



The Lyme Land Conservation Trust

2017 Summer Newsletter

Fifty Years of Land Preservation

The fiftieth annual meeting of the members of the Lyme Land Conservation Trust, Inc. was held at the Lyme Public Hall (the former Lyme Fire House), on Friday evening, May 26, 2017. It was held exactly 50 years after and in the same location as the first Annual Meeting. Over one hundred members attended.

New board member Jonathan Butler was elected. Three current board



Left: Retiring First Selectman Ralph Eno; Right: (left to right) Sharley Barringer, wife of the late Rufus Barringer, past president, and Shirley Howard, one of the Trust's founders.



members will start new terms: Brantley Buerger, Kristina White and Nancy Newcomb.

The guest of honor was retiring First Selectman Ralph Eno, who has been an advocate for land preservation, and a dedicated and valued partner with the Land Trust in the protection of open space in Lyme.

— Grant for Science and Nature Center Research —



Photo by Robin Andreoli.

The Lyme Land Trust recently received a grant of \$2,000 from the Rockfall Foundation, a Connecticut non-profit that specializes in promoting environmental education and conservation in the Lower Connecticut River Valley region. The project includes research and inventory of the Parker and Diana Lord Science and Nature Center in the 100-acre Banningwood Preserve, and planning and development of educational programs for all ages.

Pictured here with a facsimile of the grant check are Ralph Lewis, geologist and contributor to the inventory assessment; Tony Marino, The Rockfall Foundation; Sue Cope, Environmental Director of LLCT; Tony Irving, LLCT Board Member and contributor to the inventory assessment; and Diana Lord, prior landowner and major inspiration for the Science & Nature Center.

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“Celebrating Lyme’s Beauty” Paint-Out

Susan Henderson
Lyme Land Trust Director

This fall, the Lyme Land Conservation Trust, in conjunction with the Lyme Art Association, will sponsor the 6th Annual “Celebrating Lyme’s Beauty” Paint-Out, followed by a juried competition and exhibition from November 2017 to January 2018. This en plein air event celebrates the area’s long history as a mecca for artists, and the Land Trust’s mission to preserve our many beautiful local landscapes.

This year, the Paint-Out will be held at Moulson Pond, Mt. Archer Road, Lyme, on Saturday, September 30, 2017, with a rain date of Saturday, October 7, 2017. This event is free and is open to all artists.

The 20-acre Moulson Pond area was donated in 1973 to the Land Trust by Orlean V. Curtin, first wife of world renowned architect Edward Durell

Stone (Radio City Music Hall, MOMA, Kennedy Center) and one-time owner of the Red Mill on Mt. Archer Road. The Red Mill, a historic landmark on

MacIntosh as a gristmill circa 1785. The large open floor plan was used by the Hamburg Manufacturing Company in the mid-nineteenth century and by the Red Mill Hand Weavers in the 1940s. The building had almost continuous business use until it became a residence in the 1950s.

Owners of properties that overlook Moulson Pond have offered artists access during the en plein air event.

A prospectus for entering the juried competition will be available on the Land Trust and the Lyme Art Association websites: www.lymelandtrust.org and [https://lymeartassociation.org/](http://lymeartassociation.org/). The “Celebrating Lyme’s Beauty” exhibition opening will be on Sunday, November 19, 2017 in the Goodman Gallery at the Lyme Art Association. The show will run from November 10 through January 5, 2018.



Photo by Humphrey Tyler.

The historic Red Mill, built c. 1785 as a gristmill, on Moulson Pond, site of the Land Trust’s 2017 Paint-Out.

the Eightmile River, was her home at the time and is believed to be the original structure built by Duncan

Music and Food at the 50th Anniversary Party



The Lyme Land Conservation Trust Newsletter

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New Bridges in Brockway-Hawthorne Preserve

In June, fifteen volunteers from Millstone Power Station built three walking bridges on the new Brockway-Hawthorne Preserve Trail in Hadlyme. Just south of Hadlyme Four Corners, between Brush Hill Road and Joshua-town Road, this property is the Land Trust's most recent land acquisition. The bridge-building is a key step in establishing trails on the preserve. Several miles of trail clearing work, performed over the last few months by work parties consisting of community volunteers and board members, was completed in August.

Three teams of volunteers chose a location for each bridge and created a base to support the structures and rock steps on each side of the streams.

The volunteers from Millstone, which is owned and operated by



Photo by Sue Cope.

Dominion Energy, are given paid volunteer hours each year to encour-

age and support giving back to their communities.

Butterflies of Lyme

By Douglas Nielson
Amateur Naturalist

It's no wonder that science fiction writers and filmmakers are fascinated by insects. While humans attain a human-like form soon after the egg is fertilized and maintain it for the rest of their lives, insects such as butterflies go through several different stages in a lifetime, taking very different forms, from egg to caterpillar to pupa to adult.

Butterflies and moths both belong to the Lepidoptera family (meaning "scaly-wing"), but there are some significant differences. A moth at rest holds its wings roughly horizontally out from its body, while a butterfly brings its wings together vertically above. Moth antennae are feathery or serrated, while butterfly antennae have a long shaft with a bulb at the end. In the pupa stage, a moth is covered with a silky substance, a cocoon; a butterfly makes a chrysalis, which is hard and smooth. In general (with some exceptions), butterflies are more colorful and fly during the day.

The butterfly life cycle begins with the egg, which vary widely in shape, color and size. All are protected by a waxy coating (called a "chorion") that prevents dehydration. Fertilized eggs are deposited by the adult female on one of the species' favored host plants. Since each butterfly species will eat only certain kinds of plants, it's vital that the eggs are deposited on the proper species of plant.

When temperatures become warm enough in the spring, the egg develops into a larva, often called a caterpillar. The caterpillar's most important job is eating, and it starts right away by eating the leaves of the host plant. As it grows, it sheds a series of exoskeletons. Butterflies typically go through five stages (called "instars"). The wings form in the last instar before pupating.

Pupae might attach themselves to twigs or lie loose in leaf litter. We think of a pupa (also called "chrysalis") as being an inert lifeless form, but there's really a lot going on inside. The remainder of the larval structure breaks down while the adult features develop. This stage might last two

weeks, as in the case of monarch butterflies, or up to several years, like the anise swallowtail.

When the adult butterfly (also called "imago") emerges, its wings are crinkled and damp. The butterfly pumps fluid into the wings to make them expand, and once they're dry, the adult butterfly is ready to fly, and often eat. Although not all butterflies need nourishment, most drink flower nectar through a built-in tube, or proboscis, and some drink tree sap or rotting animal matter.

The adult butterfly's ultimate task is mating. The male tries to attract a willing female, or will even pursue a likely prospect. Once they mate, the eggs are fertilized, and the cycle starts all over again.

Butterflies evolved from moths, and co-evolved with flowering plants during the Paleocene period, over 56 million years ago, following the so-called Creta-

ceous-Paleogene extinction event when a massive asteroid crashed into Earth, causing climactic changes that wiped out three-quarters of all flora and fauna then in existence, such as non-avian dinosaurs.

Butterflies are found on every continent except Antarctica, and at altitudes from sea level (in places even below sea level) to over three miles high. Wingspans range from a quarter inch, such as the western pygmy blue, found in the western U.S., to eleven inches — the Goliath birdwing of Papua New Guinea.

Connecticut has well over one hundred species, including varieties of skipper, swallowtail, and fritillary. Because of habitat loss and overuse of herbicides and insecticides, several are endangered.

The bronze copper (*Lycaena hyllus*), up to two inches long, has orange and silver wings with black spots, and favors wet areas like marshes and bogs, habitats that are disappearing due to draining and filling. Its host plants include curly dock, water dock and knotweed. It ranges from New England south to Tennessee and Arkansas and as far west as Idaho.

The drab brown frosted elfin (*Callophrys irus*) reaches just over one inch in size, and lives in open woods, forest edges, fields and scrub land. It's not a good flier and lives in scattered, isolated populations throughout the eastern half of the U.S., often in disturbed areas such as power line rights of way and near railroad tracks. Its host plants include wild indigo and wild lupine.

Hessel's hairstreak (*Callophrys besseli* or *Mitoura besseli*), is little more than an inch long and can be found in wetlands and along streambanks, particularly near white cedars, its chief host plant, but it is rare throughout its range except for



Photo by David Wagner, Public Domain.

Above: Monarch butterflies feeding on Joe Pye weed. Below: Silver-bordered fritillaries on a thistle.



Gypsy Moths: The Aftermath

By Tony Irving
Lyme Land Trust Director

Well, it finally happened around the last week in June: the fungal pathogen *Entomophaga maimaiga* that we'd all been waiting for actually appeared, halting the gypsy moth outbreak that had been eating its way through our woodlands over the past two years. As soon as the fungus took hold, the ribbons of dead gypsy moth caterpillars could easily be seen hanging on the trunks of many of our hardwood species, especially the oaks.

A report issued by Cornell in 2016 noted that in past years, gypsy moth caterpillars were more often killed by one of four types of parasitoids, two wasp species and two fly species, each of which lays eggs in the caterpillars; after the eggs hatch, the larvae kill their hosts. Gypsy moths in large populations were also often killed by a virus specific to them. The new fungal pathogen first showed up in New England in 1989 and has been spreading.

The fungus requires a wet spring for effective propagation and infec-



tion. The dry springs of 2015 and 2016 kept the fungus from spreading, leading to an increasing buildup of the gypsy moth population that culminated in this year's substantial infestation. The successive years of defoliation have increased tree mortality, as severely weakened trees are unable to produce a new flush of leaves. That's the bad news.

The good news is the fungus did

bring an end to the onslaught. But with the rainy spring, why did it take so long for the fungus to emerge? It's linked to the gypsy moth life cycle: the caterpillar has four or five larval stages and with each shedding it grows larger, culminating in the nearly two-inch caterpillars seen in late June. This last instar, as it's known, behaves differently than previous ones. These caterpillars tend to crawl up and down the tree, feeding mainly at night and moving down to the ground during the day for protection and shade. Because the fungus lives in the soil, the caterpillars need to reach the ground to actually come in contact with the fungus spores. Once infected, the caterpillars spread the fungus, which quickly kills them.

Luckily, this year's wet spring has helped to prevent an outbreak next year that would have been even more severe. Because the cycle is now broken, we should have only small gypsy moth populations for the next few years, possibly longer. Some, but not all, of the defoliated trees will bounce back, helped by the end of the last year's drought.

Butterflies, *continued from previous page*

the New Jersey pine woods area. Its wings sport many colors: brown, blue-green, and red-brown with white spots.

The eastern monarch is also threatened. The wintering habitat of this migrating butterfly is being destroyed, and it, like many other species, has been severely impacted by pesticides. Since the monarchs' favored host plant is milkweed, Monarch Watch is collecting milkweed pods for habitat restoration. (See <http://www.ctgardenclubs.org/pdfs/MONARCHS3.pdf>)

Butterflies are a welcome feature in any garden. You can do several things to attract them:

- Avoid using pesticides, especially malathion, Sevin and diazinon.
- Think sun. Butterflies eat and rest in the sun.
- Create small puddles or shallow drinking spots (in the sun). Butterflies need mineralized water. Put some sand and gravel in a birdbath (at least 12 inches across), then add water and larger dry stones for the butterflies to sit on.

- Plant bright colors, particularly red, yellow, orange, pink and purple, and ideally native plants.

- If you plant milkweed to attract monarchs, plant the right kind for your area. (See: <http://monarchwatch.org/bring-back-the-monarchs/milkweeds-by-state/>)

There are many open fields in Land Trust preserves that are good for butterfly watching. Many monarchs gather on the milkweed in the fields in Pleasant Valley Preserve, Grassy Hill Preserve and Clucas Preserve.

The internet has many sites about butterflies that will help you identify and attract them, including: <http://www.gardenswithwings.com/>; <https://www.butterfliesandmoths.org/>; <http://www.butterfly-gifts.com/live-butterfly-kits/>

You can also order butterfly kits – a great project for kids and adults alike: <http://www.butterfly-gifts.com/live-butterfly-kits/>

Tour de Lyme 2017



The 5th annual *Tour de Lyme* was an unqualified success.

One major reason was the weather. Those of us who plan the event fret about the weather in the weeks and days leading up to the big day. It seemed most days it rained; then we endured blistering hot temperatures that would have been a challenge for the riders. And then, on Sunday May 21, we awoke to a glorious spring day.

Another reason for its success was the hard work of volunteers. Planning the event is in the hands of a few people; implementing those plans rests with 60 enthusiastic volunteers. They do everything from managing the orderly parking of hundreds of cars, checking in over 700 riders, and offering them water, drinks and fruits at four rest stops out on the routes. Others help with the picnic at Ashlawn and then, at the end, take everything down and clean up.

Another factor is the invaluable presence of Lyme's Emergency Response volunteers who are at the ready in case they are needed. This year, we were the fortunate recipients of a grant from Pfizer Inc. Several of their committed employees put in hours of work retrieving hundreds of flags used throughout the miles of mountain bike trails and the various route direction signs out on the highways.

We would be remiss if we did not acknowledge with thanks the residents and motorists in the six towns we ride through for their courtesy, patience and good humor as hundreds of cyclists dominate the roads for a few hours.

Last, but certainly not least, we thank the enthusiastic riders who supported *Tour de Lyme*. Many return year after year to ride in this great event, coming from six states and over 100 Connecticut towns.

Tour de Lyme is a wonderful way for us to showcase 50 years of land conservation, to support those who choose to get outside and enjoy what nature has to offer, and to encourage others to join them.

George Moore, *Tour de Lyme* organizer



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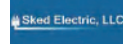
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Trails of Lyme



Students Conduct Wetlands Plant Surveys

By Humphrey Tyler

President, Friends of Whalebone Cove

Three college interns, working under the auspices of two local Connecticut River estuary conservation groups, spent their summer vacation conducting plant surveys of the tidal wetlands along Lyme's Connecticut River shoreline.

The interns worked on two separate projects researching different categories of plants. One project, sponsored by the Connecticut Audubon Society's Roger Tory Peterson Estuary Center (RTPEC), focused on submerged aquatic vegetation (SAV). The second project, sponsored by Friends of Whalebone Cove (FOWC), inventoried Whalebone



Photo by Humphrey Tyler.

St. Lawrence University student Jacqueline Dufour used a geographic information system (GIS) app on her smart phone to record the GPS location of invasives.

Cove's invasive plants, which have increasingly become a threat to its ecological integrity and native species.

RTPEC and the FOWC collaborated to coordinate the logistics of each project and the specifics of the research involved. The interns worked under the direction of RTPEC's Aquatic Ecologist Jim Arrigoni.

Mount Holyoke College students Leila Kouakou and Haley Rivers were awarded Lynk Foundation Fellowship internships from Mount Holyoke and were selected by RTPEC to reexamine areas investigated in a 20-year old study of SAV conducted by the Connecticut Department of Energy and Environmental Protection. SAV is a critical component of estuary food webs, providing habitats for fish and food for waterfowl and other wildlife.

The RTPEC interns compared the 1997 data with present conditions in Whalebone and Selden Coves to detect changes in the abundance, diversity and distribution of SAV. Discerning changes over time provides valuable insights about trends in the health of the estuary ecosystems.

The FOWC intern, Jacqueline Dufour, a student at St. Lawrence University, worked part-time as a volunteer on the invasive plant project on Whalebone Cove. The purpose of

this project was to assess its invasive plant species, their location, and the extent of the infestations. With this information, FOWC hopes to develop plans to eradicate, remove or otherwise control the identified invasives and devise strategies to prevent their becoming reestablished there.



Photo © Christopher Zajac. Used With Permission.

Mount Holyoke College students Leila Kouakou and Haley Rivers used a rake to pull up plant samples from the bottom of Whalebone Cove.

The major invasive plants identified in the FOWC survey were Japanese knotweed, phragmites, purple loosestrife, Asian water chestnut, Eurasian milfoil, and yellow iris. Asian bittersweet vines and Japanese barberry are also well established along the Whalebone Cove shoreline above the mean highwater line.

RTPEC has also been active in a number of environmental education endeavors in Lyme. RTPEC educators have relied on the preserves of the Lyme Land Trust, the Town of Lyme, and The Nature Conservancy for many of their spring and summer "Estuary Expedition" tours, which are geared towards adults.

RTPEC also conducted its signature "Science in Nature" environmental education programs for the Lyme/Old Lyme schools during the 2016-17 academic year in Lyme Land Trust preserves within walking distance of the schools. Last year, the RTPEC brought Lyme Consolidated students to these outdoor "classrooms" to explore topics including wetland ecology, bird ecology, weather and climate, and geology.

"We are grateful to the Lyme Land Conservation Trust, which has worked long and hard to ensure that these natural areas in Lyme are protected in perpetuity for all generations," said RTPEC Director Eleanor Robinson. "We have witnessed first-hand the interest and excitement of adults and children who have taken a closer look at these preserves during our environmental education programs."

State Acquires New Property in Lyme

By Tony Irving
Lyme Land Trust Director

Earlier this spring, the State of Connecticut's Forestry Division closed on a 125-acre property on Keeney Road. The parcel is bordered on the south by the 1,925-acre Nehantic State Forest in Lyme, and by Beaver Brook Farm to the north. Just a few years ago, the State of Connecticut also purchased the development rights on the farm, permanently protecting nearly 160 acres of agricultural lands. With these additions, an unfragmented block of over 2,200 acres of open space land now extends from Beaver Brook Road to Uncas Lake.

This parcel is another piece in the jigsaw puzzle of open space in Lyme, but also has unique topography – a product of glacial retreat from around 15,000 years ago. Great torrents of glacial meltwater coursing down the



To the north is Beaver Brook Farm and to the south, Nehantic State Forest (shown in green).

Beaver Brook valley left behind the huge deposits of sand and gravel now covered by the dry, upland forested landscape seen today. These high-mounded hills grade down to an impressive array of Beaver Brook wetlands along the outer edges of the Eightmile River watershed. If the sandhills were visible through the vegetation, we would see them rise as “dunes” towering 75 feet above Beaver Brook.

The property was purchased by Raymond Larson in the late 1960s as a nature retreat. Doctor Larson practiced veterinary medicine into his 80s and enjoyed the peace and solitude at the small cabin in this remote setting. According to his heirs, he would have been thrilled that the land will remain open space.

The property is open to all and a guided walk will be given at a later date.

Kids' Nature Day on July 2



Children had a chance to explore hands-on activities, including a saltwater touch tank from Mystic Aquarium supported by a grant from the Eightmile River Wild and Scenic Coordinating Committee (ERWSCC), a scavenger hunt directed by Liz Robinson from the Nature Conservancy, art projects with Regan Stacey, a creepy crawly explore tank with Pat Young of ERWSCC and a mammal exhibit with conservationist Mark LaCasse.

New Trail Maps Available for Two Preserves

Two trail maps have recently been completed for the Chestnut Hill Preserve on Sterling Hill Road, and the Beebe Preserve on Old Grassy Hill Road.

Pick up copies of these new maps and maps for other Land Trust trails at the Lyme Town Hall and Lyme Library.

Printable copies of both these maps and others can be found at www.lymelandtrust.org/trails/



For general reference only 06/014/17

Beebe Preserve

Size: 83 acres

Directions: parking area on Old Grassy Hill Road near the East Lyme town line.

Description: An easy one mile loop trail leaves from the parking area and takes hikers past a network of old stone walls, to a wetland with an overlook platform and past a mysterious giant rock pile. A good hike for all ages. Check out the geocache in this preserve at www.geocaching.com.

Chestnut Hill Preserve

Size: 43 acres

Directions: Park along Sterling Hill Road. The trailhead is marked with a large sign.

Description: This Preserve is surrounded by the Nehantic State Forest and Land Trust easement properties. The orange trail joins the Nehantic trail system to loop back to Sterling Hill Road for an easy to moderate one-mile hike. Longer walk options are available in conjunction with Nehantic State Forest Trails. If you are interested in geocaching, visit www.geocaching.com for locations in this preserve.



For general reference only 06/014/17



Lyme Land Conservation Trust, Inc.

PO Box 1002, Lyme, CT 06371

Events Calendar

All events subject to change. Dates and times will be announced by press release and email, and will be posted on the Land Trust website and Facebook page. Consult the Upcoming Events page at www.lymelandtrust.org/news/events/ for the latest information. To receive email notifications, send an email to: info@lymelandtrust.org.

Annual Tree Swallow Spectacular

When: Friday, Sept. 22, 5:00-8:00 p.m.
What: Join us on a cruise aboard the *Adventure*, *RiverQuest's* new sister boat, to view this miraculous display of migrating birds. Wine and light refreshments are included. This cruise is open only to Lyme Land Conservation Trust members and their invitees. \$50 per person. Prepayment and register online. lymelandtrust.org. For more information, see: info@lymelandtrust.org.
Where: Depart from Eagle Landing State Park, Haddam, at 5:00 p.m. sharp.

Brockway Hawthorne Preserve Opening

When: Saturday, Oct. 14, 2:00 p.m.
Rain date: Saturday, Oct. 21, 2017.
Where: Brush Hill Road parking lot entrance, 1/2 mile south of Hadlyme Country Market.

Annual Paint-Out

When: Saturday, Sept. 30 with a rain date of Saturday, Oct. 7, 2017.
What: See article in this issue for more details.
Where: Moulson Pond, Mt. Archer Road.

For the most current information on
Lyme Land Conservation Trust events: www.lymelandtrust.org



Photo by Leonard Green.

**Making a planned gift to the
Lyme Land Conservation Trust
will help protect
what you value most in Lyme —
our open space.**

**One way is to
name us as a beneficiary
of your IRA/401(k).**

**To learn about our
Heritage Society for Planned Giving
and how to include
the Land Trust in your estate plans,
contact Milt Walters at
milton.walters@lymelandtrust.org**