyone equally, but it does bring about a shift in the norms to which we have become accustomed.

Recently, I read an article by Elizabeth Kolbert in *The New Yorker* about the receding waters of Lake Powell due to extended drought in the Colorado River basin. That's because Lake Powell's water level has dropped 140 feet since 2000—and 50 feet in just the last year—uncovering landscapes and archeological sites that have been flooded for decades. That's because Lake Powell did not exist until completion of the Glen Canyon Dam in 1963, which began the flooding of the canyon. The canyon landscape had previously been the stomping ground of Edward Abbey, which he described in his book *Desert Solitaire*. For him, the 'lake' had "no satisfactory reason to exist" and

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.

Currently, the FLT owns properties totaling 1,209 acres, including the Rand Brook Forest and Schott Brennan Falls Reserve. All land owned by FLT is open for public use.

It's Hunting Season!

For your safety, please keep aware of the different hunting seasons through the NH Fish and Game website (https://www.wildlife.state.nh.us/hunting/hunt-dates. html). Please wear hunter-orange, and keep pets leashed or under control.



Hikers and hunters should be ready to share these areas, and be good stewards of the land.

Don't toss your trash. Not even biodegradable items.

Help the trail by staying on the trail.

was another example of misguided land and water management in the southwestern states.

As Mother Nature reclaims these flooded lands, riparian vegetation is returning, and along with it, animal species that had been displaced by the creation of the lake. This saga could be seen as an example of a natural re-wilding of a section of the Colorado River.

Re-wilding is a term coined by members of *Earth First!*, a grassroots network of environmental activists, and is a conservation method based on "cores, corridors, and carnivores." The goal is to increase biodiversity and combat climate change through the re-establishment of more diverse ecosystems, which coincidently addresses two of our planet's most imminent and existential challenges.

In this light, the work of the Francestown Land Trust in conserving tracts of land that abut each other, creating 'cores' and providing connectivity or 'corridors', seems even more important. In addition to protecting important natural areas from development, we also work at restoring wildlife habitat and preserving delicate ecosystems.

Recently, a group of FLT members held a small outdoor gathering at the home and farm of John and Sally McLaughlin to celebrate our work of the last few years, talk about conservation goals, and learn about some of the projects in our pipeline. While we are still limiting our events as the COVID pandemic continues to have high levels of community spread, we look forward to the time when we can meet indoors and in larger groups.

We hope you are staying healthy and finding ways to get out and enjoy our open spaces. As you do, we hope you will think about what these protected places mean to you and our planet.

Thank you for your continued support in helping to conserve these vital resources.

Larry Ames, Chair of the Francestown Land Trust

2021 Annual Meeting — A Virtual Affair

Once again, the FLT decided to hold its annual meeting virtually due to COVID concerns.

FLT Chair Larry Ames called the Zoom meeting to order on June 10, 2021 and took a moment to highlight the roles and contributions of the various FLT Board members and of several non-Board members, including Robin Haubrich, Linda Lindgren, Scot Heath, and Pam Avery.

A summarization of Conservation Easement and Fee Ownership acquisitions closed on during the past year was presented. The FLT Land Manager reported on FLT's current landholdings and ongoing maintenance. The FLT Treasurer reviewed a prepared financial report for the year ending in December 2020.

The recommendation by the Board of Directors that Larry Ames, Ted Graham, and Greg Neilley be re-elected for threeyear terms was met with approval.

The meeting was closed with the sentiment that all hoped next year's Annual Meeting would be in-person with the return of a much-missed guest speaker presentation.

Gardening Continued from page 1

Insects are Key

A large percentage of the fauna in our environments depend on insects for food; they are highly nutritious. "Pound for pound, most insect species contain more protein than beef... insects [are] 'the little things that run the world,' in part because of their role in transferring energy from plants to other animals that cannot eat plants directly (Tallamy)." But most insects are "specialists." That is, they have evolved to eat only particular plants. Not any leaf will do; leaves on many plants do not taste good, provide no nutrition, or are toxic to many insects. The specific chemistry of leaves matters very much to plant eaters.

Native Plants for Native Insects

Many of the plants Americans favor for their gardens, and that nurseries market aggressively, are native to Asia and Europe. In his book Bringing Nature Home: How You Can Sustain Wildlife with Native Plants, entomologist Tallamy makes a case for native plants over "aliens." Most native insects will not feed on alien plants—plants that have not evolved on our continent or in our region. The complex and delicately balanced relationship between plants, bugs, and birds that characterizes any region's natural environment has developed over thousands of years, and alien plants (as well as alien insects, a phenomenon with which we are far too familiar (Japanese beetles, Emerald Ash borers, etc.) are not part of that established balance. Research studies show a rapid decline of insects (both rare and common species) in many different areas of the world. Scientists are calling this decline an "insect apocalypse." The main drivers of this decline are climate change, habitat destruction and degradation (especially deforestation), and modern agriculture (with large-scale use of fertilizers and pesticides).

Gardeners can fight back

Tallamy does not just focus on "invasives" that get out of control in our landscape and drive out native species. He also points to the imported bushes, flowers, and trees that simply do not provide native insects with food or a place to reproduce. If our plants do not support our native insect population, they also will not support the population of native creatures that feed on those insects.

In a sense, non-native plants are "irresponsible" members of our plant community. They make no contribution to the ecosystem, because they do not serve as



Sources and further reading:

Nature's Best Hope: A New Approach to Conservation that Starts in Your Yard, Douglas Tallamy.

Bringing Nature Home: How You Can Sustain Wildlife with Native Plants, Douglas Tallamy.

The Humane Gardener: Nurturing a backyard habitat for wildlife, Nancy Lawson.

Rebugging the Planet, Vicki Hurd.

No-Till Intensive Vegetable Culture, Bryan O'Hara.

Rewilding: How to Rewild Your Garden in 10 Easy Steps, Sarah Giles. https://www.gardeningetc.com/advice/rewilding-your-garden

The Rise of "Ungardening": How to Turn a Backyard into a Wildlife Haven, Sirin Kale.

https://www.theguardian.com/news/ shortcuts/2019/aug/05/garden-wildlife-haven-rewilding-ungardening-pond

Site: https://www.chelseagreen. com/2021/rewilding-your-garden/

Site: https://extension.unh.edu/ resource/pollinator-plants-northernnew-england-gardens-fact-sheet habitat or food for the species native to the region. They may not aggressively damage the ecosystem like invasives, but because they were planted instead of a native species, their net effect is negative.

Betsy Hardwick, the long-standing Chair of the Francestown Conservation Commission, provides an example of the phenomenon of "non-contributing plants" and how to address it. Betsy learned that "forsythia shrubs are way down at the bottom of the list for bugs. I dug mine all out and replaced them with native viburnums and other shrubs that were high on the list."

Good questions for conscientious gardeners to ask when choosing to add, or subtract, a plant from the landscape are: What does this plant contribute to biodiversity? Is it food? Is it habitat? Information to answer these questions is readily available online and in books. It is well-documented that when native plants are replaced in the landscape by aliens, butterfly and bird species decline significantly.

Pro-Bug Mindset

Wild gardens require a mindset adjustment. Trees, bushes, and flowering plants with holes in their leaves are more common in a "wild" garden. However, over time, often only a short period of time, a landscape rich in biodiversity will achieve balance and the blemishes we attempt to avoid by planting pest-resistant species and applications of pesticides will be much more modest than we might fear.

A garden with more bugs does not have to translate into a less appealing garden. Developing an appreciation for bugs is an important step. Many of us have a generally negative feeling about bugs. "Our nearly universal animosity toward insects is understandable, but seriously misplaced. Of the 4 million or so insect species on earth...a mere 1 percent interact with humans in negative ways. The other 99 percent of the insect species pollinate plants, return nutrients tied up in dead plants and animals to the soil, keep populations of insect herbivores in check, aerate and enrich the soil...and provide food either directly or indirectly for most other animals (Tallamy)."

When considering this call for a "probug" mindset, some of you may remember **Gardening** *Continued on page 5*

Gardening Continued from page 4

Sam Jaffe's Caterpillar Lab presentation in Francestown. Sam encourages conservationists to develop a friendly relationship with insects and teaches about their importance in balancing our natural environment.

Practical Wild Gardening

Author-gardener Sarah Giles encourages practicality. Wildness-native plants, including what we may view as weeds-need not be the entirety of your garden. Islands of non-natives that add beauty are okay. But a good mix of nectar and habitat plants will result in the widest possible range of insects. To achieve this, consider creating islands of true wildness in your yard; those islands will be the difference-makers for the health of our ecosystem. At times, a gardener may need to help nature because a few plants (weeds) may tend to dominate and reduce biodiversity. A combination of spaces with wildness and spaces that are copiously managed may work best.

Local gardeners provide examples of practical approaches to wild, or "wilder," gardening. One example is the garden of Fletcher and Janet Taft on the north side of Rt. 136 in Mill Village. The Taft's wild-ish garden is a mix of natives and non-natives. Their landscape is intensely and densely diverse. Like most gardeners they like to collect plants that are unique and tickle their curiosity even if they are not native. The Tafts cultivate lovingly and appreciate the surprises that appear as bugs, birds, and volunteer plants. They avoid fastidious "weeding" and allow their landscape to evolve with modest management and to accept the amendments that the natural environment provides-fallen trees, self-seeded plants, wildlife nesting. Bugs are not considered enemies and compost is the primary soil additive.

On Dennison Pond Road, Pam Avery's wooded hillside garden represents a very different approach to wildness. Primarily, Pam "edits" the woodland. She removes invasives, creates room for natural wildflowers to spread, and transplants her favorite natural volunteers to areas where they can thrive and beautify. Wildlife-friendly non-native favorites have been added, but judiciously and with minimum disturbance of the woodland landscape.

How To

Practical wild gardeners recommend the following practices.

- Don't over-weed. Weeds are frequently wildlife favorites for reproduction and food. Thistles and dandelions are good examples of weeds to value
- Add wildflower patches that are minimally managed; allow them to evolve
- Cut grass less; leave it long or leave uncut swaths where insects and ground creatures can develop, or relace grass lawn entirely with a wildflower meadow

• Minimize "digging;" add mulch and compost to avoid disturbing micro-organisms in the soil

• Leave areas undisturbed for long periods—leaf piles, dead annuals, twigs, and prunings

• Develop hedges rather than fences; these provide nesting areas for many creatures

• Leave dead wood on the ground as bug "hotels" for beetles, spiders, and inverte-brates

• Pile rocks into islands as habitat for snakes, toads, etc.

• Create "ponds;" they can be as small as a half-barrel, or small container set into a garden

Overall, practice patience. Give nature time to find its balance, for cycles of life to establish themselves. Our woods are the best model. They find balance. As one author bluntly notes, "things seem to be working well there."

Tallamy observes that "we have come to expect perfection in our gardens: the plastic quality of artificial flowers is now seen as normal and healthy. It is neither." The "re-wilding" gardeners encourage us to consider striving for is a garden that is a "living community" where there is the kind of balance that is good for wildlife. "In a balanced community, with rare exceptions, no one member of the food chain dominates another, and if one species in an essentially sound system does start to run rampant, it is soon brought back into equilibrium by the other members of the community."



Apex Predators Continued from page 2

intentional eradication of wolves in the mid-1920s, the park was soon overrun with deer. The large deer population decimated vegetation, triggering cascading environmental damage throughout the park. At the urging of Dave Foreman and other biologists-and over the objections of ranchers and others in the area—wolves were reintroduced in 1995. The effects of reestablishing this apex predator were dramatic and reverberated rapidly throughout the ecosystem. Keeping the deer population in check enabled native vegetation to recover and insects, birds, and beavers to return. The beavers created habitat for waterfowl, fish, reptiles, and amphibians, as well as otters and muskrats. The wolves also preved upon coyotes, decreasing that population so that their prey, rabbits and mice, could support more diverse populations of predators, such as weasels, hawks, fox, and badgers. Ravens, eagles, and bears benefitted from the carrion left by wolves. And, to put an exclamation point on the whole experiment, the increased vegetation stabilized riverbanks, decreasing erosion losses and ultimately affecting the actual course of the river!

Human responsibility and well-being

There are people-centered reasons for rewilding, as well. The *Rewilding Institute* argues that: • Humans have a responsibility to other species to restore self-regulating and self-sustaining ecological communities • People need nature for the mental and physical well-being gained by experiencing nature, particularly the subjective and emotional essence of "the wild" or wilderness

You can personally participate in rewilding in many ways. Examples include supporting national and local land trusts, planting pollinator gardens, controlling invasive species on your property, or just learning more about the wild lands and apex predators in your area.

Larry Ames

Sources: https://rewilding.org

https://blog.ted.com/a-walk-on-the-wildside-7-fascinating-experimentsin-rewilding



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Are You a "Wanna-Be Otter"?

The Joan Hanchett Nature Series Friday, November 19, 2021 at 6:30pm Francestown Town Hall, second floor

We are excited to welcome one of our favorite speakers, Susie Spikol, back to the Fall 2021 *Joan Hanchett Nature Series*, where she will present a program about her life as a wanna-be otter: "*Since I Couldn't Be an Otter, I Became a Naturalist.*"

As the Communities Program

Director and a teacher-naturalist at the Harris Center for Conservation Education, Spikol makes her passion for the subject clear: "I have been lucky—or maybe just

persistent. I've seen otters and each time I do, I am breathless with the experience. Once I was even lucky enough to be paddling in Northern New Hampshire and encounter a mother with her three



Joan Hanchett Nature Series otter pups. I watched them watch me as they bobbed and chortled not far from my canoe with their bright eyes taking me in. And once, when I was out tracking in Nelson along a fresh otter trail, I watched the otter up ahead of me run and slide across the lake. I'll never forget how I could smell its musty fragrance long after it disappeared down into a hole in the frozen lake's edge, still wishing I could follow it."

Come to hear more stories—and learn how we can all benefit by emulating otters and connecting with our playful side!

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 Me-

morial Library, Francestown News, and the Francestown Conservation Commission. We respectfully request that everyone wear a mask to help make our event a healthy success.