A New Agricultural Preservation Restriction in New Braintree at Thistle Rock Farm

By Cynthia Henshaw

A drumlin is an elongated, ovalshaped hill formed by the passage of a glacial ice sheet. As the glacier moves, the ground or soil are scrapped away, leaving the sides and top of the hill rounded. The longest direction of the hill shows which way the glacier was flowing as it passed over the area. What we now call New England was covered by glaciers several times over the millennium, most recently 18,000 years ago with the Laurentide Ice Sheet. Where we live in central Massachusetts, there's plenty of evidence of past glacial influence, including drumlins throughout the East Quabbin region.

Depending on the underlying layers of soil, a drumlin can be great farmland, even if some portions have steep slopes. That's the case at Thistle Rock Farm on Adams Road in New Braintree. The soils are categorized as Paxton fine sandy loam. The entire field area is considered prime agricultural soils, with slight variation depending on the slopes. The Thistle Rock Farm drum-

lin has grown grasses for generations, providing hay for local cattle, horses, and goats. With it's north-south orientation and running over 2,000 feet long, there are spectacular 360° views from the drumlin's spine.

An Agricultural Preservation Restriction (APR) now permanently protects 48 acres of the Thistle Rock Farm, including the drumlin hay field, a portion of the pasture behind the barn, and associated wooded wetlands that stretch into Oakham. APR's are held and annually monitored by the Massachusetts Department of Agricultural Resources. The APR allows for continued farming on the land, with a broad definition of farm products that can be grown or raised in the future. A site for future farm employee housing or farmstand construction is pre-determined, allowing some flexibility as the farm operation inevitably evolves over time.

The farm has been called Thistle Rock Farm for a century. The Richard Adams, Sr. family came to New Braintree in 1912. Included in *The History of New Braintree*, by Jeffrey Fiske, there are anecdotes written by Donald Adams that share stories typical of farm life in New Braintree in the early years of the 20th century before running water and electricity.

Now, Alden Brodmerkle and his sons, Joseph and Kenneth, are running the farm together. The Brodmerkles have a diversified farm, raising hay, cattle, and a variety of vegetables. As is necessary on any farm, they are expert mechanics repairing trucks and farm equipment. They also work off-farm jobs, such as driving a snowplow for the Mass DOT on state highways in the off-season and other activities.

Running a farm is a complicated business that takes a variety of skills to pull-off successfully. We wish every success to the Brodmerkles and Thistle Rock Farm, LLC!



The newly conserved Thistle Rock Farm in New Braintree

"An important function of the EQLT is to help landowners navigate state programs like the APR program. We have staff and expertise to make preserving farmland a reality. Thanks to the Brodmerkles for partnering with us to preserve this beautiful field!"
- Judith Jones, Board President

MESSAGE FROM THE Executive Director



As we go about our main missional focus conserving more land – there are impacts to the neighbors and community. Conserving our open space brings many positive outcomes, such as cleaner water and air, trails for outdoor exploration, spiritual renewal, homes for wildlife and plants, and lowering flooding risks and soil erosion, to name a few. Despite all the positives, municipal leaders often challenge permanent land conservation on the assumption that property tax revenues decrease, placing a greater burden on residents.

A new study, "Does Land Conservation Raise Property Taxes? Evidence from New England Cities and Towns" is under review, and the report summary can be found at https://harvardforest. fas.harvard.edu/sites/ default/files/jthomps/tax%20 paper%20summary 1 21 final.pdf. This study looked at impacts to over 1400 municipalities between 1990 and 2015 across the region. On average they found that conservation creates increase in the annual tax bill of \$0.72 per \$100,000 of property value.

Not surprisingly, the tax impacts varied by the type of protection and characteristics of the municipality. The greatest increases in property tax rates occur in towns that are growing slowly, had lower median household income than average, or had fewer second homes. The largest tax increases ranged from \$5 to \$30 per \$100,000 of property

The study found that tax rate impacts were not statistically different from zero when acquisitions were done by non-profit organizations or state and federal agencies. The possible explanations include that the increase in nearby property values offsets decreased revenue and that many of the conserved parcels are already enrolled in the current use program with existing reduced tax payments.

When queried about any loss in property tax revenue because of a land conservation project, my response is to acknowledge whatever the facts are about revenue. However, it's more important to dive deeper into a conversation about the real quality of life benefits that come from dedicated open space within each of our communities. It's important to engage in the full suite of benefits and costs that come with any specific action. Property tax receipts are only one slice of the whole pie.

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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Become a Preserve Steward

By Jess Cusworth



Here's a great opportunity to take part in 'Caring for the Land that Sustains Us'! Do you have a favorite EQLT trail or preserve you frequent and would like to keep in great shape for the community? Sign up to become a Preserve Steward today!

Preserve Stewards are asked to commit to:

- Hiking a designated trail at least 3 times a year (monthly preferred)
- Visiting trails after big storm events to ensure trails are safe and clear of debris
- Picking up any litter and debris on the property
- Ensuring that trails are well marked
- Removing large branches from trails
- Alerting EQLT of downed trees that need to be removed
- Keeping kiosks cleaned, up-to-date, and performing any repairs
- Cleaning and maintaining any educational signage

Who can be a Preserve Steward?

Individuals, families, and organizations may take responsibility for a trail or preserve to keep it in excellent shape for all to enjoy it. No experience required! We'll train you on all you need to know.

Why become a Preserve Steward?

Becoming a Preserve Steward is a great way to support EQLT and develop a personal connection with the land we love and respect. Visiting the trail during different seasons of the year, observing nature, reporting trail conditions, and providing for the care and maintenance of a particular trail over time are all wonderful ways to get to know a preserve and contribute to EQLT's important work.

We hope to find two Preserve Stewards per property. Explore our preserves by scanning here:



If you're interested in becoming a Preserve Steward, please contact Jess at Jcusworth@eqlt.org and let her know which property (or properties \bigcirc) you're interested in stewarding.



Rick and Bill painting the fence at Mandell Hill



Pat hanging trail blazes at Eva's Woods



Brian installing a boardwalk at Deer Park

"Finding the Mother Tree" Reflections

By Jess Cusworth

The East Quabbin Land Trust recently hosted a lively discussion about Suzanne Simard's book, Finding the *Mother Tree.* It's a fascinating page-turner that tells the story of Simard's scientific endeavors throughout her career studying forest ecology, interwoven seamlessly with her own anecdotes about her personal life. During our discussion, participants agreed that Simard's scientific conclusions were incredible, especially her evidence demonstrating the sentient qualities of trees and the forest ecosystem as a whole. Read an excerpt from her book explaining this concept:

"In this search for the truth, the trees have shown me their perceptiveness and responsiveness, connections and conversations. What started as a legacy, and then a place of childhood home, solace, and adventure in western Canada, has grown into a fuller understanding of the intelligence of the forest and, further, an exploration of how we can regain our respect for this wisdom and heal our

relationship with nature.

One of the first clues came while I was tapping into the messages that the trees were relaying back and forth through a cryptic underground fungal network...I learned that this network is pervasive through the entire forest floor, connecting all the trees in a constellation of tree hubs and fungal links...the biggest, oldest timbers are the sources of fungal connections to regenerating seedlings. Not only that, they connect to all neighbors, young and old, serving as the linchpins for a jungle of threads and synapses and nodes...The most shocking aspect of this pattern—that it has similarities with our own human brains. In it, the old and young are perceiving, communicating, and responding to one another by emitting chemical signals. Chemicals identical to our own neurotransmitters. Signals created by ions cascading across fungal membranes.

The older trees are able to

discern which seedlings are their own kin. The old trees nurture the young ones and provide them food and water just as we do with our own children. It is enough to make one pause, take a deep breath, and contemplate the social nature of the forest and how this is critical for evolution. The fungal network appears to wire the trees for fitness. And more. These old trees are mothering their children. The Mother Trees. "



Read a review of "Finding the Mother Tree" written by Carole Dupont, a professor at Springfield Technical Community College, who joined us for our book discussion:

"Working to solve the mysteries of what made the forest tick, and how they are linked to the earth and fire and water, made me a scientist. I watched the forest and I listened. I followed where my curiosity led me, I listened to the stories of my family and people, and I learned from the scholars. Step-by-step -- puzzle by puzzle -- I poured everything I had into becoming a sleuth of what it takes to heal the natural world." (Excerpt from Finding the Mother Tree by Suzanne Simard).

Hundreds of experiments testing and validating her theories were carried out by Suzanne with her coworkers, colleagues, scientists, family members, friends, and her students from the University of British Columbia, where she is a member of the forestry faculty. Through this investigation, she discovered how trees communicate and form relations to create a forest society. She planted thousands of seedlings under varying conditions and describes in a very special way the struggles and difficulties she and her team encountered attempting to validate their work with a resistant forestry community. Her personal family story is very poignantly interwoven into her academic and scientific pursuits.

Suzanne describes the various types of mycorrhizal fungi that form symbiotic connections with the root hairs of all trees and forest plants. The fungal mycelium constitutes thousands of miles of the interconnected underground system, the microscopic hyphae, the wiring that conveys messages and communications throughout the forest and the channels for transferring nutrients like carbon, nitrogen, sugar, and water.

Mother Trees the are majestic hubs - the sources of forest communication, protection, sentience. And when Mother Trees die,

they pass their wisdom down to their offspring.

This book is a wonderful history of the evolving views from clear cutting, based on the theory that trees are competitive with one another, and that weaker, less economically important species need to be removed. The emerging new philosophy of complexity science - working with all the multifarious interactions that make up the forest -- is transforming forestry practices into using more adaptive and holistic methods.

You can learn more about the Mother Tree Project at mothertreeproject.org and you can become part of a movement to save the forests of the world. This is a very well written, informative, and enjoyable read for every naturalist, or just anyone who loves trees or is looking for a great book!

- Written by Carole Dupont

Geocache Scavenger Hunt April 16 - April 24th

A family-friendly event for intrepid explorers at EQLT preserves



Wendemuth Meadow, North Brookfield



Mandell Hill, Hardwick

Scavenger Hunt Rules

1) Registration

- Visit EQLT.org and head to the Geocache Scavenger Hunt page. Scroll down to "Upcoming Events" at the bottom of the page to register.
- Each registration is \$10. Participate as an individual or a team, and select which difficulty level to play.
- Each registrant/team will receive an EQLT deck of playing cards for participating.

2) The Hunt

- Each participant/team will be emailed five sets of GPS coordinates when the hunt opens on April 16th.
- These coordinates will be used to find hidden "geocache" boxes at EQLT Preserves.
- Take one sealed envelope from each box, which contains a playing card don't open this envelope to look at your card!

3) Poker Hand Reveal Party - Sunday, April 24th | 2pm | Magi's Lawn at the EQLT office

Bring your five cards, still in their sealed envelopes, to the EQLT office to reveal the winning hands (best poker hand wins!)

Thank you to our sponsors!

Gold





Silver















Cultivating Creativity and Curiosity This Spring

By Louisa Rossel

Spring has arrived! The days have grown warmer and the snow has melted, revealing moss-covered rocks and a forest floor brewing with the promise of growth. So many forms of life have awakened from their slumber or returned from their winter hiatus. My own excitement for the warm months ahead blooms as brightly as a purple crocus flower. I am ready.

This winter, I've stayed in the warm indoors planning for the Forest Play Trail at the East Quabbin Land Trust office. This trail will be geared towards children in pre-school and elementary school. It will allow children to explore their natural curiosities while walking in the woods and stopping to play at various stations along the way. With feedback and suggestions from community members, I created a trail map detailing a variety of stations along the Forest Play Trail, ranging from "Den Building" to a Water Wall. As with any project, there comes a time when the pen and paper must be put down because the planning phase cannot last forever. With the snow gone and the change of seasons upon us, it was time to pick up a rake and get started.

Alongside Margaret, an intern from Monson High School, and Jess Cusworth, the EQLT's Program Coordinator, we entered into the undisturbed forest to carve a path. We snaked our way beside rocks covered in lichen and under trees with arching branches. With only a rake and two loppers in hand, we followed the gradual inclines and declines of the land. We found various features of the forest that stood out to us as beautiful or unique. I remember pointing to three of the largest oak trees in the area that stood beside one another. The way the afternoon sun beamed down upon them, casting a golden shadow upon their bark was captivating and eye-catching. We made sure that we could share this beautiful sight with

the families who trek along the Forest Play Trail this summer. Additionally, we found a tall eastern hemlock with branches that caved downwards into a perfect den-like structure. With some help from Cynthia Henshaw, the strong, central backbone of the Den Building station was already on its way to completion. By simply walking through the forest, keeping our eyes wide open, and allowing our own creativity to take control of the trail's pathway, we successfully found a beginning and an end in just a few hours. After the trail was cleared, we all took a walk through it. Margaret and I continuously commented on how it truly felt like this trail was meant to be here on this land.

While out in the forest, I was continuously amazed by chipmunks scurrying about along the rocky edge of the trail. I was in awe that I could spend so much time studying the grooves of the boulders and how they fit together like puzzle pieces. Then, I could simply turn around and stand before a wide expanse of valley and hills in the distance. Between witnessing these sights of nature near and far, taking in the smell of the fresh air, and tuning into the sound of wind rustling through the tree branches, I realized I was paying close attention to my senses. I wanted to share this experience with the families who walk along this path. In addition to the Forest Play Trail, I've also created a separate Sensory Walk at the EQLT office. This trail will allow adventurers to take in the sights, sounds, and smells of the natural world and build an appreciation for the place where we live.

Between the Forest Play Trail and the Sensory Walk, my excitement for spring is in full bloom. As warmer weather arrives, opportunities to volunteer for this new and exciting project will arise. With creativity and curiosity continuing to be my guide from start to finish of these projects, I am excited for the bounty of potential they each hold.



Louisa and Margaret clearing the trail



One of the many interesting natural features for kids (and adults) to explore on the trail

"In addition to the Forest Play Trail, I've also created a separate Sensory Walk at the EQLT office. This trail will allow adventurers to take in the sights, sounds, and smells of the natural world appreciation and build an for the place where we live." -Louisa Rossel

Welcoming Kestrels for the 2022 Season

By Jess Cusworth

Each year in early spring, American Kestrels return to our region to nest in natural cavities or special nest boxes. With their distinct eye stripes, you may spot them soaring over hay fields to scoop up grasshoppers or perching high in the trees. EQLT currently has over 20 kestrel nest boxes placed throughout our region, both on EQLT preserves and on private properties, thanks to the conservation-minded landowners who allow us to install boxes on their land.

This year, we're installing eight new boxes and replacing older boxes with a new box model created by volunteer Harrison Achilles. Harrison created a box with a small screened-in viewing panel, which will allow for volunteers to check for kestrel chicks in the summer without opening the main box door and disturbing the chicks.

Over the next few months, volunteers will monitor the boxes for nesting kestrel pairs and hopefully plenty of chicks by the summer. None of this work would be possible without the help of our wonderful volunteers. A big "thank you!" to Harrison, Jeff, Mike, Merlon, and Brooke for all their help so far this season!

Are you interested in monitoring one of our new kestrel boxes this season? Each spring, volunteers grab their binoculars and head out to check (from a distance) if our nest boxes have attracted nesting pairs of kestrels. Volunteers are asked to commit to at least one hour of total monitoring every week during May and early June. This monitoring will inform future stewardship decisions. Email Jess at Jcusworth@eqlt.org for more information on monitoring a box this spring.



Volunteers preparing a kestrel box for the 2022 season



Kestrel using a box at Wendemuth Meadow



Installing a box with the screened-in viewing panel. Simply unlatch the panel on the right to see inside!

Motus Wildlife Tracking System at Mandell Hill

By Jess Cusworth

The East Quabbin Land Trust is excited for the opportunity to help facilitate data collection about wildlife migration from our region to the Motus research project by installing a tracking receiver at Mandell Hill in Hardwick this spring.

The Motus Wildlife Tracking System (Motus) is an international collaborative research network that uses radio telemetry to track the movement and behavior of small flying creatures such as birds, bats, and large insects. Researchers place small, lightweight radio-transmitters on these critters, and their signals are detected by receivers scattered around

the landscape. Motus is a program of Birds Canada in partnership with collaborating researchers and organizations.

Having a large network of receivers placed strategically across areas of interest enables researchers to see where animals go, how fast they move between points, and how long they stay in an area.

We encourage folks to take a look at the fascinating work facilitated by the wildlife tracking system by visiting motus.org or scanning below.





Stations in the Motus network. Image from motus.org.



P.O. Box 5, 120 Ridge Road Hardwick, MA 01037 Phone 413-477-8229 www.EQLT.org

INSIDE: A New Agricultural Preservation Restriction in New Braintree at Thistle Rock Farm



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2022 Spring Fundraising Challenges

\$40k Online Challenge – April 16 through May 1, 2022

Every gift will be matched dollar-for-dollar up to \$40,000!

Please help us reach this ambitious and important goal.

We will be reaching out via email and social media to make the most out of this opportunity.

Donations can be made by check or at EQLT.org

Early gifts made toward the Challenge will be counted, too.

Geocache Scavenger Hunt – April 16 through April 24, 2022

See inside for more details on this fun, family-friendly event.

Business sponsorships still available!

Contact Richard Cavanaugh at rcavanaugh@eqlt.org for more information.