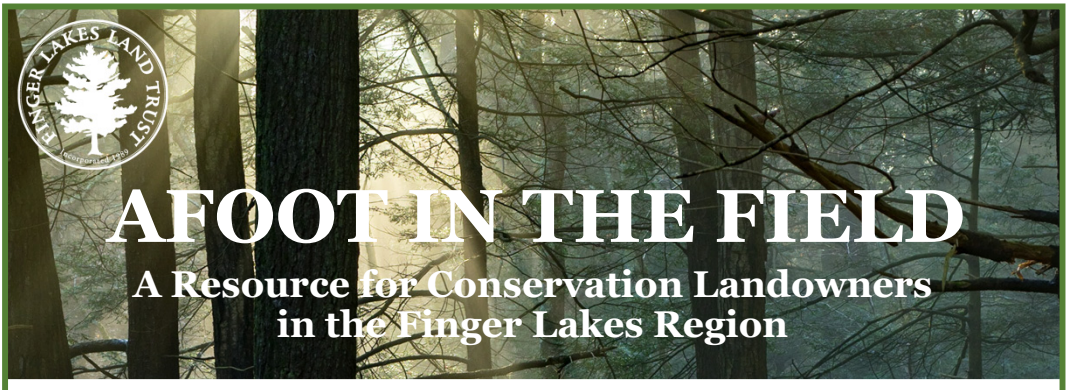


AFOOT IN THE FIELD

A Resource for Conservation Landowners in the Finger Lakes Region

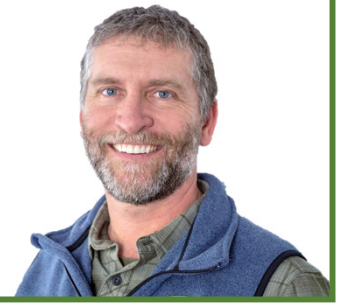
Winter 2020 Vol. 12 Issue 1

Have you ever been in a gift shop or art gallery and seen beautiful jewelry boxes, clocks, or sculptures made from burl wood? Most of us have seen the unique markings (with a distinct lack of a regular wood grain pattern), and admired the odd beauty of this type of wood, whether it be from maple, cherry, walnut, or other tree species. The polished beauty of a finished craft made from a tree burl makes it easy to forget that a burl is actually a tree's response to injury, disease, or other stress on its health.

In this issue of Afoot in the Field, our Conservation Easement Steward Annabel Roberts-McMichael, who recently received her Master of Forestry from SUNY ESF, helps us all learn a bit about forest health in general, and tree diseases in particular. Just prior to completing her education and obtaining her degree, Annabel had the fortunate opportunity to intern with forester Mike DeMunn. Mike specializes in forest health, and his management decisions are guided by a philosophy of improving forest health for the benefit of the trees, the landowners, wildlife, and future generations. Mike has been an advisor to the Land Trust on forest-related issues for many years, and we are delighted to include an interview with him in this issue of our newsletter.

Obviously tree health, and the diseases that can affect trees in our region, is a vastly complex topic, and so we can only provide a basic introduction in a publication such as this. But perhaps it will help you think about another dimension of the woods that you may own, manage, and enjoy out your back door.

Chris Olney
Director of Stewardship



Healthy Forests

Annabel Roberts-McMichael

The photo above depicts a forest with trees of all ages. When some trees are able to live their natural life, fall and create sunlit gaps, new generations grow up, leading to a forest that has lots of potential for the future.

We live in a region that is naturally forested. Each conservation easement has specific provisions about forest management. Some easements allow timber harvesting or other management practices (according to a forest management plan) so long as it maintains or improves the forest. Others are intended to allow a forest to become old growth and prohibit cutting. Most easements allow firewood cutting for personal use. No matter what the terms of your easement are, you can get to know your forest, learn about its health, and become a forest caretaker.

How do you know if your forest is healthy? This is not an easy question. Change is the norm for forests, and some events that seem bad are just part of the circle of life. Natural disturbances that are normal, even necessary in some northeastern forests, include: blowdowns, ice storms, flooding, fire, lightning, animal browsing, activity of insects, fungi and other micro-organisms, and humans. Disturbances help cycle nutrients, influence the regeneration and composition of forests, and lead to the development of wildlife habitat.

Photo: Chris Olney

Standing dead trees: One might think that "snags" should be removed. However, snags, especially those with bark, provide bird perches, cavities for wildlife, and host beneficial insects and fungi. In fact, old growth forests have 3-7/acre.

Photo: lindajspielman.com/blog

Fallen logs: They may look untidy, but they are called "nurse logs" because trees like yellow birch need them to grow on. They serve as animal homes and highways, amphibian shelters, and build soil when broken down by fungi and other organisms.

Photo: Sarah Nickerson

Holes in tree trunks: Insects inside of trees attract woodpeckers. Trees can also develop cavities from fungal cankers, or injuries at their base from logging or fire. Cavities may seem bad, but they provide essential shelter for wildlife – like squirrels, who plant more trees!

When disturbances occur too severely or too rarely, forest health issues can arise. Humans can either imitate, or greatly alter, the natural disturbance processes, having a profound and long-lasting influence. In most forests over past centuries, the largest, healthiest trees were harvested, resulting in a decline in forest health, diversity and quality, and the loss of old trees, large snags, and fallen logs. Also, non-native insects and diseases have been introduced that have no predators or resistance in these ecosystems. These have caused the almost total loss of American chestnut, elm, and flowering dogwood, and are decimating ash and hemlock. Profiles of several fungi and insects affecting forests today can be found below and on page 6. However, with knowledge and effort, foresters/ecologists and landowners together can develop plans to improve the overall health of forests, and hopefully reduce the impacts of insects and diseases.

Nectria canker affects many species including sugar maple and black walnut. It is one of many native fungi that are part of the forest ecosystem, but can reach levels that are too high if ignored in forest management, causing significant damage. Small aberrations in tree bark can indicate a canker starting. Some cankers in species such as basswood do lead to cavities wildlife can use.

Crown dieback in red oak and other species occurs when many stresses combine, such as injury, drought, root diseases, and defoliating insects like gypsy moths. Each factor alone won't do much harm, but together they can cause serious decline.

"Forest health and ecology are the primary issues affecting our forests. A forest's productivity, biodiversity and long term sustainability all hinge on its health and ecology. Good forest management should strive to help correct and improve forest stands from their typical long history of exploitation and abuse, which has left them with an abnormally high percentage of diseased, defective, and undesirable trees. This can be corrected through timber stand improvement thinnings, creating the conditions for greater forest health and a diversity of desirable tree species to grow and regenerate. It is of great ecological and spiritual importance to leave certain trees to reach their maximum size and age, allow them to die and become snags, and someday become part of the forest floor ecology as fallen logs - enrichening habitat, soil, and in turn enrichening all the trees that grow there." - Mike DeMunn, forester

LANDOWNER PROFILE:
MIKE DEMUNN

Michael DeMunn is a professional forester and expert in forest health and ecology with over 35 years of experience managing forests in the region. He was a founder of the Finger Lakes Land Trust and continues to advise FLLT in forestry. He owns 10 acres in the town of Enfield, Tompkins County, that are conserved with a conservation easement granted to FLLT by Jim and Gladys McConkey in 2005 on their168-acre property. The McConkeys, and now their heirs, have entrusted Mike to steward their forest.

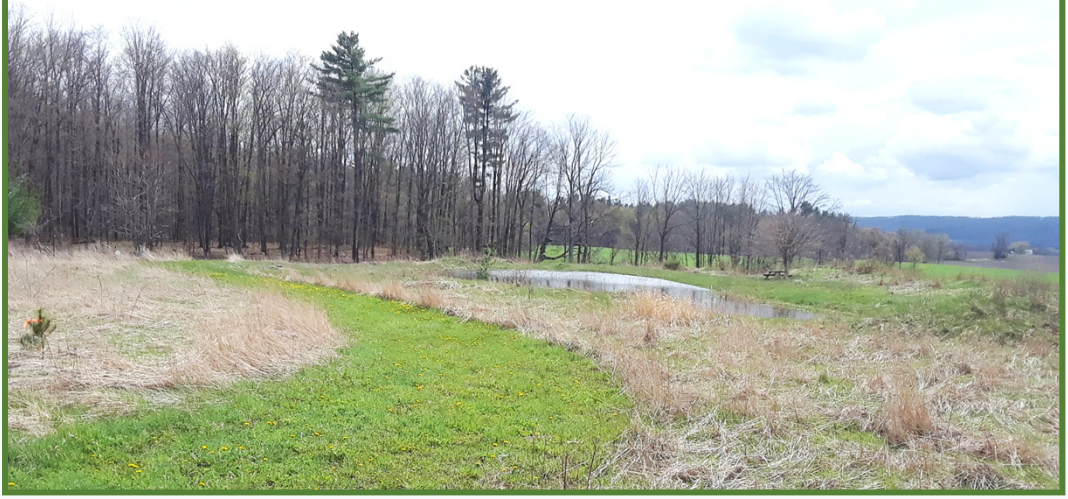
My Land

by Michael DeMunn/Da hà dá nya:

About 12 years ago, I acquired my land from Jim and Gladys McConkey in exchange for being a lifelong steward of their woods, and also doing masonry work on their house. The field was completely bare, with eroding soil having barely a weed on it.

My immediate goal was to protect the soil and give the barren land life again, by erosion control and broadcast seeding of native grasses and other plants.

I am Seneca and also a professional forester and ecologist. My Seneca name means "he protects the forest." I was taught that we can either be a life giver to the earth and its living things – or a life taker. I choose to be a life giver in my forestry work, and to my land, where I have done all I can to bring back an abundance and diversity of plant and animal life, most of it done with just simple tools and bare hands.



To promote genetic diversity, I have gone to other places and gathered seeds of various native plants and planted them in the field. Roughly half the field will remain open, dominated by wildflowers and grasses, and half will become gradually more stocked with shrubs and trees.


Photos: Mike DeMunn


Photo: Hannah George

I have put in two ponds, one large and one small. Both are designed to have a deep end and a long shallow end, which exposes a large muddy flat as the water recedes in the summer for wading birds.

I was taught to leave offerings of food for the animals to help them and show my thanks, and they in turn bring ever more life to my land.

My land is surrounded by farmland on three sides. To put it in perspective, my field represents about 1% of the open land around me, which means only 1% of the land area is for nature, and 99% is just for human use. I am honored and proud that my land has become a vital refuge to so many wild plants and animals – including countless bees who live in 3 large hollow trees in my forest, and other pollinators who visit my field of wildflowers.

I follow the same principle of imitating nature in my forestry practice. I select for cutting trees with diseases or defects that nature would select against. In the McConkey's and my woodlands, I have conducted two improvement thinnings to favor a more diverse species mixture and control the presence of nectria and eutypella fungus in sugar maple. I left the best trees of all species to reach their greatest size and age as nature intended, and also to reach their greatest economic value.

Anyone, whether they are Native or not, can make a choice to be a life giver to the land. I choose to manage the forest and my land according to the ways of nature.

Not long ago, native flowering dogwood, *Cornus florida*, was a beautiful sight in forest understories in the spring, but has been nearly lost due to dogwood Anthracnose fungus. Trees in sunny locations survive best. They host unique butterflies and provide berries to wildlife.

Eutypella fungus, like nectria, is native to North America, but can be too prevalent in stands where only the healthiest trees were cut over time. It primarily affects maples, and can begin as a bulge beneath the bark or a small crack.

Fungal conks decompose wood, but aren't typically the cause of tree death. On the contrary, they are a sign of a healthy forest.


Photo: Mark McCloskey

Beech bark disease occurs when a non-native scale insect wounds bark, and a native fungus then enters. Since beech is seldom used for sawtimber, firewood cutting is a key opportunity to reduce affected beech.

Ways You Can Improve Forest Health

If your easement allows timber harvesting:

- Tell your forester you want to reduce the numbers of trees with disease, especially fungal diseases like nectria and eutypella, as well as trees whose crowns are declining. This will capture current timber value and greatly increase future value.
- Keep the best, healthiest trees for seed, and those with cavities for wildlife.
- If your forest has a very large amount of ash, which are threatened by non-native insect invasions, talk with your forester about reducing the ash density (keeping some of the best/non-impacted trees), and managing to increase other species.

If your easement allows firewood cutting:

- Cut trees that have aberrations or cankers in the bark indicating disease, or whose crowns are dying back (look for branch tips/twigs dying back).
- Don't cut trees with cavities for wildlife, particularly if they have most of their bark.

For all easement owners:

- To help promote tree species diversity, which makes the forest more resilient, protect tree seedlings of different native tree species from deer browsing using tree tubes or fencing, and consider increasing deer hunting pressure.
- Plant native species that are missing or rare in the forest, such as flowering dogwood, *Cornus florida*, in sunny areas where anthracnose fungus won't kill it.
- Search "Conifer alternatives for eastern hemlock" to plant along streams where hemlock is being affected by non-native, invasive hemlock woolly adelgid. Learn about other solutions by looking up the NYS Hemlock Initiative.
- Check with FLLT about the possibility of developing a non-commercial/non-extractive forest or ecosystem management plan for your property that focuses on improving forest health.

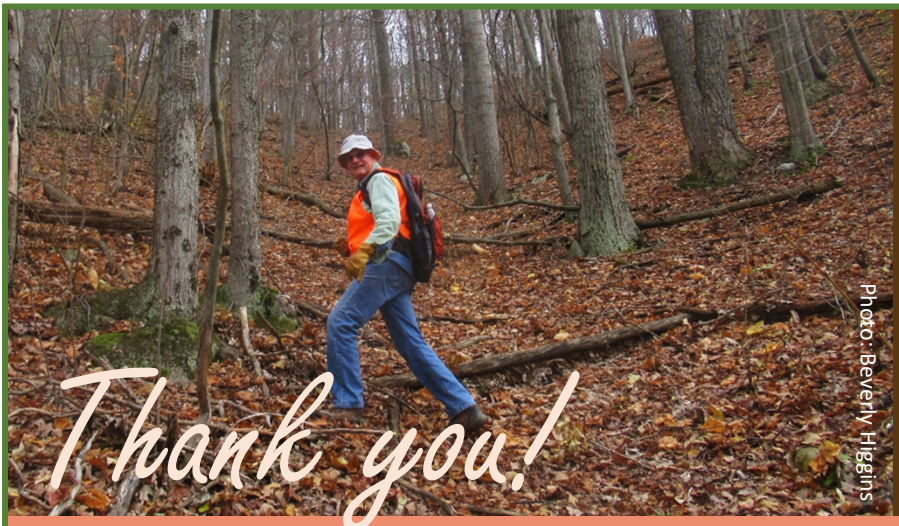


Photo: Beverly Higgins

This was volunteer steward Rick Kornbau's 12th year monitoring Beverly Higgins' steep-sloped conservation easement property.

Volunteer Conservation Easement Stewards

Our work over the past 31 years to annually monitor more than 150 properties totaling almost 15,000 acres protected by Finger Lakes Land Trust conservation easements or deed restrictions would not be possible without our volunteer conservation easement stewards.

Every year, stewards review conservation easements, travel to easement lands often long distances from our FLLT office, build good relationships with landowners, answer questions, and walk properties while carefully looking for natural or human-caused changes that may affect the conservation values of each property. They take photos, write reports, draw maps, and send them to us in the FLLT office.

In past years, our volunteer conservation easement stewards contributed over 200 total hours per year of their time for the Land Trust! Several veteran stewards gave our new staff member, Annabel Roberts-McMichael, her first tour of properties.

The Finger Lakes Land Trust appreciates the dedication and commitment of time and energy that these volunteers have generously given!

Although we are not seeking more volunteers to monitor conservation easements, you can learn about other ways to volunteer at:
fllt.org/volunteer

Photo: Provided

Volunteer steward Sara Kersting and her husband Jim Kersting, who has also served as a volunteer steward and FLLT Board member, on their conservation easement property in Canadice.

Photo: Don & Linda Schultz

Many wild animals spent time on the Schultz Conservation Easement property last year, including this fox captured by Don and Linda's trail camera.

The Finger Lakes Land Trust is a member supported non-profit conservation organization that works cooperatively with landowners and local communities to conserve forever the lands and waters of the Finger Lakes region, ensuring scenic vistas, local foods, clean water, and wild places for everyone.

Afoot in the Field is provided for landowners in the Finger Lakes who own conservation easement properties, or who are otherwise committed to land conservation and wildlife habitat protection. For questions or concerns regarding your conservation easement, please contact Chris Olney by calling the Land Trust at (607) 275-9487 or email chrisolney@fllt.org

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Cover photo by Chris Ray. Photos by Annabel Roberts-McMichael if not otherwise noted.