The Lyme Land Conservation Trust opened its newest preserve, the Brockway-Hawthorne Preserve, on October 22. The main parking lot for the 82-acre property is located on Brush Hill Road a half mile south of Hadlyme Four Corners. Hiking trails, constructed by volunteers and Land Trust directors, wind through the preserve and connect with existing trail networks at the Selden Creek and Ravine Trail Preserves.

Land Trust President John Pritchard expressed appreciation to the William and Anna Hawthorne family for their conservation-mindedness in selling the property to the Land Trust at a bargain price. He also thanked the State of Connecticut for providing a substantial portion of the purchase price through its CT DEEP Open Space and Watershed Land Acquisition Grant Program. He particularly thanked residents of the community who contributed so generously to funding the purchase through the “Hadlyme Challenge,” under which an anonymous donor contributed $50,000 to be matched by other donors.

State Representative Devin Carney presented the Lyme Land Trust with an “Official Citation” from the Connecticut General Assembly on the occasion of its 50th Anniversary. The citation offers congratulations to the Land Trust and lists the many contributions it has made to the quality of life in the town of Lyme.

The ceremony concluded with a ribbon-cutting ceremony at which Tony Irving, Chair of the Land Trust Preservation Committee, Milt Walters, Chair of its Philanthropy Committee, and Lyme Selectman Parker Lord cut the ribbon with, appropriately, loppers of the kind used in trail building. Tony Irving and Ralph Lewis, CT State Geologist Emeritus, then led the assembled group on a highly informative hike through the preserve that focused on its geology and the historical uses of the property, as evidenced by its many interesting features.

The Lyme Land Trust would like to express its condolences to the family of Anna Hawthorne. Anna passed away on October 27.

Land Trust Directors Milt Walters and Tony Irving, and Lyme Selectman Parker Lord, cut the ribbon at the new Brockway-Hawthorne Preserve.

See geologist Ralph Lewis’s article on page 5 to learn more about the unique geological features of the Brockway-Hawthorne Preserve.
Solitary, Strong & Smart: Weasels and Their Kin

By Douglas Nielson, Amateur Naturalist

We live in an area with abundant natural beauty and many opportunities to observe wildlife. During seventeen years of living in Lyme, I have seen not only many common birds, insects and small mammals, but also the less common porcupine, beaver, coyote, fox, and bobcat. (There was also once a domestic dispute in our fish pond that involved three very wet raccoons.)

However, there's a group of local mammals that are rarely seen: the Mustilidae weasels and their kin. They are found on all the continents except Australia and Antarctica, and while they favor areas near freshwater rivers and streams and sea coasts, they can adapt to almost any environment.

Males and females of each species have similar coloring, but males are larger, often almost double the size of females. Most are territorial; males usually control territory containing the territories of several females. Mustelids mark territories with urine, feces and scents from anal scent glands, which aid in sexual signaling, territorial marking, and defense. The glands secret a strong musky odor when an animal is attacked.

Although mustelids vary greatly world-wide in terms of size and other characteristics, those found in Connecticut are mostly carnivorous (sometimes omnivorous), regularly preying on animals both larger and smaller than themselves. They are nocturnal, mostly solitary, very strong for their size, and smart. They generally have long bodies, short legs, a powerful bite, small rounded ears and thick fur. They have been prized for their fur for millennia; some species have been hunted out of existence; the sea otter, which has the densest fur of any animal, was saved from a similar fate in 1911, when an international moratorium went into effect.

Most mustelids run quickly and climb easily, and many are adept swimmers. They prey on rodents, but also birds, rabbits, carrion, insects, reptiles and amphibians. Some also eat nuts, fruit and mushrooms. They are preyed upon by canids such as foxes and coyotes, and man.

Although mustelids generally mate in the spring, they are able to delay gestation for up to a year after mating, allowing the female to choose a time to give birth when food is readily available and the weather is mild. Litters of the smaller species contain 6 or more kits; in the larger ones, such as fishers and otters, only 2 or 3 kits are born, often from more than one father. Blind, deaf, toothless at birth, they are able to leave the nest and go hunting with the mother within weeks. Males play no role in rearing the young. Family groups disband in the autumn.

While weasels and their kin help control rodent populations, they can become pests themselves by going after domestic poultry; and their intelligence, strength and speed make them difficult to catch.

In Connecticut, the Mustilidae family includes (in order of size):

- **Short-tailed weasel** (Mustela erminea, also called “stoat,” or, in its white winter coat “ermine.”) They range in size from 7 to 13 inches, and weigh between 6 and 9 ounces. Sandy brown on the back and head, and white below in the summer, they molt in autumn to become solid white except for a black tail tip. This reverses in spring. Stoats den in burrows, old stumps, and rock piles, lining the nest chamber with fur.

- **North American river otter** (Lontra canadensis or Lutra canadensis, often called “fisher cat”) live in deep woods, and can weigh as much as 13 pounds. Their winter fur is brown, nearly black, becoming lighter in summer.

- **American mink** (Neovison vison or Vison vison). This species is larger and stouter than weasels, with very dense tawny fur. They favor rocky coastal areas with dense cover, and line their dens with grass and feathers.

- On land, the mink moves with a bounding gait, and undulates when it swims – which it can do in warm water for up to three hours. Fish provide most of its diet, which also includes some land-based prey, as well as larger birds, such as seagulls and cormorants, which it can kill by drowning them.

- **Fishers** (Pekania pennanti or Martes pennanti), often called “fisher cat”) live in deep woods, and can weigh as much as 13 pounds. Their winter fur is brown, nearly black, becoming lighter in summer.

- A fisher’s feet are large, allowing it

Continued on page 5
Letter from the President

Changing of the Guard

John Pritchard, President

George Moore, the Land Trust’s Executive Director for the last five years, decided recently that it was time for him to retire and to pass the management reins to a new Executive Director. After an extensive search, we found the ideal candidate in our own Board member, Kristina White. The Land Trust is deeply grateful for George’s service and dedication over the last fourteen years. He was elected to the Land Trust Board as a volunteer director in 2003. In 2007, he was elected Board President, and in 2013 the Board appointed him as its first Executive Director.

Through his vision and effective management, George has helped transform the Lyme Land Conservation Trust into one of the most active and successful in the state. Among his many accomplishments – in addition to the day-to-day management of the Land Trust – are building the Land Trust’s membership to comprise half the households in Lyme; assisting in acquiring numerous preserves, including Chestnut Hill, Walbridge Woodlands, Banningwood and most recently, Brockway-Hawthorne; assisting with securing the coveted national accreditation from the Land Trust Alliance; initiating the President’s Circle, composed of the Land Trust’s most generous supporters; arranging for the production of the PBS film on the Land Trust and conservation in Lyme, as well as its sequel, The Rest of the Story (both of which can be viewed at lymelandtrust.org); and organizing and managing our highly successful annual fundraiser, a regionally recognized, fun and scenic biking event for all ages and abilities: the Tour de Lyme.

In recognition of his outstanding contributions to the Land Trust, the Board has elected George to the newly created position of Director Emeritus. We hope that he will remain close and be available to provide advice and counsel from time to time.

Kristina White comes to the Executive Director position after serving for the past ten years as the Administrative Director of Musical Masterworks. The skills she honed in that position will be directly applicable as she fulfills her new responsibilities. Kristina is passionate about the Land Trust’s preservation mission, and many days find her walking with her dog, Brady, on Land Trust Preserves. We welcome her to her new position!
An exhibit of paintings from the Sixth Annual Paint Out, sponsored by the Lyme Art Association and the Lyme Land Trust, was held from mid-November through January in the Goodman Gallery at the Lyme Art Association. The well-attended opening reception for the exhibit was held on November 17.

Local artists gathered in late September 2017 in the Moulson Pond area of Lyme to paint en plein air. There, they set up easels on the 20-acre property that was given to the Land Trust in 1973 by Orlean Curtain, who was the one-time owner of the historic Red Mill on Mt. Archer Road. Three property owners nearby also offered artists access to areas that overlook Moulson Pond.

The Land Trust and the Art Association have joined together for the past six years to celebrate the area’s history as a mecca for artists, and the Land Trust’s mission to preserve Lyme’s many beautiful and paintable landscapes.

Above: Andrea Alex had a great vantage point for painting the whole scene, including the Red Mill beside Moulson Pond. Right: Artist Tom Jennerwein (left) and Dan Henderson display a photograph taken of the two of them after Dan saved Tom’s watercolor “Moulson’s Pond,” before a gust of wind could hurl it into the pond. The painting is shown just above the photograph.

Roaring Brook: One of Connecticut’s Healthiest Streams

In early fall 2017, final tallies came in from the Department of Energy and Environmental Protection (DEEP) for the aquatic macroinvertebrate stream assessments that were made in Fall 2016 by volunteers in thirty towns across the state. (Macroinvertebrates are organisms without backbones that live in sediment in lakes, rivers and streams and are visible to the naked eye.) The report on the macroinvertebrates counted by the Land Trust and the Eightmile River Wild & Scenic Coordinating Committee at Roaring Brook in the Land Trust’s Banningwood Preserve in November 2016 listed five of the twelve “most wanted” species. These twelve species are pollution-sensitive so their presence indicates excellent water quality and a healthy stream “fully supporting aquatic life goals.” They include several species of stone flies, mayflies and caddis flies.

Overall, twenty-three species of macroinvertebrates were counted in Roaring Brook during the November assessment – the second highest number found in any 2016 report for the fall season. (The highest count, twenty-five, was found in English Neighborhood Brook in Woodstock.)

The CT DEEP Riffle Bioassessment by Volunteers (RBV) Program is an annual fall “treasure hunt” to help the department expand its inventory of small, high-gradient Connecticut streams that have excellent water quality. Rocky or riffle areas of the stream are netted and the collected macroinvertebrates are identified and counted by volunteers from a variety of groups and organizations, including river and watershed associations, local conservation commissions and agencies, environmental conservation groups, and educational institutions.

Two other waterbodies in Lyme also netted five of the “most wanted” species: Beaver Brook and a tributary of the Eightmile River (known locally as Pleasant Valley Brook).

Patricia Young, the program director of the Eightmile River Wild & Scenic Coordinating Committee, was a program leader for a number of volunteer groups. She noted that she took a Three Rivers Community College group to Roaring Brook in October of 2017, and they may have netted six of the “most wanted” species. Results will be confirmed by DEEP in spring 2018.

Geology of the Brockway-Hawthorne Preserve

By Ralph Lewis
CT State Geologist Emeritus

The Brockway-Hawthorne Preserve flanks the southern margin of a very significant geologic feature known as a “terrane boundary.” This boundary is formed by a series of faults that extend across most of New England and Atlantic Canada. Faulting along the boundary occurred as a succession of tectonic events, which led to the creation of the Appalachian Mountains, closed an ocean and brought the small continent of Avalonia into contact with proto-North America. In Hadlyme, the southwest-northeast trending Honey Hill fault zone forms the terrane boundary between oceanic terrane bedrock remnants to the north and bedrock of the continental Avalonian terrane to the south.

If you hike westward along the northern loop of the red trail in the Banningwood Preserve, follow Route 82 and Brush Hill Road southward and then proceed along the Brockway-Hawthorne white trail to Joshuatown Road, you will be able to examine the oceanic-affinity Merrimack terrane gneisses and schists that crop out along the red trail, and cross the fault zone to find the gneisses of the continental affinity Avalonian terrane that crop out along Joshuatown Road.

Along the way, just up from the Brockway-Hawthorne parking lot, an outcrop on the right side of the white trail provides an opportunity to see some hard-to-find, fault-related, granite intrusions. (Granite outcrops are few and far between, because southeaster Connecticut’s bedrock is predominantly gneiss or schist).

The eastern end of the white trail and the yellow trail loop also afford a great opportunity to explore a special topography that is unique to northern Lyme. Elsewhere in New England, the continental collisions leading to the formation of the Appalachian Mountains resulted in a general north-south alignment of rock units and faults. As this bedrock fabric was exposed to weathering and erosion over the intervening 250 million years, a pattern of north-south ridge systems drained by south-flowing streams typically developed (think driving east-west in Connecticut). This is not the case along the westernmost section of the Honey Hill fault, where a wrinkle in the regional bedrock fabric produced an anomalous southwest-northeast alignment of rock units.

The anomalous alignment of rock units in this area creates a series of southwest-northeast trending strike ridges which are cut by valleys that mirror the regional pattern of northwest-southeast fractures. The result is a rectangular or “blocky” local topography that is atypical for Connecticut and the region as a whole, but is very well developed in the Brockway-Hawthorne Preserve and surrounding area. The first valley you cross, heading west from Brush Hill Road on the white trail, is the trace of one of the northwest-southeast fractures shown on the figure to the left. The yellow trail loop will take you along the strike ridge at the 200-foot elevation.

Weasels and Their Kin, continued from page 2

to walk on top of snow. It climbs well and is one of the few mammals capable of descending a tree head first.

Fishers tend to hunt around dawn and dusk, eating fruits, nuts and mushrooms in addition to small mammals. It is one of the few animals that can successfully hunt porcupines. In spite of the name, they rarely eat fish.

The North American river otter (Lontra canadensis) is the largest of Connecticut’s mustelids, between 18 and 33 pounds. Their coat can be almost black to light brown.

They are built for life in the water. They can close their nostrils and ears to keep water out, and a translucent third eyelid protects their eyes. Their toes are fully webbed, and their long tails help stabilize them while swimming.

They can dive to over 60 feet deep, and swim over 6 miles an hour. They eat mostly fish, but also mollusks, crustaceans, small mammals, reptiles, amphibians, and even birds and insects, but they avoid carrion.

Otters are very social. Sometimes as many as sixteen or more individuals of mixed sexes live, hunt and groom together. They communicate with growls, barks, chirps, and purrs. Young otters are known for their sense of play, which includes wrestling, chasing, and sliding on ice and mud. Their nearsightedness and sociability make them more likely to be seen by humans than other mustelids.

All of these Connecticut species are on the IUCN Red List of least concern, which means that these populations are robust and not threatened.

While we may not be able to observe these fascinating animals directly, winter provides an opportunity to observe their movements by discovering their tracks. A good reference book is Mammal Tracks and Sign: A Guide to North American Species, by Mark Elbroch (Stackpole Books, 2003).

Explore some track apps at: http://www.naturetracking.com/itrack-wildlife/
This year the Lyme, Old Lyme, Essex, Salem, East Haddam and Old Saybrook Land Trusts will share the hosting of the Annual Land Trusts Photo Contest. A special thanks goes to Susan Scott of the Essex Land Trust for organizing the contest this year.

Amateur photographers of all ages are invited to enter their photographs celebrating the natural beauty and culture of Lyme, Old Lyme, Essex, Salem, East Haddam, and Old Saybrook.

$100, $75, $50 and $25 Cash Prizes will be awarded in the following categories:

- Landscape/Waterscape
- Plants
- Wildlife
- Cultural/Historic (human interaction with nature, including domestic animals and buildings)
- Black & White (photos of any landscape/waterscape, plants, wildlife, cultural/historic)
- Youth (photos in any of the above categories by photographers age 16 or under)

In addition, all entries will be eligible for a Special Award to honor former contest judge John G. Mitchell, for the photograph best reflecting environmental conservation.

Award sponsors include Ballek’s Garden Center, Evan Griswold at Coldwell Banker Residential Brokerage, Essex Meadows, Essex Savings Bank, Essex Steam Train & Riverboat, Lorensen Auto Group, OWCM Group at Morgan Stanley Wealth Management, Riverquest Expeditions, and Dr. Gita Safaian of Hamburg Cove Endodontics.

Rules and entry forms for the contest are available at landtrustsphotocountest.org. Submissions will be accepted until February 28, 2018. All entered photographs will be displayed, and winners will be announced at a public reception on April 6, 2018 at the Lymes Senior Center, Town Woods Road, Old Lyme.

The winning photographs will be available for viewing throughout the year in a traveling display, exhibited at a revolving list of local venues.

Our three-judge panel includes: Joe Standart, an award-winning photographer, director and internationally known artist who loves photographing the natural world; Amy Kurtz Lansing, an accomplished art historian and curator at the Florence Griswold Museum; and Skip Broom, a respected award-winning local photographer and antique house restoration housewright.

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Remembrances

Jean Lee (1925-2017)

Jean (Soper) Lee, 92, a former Land Trust Director, died Nov. 25, 2017, at her home in Lyme, after a brief illness.

Born in 1925 Jean spent much of her life in Connecticut, and her home on Grassy Hill in Lyme was by her own accounting the most beautiful place she had ever seen. Jean was a strong presence in the community, serving on school boards, garden clubs, church committees, the Grange, and many other civic functions. First elected to the Land Trust board in 1990, Jean was a good friend to the Land Trust.

Bequest from Rose Cushman

Following the death of Rose Katharine Cushman of Lyme, Connecticut in 2017, the Lyme Land Trust received a bequest from her estate. We honor Rose for remembering the Lyme Land Trust in this way. This gift will be added to the Endowment Fund.

Because of Rose’s planned gift, she is recognized as a member of the Heritage Society, a growing membership of legacy donors who have included the Lyme Land Trust in their estate plans.

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

Simply 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

Photo by Leonard Green

Lael Colton’s photo of a daylily won Honorable Mention in the Plants category in 2017.
Tour de Lyme: Sunday, May 20, 2018

Tour de Lyme was Lyme Land Trust President John Pritchard’s idea. John, an avid cyclist, suggested an annual cycling event as a fundraiser. He told us that many professionals and serious riders come to Lyme to train on our roads.

There was skepticism on the Board. It was hard to understand how one could generate meaningful revenue from a cycling event, especially since land conservation doesn’t tug at the heart strings like finding a cure for a dreadful disease.

For our first year we anticipated maybe 100 riders and felt there was ample parking at Lyme Consolidated School – our first venue. Over 300 riders turned out on a rainy day. In subsequent years, we were lucky to be able to switch the venue to Ashlawn Farm.

Ridership now hovers around 800, from many towns in Connecticut and neighboring states. Tour de Lyme is regarded as one of the top cycling events in the region.

Tour de Lyme is a success for several reasons. One is the very generous corporate support from sponsors who make donations ranging from $500 to $5,000. Then there is the small army of volunteers who turn out year after year; the EMS and Fire Company who stand by in case of an emergency; and the officials in Lyme and neighboring towns who generously give us approval to use their roads.

Two groups deserve special thanks. The hundreds of riders who come each year – their registration fees really add up – and the good people who, with patience and good humor, accept a Sunday morning with 800 cyclists out on the roads.

Visit www.tourdelyme.org to learn more. You can help by becoming a sponsor, a donor, a volunteer or a rider.

Help Us Out and Have Fun Doing It!

If you are interested in becoming a volunteer for the Land Trust you can join our trail maintenance volunteer list and be notified by email when workdays are scheduled out on the trails. We’re especially looking for chainsaw users to help with downed trees as needed.

If you’re interested in volunteering on a more long-term basis, our stewardship program is always looking for committed volunteers to adopt properties and check in on them from time to time.

To learn more about our trail volunteers, email openspace@townlyme.org. To learn more about our stewardship program, email stewardship@lymelandtrust.org.

If you are interested in helping out with events, or other projects for the Land Trust, Kristina White can help match you up with some very grateful Land Trust organizers. Email kristina.white@lymelandtrust.org.

Winged Euonymus Euthanizers: Barbara Guenther, Kim Curry, and Bob Lorenz, tackling invasive plant species during a recent workday.

LLCT Internship Programs Coming Up

The Lyme Land Conservation Trust is now in the process of selecting a spring intern who will work on educational initiatives, including development of content and programming for local school age children, as well as educational opportunities for the general public.

This year, the Land Trust will also be looking for an intern for the summer, who will work on a special project, and a fall intern who will support the stewardship team. Ideal candidates are high school or college-level students who have experience working with kids, or a desire to do so, and interest in developing educational science-based content for the general public.

All interns will report to the Environmental Director, Sue Cope. For more information email her at stewardship@lymelandtrust.org, or check our Employment Opportunities page on the Lyme Land Trust website: lymelandtrust.org.
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.

Walking Our Glacial Past
When: Sat., April 21, 9:30-11:30 a.m. (Raindate: Sat., April 28)
What: Anthony Irving, Lyme Land Trust board member, Chairman of the Eightmile River Wild and Scenic Committee, and well-known ecologist, will lead a talk and walk at the new 125-acre parcel on Keeney Road that was acquired by the State of Connecticut in 2017. The preserve is bordered on the south by the 1,925-acre Nehantic State Forest in Lyme. The property has a unique topography, a product of glacial retreat from about 15,000 years ago. Some of the walk will be off-trail. The walk is family friendly.
Where: North Boundary Parking Lot, Nehantic State Forest, Keeney Road
Contact: openspace@townlyme.org.

Family Day at Banningwood
Earth Day Fun For All Ages
When: Sun. April 22, 11 a.m.-2 p.m. (Raindate: Sunday April 29)
What: Outdoor activities, arts and crafts, scavenger hunts, and adventures! Check our webpage, Facebook page, and Instagram for more details in the coming weeks.
Where: Banningwood Preserve, 19 Town Street, Hadlyme.
Contact: stewardship@lymelandtrust.org.

Don’t Forget!
Land Trusts Photo Contest Deadline
When: February 28, 5:00 p.m.
Reception: April 6, 6:00-7:30 p.m., Lymes Senior Center. See details in this newsletter or landtrustsphotocontest.org.

Tour de Lyme 2018
When: May 20, 2018 starting at 8:00 a.m.
Save the date for this outstanding cycling event to support the Lyme Land Conservation Trust. See details in this newsletter.

Check out our Facebook page
We’d love to hear from you and about you. What would you like to hear more about? Post your pictures of favorite Lyme hikes, or Land Trust activities you’ve attended.
Follow us on Instagram “@lymelandtrust”

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