



# Friends of The Great Swamp



FrOGS

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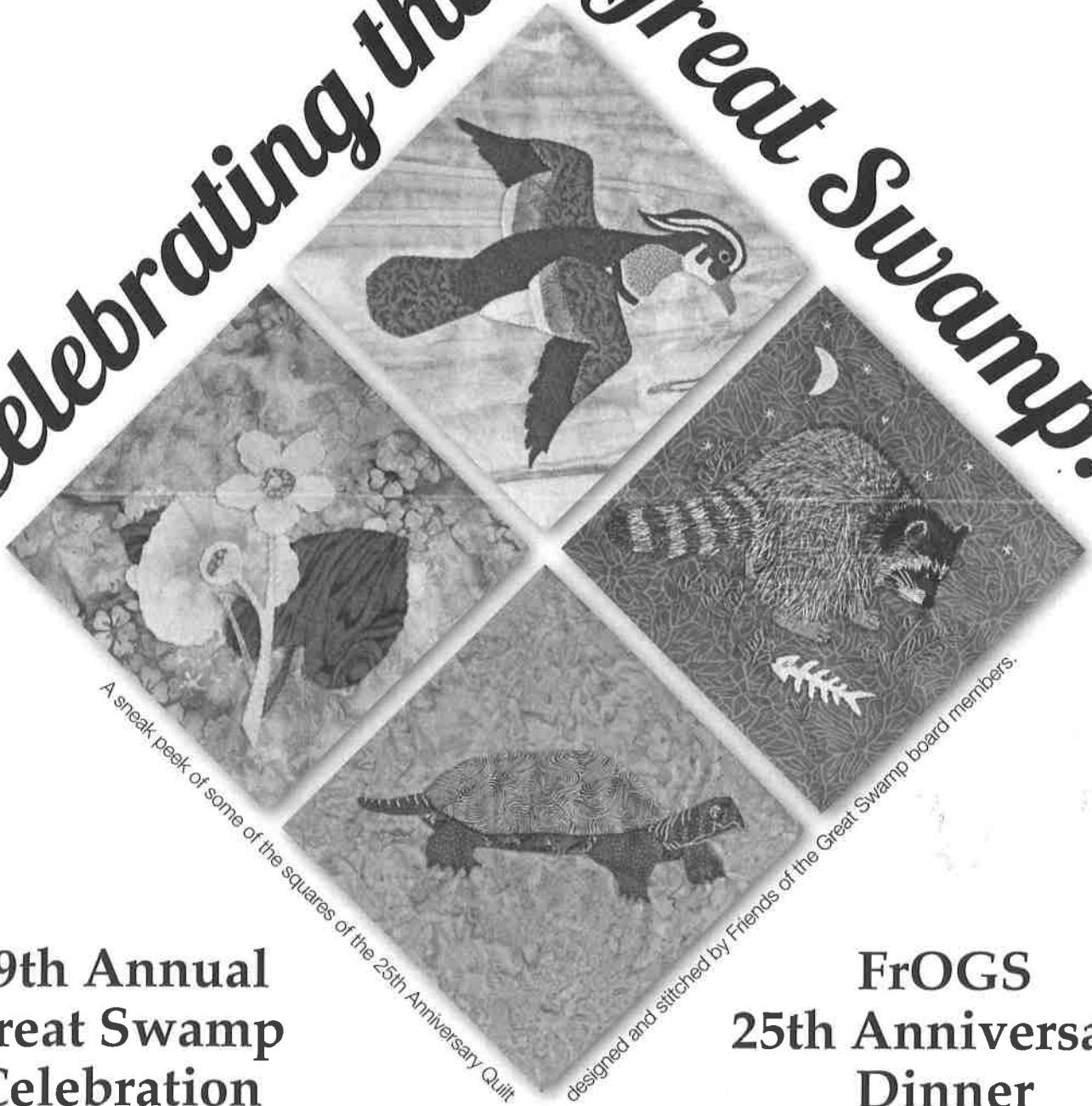
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www.frogs-ny.org

Judy Kelley-Moberg and Jill Eisenstein, Editors

## Celebrating the Great Swamp!



A sneak peek of some of the squares of the 25th Anniversary Quilt

designed and stitched by Friends of the Great Swamp board members.

### 19th Annual Great Swamp Celebration

Saturday, October 24, 11am-5pm

Sunday, October 25, 12pm-4pm

Thomas Memorial Center

Christ Church, Pawling

### FrOGS 25th Anniversary Dinner

Saturday, November 14

Festivities commence at 6:30pm

Thomas Memorial Center

Christ Church, Pawling

# "Gone Bogging" with John

by Judy Kelley-Moberg

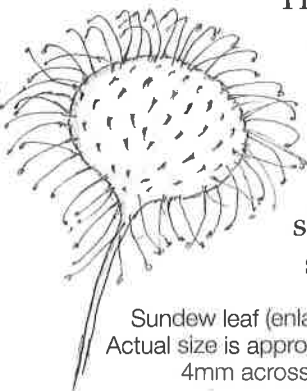
**B**ogs have always made us a little uneasy. They are a habitat with unusual dimensions. We can walk on them, but they're not rooted on solid ground. A hidden watery world exists right beneath the vegetation we're standing on. What's down there? If we sink how will we get out?

The Danes, no strangers to bogs and marshes, made up stories about the frightful Marsh King who looked like an alder stump with long miry branches and ruled the world beneath the bog. Bogs have provided us with food and helped heat our homes. Borings taken from bogs have given us information about ancient environments. The bodies of humans who came to rest in a bog thousands of years ago, by defying decay, achieved a kind of physical immortality.

Bogs are considered peatlands. They can be found in small depressions or cover vast flatlands. The key is water, whether from the sky or runoff, must be still for a plant mat to form. Still water doesn't carry nutrients to growing plants and doesn't flush the byproducts of growth and decay away. It also carries very little oxygen; bacteria of decay need oxygen to break down organic matter and as the limited supply of oxygen is depleted the process of decay stalls. The dead plant material slowly builds up and eventually turns into peat. The tea-colored water in a bog is usually very acidic. A unique group of plants can tolerate these conditions.

With John Foley as my guide, we kayaked to a quaking bog on the edge of a privately owned pond in the Great Swamp watershed. Walking across the plant mat we sunk down through thick mounds of pinkish-gray sphagnum moss into several inches of water. It was hard to keep my balance as the mat shifted and rolled like a wave. Despite John's reassurance, I was sure I'd sink through with each step.

Hidden among hummocks made of stunted shrubs, moss, grasses, and sedges were marble-sized bog cranberries. There were thickets of alder, dwarf birch, sheep laurel, leatherleaf, swamp loosestrife, huckleberries (very tasty) and lots of sweet pepper



Sundew leaf (enlarged)  
Actual size is approximately  
4mm across.

Sketch by Judy Kelley-Moberg



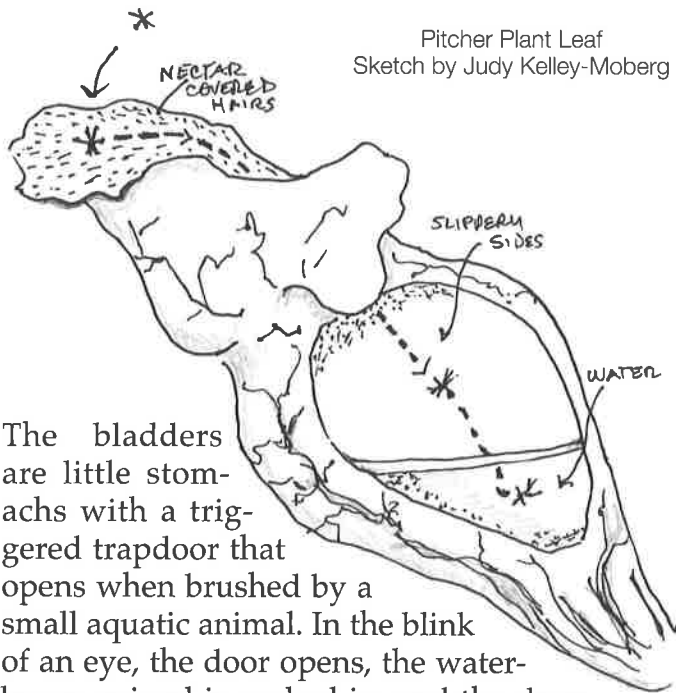
Photo by Judy Kelley-Moberg

bush covered with spires of small white flowers. Bog rosemary, sheep laurel and grass pink (a small delicate orchid) had bloomed earlier.

I was interested in finding the three carnivorous plants that live in the bog. John said, "There's a whole world hidden in each mound, come take a look," and there, nestled in the moss were miniscule sundew plants barely an inch across. Thin bright green stems radiated from a central core and each stem ended in a single round leaf. Tiny hairs covered the leaf and clear droplets of plant glue glistened on the tips of red tentacles that looked like eyelashes sticking out from the leaf edge. A struggling insect stuck to the glue causes the tentacles to close around it like a trap. The small surface hairs secrete digestive enzymes and the leaf absorbs the nutrients.

The remains of the flower heads of pitcher plants rose like apricot-colored umbrellas on long stalks attached to a cluster of boldly striped pitcher-shaped leaves embedded in the moss. Rainwater collects in the bottom of each pitcher. Nectar glands on its outwardly curving lip attract insects and downward facing hairs force the insects to move towards the smooth-sided pool at the base of the leaf where they drown and are digested.

The bladderwort is the most innovative of the carnivorous bog plants. They can be free-floating or rest in the moss bed. Even though it was past their flowering time we found one plant in each habitat. A small yellow flower shaped like a snapdragon sat atop a single skinny stem supported by several branching stems covered with tiny empty bladders.



The bladders are little stomachs with a triggered trapdoor that opens when brushed by a small aquatic animal. In the blink of an eye, the door opens, the water-borne animal is sucked in, and the door snaps shut again.

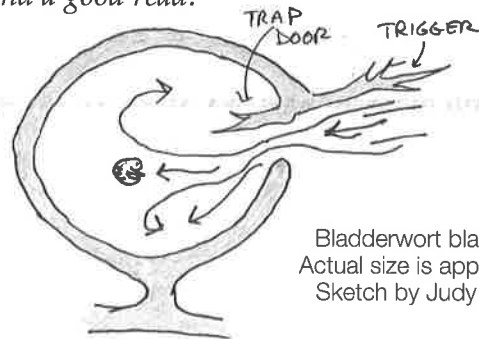
It isn't clear whether this pond and its quaking bog formed in a depression in the bedrock or if it's a kettle pond formed in glacial sediments. Has anyone listed the plants and animals? What's the pH of the water in the bog and the pond? The pond contains fish—so there must be some water flow. Is there another water source besides rainwater? We paddled over to examine a small floating island of plants that just appeared in the pond this year and John wondered how it formed so quickly and if this was how the larger mat started.



Pitcher plant. Photo by John Foley

Unanswered questions bog us down, so we must visit the site again and again to solidify our shaky understanding of this complex and fascinating environment.

Check out the bladderwort video on the internet, it's amazing! Charles W. Johnson's, *Bogs of the Northeast*, University Press of New England, 1985, is informative and a good read.



## It's Our Silver Anniversary—Save the Date!

November 14, 2015, FrOGS will be celebrating 25 years of stewarding the Great Swamp through research, education and conservation. You are invited to join us.

The festivities at Thomas Memorial Center, Christ Church, Pawling, will commence at 6:30 p.m. with a cocktail hour in the beautifully paneled fireplace room with hors d'oeuvres and live harp music by harpist Patricia Mark. Dinner with a champagne toast will follow in the Great Room.

Several members of the Board of Directors have designed, pieced and hand-sewn a FrOGS 25th Anniversary quilt for the occasion. Check Facebook



for photos and information on this one-of-a-kind quilt depicting the swamp we love.

The entrance hall will feature displays including the quilt, historic highlights, some of the remarkable projects we have undertaken over the years, and exquisite professional photographs of the Great Swamp.

Following dinner, special presentations will include the Michael Ciaiola Conservation Award, to be given to two recipients: Norman McGrath and Cherie Ingraham. The evening will culminate with an engaging guest speaker, Ned Sullivan from Scenic Hudson. This will be an evening to remember!

# H2H (Hudson to Housatonic)

by Judy Kelley-Moberg

*A formula for landowners to learn how to manage their land and protect its resources.*

A group of local landowners with significant parcels of upland property in the Great Swamp watershed were invited to a “woods forum” at the Akin Library in July. Scattered around the room were representatives from Bedford Audubon, Cornell Cooperative Extension (CCE), FrOGS, the Housatonic Valley Association, Oblong Land Conservancy, Putnam County Land Trust and the Westchester Land Trust, all partners and sponsors of the event. Kara Whelan, Director of Conservation Programs for the Westchester Land Trust, chaired the program.

H2H is a conservation initiative in southeastern New York and southwestern Connecticut funded in part by a grant from the U.S. Forest Service to help landowners protect their land and enhance water quality and wildlife habitat.

Ron Frisbee, a forestry educator from CCE, began the program with a presentation on the key role of private forest owners in supplying woodland landscapes for clean drinking water and resilient natural habitat. He pointed out that 69% of landowners in our area think of their woodlands



Photo by Judy Kelley-Moberg

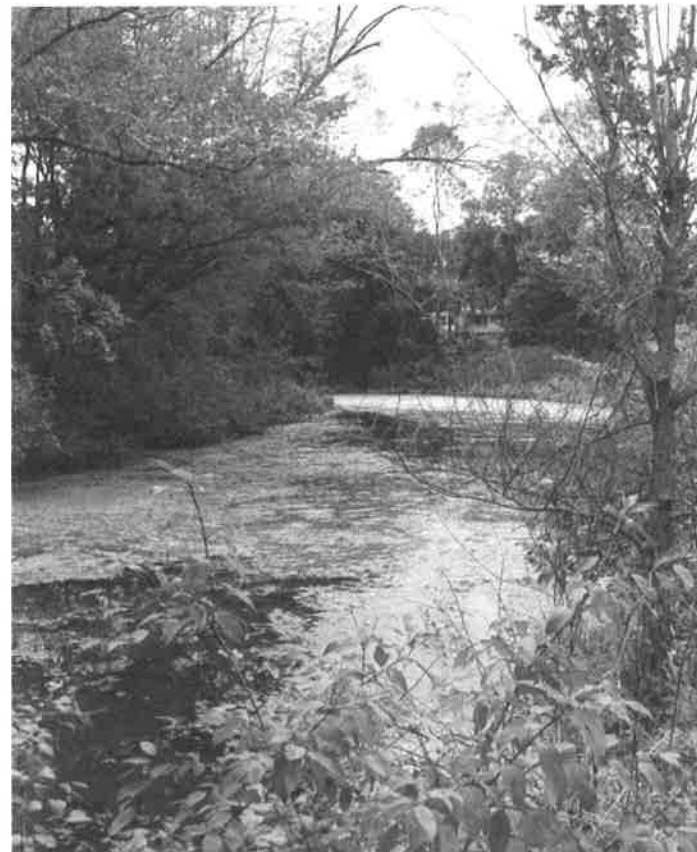


Photo by Judy Kelley-Moberg

as a retreat and not a working landscape managed for timber wood, maple sugar, or animals.

Participants then shared their reactions to the woodland-related photo or story card they picked out when they arrived. They talked about the peacefulness of their woodlands, lady slippers and luna moths, the ferns of springtime, clean flowing water and the sound of the brook. Others mentioned the history of the land, stone walls and family traditions, hiking trails, and canoeing in the Great Swamp.

There were concerns about ATV's, ticks, deer management, invasive species, beaver, retention ponds, ash borer damage, the removal of fallen timber and how to get someone to help them develop a maintenance plan for their property. Unfortunately there was no time left to connect the landowners to the appropriate experts in the audience.

The plan is to hold a follow up meeting in the fall to explore the resources available to the land owners who want to become active stewards and protect the future of their land and its value to the community, clean water and the diversity of the plants and animals it supports.

# Join FrOGS for the 19th Annual Great Swamp Celebration

Saturday, October 24 from 11 AM to 5 PM and  
Sunday, October 25 from noon to 4 PM at  
Thomas Memorial Center, Christ Church, Pawling

For one weekend of the year, the Thomas Memorial Center of Christ Church is transformed into a delightful Great Swamp experience for eyes, ears, hands, and hearts. This year's Great Swamp Celebration promises to be a treat, featuring works from a juried competition for both artists and photographers called *Through Your Eyes*.

**Want to enter the competition?  
Deadline for all submissions  
is October 10. Visit:  
[frogs-ny.org](http://frogs-ny.org) for rules and  
a submission packet.**

Some of the photographs, paintings, and drawings, as well as pottery, jewelry and textiles by local artists and craftspeople, will not only be on display but for sale. FrOGS t-shirts and hats will be available, as well as a *new* Great Swamp photo calendar.

A favorite of many patrons, the children's art submitted by local school districts is imaginative, charming, and educational, filling an entire wall of the great room. This year, most of that art interprets four animals that make their homes in the Great Swamp: the unique and fascinating opossum; the often misunderstood northern water snake; the big, beautiful barred owl; and the shape and color-changing red spotted newt. Also displayed will be the art and photography of



Justina Yeung—2014 1st Place Winner, Peter Dunlop Art Competition

high school students (ages 14-18) competing in the Tenth Annual Peter Dunlop Art Competition.

Beloved "Bob," the huge tortoise who pleased visitors as they came and left the celebration last year, will be back and available for "petting" and photo ops.

The Celebration always features free family-friendly educational programs, exhibits and presentations on both Saturday and Sunday. You will be able to find where you live in the Great Swamp watershed, as well as compare your "wingspan" with birds that live here. The fireplace room will feature informative presentations about the Great Swamp, our interesting turtles, and pointers for art and photography in the Swamp. Jim Eyring will bring his birds of prey to teach about the lives and adaptations of these specialized birds. Cherie Ingraham of "Chuckie Goodnight" will help young artists make their own clay sculptures of an opossum. The popular Build-a-Bug activity will be back, as well as an interactive educational display about watersheds and one about the insects that help us determine the water quality of streams in the Great Swamp.

*Come join us!*



# FrOGS: Still Saving the Last Great Places

Storm surges, flooding, drought and polluted drinking water have made us aware of the need to preserve wetlands not only for wildlife and recreation but for the health and safety of the towns and communities we live in. FrOGS, committed to conservation as well research and education, has been instrumental in protecting and preserving thousands of acres of upland forest and wetlands in the Great Swamp watershed for *all* that need or enjoy this great place. Working with landowners, land trusts, conservation groups, sportsmen's organizations, and government partners, we are helping to protect land in around the Great Swamp acre by acre.

In 2003, FrOGS applied for and won a nationally competitive federal NAWCA (North American Wetlands Conservation Act) grant administered by US Fish and Wildlife. Although this grant is usually awarded to individual groups in states with very large waterfowl-friendly wetlands, FrOGS got their attention with 14 partners and the support of the governor. A canoe trip in the Great Swamp impressed NAWCA officials who compared it to the bayous of the south. FrOGS and its partners used the grant to protect over 1100 acres; this included most of Pine Island (the "heart of the Great Swamp"), Turtle Pond/Laurel Ledges Preserve in Patterson, the Slocum Mostachetti Preserve in Dover, and nearly doubled the size of the Patterson Environmental Park.

In 2013, FrOGS added seven new partners and won a second NAWCA grant, with hopes of protecting another 1400 acres. This time the grant targeted wetlands along the Swamp River, the Ice Pond drainage, and the East Branch Croton River canoe trail. So far we have added over 100 acres in the Ice Pond drainage, an important roosting area for migratory waterfowl; shrub and wooded wetlands along the Swamp River in Dover, important for flood control; and a parcel containing a large wet meadow and fen. This summer, FrOGS purchased another 24 acres of wooded swamp along the East Branch Croton River.

Several parcels are in the works, but we still need more to meet our goal.

Many thanks to Dr. Jim Utter and Laurie Wallace for the endless hours they've spent developing the grants, gathering the partners and meeting with landowners and lawyers to make it all work, and many thanks

to the generous partners that have contributed matching funds.

Crossing wet meadows looking for rare northern metalmarks, slogging through a shrubby cinquefoil wetland and tumbling over tussock sedges in search of turtles, paddling beneath silver maples, hoping to spot and elusive green heron, see an otter, or hear the chatter of thousands of ducks feasting in the marsh as they fatten up for the journey south...all of these remind us that the Great Swamp is indeed one of the Last Great Places.

## Love the Great Swamp?

NAWCA grants require a 2:1 match.

The partners have pledged services, property and funds to meet the match.

*What can you do to help save this vital wetland?*

**Help us meet the NAWCA Grant goals.**

Make a special contribution to the FrOGS' NAWCA Match Fund. Send a check to FrOGS, P.O. Box 373, Pawling, NY, 12564, with a note to apply to NAWCA ACCOUNT.



Photo by Laurie Wallace

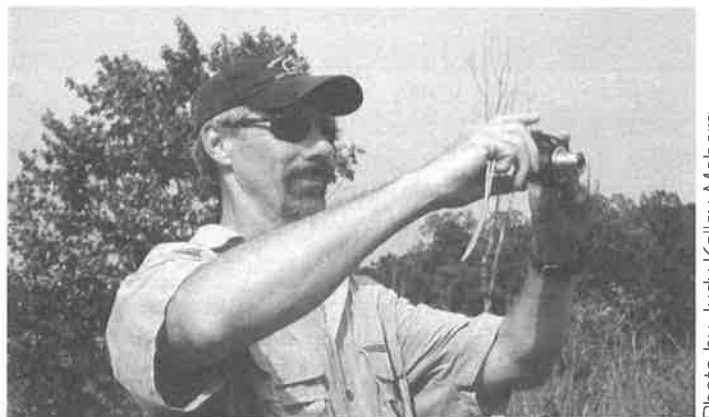


Photo by Judy Kelley-Moberg

Impressed with the number of grant partners, NAWCA staff member David Brakhage visited the Great Swamp and liked what he saw!

# Bill's Butterfly Picks

by Bill Wallace  
Sketches by Nancy Clark

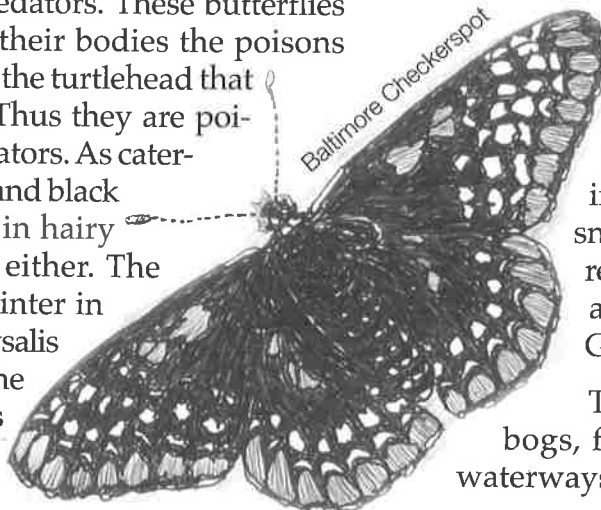
As March finishes its windy tug-of-war between winter and spring, the Hudson River eagles have flown north, days are getting longer, and for me—it's time for Butterfly Season.

Great Swamp butterflies do not migrate south like the Monarchs that everyone reads about. Our butterflies over-winter here, sharing the same cold, and sometimes bitter, frigid weather that we do, but clinging to the stem of a grass or twig sheltered only by a thin chrysalis or cocoon. Some over-winter as caterpillars, curled up snugly in the leaf and grass litter.

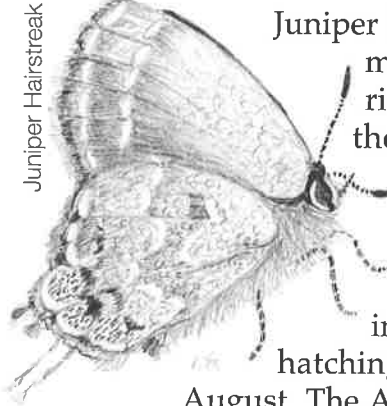
Because their lives depend on the presence of specific plants, we can see and count butterflies to determine the biodiversity of an ecosystem. In other words, butterflies are indicator species of ecosystem health! Seventy-three different species, each depending on different plants for their larvae (caterpillar) food, call the Great Swamp their home. My personal favorites are not what most people see in their backyard gardens. Here are three:

The Baltimore Checkerspot is easy to find in a field. It has bright orange and white squares like a checkerboard strung on a black background. It has about a two-inch wingspan and can be found in most low-lying riparian habitats and in wet meadows where you also find turtlehead, the host plant (food) for its caterpillar stage. Adult butterflies may nectar on many flowers, but a species can exist only where its caterpillars find the one or two host plants that they are adapted to eat. No host plant for the caterpillars would equal no butterflies of that species.

The bright colors of the Baltimore Checkerspot are also a warning to predators. These butterflies have incorporated into their bodies the poisons (iridoid glycosides) from the turtlehead that they eat as caterpillars. Thus they are poisonous to would-be predators. As caterpillars, they have orange and black stripes and are covered in hairy spines...not appetizing either. The caterpillars spend the winter in leaf litter. They form a chrysalis for metamorphosing in the spring...then emerge as new butterflies in June to start the cycle again.



Another favorite is the Juniper Hairstreak. With their wings folded, these butterflies have bright iridescent green wings with a small jagged stripe of white and brown, but they are tiny...hardly larger than your thumbnail. When their wings are opened they appear more brown and blend in with the vegetation. Because of their small size (most Great Swamp butterflies are small) they can be very hard to see.



Juniper Hairstreaks are found in meadows with calcium-rich soils characterized by the presence of "juniper" which are red cedar trees, the host plants for their caterpillars. They usually have two broods in the Great Swamp, one hatching in May, the second in August.

The August caterpillars over-winter as pupae (not caterpillars) in chrysalis form. They are found in local colonies...in areas dominated by the red cedar...and the Dutchess County/Connecticut border is the northernmost section of their range.

Uncommon but magnificent, the Great Swallowtail is the butterfly of summer. A July / August species, it is one of the largest butterflies seen in the Swamp with a wingspan of a full four inches. With its size and its exceptional yellow and black striped coloring, it's the 'tropical' butterfly that most people are expecting when they go on a butterfly walk. As with all swallowtails, it has a distinctive 'tail' on the end of its hindwing. The caterpillar food plant for the Giant Swallowtails in this area is the prickly ash...not really an ash but a relative of the citrus trees the caterpillars eat in the south. The Great Swallowtail spends summers nectaring on our wild bee balm, winters snugly tucked in its chrysalis. As it is really a "southern" butterfly, it is relatively uncommon to this area...the Great Swamp is one place to see it.

The Great Swamp's wet meadows, bogs, fens, shrub swamps, and riparian waterways support diverse species of plants



that in turn support our many butterfly species. But these are among the most fragile areas of the Swamp, and remember, when the caterpillars' host plants are gone, the butterflies will be, too. If these areas are cleared and paved, the butterflies will lose essential habitat. They need our protection.

## Want to get close to butterflies?

- Move slowly
- Camouflage—wear earth-toned clothing
- Hide your eyes behind non-round sunglasses or wear a wide brim hat to partly shield your eyes
- Go when it's cool (early in day) when insects are more sluggish
- Avoid wearing chemical aromas
- Come straight on to a butterfly with the sun behind IT, not you

If you have alarmed a butterfly, it will "tell you" by starting to slowly open and close its wings. If it does this, stop and wait until it stops fanning, then proceed.

From *Creating a Butterfly Friendly Environment* by David W. Bouton, [mmeadow@dmcom.net](mailto:mmeadow@dmcom.net)

## The Second Annual Paddle for the Great Swamp

by Diana Lee

Even unsettled weather that had anxious eyes turning skyward didn't prevent the Second Annual Paddle for the Great Swamp from being a huge success. On Saturday, May 16, the star of the show, the Great Swamp, was as lovely as ever, decked out in greens punctuated by the blues of flag iris—and by 10:00 a.m., the skies had cleared.

Fallen trees and beaver dams well above the water line added challenge to some spots, but paddlers cheerfully accepted the help of Dr. Jim Utter (Chairman of the Board of FrOGS) and Martin Brand (Regional Director of the DEC), who gave them a slide ride over the muddy root ball of a fallen tree. East of the Route 22 bridge, volunteers had cut a trail for the paddlers to portage past a shallow meander.

At the end of the seven-mile paddle, music was again graciously provided by Second Saturday, a barbeque lunch was provided by Ledley Caterers, and this year, free chair massages were donated by Suzy's Massage. For the second year in a row,



Photo by Justin P. Goodhart

Bonnie Jame won the grand prize for the paddler bringing in the most sponsorship money. We had drawings for prizes, made possible by the generous support of our sponsors. Volunteers this year included students from Mizzentop, paddlers from local watersport meetups, and faithful FrOGS friends. Thanks to ALL for a fun, challenging, relaxing, and wonder-filled day!