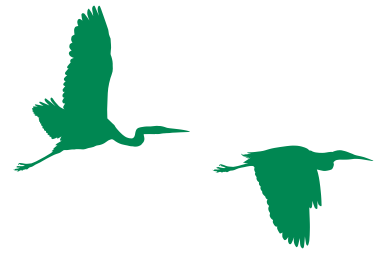


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Lyme Land Trust

SPRING 2023 NEWSLETTER

Foresters Explain New Nehantic Project

We love our forests! A full house on February 26 at the Lyme Public Library learned about forest ecology management during a presentation sponsored by the Lyme Land Trust, Town of Lyme, Lyme Public Library, and CT DEEP. Tony Irving, the moderator (forest ecologist and Lyme Land Trust president-elect), CT DEEP foresters Alexander Amendola and Frank Cervo, and retired CT DEEP forester Emery Gluck, discussed the history and the challenges facing Connecticut forests today, and how they are being managed to address these issues and enhance the resiliency of the forests.

Because of the abandonment of Connecticut farmland in the mid-1800s, most of our forests are 80 to 100 years old. Almost 70% of our woodlands are oak/hickory forests which is natural and desirable for our ecosystem, but the widespread homogeneity of age and size makes Connecticut forests vulnerable to disturbances such as disease, invasive insect pests and strong winds. In many forests, the mid-story and understory has grown very dense in the absence of relatively frequent fires that have historically occurred. The shadier forest severely hinders younger oak, hickory, and other shade-intolerant trees. That, plus heavy deer browse and invasive plants, creates a scenario where there are few young oak and hickory trees to replace the mature ones when these are gone. In addition, we are lacking a diversity of habitat to support a variety of species.

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In March, Jim took a group to explore the habitats in the forests and wetlands of Brockway-Hawthorne Preserve.

Please Welcome Lyme Land Trust's New Environmental Director

The Lyme Land Trust is pleased to welcome our new Environmental Director, Jim Arrigoni. Jim most recently worked with the Connecticut Audubon Society as a conservation biologist. He brings a wealth of knowledge and experience in management plans, ecological restoration, and habitat enhancement as well as creating and presenting educational programs.

He has seamlessly taken on the role from Sue Cope, and is already working on several projects for us, including overseeing invasive plant removal in Banningwood. He will be leading hikes regularly where you can get to know Jim and learn more about the wonders of our local Lyme habitat.

The Environmental Director oversees the stewardship and monitoring of all of our preserves, in cooperation with the Stewardship Chair.



Foresters Tony Irving, Alex Amendola holding his bonsai pitch pine tree, Emery Gluck, and Frank Cervo.



Tiffany Farm Haying Season, photographer: Penny Reneson. *Imagining Lyme*, People's Vision Award 2022. Taken in July at Tiffany Farm. Each season, a panel of judges chooses three photos of distinction based upon the criteria of emotional impact and creative design. At the end of the year, the Annual People's Vision Award allows everyone to vote for their favorite. See more photos and find out more about submitting your own at imagininglyme.org.

Foresters Explain New Nehantic Project

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Alexander Amendola explained the forest management project, begun by Emery Gluck, that he will oversee. Trees will be judiciously harvested in specific areas in Nehantic State Forest. The trees to be harvested are currently marked with blue paint. Much of the project will be managed to promote young forest habitat which was historically maintained and regenerated by fire, storms, and tree clearance. This will increase carbon sequestration, and improve wildlife diversity. Also emphasized will be sustaining the upland pitch pine/shrub oak ecosystem that was once common in Connecticut.

Frank Cervo is a service forester for private landowners, including land trusts and municipalities. Although Connecticut is approximately 61% forested, 71% of forests are on private land. Frank is available at no charge to evaluate private woodland properties and help develop management plans. For more information, go to portal.ct.gov/ and search for "Service Forestry".

On March 12, the three CT DEEP foresters led a tour into Nehantic State Forest to give the public an opportunity to see some of the areas where trees will be removed as indicated by blue paint. No work will be done May to August to avoid disturbing Cerulean warbler and other species of greatest conservation needs during sensitive times.

CT DEEP forest management is based on the Connecticut Forest Action Plan which is updated every 10 years. For more information, look for "Nehantic Forest" in the list at ct.gov/deep.

Upcoming Tuesday Treks

Join us for a refreshing walk on a Lyme preserve led by a board or staff member of the Lyme Land Trust. We meet at 9:00 or 9:30 am every Tuesday and walk for about two hours. Walks are moderately easy, unless noted. For details, please visit our website: lymelandtrust.org/tuesday.treks.

Reservations are required. Contact walk leaders to reserve.

May 9, Johnston Preserve. 9:00 am

Jim Arrigoni, jim.arrigoni@lymelandtrust.org

May 16, Honey Hill Preserve. 9:30 am

Wendy Hill, openspace@townlyme.org

May 23, Young Preserve. 9:00 am

Tony Irving, anthonyinlyme@gmail.com

May 30, Jewett and Pleasant Valley Loop. 9:00 am

Kristina White and Brady, kristina.white@lymelandtrust.org

June 6, Banningwood Preserve. 9:00 am

Jim Arrigoni, jim.arrigoni@lymelandtrust.org

June 13, Patrell/Chapel Farm Preserve. 9:00 am

Tony Irving, anthonyinlyme@gmail.com

Monthly Astronomy Observing Sessions

Register to learn location. Email: astronomy@lymelandtrust.org.

May Astronomy Observing Session

Friday, May 12, 2023, 8:00-10:00 pm

Young or old, experienced or totally unfamiliar, we look forward to exposing you to our uniquely dark skies here in Lyme. Our cohorts have several different telescopes that are on display for your observing pleasure.

The Lyme Land Trust offers public viewing sessions once a month through December near the full moon. Visit "Upcoming Events" on the Lyme Land Trust website to learn the dates and times. For more information about this session and the astronomy program, see: lymelandtrust.org/our-dark-skies.

June Astronomy Observing Session

Friday, June 16, 2023, 8:30-10:30 pm

For more information about this session and the astronomy program, see May entry above or lymelandtrust.org/our-dark-skies.



Dark sky site.

Roger Charbonneau Jr.

Fungal Ecology with Bill Yule

A walk in the woods with Bill Yule is an adventure. It's not only about finding and identifying mushrooms, (which he is amazingly good at); it is also about discovering how everything in nature is interconnected. On Saturday, October 22, 2022, a glorious fall day at Banningwood Preserve, Bill shared his fascination with fungi and their complex functioning within the forest, giving us a two hour tour of the fungal ecology he has come to know over a lifetime of exploration.

Bill began by explaining how life itself would not exist without fungi. A mushroom is the fruiting body of the fungus, which emerges to spread spores for propagation in the same way that a flower produces seeds for a plant. It doesn't hurt the fungus if you pick a mushroom. The living body of the fungus, which is often not visible, consists of a fragile network of thin threadlike filaments called mycelium. Fungi inhabit the soil under our feet, are in decaying leaf litter and dead trees, are in almost all living leaves, and can spread under the bark and into the wood of live trees.

Mycorrhizal (*myco*=fungus, *rhiza*=root) fungi live in the soil and interact with the roots of trees to facilitate the absorption of nutrients for the benefit of both themselves and the trees. Ectomycorrhizal (*Ecto*=outside) fungi filaments form conduits between neighboring trees through which the trees and fungi share nutrients and chemical signals. This fungal network, dubbed the Wood Wide Web by forest ecologist Suzanne Simard, allows the trees to communicate and support each other in natural disasters. The network can extend for acres and sometimes miles and requires large areas of intact mature forest. Many species of plants benefit from this system, although maples are one species that do not have mycorrhizal fungus.

Fungi also play an important function in the ecosystem by breaking down dead trees and fallen leaves so that the nutrients can be absorbed by other organisms and by filtering air while they do it. Other fungi are pathogenic and cause disease in living organisms. Honey mushroom fungus is an aggressive pathogen that moves from tree to tree through underground filaments.

The specific variety of mushrooms in a location indicate the health of a forest ecosystem. On our walk in Banningwood, we first traveled through an historically disturbed section on the red trail which has been overtaken by invasive plants such as Japanese barberry, oriental bittersweet and winged euonymus. In this part of the preserve, we found no ectomycorrhizal mushrooms to indicate a healthy functioning ecosystem. Pathogenic fungi were observed on several of the trees along the edge of the trail.

As we walked deeper into the forest, Bill pointed out mushrooms that indicated healthy ectomycorrhizal fungal activity in the soil. Several species of these mushrooms were clustered under a large old oak tree. Research indicates that in the forest, a mature mother tree acts as a hub from which the fungal network radiates to other trees around her, and may in turn network with other species of



trees. If a mother tree is sick or dying, she may pass her nutrients and defensive chemicals on to other trees to help them defend against disturbances.

There is much more to learn and it is a pursuit we can all follow as we visit the woods in Lyme.

Bill Yule has been active in mycological education for 30-plus years and has given educational programs throughout the country. His current interests also include forest and watershed ecology. Learn more on his Facebook page.

Update on the Land Trust Barn



Land donor, Barbara David; former and current Lyme First Selectmen, Steve Mattson and David Lahm; architect, David Noe; and builder, Dave Tiffany joined the Lyme Land Trust Board of Directors and staff to break ground on the new barn on November 5, 2022. The building is going up quickly with plans for it to be ready this summer.

Local Farm Series

Lyme Land Trust is offering a Local Farm Series to highlight the importance of local food production and sustainability. Check “Upcoming Events” on our website for more to come.

Collecting Maple Syrup at Fat Stone Farm

It was a beautiful winter day and the sap was running when we had a fun and informative tour of the maple syrup collection site at Mt. Archer Woods on February 11. Liz Farrell from Fat Stone Farm explained the process for collection and processing their organic maple syrup. The season is short, usually during February, and requires temperatures that are below freezing at night and above freezing during the day. The sap that flows from the tap on the tree is mostly water. The sap this year is 2% sugar, a percentage that varies year to year. Tapping for maple syrup does not harm the trees. It takes about 50 gallons of sap to make one gallon of syrup; the water is evaporated by filtering the sap and then boiling it down.



The group walked about a third of mile into the beautiful Mt. Archer Woods to see the collection site near old colonial homestead ruins. There are many maple trees at this site, most likely planted by homeowners of the time who collected the sap for their own maple syrup. The Farrells carry on this traditional use of the woodlands using modern equipment. Children enjoyed a scavenger hunt with a maple treat reward, and adults sampled the delicious syrup.

Fat Stone Farm must follow strict regulations to sell their certified organic maple syrup products. The syrup is available in local stores, including Hadlyme Country Store.

Mt. Archer Woods is a 275-acre preserve owned by the Town of Lyme. Fat Stone Farm has an agreement with the town to carry on this traditional use of the woodlands on the preserve. The program was co-sponsored with the Town of Lyme.



On June 7, 2022, we sponsored a tour of Long Table Farm in Lyme. Farmer Baylee Drown explained climate resilient gardening practices. The farm grows seasonal vegetables and fruits, and humanely-raised meat.

Long Table Farm Receives Cooperator Award

Congratulations to Baylee Drown and Ryan Quinn of Long Table Farm! They were selected by the Board of Directors and staff of the Connecticut River Coastal Conservation District (conservect.org/ctriverrcoastal/) to receive the 2022 Cooperator Award. The award was given in recognition of their sustainable growing practices which are focused on enhancing biodiversity and soil health, for their work collaborating with the Natural Resources Conservation Service (NRCS) to implement conservation practices to protect natural resources, and for supporting the community through soup kitchen donations and a share scholarship program.

The award was presented at the 75th Annual Meeting of the Connecticut River Coastal Conservation District in November 2022.

The Lyme Land Trust is very proud to be agricultural partners with Long Table Farm. Along with their farm on Beaver Brook Road, they hold a lease with the Trust to practice sustainable farming in the Bloom and Hand Smith Preserves on fields that have been preserved for agricultural use. The farm combats climate change by sequestering carbon in the rich soil which has been carefully built up. Long Table Farm recycles nutrients through composting and uses preventive methods of farming that don't require synthetic chemical treatment of disease and pests. The farm provides Community Supported Agriculture (CSA) shares to 170 local families, in addition to selling nutrient-rich veggies at two farmers markets. They also donate produce to various organizations.

Rodent Poison is Killing More Than Rodents

With thanks to Christine Cummings, Director,
A Place Called Hope, Inc.

Wildlife deaths due to consumption of poisons used for control of rodents are increasing at an alarming rate. Birds of prey, including owls, eagles, hawks and falcons are most at risk. Other rodent predators such as fox, weasel, coyote, snake, and bobcat are also vulnerable. First Generation Anticoagulant Rodenticides (FGARs)



Red-tail hawk with mouse. *Public domain.*

and the even more dangerous Second Generation Anticoagulant Rodenticides (SGARs) are commonly used in bait traps and cause poisoned animals to bleed to death. SGARs are available only to exterminators, not homeowners.

Rodents become easy prey before they die, or may become immune to

the poisons and become toxic time bombs. Predators consuming poisoned rodents are poisoned in turn and suffer agonizing deaths. Rodents often carry bait outside of bait boxes, exposing children, wildlife and domestic pets to poisons.

Managing rodent issues without the use of poisons is possible. If you are a homeowner who uses FGAR pest-control products such as D-Con Bait Station, Rodentex, or Talon, to name a few, consider the alternatives below. If you use a pest management company, ask them to use alternatives to FGARs and SGARs

Your State Representative and Senator appreciate hearing your views. Currently in Connecticut, there is a bill before the State legislature: Bill 962—An Act to Prohibit the Use and The Sale of Second Generation Anticoagulant Rodenticides Statewide. To find and contact your legislator, visit website: cga.ct.gov.

Steps to control rodent populations

Population Control: Let nature do its job. Protect birds of prey and other natural predators of rodents. In a healthy ecosystem, a balance of predator to prey will keep the rodent population in check. The inadvertent killing of predators with poisons adds to the overpopulation problem. Only place owl nesting boxes or

hawk perches on the property to attract natural predators if you do not use poisons and know that your close neighbors do not.

Sanitation. Remove what rodents are attracted to: food, water sources, nesting material, and a safe place to raise their young. If you house poultry or farm animals, clean up all food, garbage, seed, and water. Try feed bags, or no-spill bins. Add cayenne pepper to poultry foods; birds love it while rodents hate it.

Exclusion. Seal up access points in foundations, walls, windows, and doors with galvanized wire. Don't forget pipes or dryer vents which can be easy access for rodents. Remove ground cover, like ivy, that rodents can hide in, and cut back shrubs or tree branches near structures to lessen roof access. Bury galvanized wire along foundations to discourage tunneling.

Eradication: Use humane, non-toxic methods: live traps, snap traps, zap traps, and CO2 traps placed in concealed areas so no other animals can access them. Never use glue boards or sticky traps, as these are unnecessarily cruel and may trap non-targeted small animals.

Deterrence: Rodents typically run along the perimeters of structures. Sprinkle cayenne pepper or spray natural essential oil-based repellent on foundations and perimeters. Noise and light repellents are also great deterrents. Dry ice can be dropped into the burrow entrance or exit and then covered.

Reproduction control: Rodents are prolific and when populations are threatened, their birthrate actually goes up. Fertility control products lessen rodent fertility, inhibiting their reproductive ability. A smaller rodent population makes safe, non-toxic alternatives more effective. These products don't use hormones and have no bioaccumulation, biomagnification, and no secondary effect on predatory wildlife. It is a great alternative for service-based pest management professionals since it must be regularly re-applied to remain effective. It's a win-win for everyone, especially our wildlife.

Smart technology products and services. Electronic remote monitoring and internet-based trapping systems are great for heavily populated areas or larger commercial and residential buildings. These monitor traffic areas and allow effective placement of traps.

For a complete list of toxic rodenticides, see the "Tracking Poisons" section of the website raptorsarethesolution.org

For more information, see: the Alternatives to Rodenticides section of the website aplacecalledhoperaptors.com

Reed Landing Rain Garden a Success: Phase 2 to begin in May 2023

In May 2022, Lyme Pollinator Pathway (LPP) invited volunteers to help install a dry swale rain garden of native plants at Reed Landing, a small open space property on the bank of the Eightmile River owned by the Town of Lyme and open to the public. The project was overseen by Wendolyn Hill, Lyme Open Space Coordinator (LOSC) and chair of LPP, with professional help from New England Pollinator Gardens (NEPG), funded by a grant from the Eightmile River Wild and Scenic Coordinating Committee (ERWSCC).

Rain gardens are designed to slow the velocity of stormwater runoff, control erosion and filter pollution. Native plantings enhance habitat for local pollinators and other wildlife, and add beauty to the landscape. This project was designed to illustrate that rain gardens can be strategically placed on anyone's property to absorb and filter stormwater pollution that runs off impermeable surfaces, such as driveways and roofs.

For Phase 1 of this project, garden designer Mike Baczewski of NEPG purchased native plants and soil amendments based on the soil tests he performed, then removed about 700 square feet of material with hand tools to create a dry swale (shallow dug out area to direct water). A sign at the site, created by Wendolyn Hill, explains the project.

In May, July and August 2022, LPP team members and Mike worked with volunteers to educate them and maintain the garden. A variety of native plants were chosen to provide year-round nutrition for wildlife. Invasive plants were identified and removed.

The garden progressed nicely. In July, blue vervain and milkweed blooms attracted numerous bees and butterflies. We counted twelve monarch caterpillars!

By summer's end, all of the plants—drought-resistant natives—had withstood the unusually hot, dry weather of the summer. In September, the rains returned in a dramatic fashion. The garden



held up very well during a severe weather event—8.75 inches of rain within 12 hours. The native big bluestem grass held the soil in place along the edge of the bridge. The garden performed as it was designed to. Native plantings are climate resilient and require little maintenance once established.

In March 2023, ERWSCC granted funding for Phase 2 of the project, which will begin in May 2023, with an addition of a 500-square-foot rain garden in another area of Reed Landing where storm run-off occurs. More information and a list of the native plants in the garden is available at lymelandtrust.org/lyme-pollinator-pathway/. LPP, an initiative of the Sustainable Committee of the Town Of Lyme, was established in February 2021. Partners are the Lyme Land Trust, the Lyme Garden Club, and the Friends of Whalebone Cove.



Jim Arrigoni and Kristina White worked with The Nature Conservancy to clear several large trees in Selden Creek Preserve this past February.

Field to be Named in Honor of Former Environmental Director Sue Cope



Sue Cope finished her last day with the Land Trust on January 31 and we said goodbye to her at a farewell gathering on March 10. During Sue's time with us, the Environmental Director position shifted from part time and hourly to a full-time salaried position.

Sue accomplished so much for us. She organized and updated all our fee and easement property records so that they are now available online and in paper form—a monumental task that ensured we

were reaccredited by the Land Trust Alliance. She became a master gardener and started the Lyme Pollinator Pathway with Wendolyn Hill—a program that is educating our area about the importance of planting native species and eradicating invasives. Together with Mal Karwoski, our Stewardship Chair, she built strong relationships with landowners and finished many large stewardship projects too numerous to list.

In honor of the long-lasting impact that Sue has had on the Lyme Land Trust, the field at the Riverside Preserve is being named Sue Cope Meadow. We plan to create a native grass and wildflower meadow with the help of Baylee Drown of Long Table Farm, who will start the process by flail mowing this year. You can follow the process of native grass restoration on our website.

THE LYME LAND TRUST NEWSLETTER

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Photo Credits: Except as noted, photos by Sue Cope, Wendolyn Hill, and Kristina White.



Tour de Lyme

2023

June 4, 2023



Photo by Warner Swain

Tour de Lyme is celebrating its tenth anniversary this year on June 4th! Bring your bike and enjoy rides for all levels as well as two different mountain bike routes. Food trucks, beverages and great music await you on your return at the beautiful Ashlawn Farm.

To register: tourdelyme.org

New Board Member David Frankel

David Frankel was elected to the Board of the Lyme Land Trust in the summer of 2022 and currently serves on the



Photo by Joe Standart

Education and Tour de Lyme Committees. He is excited to have been granted the opportunity to assist with the preservation and conservation of Lyme's rich and diverse natural resources. He has always believed the Lyme Land Trust to be an impressive organization replete with passionate members and

volunteers determined to keep Lyme's natural beauty intact.

David and his wife Liz moved to Lyme from Los Angeles with their two children in 2003, hoping to grow their family in a far more verdant and bucolic setting. After fleeing the absurdities of the entertainment industry, David became a high school educator and currently teaches 9th-grade Language Arts and 12th-grade Creative Writing at Middletown High School.

When not working, David enjoys hiking the many magnificent trails in and around Lyme with the family (and dog), kayaking, attempting various low-skill outdoor projects, reading, watching "quality TV," simple woodworking and pestering his college-aged children by telephone and internet.



Lyme Land Trust

PO Box 1002, Lyme, Connecticut 06371



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Events Calendar

All events subject to change. Dates and times will be posted on the Land Trust website, and may be announced by press release, email, and Facebook page. Contact: education@lymelandtrust.org (unless noted otherwise below).

Learn and Plant-Reed Landing Rain Garden Phase 2

Saturday, May 6, 9:30-11:30 am

Register: openspace@townlyme.org.

Volunteer to help expand the garden planted in 2022. Learn about the process of creating a native plant garden, how to prepare the ground, and the plants to choose, under the direction of New England Pollinator Gardens.

Sponsored by Lyme Pollinator Pathway (LPP). Partners are Lyme Land Trust, Lyme Garden Club, and Friends of Whalebone Cove. The Eightmile River Wild and Scenic Coordinating Committee is providing funding for the Reed Landing Rain Garden Phase 2.

Tree Collective Teen Group-Walk the Goodwin Trail

Sun May 7, 2023, Time: TBD

For more details and to register: reganstacey@gmail.com

Meet at Chapel Farm parking lot, Route 82, East Haddam. Join the Tree Collective to walk the entire Goodwin Trail—about 14 miles one way through four towns: East Haddam, Salem, Lyme, and East Lyme.

iNaturalist 101-Connect with Nature

Sun May 7, 2023, 1:30 - 3:30 pm

Lyme Public Library, 482 Hamburg Rd., Lyme

Register: education@lymelandtrust.org

Join Jim Arrigoni and Rochelle Davis from the Lyme Pollinator Pathway to learn how to use iNaturalist to identify species and share observations.

Light Pollution with Misha Semenov-Leiva & Alan Sheiness, Wednesday, May 17, 8:00 pm

Trail 53 Observatory, Lyme CT

This is the second of a two-part series on light pollution. (First part was given May 3.) Observe the night sky through telescopes.

Register: astronomy@lymelandtrust.org. Directions will be emailed to you after registration. Co-sponsored by the Lyme Land Trust, Lyme Public Library, Old Lyme Phoebe Griffin Noyes Library, and the Connecticut River Gateway Commission.

Annual Meeting

Friday, June 16, 6:00 pm

Registration required: kristina.white@lymelandtrust.org

See website for more details.