



# The Land Steward

NEWSLETTER OF THE FINGER LAKES LAND TRUST

CHRIS RAY

## Land Trust Acquires 101 Acres Just Outside the Village of Skaneateles

*After several years of negotiations, the Finger Lakes Land Trust recently purchased 101 acres located just outside the village of Skaneateles. The parcel features more than 1,000 feet of frontage on Shotwell Brook—a significant tributary to Skaneateles Lake, and more than 1,000 feet on U.S. Route 20—the arterial road that serves as the eastern gateway to Skaneateles and the Finger Lakes.*

This property was identified as a priority for protection by both the Land Trust and the City of Syracuse Water Department due to its importance for water quality. Shotwell Brook enters Skaneateles Lake near the water intake for Syracuse's unfiltered drinking water supply. The land is also part of a growing complex of conserved land in this area, being adjacent to town-owned conservation land and in close proximity to a conservation easement acquired by the Land Trust last year.

Development pressure in this area is intense and since the 1990s, the site has been subject to several development proposals. In 2011, Dr. Marc Pietropaoli and some investors proposed that the Victory Sports complex be built on the property. It would have included a 200,000-square-foot indoor sports facility, a 60,000-square-foot medical center, and 13 outdoor ball fields.

The Citizens to Preserve the Character of Skaneateles (CPCS) led the effort to stop the development. "It

was large enough to host 5,000 to 7,500 players every weekend, competing day and night," said Holland Gregg, Executive Director of CPCS and former President of the Land Trust Board of Directors. "A few years later, Dr. Pietropaoli reached out to me to collaborate on a way forward with the property. I immediately asked the Finger Lakes Land Trust to get involved, and with Marc's good intentions and the help and advocacy of Andy Zepp, the resulting outcome will be a wonderful forever wild nature preserve for Skaneateles residents, the lake, and the region."

The Land Trust was able to purchase the property through an internal loan from its Opportunity Fund, a grant of \$150,000 from the Central New York Community Foundation, and contributions from individuals. The New York State Department of Environmental Conservation has pledged a grant of \$1.3 million through its Water Quality

*continued on page 2*



*This summer's extensive algal blooms are a reminder that we have a long way to go to ensure the health of the Finger Lakes. On the one hand, this means working collectively to address climate change as our region experiences more intense storms that wash nutrients into our lakes, contributing to these blooms. The reduction of carbon emissions is an absolute necessity.*

The conservation of lands that are vital for water quality also needs to be part of the solution. On Fall Creek in Cayuga County, for example, we recently worked with a landowner to secure more than 10,000 feet of vegetated stream banks. If these lands are not protected, water quality will continue to degrade, leading to more algal blooms and a loss of habitat for fish and wildlife.

These two strategies alone, however, are unlikely to solve our problem. Over the last 200 years, too many floodplains and wetlands have been filled, streams straightened, drainage ditches constructed, and seasonal ponds eliminated. We must now dramatically expand efforts to restore streams, wetlands, and vernal pools while also planting trees and shrubs next to water bodies to reduce erosion and filter runoff.

As you can see in this issue of *The Land Steward*, the Land Trust is working with partners to expand these efforts across the region—from new vernal pools at our Canandaigua Vista Preserve to planned wetland restoration and native plantings at our new Shotwell



Brook Conservation Area. We're also working on a demonstration project that will detain runoff from agricultural fields, allowing more stormwater to seep underground rather than carry nutrients directly to the lakes.

None of these projects are grand in terms of scale, but each can be replicated many times across our region. As we continue to permanently protect vital watershed lands, the

Land Trust will also be working with landowners, lake associations, soil and water conservation districts, and local municipalities to complete more of these projects.

The challenge before us is great but by forging common ground we can create a future for the Finger Lakes that includes clean water, healthy foods, and the ability for all to connect with nature nearby.

Andrew Zepp, *President*

## Land Trust Acquires 101 Acres Just Outside the Village of Skaneateles

*continued from cover*

Improvement Program (WQIP), and the Town of Skaneateles has pledged \$50,000 to support the purchase.

The Land Trust intends to manage the property as a public conservation area with plans to develop two miles of walking paths, including a universally accessible loop trail. The site will also feature scenic overlooks and wildlife viewing areas with an interpretive kiosk and a parking area.

Once part of a farm, the property consists of a mix of fields and young forest with two wetland areas. Before developing public access improvements, the Land Trust will first initiate ecological restoration efforts on the land through a partnership with the Partners for Fish & Wildlife Program of the U.S. Fish & Wildlife Service. This will involve restoring and enhancing wetlands; planting native trees and shrubs; establishing a native grassland; and reducing the presence of non-native invasive trees and shrubs.

As the Land Trust undertakes these efforts, it will continue to work with landowners within the watershed of Shotwell Brook to conserve additional lands in this area. Negotiations are underway for the acquisition of at

least one additional parcel and the protection of another property through the use of a perpetual conservation easement.

"This project uniquely brings together two important missions of the Finger Lakes Land Trust—to expand public access to nature's beauty around Skaneateles Lake and to help preserve the exceptional water quality that serves as the water supply for Syracuse and the central New York region," said Sean O'Keefe, Land Trust Board Member and Skaneateles resident. "Both are goals we're pursuing to bring the community together in support of benefits to us all."

A campaign has been launched to raise the funds needed to cover costs associated with the acquisition and restoration projects, public access improvements, and a contribution to the Land Trust's Stewardship Fund to support long-term stewardship of the site. To make a gift in support of this project, please call Dawn Cornell, Director of Development and Communications, at (607) 275-9487 or email [dawncornell@fllt.org](mailto:dawncornell@fllt.org).

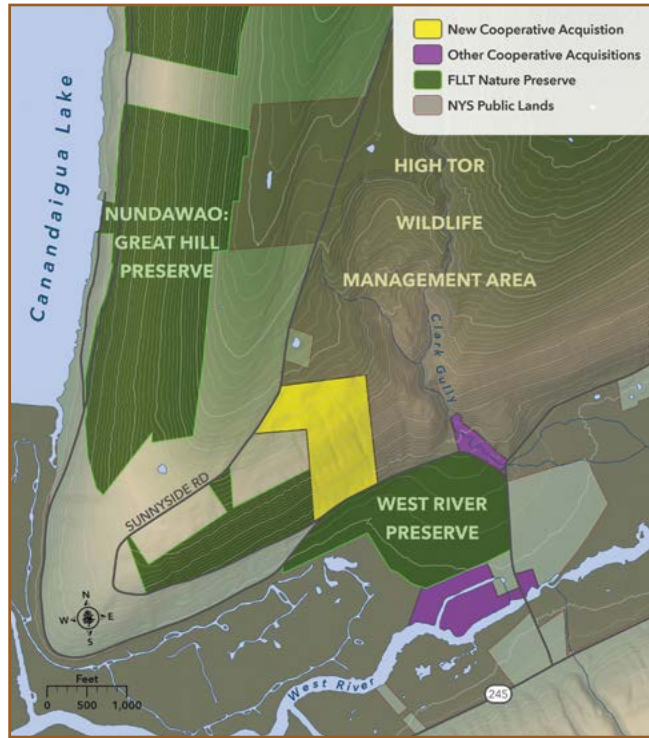


# Conservation Lands at the South End of Canandaigua Lake Expand with New Acquisition

The steep wooded hillsides that characterize the south end of Canandaigua Lake are part of a landscape like no other in the Finger Lakes region. This ecologically diverse area is home to the Land Trust's West River and Great Hill/Nundawao nature preserves and the state-owned High Tor Wildlife Management Area (WMA). Collectively, they feature deep forests, waterfalls, gorges, wetlands, open fields, and a winding river, offering an abundance of opportunities for outdoor recreation.

Protecting lands in this area is a top priority for the Land Trust. Recently, the organization purchased 34 wooded acres in the town of Italy, Yates County, near the south end of the lake. With road frontage on South Hill and Sunnyside roads, the property is situated between the Great Hill Preserve/Nundawao and the WMA and shares a boundary with each. It is also directly across from the West River Preserve, a 64-acre conservation area that is managed for grassland bird habitat. Figuring prominently in the creation story of the Seneca Nation, lands in this area are revered by the Seneca as the birthplace of their people.

Similar to the 313-acre Great Hill Preserve, the newly acquired parcel features high-quality oak-hickory deciduous



forest and numerous ephemeral creeks that flow down the forested hillside into the West River, the largest tributary to Canandaigua Lake. These uplands are important for stabilizing soils and preventing erosion as well as sediment loading into the lake.

The Land Trust intends to transfer the property to New York State as an addition to the 6,800-acre High Tor WMA, expanding publicly accessible outdoor recreational opportunities. Popular activities here include paddling along the West River, cycling along the Lehigh Valley Rail Trail, hiking the expansive upland plateau, and exploring Conklin Gully-Parish Glen and Clark Gully.

These lands are also located within the proposed Hemlock to High Tor Greenway—an ambitious effort by the Finger Lakes Land Trust and its partners to create a corridor of conservation lands extending from the shores of Hemlock Lake in the west to High Tor WMA and the community of Naples in the east. Conserving this intact corridor will allow for the continued movement of wildlife through the area while also protecting recreational resources such as the Bristol Hills Trail, a branch of the Finger Lakes Trail.



BILL HECHT

The property is located in the center of the steep slope above the West River.



# Over 400 Acres of Scenic Farmland in Yates County Conserved Forever

**I**n early 2024, the United States Department of Agriculture released the results of its 2022 Census of Agriculture which revealed a substantial decline in the number of farms across the country including New York State. New York saw a decrease of 2,788 farms and 363,885 acres of farmland from 2017 to 2022, underscoring a nationwide trend and raising concerns about the future of agriculture in the United States.

Causes of the decline include farm consolidation, generational shifts away from agriculture, and the development of farmland for housing and other construction. To address the long-term issue of disappearing farmland and threats to food production, the New York Department of Agriculture and Markets created the Farmland Protection Implementation Grants program (FPIG). The program is designed to keep agricultural land in production, ensure the long-term viability of New York's farming operations, and strengthen the state's agricultural industry.

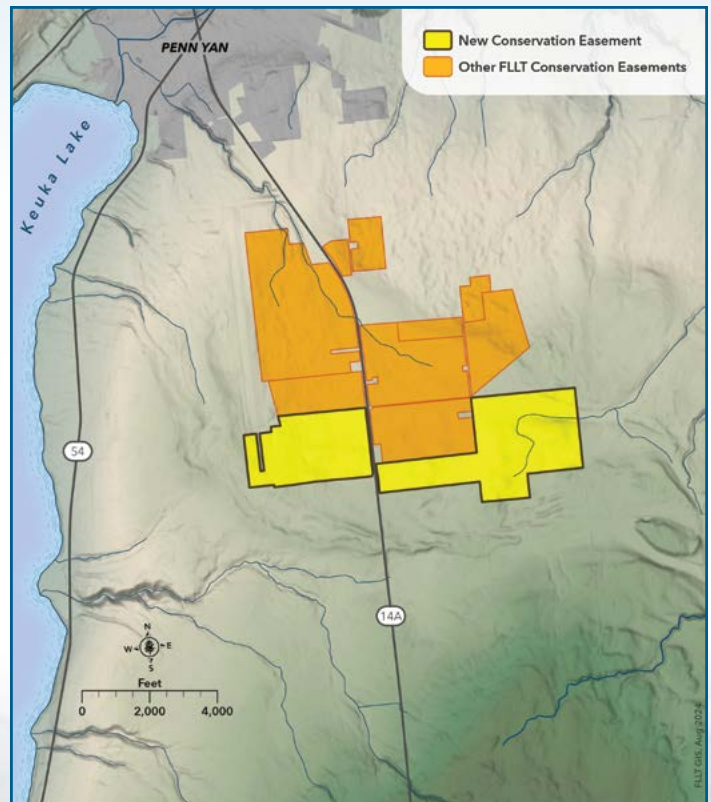
Utilizing funds awarded through the FPIG program, the Land Trust recently protected 406 acres of scenic farmland in Milo, Yates County, with a perpetual conservation easement. The farm is owned by Robert and Kay Henderson and operated by Robert and his son, Matthew Henderson, who grow a variety of crops including corn, wheat, soybeans, and clover. Matt returned to the Finger Lakes after living in Georgia, allowing the farm to transition from one generation to the next.

The property, which contains some of the most productive farmland in the Finger Lakes region, is located along New York State Route 14A in an area of increasing commercial development. The easement will protect nearly 400 acres of farmland from development as well as small wetlands and seasonal streams on the property. The Henderson family is actively working with the USDA Natural Resource Conservation Service to implement practices that improve their soil and reduce erosion including no-till farming and the planting of cover crops.

The Henderson farm is adjacent to two private properties protected by existing easements held by the Land Trust,

located just south of Penn Yan. Together, this conserved block of farmland now exceeds 1,100 acres.

Conservation easements are voluntary legal agreements that permanently limit future land use in order to protect the land's conservation value. Lands subject to conservation easements remain in private ownership, on local tax rolls, and available for traditional uses such as farming and hunting.



*The Henderson farm is in the center of the photo.*





# Conservation Easement Secures Frontage ON LARGEST TRIBUTARY TO CAYUGA LAKE

*The Land Trust recently acquired a conservation easement on 260 acres of land in the Town of Summerhill, Cayuga County, with 10,000 feet of frontage along Fall Creek. The property is located within the Land Trust's Fall Creek Focus Area and is in near proximity to several protected areas, including the Dorothy McIlroy Bird Sanctuary and Summer Hill State Forest.*

**T**he property is owned by William Hall, whose grandfather originally bought the tract in partnership with his brother in 1915. Hall's uncle inherited the land in 1949, and for the next few decades, he operated a dairy farm and produced maple syrup there.

With no family members interested in taking over the farm, Hall's uncle sold it when he retired in 1989, and the property was out of the family's hands until Hall repurchased it in 2011. "It had fallen into disrepair and was at risk of development, so I negotiated with the owner to buy it back," said Hall.

A series of conversations between Hall and the Land Trust over the intervening years resulted in an agreement to put a conservation easement in place on approximately 260 of the property's 295 acres.

The parcel, which straddles State Highway 90, consists primarily of a mix of agricultural land and forest. The conservation easement will protect both of these aspects of the property, with more than 100 acres dedicated to agricultural uses and another 40 acres denoted as a forest management zone.

"It's important to me that it remains a farm," said Hall, who leases out some of the property to local farmers. "I also wanted to maintain the hunting grounds on the property used by family and friends."

The rest of the conservation easement includes 120 acres of buffer protection around the wetlands, tributaries, and main stem of Fall Creek, which winds through the length of the property and serves as part of its eastern border. This environmental protection zone will not only safeguard

the creek itself, which is the drinking water source for Cornell University and neighboring communities, but also uncommon flora and a freshwater mussel species found in the wetland habitat on the property.

Funding for the conservation easement came from the Water Quality Improvement Program (WQIP), a grant program through the New York State Department of Environmental Conservation. The WQIP funding will cover both the acquisition cost of the easement and ongoing stewardship.

—Jeff Tonole

*The Land Trust gratefully acknowledges Attorney Andrew Simkin in Auburn, NY, for providing pro bono services in support of this project.*



# SCENES

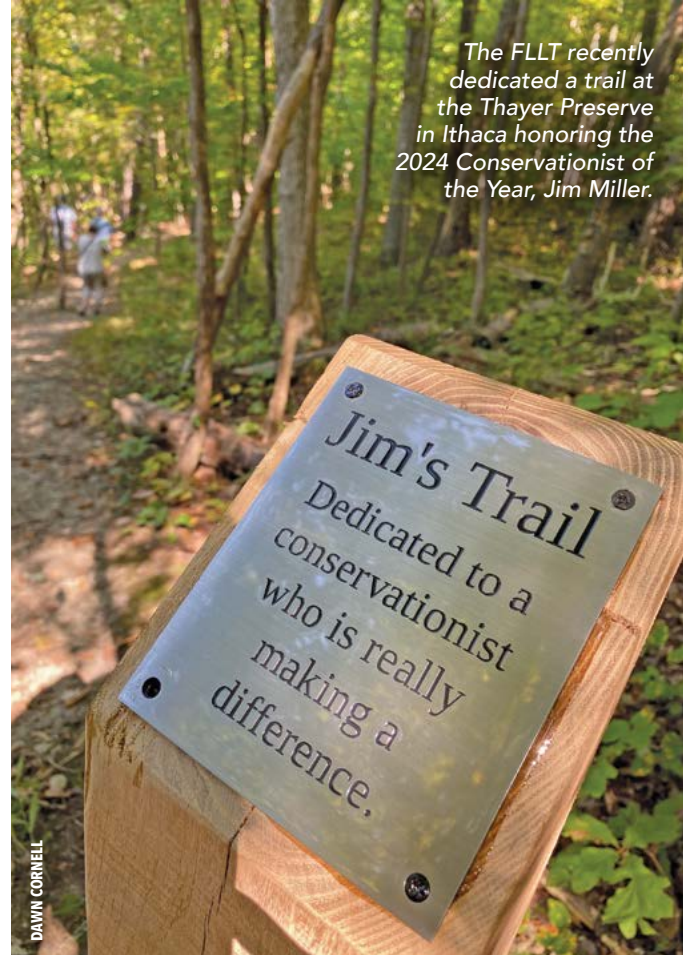
from Around  
Our Region...

Land Trust intern Sabine Paz-Le Draoulec building a footbridge on land conserved by the FLLT in Enfield, Tompkins County, that will soon be added to Robert H. Treman State Park.



Longtime FLLT member and volunteer Roger Hopkins and Land Steward Eric Mastroberti with a newly built "Leopold bench." Roger has built many of these benches found at FLLT nature preserves in the region.

RUTH HOPKINS



The FLLT recently dedicated a trail at the Thayer Preserve in Ithaca honoring the 2024 Conservationist of the Year, Jim Miller.

DAWN CORNELL

ROB HOWARD





*Native grasslands at the West River Preserve, near the south end of Canandaigua Lake in Yates County. The site of an abandoned vineyard, the preserve was restored in 2013 through a partnership with the U.S. Fish & Wildlife Service and also Constellation Brands, which donated the land.*

ANDY ZEPP



*Skaneateles Lake, as seen from the Hinchcliff Family Preserve in Spafford, Onondaga County.*



# Partnership with Ontario County Creates New Wildlife Habitat at the Canandaigua Vista Preserve

*Similar to other habitats in the Finger Lakes region, vernal pools serve a variety of important ecological functions. These seasonal wetland depressions reduce flooding and erosion by capturing runoff, provide breeding habitat for amphibians, act as a food source for birds and other wildlife, and boost groundwater as their contents seep underground.*

**I**n partnership with the Ontario County Soil & Water Conservation District (SWCD), four new vernal pools were constructed at the Land Trust's Canandaigua Vista Nature Preserve. Just a short drive from downtown Canandaigua, this 90-acre preserve protects a mix of hills, open meadows, forest, and a stretch of Barnes Gully, a tributary of Canandaigua Lake. SWCD recently created the pools in a low-lying area in the eastern part of the preserve, the site of a former cow pasture where runoff accumulates.

In addition to diversifying wildlife habitat at the preserve, the pools will protect water quality in

Canandaigua Lake by capturing runoff during storms and allowing rainfall to gradually recharge groundwater supplies. Funding for this project was provided by the Ontario County Soil & Water Conservation District, the New York State Department of Environmental Conservation's Water Quality Improvement Program, and contributions from Land Trust members. The Land Trust is committed to pursuing restoration projects like this across the region and has worked with partners to complete similar projects within the watersheds of Honeoye, Owasco, and Skaneateles Lakes.

## New Ithaca Bakery Bread Cards Available

**ITHACA BAKERY** is generously offering bread cards to all current Land Trust members again this year. The bread card entitles members to one FREE loaf of bread per month with a \$10 minimum purchase at the 400 N. Meadow Street and Triphammer Marketplace locations. Please visit the Land Trust's main office at 202 E. Court Street in Ithaca if you would like to pick up your bread card.





# Land Trust Enters Agreement for Sale of Land at the Former Bell Station Property

The Land Trust recently agreed to sell 213 acres of the easternmost portion of the former Bell Station property to AES with the understanding that it will be utilized for solar power generation. The purchase was undertaken by AES as part of a project involving a portion of the defunct Milliken Station coal power plant in Lansing, Tompkins County.

The land to be sold is adjacent to the former power plant and was originally acquired from New York State Electric & Gas (NYSEG) along with 287 adjacent acres that feature more than 3,000 feet of undeveloped shoreline on Cayuga Lake. In 2021, NYSEG intended to sell all of this land through an internet auction, before Governor Kathy Hochul and other elected officials requested that they negotiate a sale to the Land Trust instead. This was accomplished with the understanding that the Land Trust would ultimately convey the shoreline portion of the property to the state to establish the Cayuga Shores Wildlife Management Area.

Discussions relating to the conservation of this shoreline property were initiated more than a decade ago, and the leadership of the Town of Lansing expressed their desire to conserve the shoreline while also ensuring that a portion of the property

remains on the tax rolls (the state's wildlife management area is exempt from property taxes). The sale of the property to AES will achieve this goal while supporting the state's climate goals and converting carbon-based energy generation to renewable sources.

### **The Land Trust is selling the land subject to several conditions and commitments:**

- The intended use of the property is for solar energy production and agricultural co-utilization;
- A forested area existing on the property shall be retained for its value in sustaining wildlife and maintaining water quality;
- A wildlife corridor shall be maintained along a protected stream that runs through the property;
- Existing wetlands shall not be disturbed and a buffer will be

maintained around them;

- Any buffer plantings on the land shall be of species native to the region;
- A portion of the property shall be designated for research with an expected focus on agrivoltaics—the production of crops in conjunction with solar energy production.

Proceeds from the sale will be allocated to time-sensitive land acquisition projects and the FLLT's Stewardship Fund, which supports long-term management of the organization's conservation lands and monitoring of its conservation easements.

The Land Trust continues to pursue the conservation of additional lands along the shoreline of Cayuga Lake in the vicinity of this project and is currently working on the addition of a 110-acre parcel to the Cayuga Shores Wildlife Management Area.

## Celebrate 35 Years of Conservation: Double Your Impact This Autumn!

This year marks our 35th anniversary, and to celebrate, we're excited to announce a **\$100,000 Matching Gift Challenge!** An anonymous family will generously **match any increase** over your 2023 giving dollar for dollar, up to \$100,000, by December 31, 2024.

**IF** you're not a current member, now is the perfect time to join—your **new gifts will also be matched** this autumn.

**Make a gift today at [fltt.org/give](https://fltt.org/give)** to amplify your impact and help us protect more land and water in our beautiful Finger Lakes region!



## Our appreciation for gifts in honor of

|   |  |  |  |  |
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| <b>Dennis Barrett</b><br>FROM<br><i>Jo Ann Smith and<br/>William C. Payne</i>                                     | <b>Chip and Dan</b><br>FROM<br><i>Angela and Alex Thor</i>                                   | <b>Jan Hesbon</b><br>FROM<br><i>Lyle Jenks</i>                           | <b>Harold Mills and<br/>Sabrina Johnston</b><br>FROM<br><i>Paul and Julie<br/>Herman</i> | <b>Wayne Sinclair</b><br>FROM<br><i>Cheryl and Stephen<br/>Deeley</i>                  |
| <b>Amy Borglum</b><br>FROM<br><i>Todd Miner and<br/>Mary Elizabeth Iandoli</i>                                    | <b>Janet Darrow</b><br>FROM<br><i>Margaret Darrow<br/>Williams and Benjamin<br/>Williams</i> | <b>Ruth and Roger<br/>Hopkins</b><br>FROM<br><i>Nancy and Matt Braun</i> | <b>Sasha Raffloer and<br/>Lucas Finn</b><br>FROM<br><i>David and Page<br/>Finn</i>       | <b>The Spencer Family</b><br>FROM<br><i>Cheryl Purvis</i>                              |
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|   | <b>Holly Gregg</b><br>FROM<br><i>James and Emily Gregg</i>                                   | <b>Lucas and Sasha</b><br>FROM<br><i>Louisa and Adam Finn</i>            |  |  |

## Our deepest gratitude for thoughtful gifts in memory of

|  |  |   |  |   |
|--|--|---|--|---|
| <b>Jay Allen</b><br>FROM<br><i>Stacy and Joel Husted<br/>Nancy and Michael<br/>Lustyik</i>         | <b>Cynthia "Dee"<br/>DeFelice</b><br>FROM<br><i>Mary Lee Bourbeau and<br/>Sam Bonney<br/>James Evans<br/>Mary and John Gordon<br/>Donald and Robin<br/>Pulver</i>                    | <b>Frank Spena, Jr.</b><br><i>Watkins Glen Area<br/>Chamber of Commerce</i>   | <b>Joan Ormondroyd</b><br>FROM<br><i>Martha Armstrong and<br/>Lois Levitan</i>   | <b>Thelma Root</b><br>FROM<br><i>Whitney Birkett</i>  |
| <b>Bob Beck</b><br>FROM<br><i>Roger and Ruth Hopkins<br/>Martha Armstrong and<br/>Lois Levitan</i> | <b>Martha Fergar</b><br>FROM<br><i>Nicole and Paul<br/>Doria-Rose</i>  | <b>Thomas and Mae<br/>Howitt</b><br>FROM<br><i>Tom Howitt</i>   | <b>Alice Palatas</b><br>FROM<br><i>Don and Lynn Delaney<br/>Deborah Odorczyk</i>   | <b>Daniel Konowalow</b><br>FROM<br><i>Ellen Biesdorf<br/>Tom Butler and<br/>Stephanie Behler<br/>Mr. and Mrs. Robert<br/>Kozlowski<br/>Robert Camp and<br/>Marjorie Smart</i> |
| <b>Jason Bell</b><br>FROM<br><i>Ann Kaminski</i>   | <b>Jim Finlay</b><br>FROM<br><i>Anna and Conner Finlay</i>   | <b>Anthony Leone</b><br>FROM<br><i>Norma Leone</i>  | <b>Fr. Daniel Paul Riley</b><br>FROM<br><i>Christine Duink<br/>Joe McMahon and Gail<br/>Steinhart</i>  | <b>Horst Schwinge</b><br>FROM<br><i>Sigi Schwinge</i>   |
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| <b>Andy Cook</b><br>FROM<br><i>Antoinette S. Levatich</i>  |  | <b>Daniel Iandoli Miner</b><br>FROM<br><i>Charlotte Gillespie<br/>Elizabeth Kreitinger and<br/>Wade Simmons<br/>Mary Morley</i> |  |   |
| <b>Bill Darrow</b><br>FROM<br><i>Margaret Darrow<br/>Williams and Benjamin<br/>Williams</i>        |  | <b>Gustav Niebuhr</b><br>FROM<br><i>Margaret Usdansky<br/>Susan Feeney</i>  |  |   |

## Make a Gift from Your Retirement Account

Are you 73 or older and looking for ways to deepen your support of our mission? Consider making a direct, tax-free donation to the Land Trust straight from your IRA.

Starting in 2024, the annual limit for these donations increased to **\$105,000**—up from \$100,000—allowing you to contribute even more without affecting your taxes. Plus, these donations count toward your required minimum distributions (RMDs). RMDs are the minimum amounts you must withdraw from your retirement accounts each year.

This is a thoughtful way to help us expand our conservation work while managing your retirement funds effectively. You have dedicated time and effort to build

your financial resources—now is the time to invest in our stunning landscapes and ensure their protection for generations to come.

If you have questions about how to make a gift from your IRA, consult a financial advisor. Learn more at [fllt.org/planned-giving](http://fllt.org/planned-giving), or contact Dawn Cornell, Director of Development and Communications, at (607) 275-9487 or [dawncornell@fllt.org](mailto:dawncornell@fllt.org).



# A CLOSER LOOK

## Earth Clothing

### Discovering the diversity and life history of lichens

The transition from lush green summer to crisp colorful autumn is upon us, with winter looming not far behind. For insect-lovers, birders, and foliage fans, this shift might seem sad, the resulting landscape dull and lifeless. But the opening of the canopy and absence of other diversions also provide an opportunity to look closer and discover something wonderful. All around us, on exposed tree bark, rocks, and bare ground, lie galleries of richly varied color and form. This is the world of lichens, which the Chinese aptly call 地衣 (pronounced *dìyī*)—literally, “earth clothing.”

A lichen is not a single organism, but rather a mutualistic partnership of one fungus and at least one photobiont (green algae or cyanobacteria, or sometimes both), all living together in one body. The fungus provides a stable scaffold and protection from the elements and predators, while the photobionts produce sugars via photosynthesis, to sustain both themselves and the fungus. Lichens also commonly contain bacteria, tardigrades, worms, yeasts, and other microbes. In these cases, the lichen is not just a pairing or a partnership, but indeed a complex ecosystem unto itself.

The body (thallus) of a lichen has several layers. The outer layer is made of fungal threads (hyphae) packed densely together. Individual cells of the algae and/or cyanobacteria lie immediately below, held in place by a looser array of hyphae, which harvest the sugars that the photobionts produce. The bottom surface layer attaches to the substrate, most commonly by tiny root-like projections called rhizines, or sometimes by a single anchor called an umbilicus, for its resemblance to a human navel.

There are at least 18,000 species of lichens known in the world, and at least 3600 in North America, probably with many more yet to be discovered. Lichens take various forms—as a crust growing directly on the substrate (“crustose”), as leaf-like lobes with different-colored upper and lower surfaces (“foliose”), and as shrub-like growths of branches or clubs growing out in three dimensions (“fruticose”), among others. They come in a full spectrum of colors, from subtle to spectacular—gray, green, bluish, yellow, orange, red, brown, black, and all shades in between. Their colors

arise from specialized chemical compounds, many of which are unique to lichens.

Lichens reproduce vegetatively, most commonly when a piece of the thallus breaks off, then reattaches and grows in a new location. They can also vegetatively propagate by releasing little packets of hyphae wrapped around photobiont cells, through openings in the upper

layer of the thallus. In both of these vegetative reproductive modes, the new lichens are genetic clones of the original. Lichens can also reproduce sexually, with a given fungus releasing spores into the environment, where, with luck, they will land upon a compatible

fungus. This, in turn, may lead to the formation of fruiting bodies (often, cup-shaped structures called apothecia) that produce and release a new round of spores with DNA from both parent fungi. To survive and grow, the new fungus needs suitable algae and/or cyanobacteria to be present in the new location, as the fungi of lichen species cannot survive without a photobiont.

Once established, lichens can live for decades or even centuries. Their distinctive way of life enables them to thrive in almost all terrestrial habitats, including otherwise barren Arctic rock landscapes, alpine cliffs, and deserts, as well as forests and open country of the Finger Lakes. The main threat to lichens is air pollution, as they derive most of their water and chemical nutrients from continual exposure to the air, not via uptake from their substrates. Sulfur dioxide and other acid precursors are especially dangerous to lichens. Fortunately, lichen populations do tend to recover well if air quality improves.

Maybe some of you, like me, have spent much of a lifetime enjoying nature but somehow overlooking the lichens around us. But once you start paying attention, you will probably start noticing the beauty and dazzling diversity of lichens wherever you explore, no matter the habitat or the season. And lichens are not only a distinctive pleasure to see, but also a marvel to contemplate and understand—a single living thing, but also many in one, clothing the earth and providing food and shelter all at once, everything that a fungus and its microscopic partners would need for a life of blissful sedentary coexistence.

—Mark Chao



**Mealy Rosette Lichen**  
(*Physcia millegrana*)  
with apothecia

MARK CHAO



## Finger Lakes Land Trust

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| Gaige               | Kristin Swain |
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