SPRING 2023 NEWSLETTER

Announcing East Quabbin Farm Micro Grant Awardees

By Cynthia Henshaw

The inaugural round of farm micro-grants was awarded, supporting the efforts of six area farms to build their capacity and support regenerative farming practices. Things like rotational grazing, no-till farming, cover cropping, building soil carbon through addition of compost and maintaining a healthy microbiome are all important farm practices to support. Regenerative farming increases soil health and productively for the long-term, increasing water infiltration rather than surface runoff and flooding, mitigating climate change impacts in our local communities.

Overall, requests came from nine farms seeking nearly \$70,000 in support. The full \$20,000 available was awarded, with a bonus microscope donation (thank you Tim J.)! This micro-grant program was made possible through a generous grant from an anonymous foundation. If you'd like to contribute towards expanding the amount of funding available for our local regenerative farms, please contact Cynthia at chenshaw@EQLT.org to discuss a donation.





- Many Hands Organic Farm, Barre \$2,000 plus microscope. The
 microscope is to study the microbial profile of their growing soils.
 Funding is also focused on developing on-farm lactobacillus and
 compost teas as soil amendments for the farm. The use of the
 microscope and soil amendment knowledge will be shared with
 other farms to improve regenerative practices broadly.
- Waugh Farm, New Braintree \$4,068. The funds are part of the need to expand fencing for their growing Hereford herd. Ultimately, the plan is to graze on sixteen acres.
- Rock Harvest Farm, New Braintree \$1,300. Converting to no-till/ low till farming practices by creating raised beds requires good soil fertility. The funds are targeted towards rental of a dump trailer that's essential for bringing compost, wood chips and other organic material onto the farm.
- Free Living Farm, Petersham \$4,564. The farm will purchase a mechanical compost spreader and quality compost to further the evolution of the farm's regenerative and biological practices.
- Noel's Farm, North Brookfield and Petersham \$4,000. The funds are targeted to increase soil health through compost and cover crop use, and establish irrigation of additional acres in Petersham.
- Golden Goose Geoponics, Ware \$4,068. Creating mobile livestock containment pens is the next step in producing healthy livestock by allowing rotational grazing as a key farming practice. These pens are especially important for use in overgrown fields filled with invasive plants.

MESSAGE FROM THE Executive Director

Cynthia Henshaw



Rest assured that in a world of turmoil, we here at the East Quabbin Land Trust are focused on our mission of conserving and caring for the land that sustains us. Three conservation efforts are scheduled to be completed by the middle of the year, impacting nearly 160 acres of fields, woods and wetlands. These parcels provide habitat for a wide diversity of plants, animals and fungi, help clean our drinking water and reduce flooding. The bulk of these acres will remain available for hunting, fishing and gathering of nuts and berries.

Two key initiatives of our Access and Equity Committee are seeing results. First is providing space for growing healthy food to individuals without their own land. We're pleased to announce our partnership with World Farmers, a non-profit supporting immigrants from around the world who need access to land to grow culturally relevant crops. World Farmers started with 70 acres in Lancaster. This year EQLT's Seven Acre Preserve on North Main Street in Petersham will be added to their growing list of farm fields available for their farmers. We expect five acres to be under production this summer with a new well for irrigation, wash station and storage shed.

Wendemuth Meadow Community Garden on Bates Street in North Brookfield is fully committed. It's exciting to know that we need to expand the available growing area. For the past two years we have grown veggies in straw bales. That regenerative practice means that the existing soil carbon stays put because the land isn't turned over, plus more

carbon is added from the decomposing straw. Best of all... there's very little weeding. This year we expect most of the gardening to happen directly in the enriched soil, while straw bale gardening will move to the expanded area.

Work growing the Mass Central Rail Trail (MCRT) continues, this summer in Gilbertville on the Town of Hardwick's property overlooking the Ware River. Having a firm, level surface is hugely important so that members of our community with mobility challenges (or those that just want to walk next to their family or friends) have safe places to be outdoors. As each segment of the MCRT is completed we get closer to providing an equitable transportation route for those in our community without reliable transportation. We dream of the day that kids from Gilbertville or Wheelwright can bicycle safely to school on the MCRT. Imagine being able to bicycle to Ware for work or shopping.

The Access and Equity Committee are planning for the future, considering questions such as these: How to make our conservation properties more inviting to all? What other open space properties should be prioritized for conservation to allow more people to grow their own healthy food? Are there specific events or activities that we can host/co-host to deepen our relationship with the land that sustains us?

Please email chenshaw@ **EQLT.org** if you are interested in participating to shape the future work of the East Quabbin Land Trust.

THE EAST QUABBIN LAND TRUST

works to foster the sustainable use of our natural and historic resources for the benefit of all through the conservation and stewardship of the farms, woods and waters in our region of Massachusetts.

For more information about the land trust, to become a member, or request a change of address, please contact us at:

East Quabbin Land Trust

P.O. Box 5, 120 Ridge Road Hardwick, MA 01037-0005 413-477-8229

Email: Office@eqlt.org

Visit our website at www.EQLT.org or "Like" us on Facebook!

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Environmentalist at heart - Meet Elizabeth Stefanik

By Cynthia Henshaw

Elizabeth credits her time catching frogs in her backyard wetland for fostering her passion for the environment. The hours playing outdoors as a kid in Ware created a great foundation for her current vocation and avocations.

Elizabeth is an environmental planner with the Rhode Island Army National Guard. Her work involves oversight of permitting and environmental stewardship. She's often in Ware over the weekends to see family, friends and

engage in activities here.

"I've always appreciated being part of a community, and my personal passion is being an environmentalist, which I practice in lots of different ways. I believe that making small steps in your own backyard makes a difference globally.

At Quabbin Regional High School, Elizabeth took the botany and environmental studies classes taught by Becky Bottomley. She eventually become a member of the Envirothon team, competing against other schools across the state to demonstrate their knowledge of soils, water, forests and wildlife.

Elizabeth's environmental passions lead her to join the EQLT stewardship team last year. It's with this group that the concerns of caring for the 1,500 acres of land owned by the organization are discussed and a course of action proposed. That means dealing with everything from trees falling across trails to illegal vehicular use to what types of educational programs we should offer on the land. Elizabeth's knowledge of plants

and environmental processes is a huge asset as we con-

tinue caring for the land.

The community garden at Wendemuth Meadow in North Brookfield is heading into its third year. Elizabeth is volunteering to help prep the garden space this spring by turning the straw mulch into the soil and creating raised beds. Another key task is likely to be watering over the summer months, especially if we have another drought. Community gardeners use the space to grow healthy veggies, learn from others about growing techniques or strategies, and to share seeds and other resources around growing their own food. That also means sometimes plucking and eating straight from the plant! "I'm interested in being part of the community garden network so I can get to know other community members and bring fresh food to the seniors at the North Brookfield Senior Center who otherwise wouldn't have that great produce." Growing healthy food is in her family background. Elizabeth's maternal grandparents emigrated from Poland in the early 1960s, landing in Ware and farming on Fisherdick Road.

Throughout her formal schooling years Elizabeth spent lots of time increasing her botany knowledge and putting it into practical use. Locally you might recognize her from the plant nursery at the Hardwick Farmer's Co-op Exchange or Hartman's Herb Farm. Also, one summer she also managed the Hardwick Farmer's Market. Dur-

> ing college she interned at Nuestras-Raíces in Holyoke, setting up their native plant greenhouse, which was a space to grow plants for their riparian restoration work along the Connecticut River.

> After graduating from Green Mountain College, Elizabeth worked in Worcester as an inventory arborist for the Asian Long-horned Beetle project. She fondly recalls conducting monitoring visits to the woods in and around the city looking for new infestations. This was after the initial years when most of the trees in the surrounding Worcester neighborhoods were removed, completely transforming the neighborhood landscape. Fortunately, they identified very few infected trees by their tell-tale exit holes about ½" in diameter on the upper branches of many hardwood trees such as maple, birch and ash.

Now, Elizabeth is arborist on the tree planting project

in Ware – helping to plant trees in the densely populated neighborhoods of town. "It's nice to meet people that want to have more trees in their space instead of growing lawns, which provide negligible environmental benefits. Trees are for the long-term!" During on-site visits, Elizabeth gets to share with homeowners the variety of benefits of trees, including cooling their homes, increasing the amount of wildlife visiting their property, minimizing storm water flows and increasing home values become apparent. The saying goes "the best time to plant a tree was 20 years ago. The next best time is today!" Thank you Elizabeth for dedicating time and energy towards making a better community through environmental conservation and enhancement.



Ware Tree Planting Continues...

LET'S PLANT A TREE

by Aileen Fisher

It's time to plant a tree, a tree. What shall it be? What shall it be?

Let's plant a pine—we can't go wrong: a pine is green the whole year long.

Let's plant a maple—more than one, to shade us from the summer sun.

Let's plant a cherry—you know why: there's nothing like a cherry pie!

Let's plant an elm, the tree of grace, where robins find a nesting place.

Let's plant an apple—not too small, with flowers in spring and fruit in fall.

Let's plant a fir—so it can be a lighted outdoor Christmas tree.

Let's plant a birch, an oak, a beech, there's something extra-nice in each... in winter, summer, spring or fall.

Let's plant a... why not plant them ALL?

Get one or more trees planted at your home. You can choose the tree from a selection and we do all the planting work! Call the East Quabbin Land Trust at (413) 477-829 or scan the QR code to request your free tree. Get in touch now and have a tree planted this spring.



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GOLD

















Contact April at agrandinetti@eqlt.org if you'ld like become a partner too!





Muddy Brook: Biodiversity and Ecological Restoration

"In very general terms, restoration

in degraded barrens communities is

a two step-process. The first step is

a one-time timber harvest to remove

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ing barrens obligates (oak, hickory

and pitch pine). The second step is

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"Already the ecological results of res-

toration have been stunning"- Chris

By Chris Buelow

The Muddy Brook Valley of Hardwick and Ware is one of the most ecologically important landscapes in the interior of Massachusetts. At the core of the valley is Muddy Brook Wildlife Management Area (WMA), 1,400+ acres (and growing) of conservation land owned and managed by the Massachusetts Division of Fisheries and Wildlife (MassWildlife). The valley and Muddy Brook WMA in particular — supports a regionally significant assemblage of unusual natural lant communities, which in turn support a wealth of highly specialized and often imperiled species. MassWildlife's focus on ecological restoration in the natural communities of Muddy Brook has resulted in the valley emerging as an important demonstration site for land managers, and is now the center of novel academic research and ongoing teaching opportunities.

The foundation of the valley is its geology. The valley was deeply impacted by the last ice sheet that not only scoured the bedrock of the valley's now steep walls, but left behind enormous sand and gravel deposits on the valley floor. These depos-

its — and their nutrient poor and droughty properties - set the stage for the establishment of suites of highly specialized plants that are adapted to thrive in these otherwise harsh and limiting conditions. These suites of plants — or natural communities — are collectively referred to as barrens due of their association with dry, harsh landscapes. Many of the community expressions that occur at Muddy Brook WMA are globally rare due to their restricted range, strict geological associations, and their continual exposure to modern stressors like development and interrupted natural processes.

Barrens communities are considered to be disturbancedependent, meaning that they require regular intervals of disturbance — traditionally fire — to maintain their specialized species composition and generally open structures. Regular fire on the landscape has two basic impacts: (1) fire limits the establishment of generalist plants (fire intolerant species like white pine), while fire-adapted species (like oak, pitch pine and low blueberry) thrive; and (2) fire maintains barrens structure and reduces the build-up of organic material. In the absence of fire, fast growing generalist species will overwhelm the specialized plant communities, and the buildup of organic materials will increasingly reduce the harshness of the soil, further favoring the establishment of more generalist species. Historically, the Muddy Brook Valley experienced a high frequency of fire both in presettlement and post-settlement eras: a macro-charcoal study by UMass Amherst at Muddy Brook shows high fire frequency on the landscape dating back to 10,000 years, and town records and oral histories show regular wildfire occurring in the valley until 1942.

Buelow

However, recent fire exclusion in the valley has resulted in an ongoing shift in plant composition, moving away from rare and specialized barrens communities to more generalized communities. Fortunately, barrens communities have evolved a series of adaptations that make them incredibly resilient, and so even when degraded by 70 years of generalist competition, they respond quickly when the right type of disturbance occurs. At Muddy Brook WMA, after nearly a decade of study, that disturbance arrived beginning in 2014 in the form of focused ecologi-

In very general terms, restoration in degraded barrens communities is a two step-process. The first step is a one - time timber harvest to remove generalist tree species while retaining barrens obligates (oak, hickory and pitch pine). The second step is the introduction of prescribed fire. As of this writing, Mass-Wildlife has treated nearly 600 acres in the valley with an initial timber harvest, and has applied prescribed fire to nearly 500 acres. Prescribed fire will be the primary management activity moving forward, with an ideal fire return frequency of every 4-8 years in most areas.

Already the ecological results of restoration have been stunning: especially with highly specialized and imperiled barrens-ob-

ligate plants and animals. Muddy

Brook WMA now supports populations of over 20 species listed by the Massachusetts Endangered Species Act (there were 7 pre-restoration); one of the highest densities in the interior of the state. Research by UMass-Amherst has identified the WMA as now hosting one the most diverse bee-faunas in the Commonwealth, with formal inventories documenting an increase from 33 species prerestoration to over 140 species post-restoration (many species being barrens obligates, and at least one thought to be extinct until very recently). Research by

Antioch University shows a similar response by rare and specialized moth and ant species, and Mass Wildlife's own bird surveys show an impressive recolonization by such otherwise declining species as prairie warbler, blue-winged warbler, brown thrasher, field sparrow, and whip-poor-will. And arguably the most inspiring aspect of these responses is by the barrens-dependent (and many cases, very rare) plants whose seeds had lain dormant in the previously degraded ecosystem for nearly 70 years until the recent restoration triggered their germination and subsequent resurgence on the landscape.

The work at Muddy Brook WMA was one of the first restoration projects that targeted barrens communities that had become severely obscured by generalist species. Now the lessons being learned from this project are being applied to similar situations across the region, setting the stage for the broad conservation of some of these most vulnerable elements of biodiversity. Perceived change to familiar landscapes can sometimes be difficult, but from a long-term ecological, historical and cultural perspective, the restoration work at Muddy Brook can be seen as reengaging the processes that once shaped this valley. In turn, this work is allowing the valley to again reach its optimal ecological expression and help sustain local, regional and even global biodiversity.

Photos of Muddy Brook WMA after initial harvest and prescribed burning







Tracking Bird Migration

By Cynthia Henshaw

Since the Motus tracking station was installed at Mandell Hill in June 2022, there were twelve different bird species pinged. At least six different tagged American kestrels were noted in the area through the middle of August. There were successful nestings at the kestrel boxes at both Mandell Hill and Deer Park, very close to the receiver on Barre Road in Hardwick. The Motus tower can get signals from farther away too, so probably birds from New Braintree or even further afield were flying close enough to send a signal to the tower receiver.

During that six-month period other bird species identified included

American woodcock, Bank swallow, Bobolink, Veery, Blackpoll Swainson's Bicknell's thrush, Hermit thrush, Savannah sparrow, Northern Sawwhet owl and American robin. The last being a Hermit thrush at the end of November.

Learn more about the wildlife tracking system at https://Motus. org. The receiver is identified as Mandell Hill (ID# 8764). Now we wait for the kestrels and other birds and animals to migrate north, and just maybe share their location information with the wildlife tracking tower at Mandell Hill.





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\$40K Online Challange

May 6th - May 20, 2023

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