

THE LAND STEWARD

Newsletter of the Finger Lakes Land Trust

Vol. 22, No. 3

working to protect the natural integrity of the Finger Lakes Region

Summer 2010

With Increasing Commitments Land Trust Expands Its Stewardship Efforts

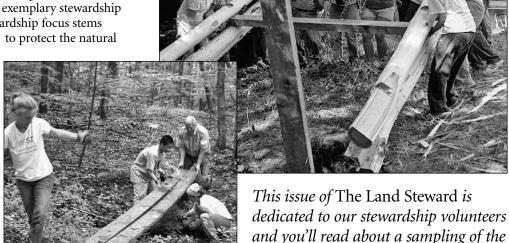
Since its establishment more than 20 years ago, the Land Trust has been committed to the pursuit of exemplary stewardship of the land under its oversight. Our stewardship focus stems directly from the organization's mission: to protect the natural integrity of the Finger Lakes region.

In pursuing that vision, we maintain and monitor our boundaries, combat non-native, invasive plants, sustain dwindling meadow habitats, restore wetlands and provide for low-impact public access to our conservation lands. From a single 11-acre nature preserve, the organization's holdings have grown to include 4,000 acres of land open to the public and nearly 6,000 acres of private lands subject to conservation easements.

With this dramatic increase in its responsibilities, the Land Trust is focusing on its land stewardship programs as never before. The sheer growth in acreage under our over-

sight keeps us busy enough, but increasing rural residential development across the region puts added pressure on neighboring conserved lands and frequently means even more work! In addition, the potential for increased natural gas drilling in the Finger Lakes will likely call for vigilant monitoring of our conservation lands to ensure that our boundaries are recognized and upheld.

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people who represent the backbone of

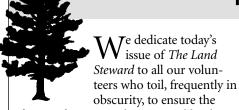
our conservation effort.

Please join us for the -

Rand Trust's 21st Annual Meeting & Pelebration

at Standing Stone Vineyards overlooking beautiful Seneca Lake. (See insert for details.)

PERSPECTIVES



future of our region's conserved lands. From one-time volunteers who pitch in to help build a trail, pick up trash, remove invasive plants, or help with filing at the office, to dedicated preserve stewards who might oversee a natural area for a decade or more—we simply couldn't achieve our goals without them.

Every volunteer is important and will become even more so in the future. Our job will not get any easier. An

increasing number of neighbors to conserved lands will call for more extensive monitoring and management in the future, as will expected increases in visitors to our preserves. The plague of invasive pests continues apace, and it seems likely that our land management efforts will need to become more intensive if we are to retain healthy native plant communities.

Each volunteer has his or her own story. I have met many and am repeatedly struck by their strong connection to the land, whether that is through farming, hunting, bird watching, hiking or simply admiring the countryside. This connection to the land—a sense of "ownership" and an urge toward stewardship—seems to be growing in the region, and it bodes well for us all.

If we each took time every week to act as stewards for the land, think about what our Finger Lakes region could be like. To all of our volunteers, thank you for leading the way!

—Andy Zepp

Staff Developments

It is with sadness that we bid adieu to our Director of Land Protection, Rocci Aguirre, but we are delighted that he will be moving forward in his land conservation career. Rocci will be leaving us after almost five years at the helm of our land protection program to return to academic life. He will be attending Antioch University New England, in Keene, New Hampshire, to pursue a master's of science degree in resource management and conservation.

During Rocci's tenure here, which he began as a land protection specialist, the Land Trust added some 23 conservation easements, along with numerous land acquisitions, to its portfolio

of protected lands. Some of the more notable projects under his wing include Hallpine Farms, our first state funded purchase of an agricultural conservation easement, completed in Yates County; and the Kingsbury Woods Conservation Area, a 50-acre donation and addition to the Emerald Necklace, a greenbelt designed to link 50,000 acres of public open space surrounding the greater Ithaca area. But it is perhaps the Fitchen land gift, a donation of 100 acres bordering Shindagin Hollow State Forest in the Town of Caroline that, for Rocci, will prove to be the most memorable. "Sylvia Fitchen was my main contact for the family," he recalls. "We worked together on the donation of her father's property while she was terminally ill, and she finally succumbed right after the final pieces of the project came together." Looking back at it now, Rocci remi-

nisces, "Sylvia was so appreciative to have been able to preserve her father's legacy before she passed on. It just puts what we do in perspective."

And putting things in their proper perspective was something Rocci Aguirre never let those around him ever lose

sight of. It's sometimes easy to forget the big picture when you're embroiled in hammering out the minutia. Rocci never did. His quiet, steadfast determination to go to bat for the *little guys* on

this planet—our endangered fauna, our vanishing unspoiled landscapes, our disappearing natural resources—is an inspiration to us all.

When I asked Rocci to prepare a few sentences to leave our readers with, he replied, "My experiences working with our members and interested landowners have always been inspirational and rewarding. It's been gratifying being part of this organization as it has grown and developed, and I am proud of the accomplishments we have all made over these past five years. But, above all, I believe that the time here has permanently changed who I am and how I see the world...to be able to walk away richer and fuller than when you arrived is an amazing gift and one that I am truly thankful for."

On behalf of all of us here at the Land Trust: Thank you Rocci, for being

part of our lives and for playing such an important part of our land conservation efforts during these past five challenging and wonderful years.



Departing Director of Land Protection Rocci Aguirre

—Abbey Chernela

John Sutton: High Vista's Contemplative Conservator

What does it take to be a land steward? Simple love of the land, surely. But also a strong sense of environmental history and something approaching a spiritual relationship with nature, suggests John Sutton, steward of High Vista Nature Preserve at the south end of Skaneateles Lake.

Born and raised in the Rochester area, and with Canandaigua Lake summers in his resume, John is a Finger Lakes native who discovered, over much time, that he is a Finger Lakes natural.

All too soon after graduating from college, John was drafted into the Vietnam War. Upon his return he had to find his way gradually back into the world. Continuing his college study of history and art history gave him much needed focus, and he still finds intellectual refuge in scholarship.

He moved to the Skaneateles area ("to stay in touch; to feel connected to the Finger Lakes") and took a job teaching history to middle school students. And he fell in love—with Skaneateles artist and musician Margie Blakney, but also with a landscape.

"We lived for eight years, with the kids, in a rented farm house not far from New Hope [on the southwest side of the lake]—just beautiful up there," John said. "Margie's family had a camp down by the shore, so I became familiar with the southern end of the lake over time—lots of family and friends around in that area, and great times."

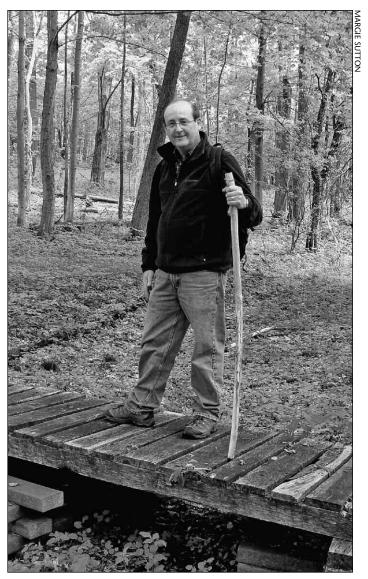
In his ramblings around the lake, he grew deeply familiar with the forests that dominate the landscape of the southern slopes. And he knew High Vista Nature Preserve. In 2007, he gladly accepted an offer to become preserve steward: "I saw it as a refuge, just personally," he said. "Because of my history ... I'm looking for peace and quiet."

The trail maintenance John performs as steward gives him the special satisfaction of working alone, enveloped in the elemental peace of the woods, surrounded by birds and other wildlife. "I always want to do something and not just look around," he said. "I really enjoy working there on my own—you see things on your own that you wouldn't see in groups, for example."

In reflecting on High Vista, John stresses the crucial importance of lake watershed stewardship in general, especially as Skaneateles Lake provides clean drinking water to local residents as well as all of Syracuse. "The coffee I drink in the morning comes from High Vista: that's how I think about it," he told me. "Luckily, lots of people who live around the lake are great stewards."

High Vista stewardship also provides him an important contrast to his "day job" as an art conservator and restorer of paintings, where he works alongside Margie and sister-in-law Susan Blakney, at West Lake Conservators in Skaneateles. Laboring with Q-tips, small brushes and tiny spatulas, he painstakingly cleans and repairs paintings all but lost beneath layers of grime and neglect—call it art stewardship. "It's very exacting work," John admitted, "so getting out into the open and walking up at High Vista involves much more full-body movement, which is a really necessary complement to my work in front of an easel."

John is a scholar of 19th-century American painting, with a special interest in the work of Skaneateles resident John D. Barrow, whose Finger Lakes landscapes were influenced by the Hudson River School paintings of Frederick Church, Thomas Cole and others. With their special attention to light and the wilds of the landscape, Barrow's paintings are about the sublime



High Vista Preserve Steward, John Sutton

natural beauty and solitude he found along the shores of his lake, something John Sutton can deeply appreciate.

In an era of rapacious logging around the lake, Barrow "was an early steward himself," John explained. In many of his sweeping forest landscapes, Barrow omitted swaths of clear cut woods marring the scene, wanting to recapture natural beauty and not paint its degradation. "But he didn't just talk about art," John told me. Joining many like-minded painters, Barrow gave public talks about lake preservation and the importance of an environmental vision.

John's sense of kinship with Barrow is not just about shared esthetic taste but about an environmentalist's way of looking at the world as infused with spirit. Thoreau helped get him started, John says, but then he found a similar affinity with the beat

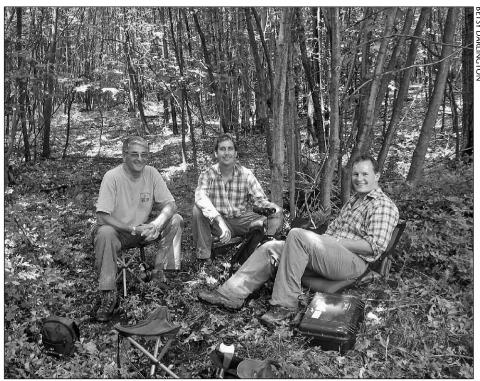
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Bob Corneau: Steege Hill's Guardian Angel

When Bob Corneau was a young man, Friday night was for drinking beer and shooting snakes. It's still a bit of a surprise to him that, fifty years later, he has become the snake guardian of the Steege Hill Nature Preserve.

Bob's relationship with Steege Hill is a very long and intimate one. He first started hunting there in 1955, when he was fourteen years old, and built a home along Steege Hill Road when he was in his mid-twenties. In those days, the road, which cuts along the west slope, was nothing but a dirt track flanked by cow pastures on either side; a cornfield

In 2001, the Land Trust acquired an 800-acre parcel at the top of Steege Hill and Betsy Darlington called to ask whether he was interested in becoming the preserve steward. Since he had always thought of the hill as his own "backyard" and had long been its unofficial defender, he fit naturally into the role of preserve steward.



Bob Corneau (left) relaxes with BBC crew filming David Attenborough's series, Life in Cold Blood, at Steege Hill.

occupied the southwest corner of the hill. In the early 1970s, the hill was logged. The damage was devastating. Loggers clear-cut the forest during the day and returned at night to illegally hunt raccoons and rattlesnakes. Though everyone felt helpless to stop the destruction, Bob retaliated in his own small way. Knowing the lumber trucks would be overloaded, he strung a tripwire across the road each night; when the trucks broke it, state troopers were standing by to arrest them. After the big flood of 1972 ravaged the clear-cut area, the town of Big Flats went to court to shut the logging operation down.

Among many other things, he keeps the 7.3 miles of trails (all of them old logging roads) cleared and marked, gives guided tours to visitors, mows the meadows so that raptors can find their prey, and does much of the necessary carpentry work. Bob's keen animaltracking skills, honed by years of hunting, often come in handy. Four years ago, he found a bald eagle nest just below the preserve, near the Chemung River, and he now helps the NYSDEC keep tabs on this and several other nests in the area. It's all as a volunteer, he notes: "Just one more project to keep me busy."

Another time, Betsy called with a

different favor to ask. A Cornell graduate student, Rulon Clark, would be conducting a study of the timber rattlesnake, a species that is threatened in New York State: would Bob watch over him? For the next three years, he served as guide and assistant to the scientist that he affectionately (and, he admits, erroneously) calls a "city boy." They caught rattlers, implanted transmitters under their skins, named them after country-western singers, and tracked their movements and behavior with radio telemetry. When Rulon finished his research, Bob decided to continue the project, just for fun. For the past six years, he's gathered information about the resident rattler population and has worked to educate his neighbors about these poisonous but nonaggressive snakes. Because he's not licensed to perform surgery on reptiles, he takes the animals to the Cornell Veterinary School to have the transmitters implanted. (When we talked, he was monitoring the recovery of "Kellie Pickler.")

Despite the fact that he works with snakes most days of the week, Bob insists that he's not a herpetologist: "I'm no expert. I'm a retired bricklayer. I have no degrees." The DEC seems to think otherwise: a few years ago, they became interested in his work and he now collaborates with them. In addition, he travels across the state to attend lectures on timber rattlers and trains gas pipeline workers who are operating in the snakes' territory. He even assisted a BBC film crew shooting the series "Life in Cold Blood" at Steege Hill and then repaired the damage caused by their equipment.

Bob's self-described "addiction" to working with snakes is considered an eccentricity; in fact, he says, more than one person has suggested that he might need a psychological evaluation. Nevertheless, he has served as a tour guide for many ophidiaphobes who, for one reason or another, want to see the very creatures that terrify them. Once, he helped a woman win a bet with her friends; she took a photograph of a rattler and won twenty dollars.

I ask Bob how long he plans to walk the preserve trails and work with his beloved snakes. He answers, without hesitation: "Tell me how long I'm going to be healthy."

—Jacqueline Stuhmiller

Candace Collmer: Taking Care of Nature's Gifts

Quite often, adults who love nature had childhoods with fond and formative memories of the outdoors. This holds particularly true for Candace Collmer, a biology professor at Wells College and a volunteer steward of two Finger Lakes Land Trust conservation easements in the hills south of Ithaca.

Candace hails from Bethlehem,
Pennsylvania, but claims the most
fun she had in her youth came during
weekend trips to a family cottage on
Lake Teedyuskung in the lovely Pocono
Mountains. There, she relished her time
fishing off shores and docks and boats
with her father, and exploring the
wonders of nature.

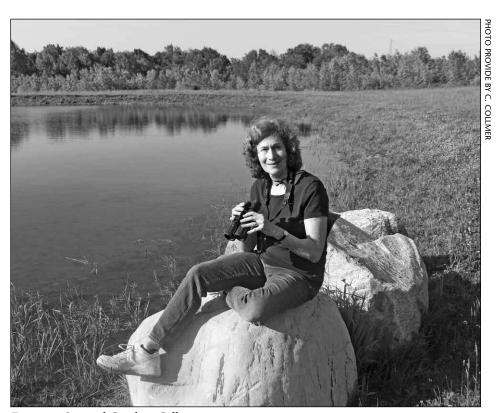
"I loved everything about the lake," she said, recalling the long summer days of catching frogs, salamanders and red efts near creeks and by the lake shore and collecting mussels off the lake bottom, cracking them open and using them to fish.

"It was probably the most formative part of my whole life in terms of who I turned out to be and what I ended up loving to do," she said.

Now, at the tail end of a career studying plant viruses and teaching students about mating and courtship rituals in fruitflies and wasps, Candace takes great pleasure in being outdoors as she keeps tabs on an easement owned by former Land Trust board member Tom Reimers in the southeast corner of Tompkins County, and another easement owned by Jane and Cliff DeMayo at the edge of Danby.

To make sure the terms of an easement are met, the law requires that someone regularly monitor the land, said Candace. To uphold these terms, she checks that signs are present and visible and that nobody has encroached on a property. With regard to her role as a steward, Candace said, she feels part of an education network, where different sources bring their own valuable input. Official entities like the Land Trust may spread knowledge of invasive species through workshops, while individual owners, such as Reimers, may share intimate knowledge of their land. "In so much as I can be an agent of learning and sharing useful information, and a sense of wonder, I feel I play a small part in building a more vital network of effective and dedicated stewards," she said.

Candace has been a volunteer steward of Tom Reimers' 52 acres since 2004. Once a year, she meets with him to walk the land to check the signs and boundaries.



Easement Steward Candace Collmer

In the meantime, she thoroughly enjoys both the beauty of the property and his company, she said. "He has always gone with me; he tells me all the things that have happened," she added.

The property includes Reimers' cabin, open fields, pine and spruce woods and also mixed hardwood and hemlock forest. A steep slope leads to a wetland and a stream that borders the parcel; another spring stream slows in the dry months of summer. "On some visits, it seems like there are birds dripping out of the trees," said Candace. "I love seeing and learning about the different wildflowers with Tom, and the larch trees are so beautiful, ever green with the softest needles." Feeders attract hummingbirds and a habitat built from plywood and plastic draws snakes. Though Candace and Reimers have yet to see a black bear pass by, and a motion-sensing camera has yet to capture a photo of one, ripped up logs suggest they have been there.

Since last year, Candace also began monitoring Jane and Cliff DeMayo's 63-acre easement on East Miller Road in Danby, where the couple lives part of the year. Their easement is wooded with a gorge and stream running through the middle of it. Candace walked the property to check the signs and boundaries for the first time last summer with Chris Olney, the Land Trust's director of stewardship. They found a few spots in need of signs, so Candace returned the following month with Finger Lakes Land Trust conservation easement signs, and she and Jane DeMayo posted them together.

"Volunteering for the Land Trust is of value to me, because I so believe in the mission of trying to keep land in its natural state and keeping large chunks of land that can serve as preserves to animals and plants of all kinds," said Candace. The volunteer work pushes her to do what she loves to do: spend time in nature where she may "take careful note of the beauty all around," she said.

"It's a small job, and as I move towards retirement, I'll have more time to do additional meaningful things," she added.

-Krishna Ramanujan

COMBO Strom Around Our Region...



A young naturalist looks for amphibians during a recent outing.



Participants on a wildflower walk at the Dorothy McIlroy Bird Sanctuary enjoy the sun while discussing the day's events.



Melissa Yearick, a wetland specialist with the Upper Susquehanna Coalition, shows off a salamander egg mass at Exploring Vernal Pools, part of the Spring 2010 Talks and Treks series.



Friends of Grimes Glen, volunteers, and family enjoy the first falls at the glen in Naples, Ontario County.



Last Spring, Cornell's chapter of Roots and Shoots held an Earth Day 5K race, raising nearly \$800 in support of the Land Trust's conservation efforts in the region.

"Enchantment in the forest glen, summer at the gates, the long welcome light of sun"

— Josh [from the visitors' log, Sweedler Preserve at Lick Brook]



An early morning bird walk at the Goetchius Preserve yielded 36 bird species including Bobolink and Eastern Meadowlark during this year's Spring Bird Quest.



(left to right) Volunteers Dave Schurman, Roger Hopkins, and Peter Marks celebrate the completion of the new entrance sign at the Etna Preserve.

Don Green: Farmer with a Vision

Don Green's commitment to land stewardship grew out of the history of his farm in Ontario County, about 30 miles south of Rochester. His maternal great-grandfather acquired the 200-acre property in 1890, and Don represents the fourth generation to farm the land. The property is striking in its beauty and diverse in its composition, with lush rolling hills of farmland ringed by dense woodlands of maple and ash.

The Greens have been both farmers and caretakers of the land that has provided them with a living over the past 120 years. As Don succinctly put it, "No farmer goes out to intentionally

destroy his land." When Don's father took over the farm in the late 1930s, he turned it into a small dairy operation with 18 cows. Financial limitations dictated the modest size of the herd, but it also helped prevent overgrazing of the land.

Don assumed responsibility for the farm in the mid-1970s. Although he earned a biology degree from SUNY-Geneseo—where he developed an affinity for reading and a lifelong desire to learn—he spent weekends and summers back on the farm, helping his father.

Don's father and grandmother instilled in him the values of hard work, resourcefulness, and a land ethic that informs his farming methods to this day.

Don continued to raise dairy cows until the early 2000s, but today the Green farm produces a single crop: hay, which is sold to local horse farms. Don handles all of the farming duties (such as cutting, baling, and preparing for transport) himself, and that is no small feat—the farmland occupies about three-quarters of the property, so it produces a substantial amount of hay. Don also actively manages the wooded areas of the property, which provide the firewood used to heat his home throughout the winter.

For all that Don Green (and his fore-bears) have done to nurture and care for the land, perhaps his most exemplary act of stewardship was to donate a conservation easement on his property to the Land Trust in 2005. The easement provides specific land-use guidelines that help protect the property's open spaces and natural resources. Furthermore, the agreement is binding on all future owners, ensuring protection of the land in perpetuity.

The decision to donate the easement was driven in part by Don's desire to uphold the century-plus legacy of the land as an independent farm. "I've seen farms in this area turned into housing developments," Don said. "But I've been working this land all

my life, and so did my father and his father. It's important to me that it is protected."

At the same time, Don also wanted to preserve the land for future generations. Although his children are pursuing careers other than farming, the process of transitioning the property to the fifth generation of the Green family is underway. Don is building a house (by himself, using local materials) for his oldest daughter on a small parcel of cleared land in the northwest corner of the farm. She will own the house and an adjacent five acres. Meanwhile, Don's younger daughter and her family live in the home previously occupied by his parents, just across Green Road (the eponymous thoroughfare that bisects the Green farm) from Don's own house. She also owns 100 acres on the east side of Green Road, though Don retains the right to farm this land as long as he wishes.



Easement donor Don Green



The Green property is striking in its beauty and diverse in its composition.

Don's family wholeheartedly supported the idea of donating a conservation easement. The easement also takes some pressure off of future generations in terms of keeping the land in the family. "If they feel the need to sell some or all of the land for financial reasons—which happens all the time in farming communities—the land will remain protected regardless of who owns it," said Don.

After 35 years as a farmer and land steward, Don still enjoys the time he spends working and caring for the land. "Farming isn't the way to riches," he laughed, "but it has its own rewards."

—Jeff Tonole

With Increasing Commitments, Land Trust Expands Its Stewardship Efforts

continued from cover



With the passage of time, more and more properties subject to conservation easement are transferred from the original donor to a "second generation" owner who may not be familiar with what such easements mean for their properties. This generational change requires that the Land Trust invest more effort in reaching new landowners to educate them about their easement agreements, to ensure a common



understanding and avoid any possible easement violations.

To expand its outreach to easement landowners, the Land Trust last year released its first issue of *Afoot in the Field*, a newsletter designed specifically for conservation landowners. This year, we're also offering several field trips—providing guidance on forest management options and the creation of vernal pools—designed specifically for landowners.

Out at our nature preserves, we've recently partnered with the U.S. Fish and Wildlife Service to restore meadow habitats at two sites and restored a small wetland within the Owasco Flats. This year, we'll be expanding our efforts to control non-native invasive plants that threaten to crowd out our native flora. And with additions to our portfolio, such as our new Kingsbury Woods Conservation Area, we're inventorying the site's natural resources and will provide for appropriate public access through carefully designed trails.

All of this couldn't possibly happen without the Land Trust's dedicated network of volunteers and the commitment of our conservation landowners. Each year, more than 200 volunteers from across the region dedicate their time and effort to care for our network of conservation areas and monitor our conservation easement properties. At the same time, more than 70 conservation landowners partner with the Land Trust to ensure the future of their lands under conservation easement.

This issue of *The Land Steward* is dedicated to our stewardship volunteers, and you'll read about a sampling of the people who represent the backbone of our conservation efforts—from Don Green, a fourth-generation Ontario County farmer to John Sutton, restorer of fine art from Skaneateles; from Bob Corneau, a passionate southern tier sportsman and naturalist to Candace Collmer, college professor and plant pathologist from Ithaca. Thanks to the efforts of these community leaders, and many others, the Land Trust is poised to meet the challenges we face in maintaining a consistently high standard of land conservation.

John Sutton: High Vista's Contemplative Conservator

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Preserve Steward John Sutton enjoys the peace and tranquility found in High Vista's mature woods.

poetry of the 1950s and 60s, which led him, in turn, to the serious study of Zen and Tibetan Buddhism that delights him today.

"Luckily for us modern environmentalists, the birth of our movement came in the Hudson River School and their friends," he suggested. "They were very spiritual people and saw nature as the hand of God—you know, the original landscape. These artists were trying to paint, frantically, to capture the spiritual beauty of the landscape before it was all destroyed....and they knew that could happen."

Surveying the landscape today at the southern end of Skaneateles Lake, John Sutton reflects that it looks more like Barrow's paintings than ever because of a century's forest re-growth. And he would like to help keep it that way.

—Eben McLane

GARDENERS WANTED!

Volunteer gardeners needed to help tend the Land Trust's native plant garden in downtown Ithaca. Please call Abbey in the Land Trust office at 607-275-9487.



Clarification:

Access to the Ithaca College natural area at Van Buskirk Glen, which was featured in the last issue of *The Land Steward*, is by permission only, as the site is managed for research and educational purposes.

Become a Member of the Aldo Leopold Society

The Leopold Legacy

Aldo Leopold believed that conservation is a state of harmony between humanity and the land. Regarded as the father of modern wildlife ecology management in the 20th century, he was an early pioneer in the development of modern environmental ethics for the preservation of wilderness.

Carl Leopold, one of Aldo's five children, was the Founding President of the Land Trust. Like his father and his siblings, Carl also held a deep and abiding interest in preserving the environment. Carl provided leadership

The Aldo Leopold Society

to the Land Trust for twenty years until his death in 2009.

In 2006, the Land Trust created the Aldo Leopold Society in

recognition of the Leopold family's philosophy and practice

bers who make an annual leadership gift of \$1,000 or more.

These unrestricted gifts help continue the Leopold legacy of

of land conservation. The Society recognizes Land Trust mem-



The Leopold Family outside their Wisconsin homestead

conservation and stewardship.

Contributions to the Leopold Society are critically important in allowing the Land Trust to take advantage of conservation opportunities as they arise and to build a strong foundation for future stewardship of our lands.

Benefits

Members of the Aldo Leopold Society are annually recognized in the Land Trust's newsletter, *The Land Steward*. In addition to an annual reception, members are invited to special field trips to learn more

about current conservation projects. Leopold members also receive invitations to celebrate new acquisitions of nature preserves and conservation areas.

You are invited to become a member in The Aldo Leopold Society by making an annual contribution of \$1,000 or more to the Finger Lakes Land Trust. We look forward to welcoming you. For more information, contact Jan Hesbon at the Land Trust office: (607) 275-9487.

"Conservation is a state of harmony between men and land" - Aldo Leopold

Conservation Buyer Wanted for 25 Acre

Rural Retreat

Located between Hammondsport and Watkins Glen

Features fields and forest and borders state land. Conservation easement allows for single house on property.

Asking price is \$45,000

Contact Dennis Carlson at 607-569-2020

Calling All Volunteers!

Are you ready to give something back to the natural areas that help make our communities in the Finger Lakes great?

Join with the Finger Lakes Land Trust Trailblazers, and we'll call on you to help with a variety of great projects.

While helping to sustain our local natural areas, you'll get the opportunity to meet interesting people and learn about our region.

This year we will be stepping up our efforts to control non-native invasive plants at some of our preserves, and your help will be needed.

Please consider joining us out in the field!

To join the Trailblazers, send an e-mail to info@fllt.org or give us a call.

Our sincerest appreciation for gifts in honor of:

Burch Craig

From
Sybil Craig
Rachel Hall
Lee and Staffan Lundback
Todd and Hadley Matarazzo
Sue and Mike Smith

Our deepest gratitude for thoughtful gifts in memory of:

Doug Fitchen

From

Deborah O'Connor

Thomas M. Fox

From

Randall Stewart

Iulia Hardin

From

Frank and Blythe Baldwin

Carl Leopold

From

Roger and LeMoyne Farrell

Frank Silvernail

From

Paul and Anne Schnell

Hollis Tedford

From

Jeff and Elizabeth Coons Sybil Craig

Rachel Hall

Todd and Hadley Matarazzo

Julie Miller

David B. Schwartz Sue and Mike Smith

A CLOSER LOOK

Aquatic Microcosmos: More than fish in those streams!

Fly-fishers, aquatic entomologists and curious children spend a lot of time in streams, turning over rocks, observing what's crawling around on the surface or floating downstream in the current. What are these people looking for?

any insects that live near water spend only a few hours to a few weeks of their lives as airborne adults. The rest of the time, they live underwater in streams and ponds as eggs, and then as aquatic larvae or nymphs clinging to the sides of rocks or swimming in the water. Three of the most common streamdwelling insects are stoneflies, mayflies and caddisflies. They are cornerstones of aquatic food webs and are also vital indicators of stream health.

Larvae and nymphs are forms of insects that live in the water before they metamorphose into adults. Larvae—like those of caddisflies—go through a complete metamorphosis and hardly resemble the adults they become, changing from grub-like larvae to flying adults in a few short steps. Stonefly and mayfly nymphs look a lot more like the adults they will grow up to be. They have six legs and a somewhat similar body shape to their adult forms.

You may even see the beginnings of wings forming. Nymphs go through a slow metamorphosis as they mature over the course of the year.

Aquatic nymphs and larvae have important adaptations for obtaining oxygen that allow them to live in stream environments where oxygen levels are relatively high. Mayfly nymphs breathe using gills; other insects like stonefly nymphs and caddisfly larvae absorb oxygen

Caddisfly larva

Stonefly nymph

from the water directly across their body surfaces. In variableoxygen environments like warm ponds, on the other hand, mosquito larvae use a breathing tube, much like a snorkel, that protrudes from the tip of the abdomen.

Adaptations for breathing determine the habitats in which you're likely to find the adult forms of these particular insects. For example, while you're more likely to find flying mosquitoes and

dragonflies near still water, mayflies, stoneflies and caddisflies are far more abundant near running water. Have you never seen an adult mayfly? Adults live only about a day, and sometimes less than that. For many people, their closest encounter with adult mayflies occurs while they are in their cars. If you've driven past a stream or river and wound up with a bug-plastered windshield, you've just met several hundred mayflies.

Aquatic invertebrates are bellwethers of water quality. In a stream that is relatively pristine, oxygen levels remain quite consistent from year to year. However, if nutrient run-off or other pollution gets into a stream, oxygen levels can drop precipitously. Scientists use the presence or absence of certain insect taxa to help determine the health of a stream ecosystem. Stonefly and mayfly nymphs, for example, are only present when high levels of dissolved oxygen exist. On the other hand, mosquito larvae,

> because they breathe oxygen through their snorkel tubes, are quite indifferent to fluctuations in oxygen, and therefore are not the best indicators of aquatic health.

> Aquatic insects form a key link in stream and pond food webs. Many species of caddisflies protect their soft larval bodies from the perils of predators by building tube-shaped cases from sticks or small rocks and sand, bound together by strong silk that they spin. Other types of caddisflies, predators themselves, lurk in the dark crevices between rocks, and then strike out at

smaller larvae, their preferred food. Still other types of caddisfly larvae as well as mayfly nymphs filter or graze particles of algae and fungus from the water or the surface of rocks, helping to balance plant productivity in aquatic ecosystems and keep the water cleaner. Most stonefly young, as well as dragonfly and damselfly nymphs, are lightning-fast predators, snatching herbivorous aquatic insects and even small fish.

Fish food preferences are also closely linked to the life cycles of insects that live in and near the water. One of the keys to successful fly-fishing is a strong understanding of what the fish are eating. Fly-fishers spend much of their time "matching the hatch," using fur, feathers, metal and thread to create elaborate, and often highly realistic, versions of aquatic nymphs, larvae, and adults that are designed to trick a trout into thinking it's found a delectable meal.

Next time you're near a stream, reach in and pick up a rock. See who's living underneath, and get a closer look at the microcosmos that lies just below the water's surface.

—Karen Edelstein

Finger Lakes Land Trust

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SUMMER 2010 CALENDAR

SATURDAY, JULY 24, 4:00 PM - 6:00 PM:

Please join us for the Land Trust's 21st Annual Meeting & Celebration at Standing Stone Vineyards overlooking beautiful Seneca Lake. (See insert for details)

PLEASE SEE ENCLOSED INSERT FOR OUR 2010 SUMMER TALKS & TREKS SERIES

See our web site for maps and photos of the preserves.

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