

60
YEARS



MANCHESTER ESSEX CONSERVATION TRUST

PERMANENTLY PRESERVING NATURAL BEAUTY, WILDLIFE HABITAT
AND OPEN SPACE RESOURCES

SPRING 2023



MECT is 60 Years Old!

Picture three friends, sitting around a kitchen table, sharing their observations and concerns about the future of Manchester as Route 128 became a reality, **and** growing a desire to step up and do something. Many of their “meetings” were walks in the woods that they wanted to protect permanently. Dr. Frances “Quitsey” Burnett, Albert Creighton, and George “Gid” Loring made a commitment to each other and to the wildlife habitat, carriage trails and the remaining Cathedral Pines.

In 1963, the trio formed the Manchester Conservation Trust, and began the long process of untangling land ownerships, gaining support of family, friends and established land trusts, as well as the Town of Manchester. As they began to show impact with their successful conservation efforts, the name of our organization was expanded to reflect the areas that they were committed to protecting: Manchester Essex Conservation Trust.

MECT is 60, continues on page 7

Conserving 20 Acres in Manchester and 20 more in Essex

When you hike or bike through the woodlands, the conserved land and the unprotected land look the same. Particularly in Manchester and Essex, the woods are often conservation land and privately-owned land knit together like a puzzle, and it's hard to know whether you're traveling over a parcel that can be developed by the owner someday. It certainly lends a sense of urgency to our work, and that's why we are so excited to announce the addition of 20 more acres of conservation land in Manchester's Western Woods, bringing our holdings there to 175 acres! Securing that parcel was a fabulous way to start the year, and we need your help to do it again with another 20 acres in Essex.

Sometimes, when land is passed from generation to generation, records aren't clear or may be missing. Such was the case of Marileeds “Leeds” Chamberlain,

Conserving, continues on page 7



Amy Reilly, Leeds Chamberlain (former land owner), Peter O'Donnell (MECT Staff), George Davis (MECT Board of Directors) and Gina (who loves to help find trails) explore the six parcels that were owned by the Chamberlain and Wigglesworth families.

MECT Established in 1963

What brings you to the woods and wetlands? Maybe it's peace and solitude, exercise, or a chance to gain mental clarity. Perhaps you visit by bike, exploring with your children, walking your dog, or meeting a friend. We are pleased to steward these spaces for you, and we hope you feel the benefits of natural settings, marvel at nature's resilience, inspire younger generations to be curious, participate in a fleeting encounter with wildlife, and more!

We began our work by researching the historical ownership of the tiny lots that had once been partitioned and awarded to families to supply firewood and food. The paths were connected and shared, and many trails had their roots prior to the colonization of this region. We know that there were indigenous habitants from the Pawtucket Nation living here, and we honor their history of fishing and

farming in harmony with the land. In the spirit of the communities that have come before us, and the deep love for this space which has sustained and enriched generations, we have assembled this mosaic of tiny parcels into a permanently conserved area. Each small lot with its own story makes a collective contribution to the well-being of our towns and its inhabitants. It is

land to share as wildlife habitat, and a natural place for people to visit and learn.

We hope you notice the trees with their ever-widening girths, and the mosses and lichens enjoined with the landscape and ledges. The trees are host to many insects and arthropods that feed the migratory and resident bird populations.

Vernal pools encourage and

support more biodiversity than any other forest or water feature in New England, and we are so lucky to have several here. The fungi networks thrive in these soils and detritus since the land has never been subjected to modern farming or chemical intrusions.

Enjoy this land, in your own special way, with respect for the inhabitants and all that pass through. Please support our efforts to protect more of this landscape—some of this land is still privately owned and its future is unknown.

mect.org/saveourwoods

New Trail Stewards

We are so grateful to our MECT Trail Stewards! This dynamite team assembled this spring to go over their responsibilities and to pick which trails they'll each focus on. They'll do everything from replacing blazes to clearing downed branches and more. High five them if you see them out there!



Fairy Shrimp

by Ani Sarkisian, MECT Communications and Engagement Coordinator

I read a newspaper article recently that the feeling of “awe” can be excellent for your health. Author Hope Reese explains, “Experts say wonder is an essential human emotion and a salve for a turbulent mind.” Friends, I have a turbulent mind, but it is one that is calmed by nature; so when Patrice, MECT’s executive director, asked if I would join her to help collect data from vernal pools, I jumped at the chance.

I’d heard of fairy shrimp, but it was one of those things I’d never bothered to look up, like why every soup recipe needs a bay leaf. All I knew was that they could only hatch under perfect conditions and that vernal pool fairy shrimp are federally listed as a threatened species. They are a true vernal pool obligate species; while their life cycle is fast (16 days) their last generation of eggs of the season can’t hatch unless the eggs dry out completely, and those eggs can lie dormant on the forest floor for years until conditions are just right. Fairy shrimp support a stunning array of biodiversity, and are eaten by birds, frogs, salamanders and insect larvae. They themselves are filter feeders, eating algae, bacteria, plant detritus and animal waste. Gross.

Patrice led the way and we began recording wood frog choruses and searching for signs of salamanders. Salamander spermatophore dotted the leaf-covered floors of the pools, looking like the little white things that aerate potting soil (another thing I have to look up). Although we scooped up a few wriggly creatures that turned out to be mosquito larvae, there didn’t seem to be much going on that day. Then I heard

Patrice stop and whisper, “A shadow!” and dive for her net—I froze. Sure enough, she had found the one and only fairy shrimp that we saw that day, and they are not easy to see; even more impressive, she’d found it by its shadow *alone*. When you see a video of a fairy shrimp (check out our social media) you’ll notice that they actually flutter. They camouflage perfectly, but it was the fluttery shadow that caught Patrice’s eye. At first you look at them and think, “That’s it? *This*

is what I was waiting for?” but when you see how it looks like they have shimmering pink skirts and sharp little white mermaid tails, it makes perfect sense that their common name is “fairy” shrimp. They flit around the pool on their swimmerets like little woodland sprites and it’s absolutely whimsical. I was enchanted. In the days that followed we found loads more in other pools, and I lay out on a log and stared at them much longer than I needed to for



our investigatory purposes. Fairy shrimp are a creature that makes little sense to human minds: it’s like the mystery of how a butterfly can find its way to its winter resting place despite having never made the journey, a fairy shrimp egg lying on the forest floor is nature’s act of hope and faith. It can even be the silver lining of a drought: I would imagine that some of the places where we saw fairy shrimp this year haven’t been dry enough for fairy shrimp to hatch for years. Spring is a wonderful time of year for a little bit of awe, and if you’re someone who thinks they’re pretty well-versed in the wonders of the woods, chances are you’ve yet to see a fairy shrimp. Get out there next spring and search for these magical, awe-inspiring vernal pool dwellers! In the cold and gray days of end-of-winter-not-yet-spring they were just what I needed.

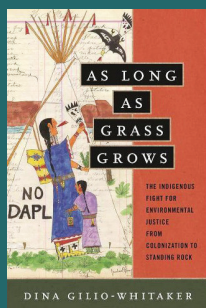
Wet and Wild Treasure Hunt

O ooh, what a feeling! When you have counted four egg masses, but need five to certify a vernal pool—then, after twenty minutes of searching, you find a jackpot of “obligate species” evidence! In this case, the obligate species appears to be yellow-spotted salamanders. These eggs will hatch in a few weeks, and the larval salamanders will remain in the pond for a few months. They have external gills until they mature and crawl out of the pond.



This vernal pool is in Manchester's Western Woods. We are grateful to the town of Manchester for giving us permission to certify the pools that cross the town-owned land, to provide another layer of protection to the pools extents and to the surrounding uplands that the salamanders and wood frogs will inhabit once they leave the vernal pools. The state relies on volunteers and organizations like MECT to certify vernal pools. We'll be submitting data to the state for at least 20 potential vernal pools this year and we look forward to the state's review and certification.

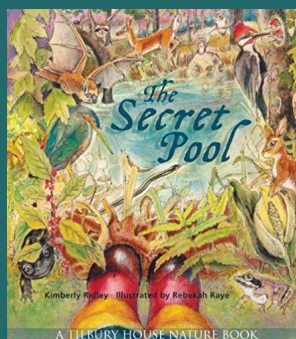
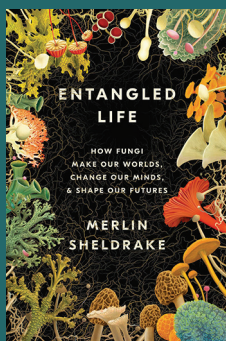
WHAT WE'RE READING & LISTENING TO:



As Long as Grass Grows by Dina Gilio-Whitaker. Across our country, land trusts are recognizing the indigenous history of the lands that the land trusts currently “own” and steward. This book explores the history of treaty violations, struggles for food and water security, and protection of sacred

sites by indigenous people in the US. The book offers new approaches to environmental justice activism and policy change.

Entangled Life: How Fungi Make Our Worlds, Change Our Minds & Shape Our Futures by Merlin Sheldrake. A deep dive into the world of mushrooms and their less visible structures that lie below the surface of the ground, within other plants and animals or in partnership with algae as lichen. Pure fascination.



The Secret Pool by Kimberly Ridley, Illustrated by Rebekah Ray. This book will launch many outdoor adventures and curiosities for young and older children. The pictures offer opportunities for counting and searching for objects and colors—

first on the pages - then outdoors. Two story lines are juxtaposed through the book—short-phrases with fun sensory words on each page for the quicker read (jazzy, slimy, lumpy and bumpy), and more in-depth descriptions to deepen understanding. The watercolor illustrations are realistic and beautiful and will generate hours of enjoyment and wonder, as you and your budding naturalist examine every nook and cranny for hidden wildlife.

Beech Leaf Disease

Beech leaf disease is caused by a microscopic worm known as a nematode. Harrowing, yes. We first started hearing reports of this relatively new pestilence from Ohio about 10 years ago, but sadly it has made it all the way to the Commonwealth. Both American and European beech trees are vulnerable, and it is an issue that only exacerbates the decimation of our native beech-hardwood forests in New England. Property holders that identify beech leaf disease on their trees have been asked to report their findings to the MA Department of Conservation and Recreation for monitoring. This disease is so new that there are no established treatments or recommendations.

On heavily infected trees many buds will be killed, and severely damaged leaves will fall off soon after emerging in May. In late May or early June, many American beech trees produce new leaves. The new leaves are formed in newly produced buds. The new leaves do not show symptoms of beech leaf disease. This is because the particular nematodes overwinter in beech buds and damage the leaves inside of the buds. When new, replacement buds are produced and new leaves emerge, the new leaves don't have nematodes and don't have beech leaf symptoms. This re-leafing places additional stressors on the trees. The new leaves may be paler, thinner, and smaller than normal, healthy leaves.

The nematodes associated with beech leaf disease, *Litylenchus crenatae mccannii*, are part of a larger family of worms of the phylum Nematoda. They have unsegmented cylindrical bodies often narrowing at each end, and include free-living species that are abundant in soil and water, and species that are parasites of plants



Beech leaf disease signs include: dark bands between the veins of a leaf, leaves that are curled and shriveled, and a thin lower canopy.

and animals, such as eelworms, pinworms, and hookworms. Most nematodes will live unnoticed or recognized, while some nematodes are used as beneficial controls of pests in agriculture. Other nematodes cause health concerns for livestock, cats, dogs, and humans.

How can we keep our trees and forests strong and resilient? How can we make decisions that will better protect them? Avoiding

further fragmentation of the landscape, preventing deforestation, decreasing impervious surfaces in natural areas, tightening bylaws to combat erosion and run-off are a good place to start. The beech leaf and beech bark diseases add stress to the individual trees. Trees that are not receiving an adequate clean water supply have additional stressors, and are more likely to succumb to the diseases. The effect of road salts, and other chemical contamination exposures on trees afflicted with beech leaf disease have not yet been examined.

Perhaps some of the beeches in our forests will benefit from the biodiversity of the soil microbiome—a strength of our conserved land that has not received agricultural pesticides and fungicides. Perhaps some of the beeches will benefit from predators or diseases to the harmful nematodes themselves. It is believed that migrating birds have spread the disease, but scientists are expanding their list of potential vectors to small mammals, and finding links to virus and bacteria. Perhaps our woodlands and wetlands, popular sites for migrating birds may receive an antidote as well in the future. We can only hope the natural diversity of this habitat may hold the keys to some disease resistance.

In case you were wondering... What happened with the Shingle Place Hill 40B Appeal at the state Housing Appeals Committee?

Not much yet! The decision to accept our status as Intervenor, to participate in the appeal defense, has not yet been rendered. That is the first step, then the appeal court dates will be scheduled. So we wait, and in the meantime, we work on conservation efforts that will permanently conserve land that you already love. We will keep you informed every step of the way. **Together we can make a crucial difference, right here, close to home.**

Guttation

Guttation is a tool in a plant's arsenal to sustain it through periods of an over-abundance of moisture and water in a root system. It is a process that maintains balance between water and nutrients in a vascular plant. Usually seen on plants with hairs (called trichomes), which work as part of a respiratory system, guttation is the process of emitting water droplets from their pores. But all is not as it seems: the liquid secreted is not just water, rather it's a mixture of potassium, sugar, and other compounds, called xylem sap. This is a different process than transpiration, in which water is absorbed through a plant's roots and released from the leaves as vapor, as the plant "breathes." The purpose of guttation is to remove excess water from a plant and only occurs at night, which is



The hairs on plants' leaves serve other purposes as well, and demonstrate the resilience of the plant community. Tiny down-like hairs on this mullein plant shield the leaves from wind and sunlight and help to collect condensation from dew, mist, or fog on the plant leaves, which are absorbed in the leaves at the stoma or pores through a process called foliar uptake.

one way you can distinguish it from dew (moisture settling on plants). Those same trichomes that secrete liquid can also help to hydrate the plant: the hairs break up large droplets of water to make smaller, bite-sized drops that are easier to absorb. This makes trichomes a key factor in keeping plants resilient to conditions year after year. Be a backyard scientist: identify some plants in your yard that have hairs, and then take a walk on a clear night after a few days of rain. See if you can witness guttation in action!



Marcescence

Have you noticed that some deciduous trees retain their dead leaves through the winter and into the spring? This phenomenon is called marcescence. A quick drive down School Street Manchester/Southern Avenue Essex provides a ready display with marcescent beech and oak trees unfurling new leaves and retaining last season's leaves. There are several theories about why these trees retain their leaves. According to Doug Tallamy in his book "The Nature of Oaks," one or more of these theories may have led our local beeches and oaks to retain their leaves as the species evolved and adapted to conditions: 1. The retained leaves make it harder for browsers, like deer, to eat the shoot tips, 2. The leaves make more noise, which browsers try to avoid, 3. Marcescent leaves fall to the ground later, and slow the rate of decomposition of the leaf biomass, 4. The leaves trap more snow and moisture in the spring.

Last season's dead beech tree leaves were retained all winter and share branches with brand new leaves.

MECT is 60, continued from page 1

Throughout their years of service to the community and the land, “we had so much fun,” says Gid Loring, the sole surviving founder. Gid brought his finance background and his love of birds to the table. He served as treasurer and newsletter editor for many years, and even financed some of the acquisitions. “I did whatever the group needed me to do,” he says, “and I learned so much more about nature and native plants.” Though Gid chose finance over ornithology as a profession, his ear for birding was legendary, likely fine-tuned by his life-long musical passion.

We are so grateful for the spirit and passion that the founders imbued into the Manchester Essex Conservation Trust. To see an animation of how the efforts of our three founders have multiplied over the years, from protecting tiny woodlots like puzzle pieces, to more than 1,600 acres of conserved land, go to mect.org/saveourwoods.

Gid Loring, founder, recounts his involvement in the early years of our land trust.



Conserving, continued from page 1

of Seattle, Washington, and the 20 acres we acquired in Western Woods. Her father purchased partial rights to the parcels in 1966 with plans of monetizing his investment, and for decades the family heard about “The Land” without ever really knowing where it was. When Leeds inherited the land, she discovered the town couldn’t tell her where the land was either. She worked with the state registrar of deeds in South Essex County, poring over title documentation with her mother, Marileeds Heard (whose family founded the Ipswich Public Library and Boston China Trade) then 88 years old. Ultimately, her research assisted the town of Manchester in locating the parcels on the town assessors’ maps.

MECT reached out to Leeds in 2021 to discuss her family’s land, and serendipitously she already had a trip scheduled to Manchester. Our staff GIS (Graphical Information Systems) specialist was able to lead us to the rugged and beautiful parcels with Leeds and a family friend. From there, we worked with Leeds and the other owners to acquire the land through purchase and donation, and after 18 months of discussions and site visits we closed the deal on March 31. The family

is grateful for the efforts on everyone’s part to solve this mystery, and we are so pleased to add another piece to our conservation puzzle.

Meanwhile, over in Essex, the acquisition of another 20 acres of ancient woodlots has been taking a much longer route, and this is where we need **your** involvement. MECT has been interested in acquiring 20 acres on the northern boundary of the Wilderness Conservation Area, off the unpaved section of Rocky Hill Road, for decades. The owner has had a plan to open up Rocky Hill Road, pave it, and put in a development of town houses under Chapter 40B. Extensive soil testing has already been completed. At the same time, the owner is willing to work with us to conserve it if we can act quickly to purchase it; he loves the land and says it reminds him of his childhood home in Vermont.

We have a funding gap to fill before the anticipated end of June 2023 closing. If you are able to contribute to this project, under our new Save Our Woods capital campaign, you can find more information here: mect.org/saveourwoods. There’s no time like **now** to preserve these precious natural spaces and their stories. Help us add another critical piece to the puzzle!



MANCHESTER ESSEX CONSERVATION TRUST

P.O. Box 1486 ■ Manchester, MA 01944

Non-profit Organization
Third Class
U.S. Postage
PAID
Permit No. 21
Manchester, MA 01944

Membership is Connection **SO JOIN US TODAY!**

Manchester Essex Conservation Trust

P.O. Box 1486, Manchester, MA 01944

978-890-7153 conserve@mect.org

www.mect.org

Trustees

President: Matthias Plum, Essex

Vice President/Clerk: Albert M.
Creighton III, Manchester

Vice President: Jonathan Calder, Essex

Lynn Atkinson, Manchester

Tom Barrieau, Essex

Michael Carvalho, Manchester

Frances Caudill, Manchester

Jeffrey Cochand, Manchester

Gregory Crockett, Manchester

George Davis, Manchester

Garlan Morse, Jr., Manchester

Julie Scofield, Essex

George Smith, Manchester

Staff

Patrice Murphy, Executive Director

Alida Bryant, Finance &
Development Director

Peter O'Donnell, GIS & Conservation
Data Manager

Ani Sarkisian, Outreach Coordinator

What it means to be part of a community committed to the hyper-local environmental issues of Essex and Manchester:

■ **Conserving natural spaces** like 27 more acres in Manchester's Western Woods securing an access route to a robust trail system, full of history and biodiversity, and wrapping up a purchase of 20 acres in Essex at the Wilderness Conservation Area with trails you love, vernal pools, and natural beauty. We are nimble, streamlined, decisive, and ready for action!

■ **Defending vital ecosystems** from the threat of inappropriate development like the proposed Shingle Place Hill 40B. The renderings we commissioned helped give the community the full picture of the scope of the project, and the experts we hired were able to supply the ZBA with hard data, supporting them in their decision to DENY. People like you made this possible!

■ **Connecting our members** to exciting and enriching events at our hikes, talks, volunteer opportunities, and events with local businesses and experts. Our annual meeting, hosting Ben Kilham from the Kilham Bear Center, was full to capacity with community members eager to learn about the New England Black Bear and how to co-exist with them. All of our events are open to the public and free!

JOIN US TODAY!
Use the enclosed
envelope, or make a
secure transaction at
www.mect.org/join.



Manchester Essex Conservation Trust