



THE GREAT SWAMP NEWSLETTER

RESEARCH • EDUCATION • CONSERVATION

CONSERVATION STARTS IN YOUR BACKYARD



Lawn

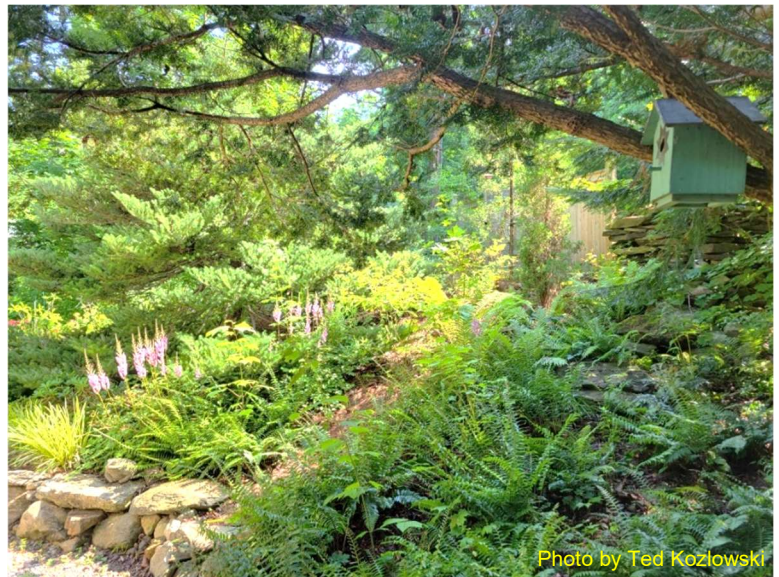


Photo by Ted Kozlowski

Not Lawn

Sometimes a perfect lawn isn't so perfect after all!

Who needs a Lawn?

Volume 22, Issue 3 Summer 2024

Contributors: Paul Andrews, Judy Kelley-Moberg, Ken Luhman, Kathryn Jaliman, Sharon Nakazato, Hunter Nigey, Bill Buck, Ted Kozlowski

Friends of the Great Swamp was founded in 1990, as a non-profit volunteer organization. Our mission is to preserve and protect the health of the Great Swamp watershed through research, education and conservation.

Contact Us! PO Box 373, Pawling, NY 12564 • 845-350-2686 • info@frogs-ny.org • www.frogs-ny.org

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NEWS IN THE GREAT SWAMP

Friends, family, and community members gathered at the Patterson Library on June 5th for a reception to celebrate the hanging of a commemorative quilt donated by FrOGS. This beautiful quilt depicts 12 native species found in The Great Swamp, a unique natural treasure that stretches 20 miles from Southeast to Dover and is one of the largest freshwater wetlands in New York. The Great Swamp provides habitat for diverse flora and fauna, clean drinking water, flood control, recharging of aquifers, a wildlife travel corridor, and many recreational opportunities. FrOGS' mission is to preserve and protect the health of The Great Swamp watershed through research, education and conservation.

In 2015, FrOGS' Board Members Edie Keasbey, Nancy Clark, Beth Herr, and Judy Kelley-Moberg led the design and creation of the quilt to celebrate FrOGS' 25th Anniversary. Nancy, Beth, and Judy were present at the reception and fondly reminisced about creating the quilt. Nancy and Judy also recently shared their memories in a podcast available on the Library's website. Edie passed away in 2020 and this year FrOGS established an annual award in her name for graduating high school seniors with future aspirations towards environmental causes. The first awardee, Maggie Faloon, was also present at the ceremony.

The quilt has welcomed guests to The Great Swamp Celebration and Art Show and has traveled to many FrOGS' events at schools, parks, senior centers, and libraries over the last 10 years. During the celebratory reception, FrOGS' Chairman Ken Luhman stated "We

are happy the quilt has found a permanent home in the Patterson Library and hope viewers will be inspired to help protect The Great Swamp watershed and all the plants and animals that call it home." Patterson Library Director Stephanie Harrison declared that "the Library was honored and thrilled to display this amazing quilt in its new public space. We hope that generations of our patrons will cherish not only this unique quilt, but The Great Swamp itself that we see right in our backyard." The Library invites all to stop by and appreciate the quilt by the front door next time you visit.



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FrOGS Needs *Your* Help!

JOIN ~ VOLUNTEER ~ DONATE

The generosity of our members and supporters extends FrOGS' reach and effectiveness.

Please fill out and return this form or visit frogs-ny.org

Friends of the Great Swamp is an organization dedicated to preserving The Great Swamp through educational programs, scientific research, conservation, and by making all aware of this wonderful resource in our midst.



So we know whom to thank...

DONATION Remember your donations are tax deductible! Send yours to:
Friends of The Great Swamp, P.O. Box 373, Pawling, NY 12564

Supporter \$25 Contributor \$50 Friend \$100
 Patron \$250 Sponsor \$500 Benefactor \$1,000

Please use my donation for: _____

VOLUNTEER We can always use another helping hand! Let us know which activities you're interested in helping with.

Fall Celebration Trail Work Booth Staffing
 Habitat Restoration Animal Surveys Event Registration

Suggest an activity: _____

NAME _____

ADDRESS _____

CITY, STATE, ZIP _____

CONTACT PHONE _____

EMAIL _____

SIGHTINGS IN THE SWAMP

Spending the Summer With Snaps!

By Hunter Nigey

Summer: A time filled with picnics by the lakeside, birds chirping early in the morning, and the earthy smell of freshly cut grass. But what else can be found this time of year? The answer is... Snapping Turtles! Right now, a few mama snapping turtles will still be laying their eggs inside of underbrush, in fields, and even your backyard! From May until late July, snapping turtle moms have been laying their eggs all over the place. Some travel up to 10 miles to find a proper and safe place for their nest site! While this tradition has taken place over hundreds of years, dangers still come with traveling this far. Natural obstacles such as rough terrain, invasive plant species, and predators threaten the safety of the moms. Human creations like dams, roadways, and lawnmowers only exacerbate the dangers. From August through October baby snapping turtles, whose shells are only about the size of an American Silver Dollar, will be found in lawns, roadways, and wilderness trails.

So, what can you do to help? Firstly, thoroughly checking one's lawn before commencing any trimming or maintenance will greatly help in preventing accidents involving mom and baby turtles. Careful attention being paid to overgrown underbrush and invasive plant species is also key, especially when looking for babies as they could be tangled up. Looking under one's car before driving, and being cautious while driving near wooded areas are also very important. If you happen to come across a snapping turtle, be careful. These turtles, magnificent as they are, are known for having a sharp bite and far-reaching neck. Do not pick up a full-grown snapping turtle without knowing how to do it properly. If it is in your lawn, the best recommendation is to leave it alone. If you happen to find an adult on the road, the best option is to call animal control and let them move the turtle. Another option is to turn on your hazards, make sure the road



is clear, then carefully grab the turtle by the back (NOT the side) of the shell with two hands (making sure not to touch the tail as that could hurt the vertebrae) and move the turtle to the side of the road in the direction it is pointing towards. The turtle may be agitated after this and could try to snap at you after being placed down. This aggression will only be momentary as the turtle will be grateful once it realizes the danger is no longer near. If you happen to stumble upon a baby snapping turtle, a simple pickup with one's thumb under the baby's stomach and pointer finger on top of the shell is all that is needed. If any turtle, adult or baby, seems to be injured, ill, or in need of treatment make sure to call the proper authorities and do not handle the animal. Lending a hand to assist our turtle neighbors can make a difference and keep them safe. Their part in our ecosystem is important. Not only do they act as aquatic scavengers in eating decaying animal and plant matter, but they also are apex predators and help maintain balance for certain fish populations.

Now that you know the important facts about snapping turtles and what you can do to help them, here are some fun and snappy jokes you can tell your family and friends!

- What do you call a turtle who takes up photography? A snapping turtle!
- How do turtles communicate with each other? Through their shell phones!
- Why did the snapping turtle cross the road? He was looking for a better shell-ter!
- What did the waiter say to the rude turtle? Stop being so snappy!



Mama snapping turtle looking to lay her eggs

TREES – THE GOOD, THE BAD, AND THE UGLY

By Ted Kozlowski, Forester and Patterson Environmental Conservation Inspector

Trees are so important in our lives and critical for the perpetuation of life on Earth. They have been around for approximately 400 million years and survived five major extinctions. Yet we take them for granted as silent guardians of our world and a renewable natural resource.

As we grow in population, consume more resources, and develop more and more forest lands, we have intentionally and unintentionally impacted the critical ecosystems associated with our woodlands. Sometimes it overwhelms us to believe we cannot do anything about it. In his great book *Nature's Best Hope*, author David Tallamy shares his ideas on what we can do in our backyards to make a small difference. A reasonable argument follows that if most of us participated, that small impact grows larger with every participant. And to do this, we start with trees.

The Good: All trees are good and they provide countless benefits to us, our environment, and the creatures that rely on them. Most trees originated in the forest and thrive in the environments to which they adapted over millions of years. So, before you purchase a tree from a nursery or garden center, first learn about the conditions, climate (hardiness zones), soils and sun exposure it requires and then determine if that tree will thrive in the location you selected. That cute little tree you purchased will grow substantially over time. Will the tree grow into the overhead power lines? Will it shade your pool or drop its fruit or nuts on your patio?

Next, try to plant the tree in a site where you can reproduce forest-like conditions as much as possible. This



Black gum tree



Ironwood tree

includes: providing as much area as possible to favor the tree with adequate growing space, plenty of organic matter incorporated in the soil, 2 to 3 inches of natural mulch, and keeping the lawn as far away from the main stem as possible. This will keep lawn mowers and weed whackers away from damaging the bark. There are over 20 million acres of lawns in this country that are biological deserts. They do little for wildlife or climate mitigation while adding fertilizer and chemical runoff into our waterways (see *Lawns are Bad* article). Minimize your turf grass in favor of space for trees.

I highly recommend that people plant and nurture trees, shrubs and herbaceous plants that are native to the area you live in. First, they will survive the climate and fare much better than exotic species during drought or insect and

disease attacks. Secondly, the native insect pollinators, native wildlife and amphibians that depend upon native species will thank you.

For Putnam, Dutchess and upper Westchester counties I recommend the following trees for your yard: **white, swamp white, red, and scarlet oaks; sugar and red maples; black gum; paw paw; sassafras; serviceberry; eastern red cedar; eastern white pine; eastern hemlock; dogwood; ironwood; river birch; and eastern redbud.** (For more details see <https://tinyurl.com/mr3vtxhf>).

The Bad: While no trees are bad if in the right place, when some trees are intentionally planted or accidentally allowed to proliferate without consideration of potential impacts, then the bad shows up. Invasive trees and plants are exotic species from other areas of the world that sometimes outcompete native species and negatively affect ecosystems by reducing diversity, limiting wildlife habitat, and inhibiting natural forest regeneration. New York State has a list of



Paw paw tree in the fall

invasive trees and plants that are either restricted or prohibited to be planted in our State. Please refer to (<https://tinyurl.com/yckfdx6v>) for more information on this and refuse to plant any of those species. Aside from that list of invasive plants, I would not recommend the following trees for your yard: **silver maple, eastern cottonwood, black walnut, white birch.** (<https://tinyurl.com/mr3vtxhf>)

The Ugly: A tree in decline is not only ugly, but it can also be hazardous. Maintenance is critical. Water when necessary, eliminate invasive plants, keep vines off all your trees, use mulch, and monitor for insects and diseases that may occur. Early detection is essential. Avoid indiscriminate use of pesticides. Also, read the labels on lawn care products as herbicides enclosed in those “weed and feed” products can have detrimental effects on your trees (their roots extend way into your lawns) or better yet, don’t use them! Keep lawn equipment from damaging the tree bark and roots. Do not fertilize a tree in decline as overfertilization will do more harm than good. Properly prune off dead, diseased, or damaged limbs and avoid tree paints and other products sold as wound sealers – they do more harm than good because they will create a perfect moist location for bacteria or fungus to establish and invade the wood.

Take the time to learn about those trees you wish to grow and what it takes to keep them healthy. Your efforts will help contribute to the health of The Great Swamp!

MOSS

By Bill Buck, Curator Emeritus, Institute of Systematic Botany, New York Botanical Garden

Most of us are familiar with the word “moss” but would be hard-pressed to provide a definition. Mosses occur in almost every habitat worldwide except marine. Most mosses are perennial and green year-round, making them an appealing subject when vascular plants have died down for the winter. However, mosses have a completely different life cycle than flowering plants. Flowering plants, just like humans, have two sets of chromosomes. The dominant, green, leafy plants of mosses, on the other hand, have only a single set of chromosomes, except in the capsule that sexually produces the spores. Another way that mosses differ from flowering plants is that in flowering plants, the leaves are several layers thick, with an upper and lower epidermis, which have the stomates that allow for gas exchange during photosynthesis, and a spongy interior (mesophyll). Moss leaves in contrast, for the most part, are only one cell thick. They do not have stomates since it would just be a hole all the way through the leaves. Mosses only have stomates in the sporophyte generation, at the base of the spore capsules. Flowering plants also have roots which absorb water and nutrients and carry them up the plant in specialized tissues to the upper leaves. Mosses do not have roots, but rhizoids that anchor them to the substrate without any absorptive function. Mosses instead receive their water and nutrients directly through each individual leaf since they are only one cell thick. If you look at a leaf of a flowering plant, you’ll see an elaborate system of veins. Moss leaves either have a single midvein or no such tissue at all. However, don’t think of mosses as frail little organisms. They are tough. Most mosses are desiccation tolerant. That is, they are able to go into suspended animation for lengthy periods of time when dry, and come back to life very quickly when moistened. Even dried material in collections can come back to life as much as 50 years after they were collected! Scientists are trying to genetically transfer this ability to withstand lengthy periods of drought into crop plants.



the sex organs and later the sporophytes (spore capsules) are produced from the apical cell of the stem. These are known as acrocarps (acro = apex; carp = fruit). They mostly form tufts. The other group has mostly prostrate stems, usually well branched, and the sex organs form laterally along the stems. These are known as pleurocarps (pleuro = lateral; carp = fruit). They typically form mats. Because mats are interwoven, they make better candidates for a moss garden because one can walk on them without doing much damage.

Mosses can occur on almost any substrate, from soil to rock to trees. However, once again, don’t think of mosses as frail. Although most mosses are perennial, there are whole groups of mosses that are annuals. They grow from late fall to late spring, when most trees have no leaves and more light reaches the ground. These mosses go through their whole life cycle in a few months.

For the most part, mosses rely on wind to disperse the spores, but not always. Many mosses have very specific substrate requirements. One whole group of mosses have adapted to growing on various kinds of animal dung. Some only grow on dung of herbivores and others only on dung of carnivores! If the moss was only relying on wind to take its spores to a new dung heap, probability would not be in its favor. So, this group of mosses, the *Splachnaceae*, has evolved a mechanism to get insects to disperse their spores. They release an odor from the stomates at the base of the spore capsule that smells like dung. It attracts flies which land on a platform provided by the moss. The moss spores are sticky and get caught on the fly. The fly then realizes that it was duped and flies away to a real dung patch, where the moss spores come off and germinate.

So, the next time you are rambling in The Great Swamp and notice some green fuzz on soil, rock, dung, or bark, look more closely. It is almost surely a moss or its near relative, the liverwort. Locally, we have hundreds of species. With a little practice, the most common species are identifiable and can add a whole new dimension to your nature hike.

In terms of habit, mosses have two basic plans. One has erect plants with little or no branching, and

LAWNS ARE BAD

By Paul Andrews

We've all seen the signs pop up on our neighbor's lawns 'Caution – Pesticides'; the stacks of lawn treatments for spring, summer, and fall at the hardware stores; and now flyers from mosquito-control companies showing up in our mailboxes promising a mosquito- and tick-free yard in the middle of a swamp (LOL!). It has been 62 years since Rachel Carson published *Silent Spring* warning of the consequences of indiscriminate use of poisons yet humankind's arrogant need to control the natural world continues. Lawn treatments, commonly used to maintain aesthetically-pleasing and healthy-looking lawns, have significant adverse effects on the environment. These treatments typically involve the application of fertilizers, pesticides, herbicides, fungicides and other chemical products designed to promote grass growth and eliminate pests and weeds. While these products can achieve short-term results, their long-term environmental impact is profoundly negative.



Runoff from lawns treated with chemicals often ends up in local waterways, including the ponds, lakes, rivers, streams, and wetlands of The Great Swamp watershed. The nitrogen and phosphorus from fertilizer runoff can foster excessive algae growth. The resulting algae blooms deplete oxygen in the water, creating dead zones where aquatic life cannot survive, disrupting aquatic ecosystems, and destroying biodiversity. Harmful algal blooms can also make the water dangerous for humans, releasing neurotoxins and potentially causing difficult-to-treat skin, eye, and ear infections.

Ironically, lawn treatments contribute to degradation of the soil. The repeated use of synthetic fertilizers can alter soil chemistry, reducing its natural fertility over time. This reliance on chemical treatments can kill beneficial microorganisms, earthworms, and insects that contribute to a healthy soil ecosystem. As a result, lawns become dependent on continuous chemical inputs, creating a vicious cycle of environmental degradation.

The pesticides, herbicides, and fungicides that are integral components of many lawn treatments also pose significant risks to species outside the soil. These chemicals are designed to kill pests and weeds, but they can also harm non-target species, including beneficial insects like bees and butterflies. Pollinators, essential for many plants and crops, are particularly vulnerable to these chemicals. Furthermore, these substances can affect birds, bats, fish, and other wildlife that come into contact either through direct exposure in treated areas, runoff, or through the food chain (insect consumption).

Manufacturing these products requires energy and raw materials, often derived from fossil fuels. Application can release volatile organic compounds. The use of lawn chemicals thus contributes to air pollution and greenhouse gas emissions.



The chemicals in lawn treatment products include mecoprop, dicamba, azoxystrobin, trifluralin, bifenthrin, pendimethalin, chlorantraniliprole, and 2,4-D. Do you know which of these are probable human carcinogens, reproductive toxicants, neurotoxins, or hormone disruptors? Do you know which of these are banned in other countries? Why would you apply these to your yard with a sign that warns you, your children, and pets to stay away?

The widespread use of lawn treatments perpetuates a monoculture of grass, reducing the diversity of plant life that supports a wide range of wildlife and contributes to a more resilient ecosystem. Lawns dominated by a single grass species are less capable of supporting varied insect and animal life, further diminishing biodiversity.



There are options to maintaining a "suburban desert" (known as a lawn) with repeated applications of expensive chemicals. Overseed with clover, which fixes nitrogen, smothers weeds, attracts pollinators, and is drought tolerant. Dig up a plot and plant vegetables. Plant wildflowers and make a meadow! Plant trees with shade gardens underneath (*see Tree article*). Sod is tough to remove, but can be killed by covering with cardboard or newspaper and then mulch. Baking it with a tarp on sunny days is also a good start to sod busting.



While lawn treatments may achieve the goal of a green grass monoculture, they come at a significant environmental cost. The pollution of wetlands, soil degradation, harm to non-target species, contribution to air pollution, and reduction in plant diversity collectively highlight the detrimental impact of these practices. Sustainable lawn care practices, such as using organic fertilizers, promoting native plant growth, and eliminating chemical use are essential for mitigating these negative effects and preserving environmental health. Better yet, to protect the health of the Great Swamp - STOP your lawn care, plant trees, and re-wild your yard into a meadow! Which of the signs above would you proudly post on your yard?

THE EDIE KEASBEY MEMORIAL AWARD RECIPIENT

By Kathryn Jaliman

This spring, FrOGS initiated an annual award of \$1000 to a high school senior, in memory of Edith "Edie" Keasbey (1930-2020), one of FrOGS' founding members and someone who truly "made a difference". The center of Edie's life became protecting the Great Swamp and all forms of life that depended on it. Maggie Faloon, a new graduate from Carmel High School, is the first recipient of this award. Congratulations, Maggie! Receiving this award and being asked to participate in the Quilt Celebration event at the Patterson Library, touched Maggie deeply. "It shows me that I am being recognized by an organization that is doing exactly what I want to do in the future and that I am very passionate about. I really admire all that FrOGS does."

Maggie grew up hiking and biking on the Great Swamp trail across from her home. The wildlife that shares her neighborhood is what she loves most about the Swamp. Being in nature gives her a break from the hectic day-to-day life. She always pauses to admire and observe the snakes, turtles, swans and beavers she encounters along the trails. "My parents raised my brother and me to appreciate and be kind to all living things, no matter how small. And to treat them with respect." Thanks to her elementary school teachers, her love and curiosity about nature increased. In 1st grade she entered a Cardinal she painted in the Annual Great Swamp Celebration and Art Show. She learned to appreciate and admire nature and wildlife for its beauty and the unique way everything is connected to everything else.

"This helped me realize what I wanted to do in the future. I wanted my work to be studying about our natural world. And I believe I have a responsibility to protect it as well. Although I am not exactly sure what my future profession will be, I know that I want to be conducting field research while also working in a lab and working directly with community members around the country to promote more sustainable living. I will protect the environment and promote sustainable development through my work. It is essential to not only support the global environmentalist effort, but also to focus on making a change locally, something I will always be working towards in and out of my future work environment."

It is Maggie's hope to combine her passion for both social/environmental justice and community collaboration. She believes that in order to bring change, it is crucial for people to work together and learn from one another. Maggie feels that you cannot

accomplish much alone. Working with other people requires understanding their viewpoints and ensuring every voice is heard and respected. Growing a community together, and learning and working in a cooperative way can unite a group and bring about change for the better.

Maggie will be attending the University of Maryland at College Park this fall. She chose this school for its mix of science, research, and policy. Also, its location between Baltimore and Washington, DC will provide opportunities for internships and work.

Attending the ceremony for the hanging of FrOGS' 25th anniversary commemorative quilt at the Patterson Library was very moving for Maggie. She was asked to join Judy Kelley-Moberg, Nancy Clark, and Beth Herr (who led the design and creation of the quilt with Edie) at the podium as a stand-in for Edie. "I am inspired by Edie and her power. She wasn't in the shadows. She was up front, spoke strongly about what she believed in, and when people told her to sit down, she kept standing!" According to Maggie, sometimes stubbornness can seem like a bad thing, but she admires people that push forward with what they believe, even shifting the perspective of the people around them. "That all the people attending the quilt event knew Edie and respected her says a lot for the person that she was. I feel honored to be a part of her legacy. This gives me the responsibility and profound honor of continuing her work."



Maggie Faloon with past and present FrOGS' Board members at the Patterson Library Quilt Celebration, June 4.

We wish Maggie great success in her career and are thrilled to have her as the first Edie Keasbey awardee. If you wish to donate to the Edie Keasbey Memorial Award Fund, please go to <https://tinyurl.com/bdz4zbzt>.

CALENDAR OF EVENTS

Plein Air Dates

August 12, Monday (from 9:00 am) Great Hollow Nature Preserve, New Fairfield, CT
August 13, Tuesday (from 9:00 am) Private estate, Pawling, NY
August 15, Thursday (from 9:00 am) Deer Pound Farm, Sherman, CT
August 20, Tuesday (from 9:00 am) Great Hollow Nature Preserve, New Fairfield, CT
August 26, Monday (from 9:00 am) Diverting Reservoir, Brewster NY
Sep 10, Tuesday (from 9:00 am) Deer Pound Farm, Sherman, CT

Contact: Sharon Nakazato at 845-612-1046,
SharonNakazato@gmail.com

Art Show Submissions Due!

Monday October 7
 See the Prospectus on our website for details.

Fall Celebration of The Great Swamp

Saturday – Sunday, October 26 – 27
 At Christ Church on Quaker Hill. Mark your calendars now! Premier Art Show, raptor flying, educational exhibits and talks, games for children, swamp animals, kayak raffle. Fun for all ages!

artEast Studio Tours

October 19-20 (11:00 – 5:00 pm)
October 26-27 (11:00 – 5:00 pm)
 Visit local artists at their studios in Patterson, Homes, Pawling, Wingdale, Dover, and Amenia. Support the artist community that enriches our towns and hamlets along The Great Swamp

Audubon Deer Pond Hikes (Sherman, CT)

Sept 6, Friday First Friday hike (9:00 – 11:00)
Sept 14, Second Saturday hike (9:00 – 11:30)
 For details, see: <https://www.ctaudubon.org/deer-pond-farm-programs-classes/>

The most up to date list of events can always be found on our Facebook page:
facebook.com/FrOGS.NY

You can also sign up for email updates via our website:
<https://frogs-ny.org/mailchimp-newsletter/>