



Friends of The Great Swamp



FrOGS

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Judy Kelley-Moberg and Jill Eisenstein, Editors

Who formed this message in the winter ice?



Nature held the pen and the photographer read it.

See ideas for FrOGS' Great Swamp photo contest on page 9

Photos © Sharon Mammoser

South Hollow

by Judy Kelley-Moberg

A 355-Acre Win/Win for the Environment and the Public

South Hollow is part of The Great Swamp Watershed. The parcel is an important piece of a much larger long-term conservation effort, a real success story for the Watershed and the Highlands. It's also an outstanding example of public and private cooperation, persistence and stewardship that will affect the future of the region.

Access to South Hollow is limited to an impassible logging road that runs along the ridge from Brimstone Road to posted private land near Brown's Mountain. Old logging trails crisscross the young upland forest composed of oak, beech, and scattered groves of hemlock. Bear claw marks are visible on the smooth bark of a beech tree and coyote scat filled with bone shards and deer hair litter the roadbed. Buck rubs are concentrated near laurel groves in the rugged landscape of talus slopes and rock outcrops. A crystal clear stream emerges from an upland swamp to tumble down to Haviland Hollow Brook at the bottom of the valley where native Brook trout lurk in the shadows.

The property is located at the southwestern end of Haviland Hollow, where the brook flows into the Croton River through The Great Swamp in Patterson. Over a billion years of rainfall and glacial melt water cut this hollow through the tough rocks of the Hudson Highlands. The 355 acres of South Hollow plus the 251 acres of North Hollow acquired by the DEC in 2011 have increased the size of the State-owned Cranberry Mountain Wildlife Management Area to over 1,000 acres open to the public for hiking, hunting and fishing. The expanded state parkland combined with Putnam County's Ciaiola Park will protect almost all of Haviland Hollow from ridgeline to ridgeline right up to the Connecticut border (see the map).



The rocky ridge of South Hollow. Photo by Judy Kelley-Moberg

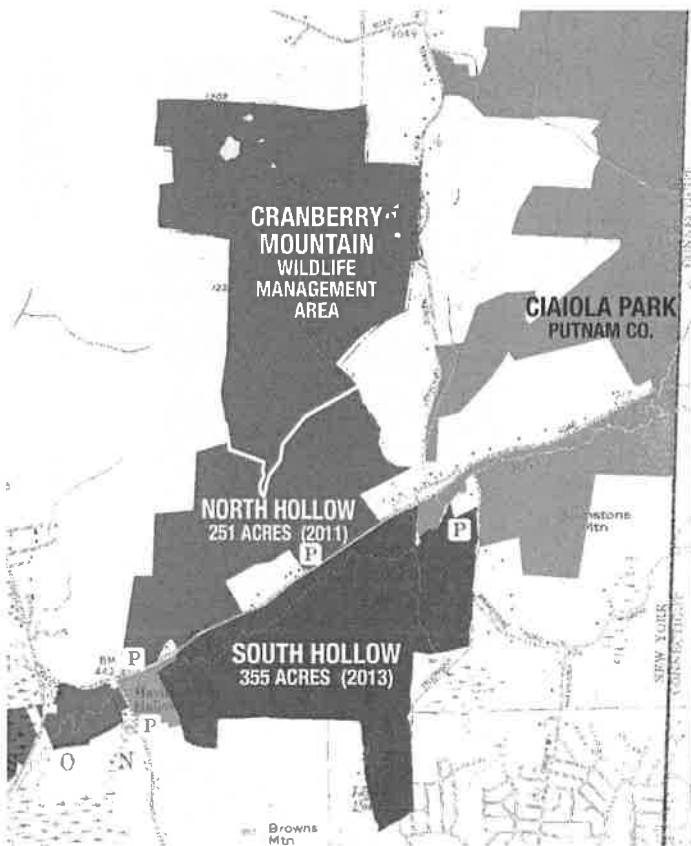
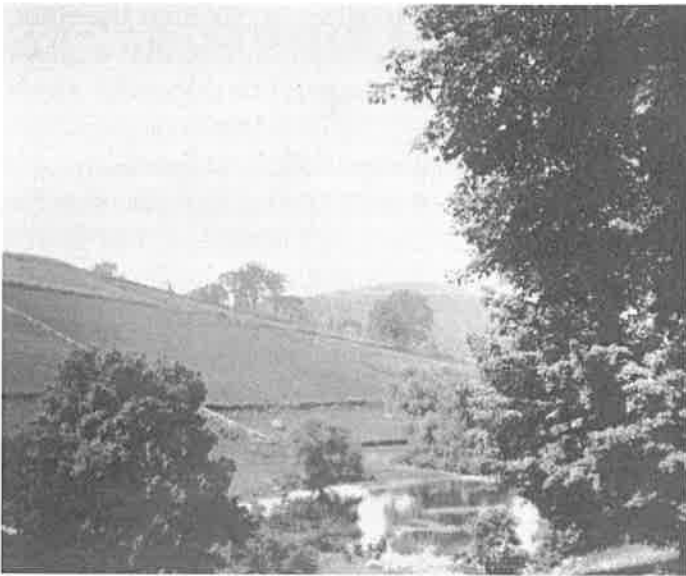


Photo by Judy Kelley-Moberg



Farm fields, Haviland Hollow. Minnie Durga (1912-1917)
Collection of Ed Scrivani. © Patterson Historical Society

A sense of history seems to linger in Haviland Hollow. Native Americans occupied sites at both ends of the hollow until around 1710 when settlers from Connecticut began to drift into the area. In 1731 most of the hollow fell within the bounds of "The Oblong", a strip of land Connecticut ceded to New York as part of their borderline settlement. Two Quaker farmers bought the 500 acre lots that included Haviland Hollow. Nathan Birdsall acquired Lot 15 which included the land in the present North and South Hollow parcels, and Jacob Haviland Jr. bought Lot 16 at the western end of the hollow. The prominent Haviland family donated the land for the Quaker Meeting House on Brimstone Road.

In April of 1777, Col. Ludington's militia passed the hollow in an effort to catch the British forces that had burned Danbury. General Washington and more than 10,000 troops camped in Fredricksburg (Patterson, Pawling and Southeast) in the fall of 1778. He traveled up and down Stagecoach Road to meet and dine with General Anthony Wayne who was billeted with his troops in Haviland Hollow. During the 1800's a small community with a store, a Methodist chapel, post office, mills and tannery grew up around the corner of Haviland Hollow and East Branch Roads. A school and mill was located near Stagecoach and Brimstone Roads. Cleared fields edged with stone walls ran up and down the length of the hollow. The Patterson Historical Society has a collection of photos (1915-1917) that show straw-hatted farmers haying in the fields and Quaker buggies still traveling the lanes.

For the last half a century, the more than 600 acres of land in the North and South Hollow parcels belonged to the family of Gerald and Rhoda Blumberg of Yorktown. The Trust for Public Land (TPL) worked for more than 10 years to pull together the funding to acquire the land for the public. A million dollars of federal money from the Highlands Act managed by the U.S. Fish and Wildlife Service served as the "seed" money and Environmental Protection Funds from The State Department of Environmental Conservation (DEC) provided more-than-matching funds. But it still fell short of the assessed value of the properties. The Blumberg family, appreciating the environmental value and scenic beauty of the land, was willing to make substantial financial donations and accommodations to finalize the sales. They wanted the land to belong to everyone as a memorial to their late father Gerald, who always thought the land was "something special".

On December 6 FrOGS and Claire's Garden Center hosted a celebration to honor the partners responsible for the acquisition of South Hollow. More than 70 guests assembled in the decorated greenhouse next to Haviland Hollow Road.

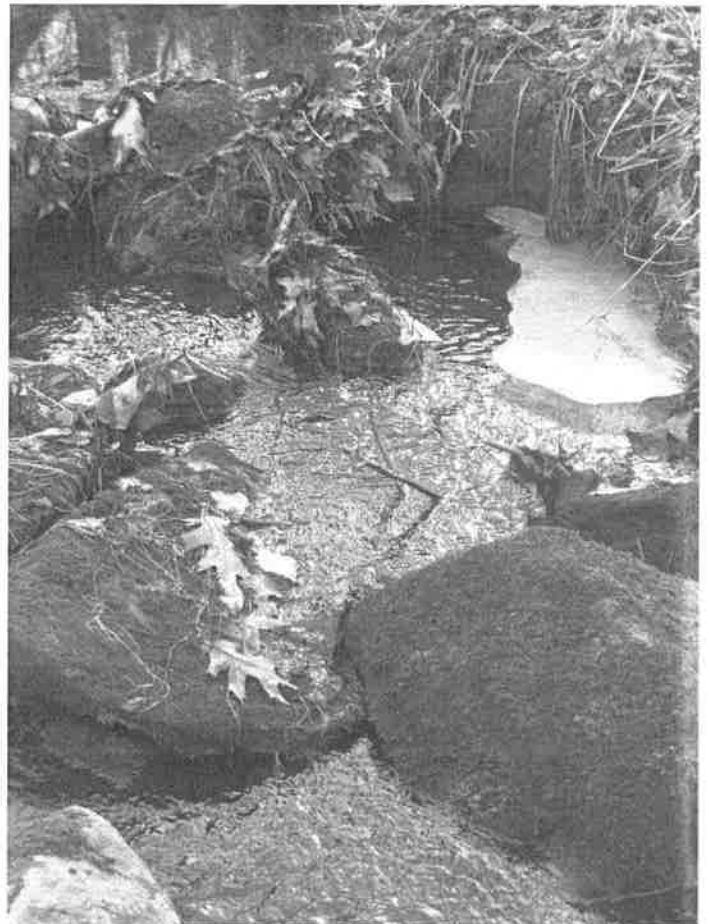


Photo by Judy Kelley-Moberg



Haviland Hollow Brook. Photo by Jim Utter

Bill Rudge, DEC Regional Natural Resource Director, and Martin Brand, the new DEC Director of Region 3, spoke about the State's role in the acquisition. Mark Matsil, Executive Director of The Trust for Public Land, declared it a real "win-win" for the public and the environment. Lawrence Blumberg thought his father would have been very pleased that the land was preserved and his wife Robin thanked Jim Utter, chairman of FrOGS, for helping the family appreciate the beauty and importance of South Hollow by leading them on a paddle through The Great Swamp at the bottom of the hollow. She said this made it clear that the property should belong to everyone...forever!

Dr. Utter, the final speaker, applauded the state, federal, non-profit and private entities that worked together to complete the transaction. He spoke about how it will help protect the exceptional water quality and ecology of Haviland Hollow Brook and the Croton watershed as well as providing habitat for species of special concern. He added that South Hollow in addition to the other protected acres in the Watershed will prove to be a critical wildlife corridor in the Hudson Highlands.

Join us on a walk in South Hollow on Saturday, March 22 (see calendar)!

The Highlands Conservation Act

Protecting "greenspaces" in the Highland Mountain Range that runs through Pennsylvania, New Jersey, New York and Connecticut has been an important goal for quite some time. Congress passed The Highlands Conservation Act in 2004 to provide funds to conserve priority lands and natural resources in the Highland Region through 2014. New York nominated The Great Swamp Watershed as a "critical treasure" important to the water, forest, wildlife, and the recreational and cultural resources of the Highlands. Without Federal money from the Highlands Conservation Act, the acquisition of North and South Hollow would not have happened. A bill to extend the Highlands Conservation Act through 2024 is now in committee and will need a groundswell of public support from the Highland states before it's passed.



Left to right: Mark Matsil, Executive Director, Trust for Public Land; Robin and Lawrence Blumberg; Dr. Jim Utter. Photos by Judy Kelley-Moberg

Some of the Things We Did in 2013

EDUCATIONAL WALKS & TALKS

Talks: Exploring The Great Swamp, Model Forest Program, Where Do Animals Go in Winter? by The Nature of Things.
Walks: Vernal Pool Walk, Woodcock Walk.



Searching for salamander eggs in a vernal pool in the Pawling Nature Preserve. Photo by Judy Kelley-Moberg

THE ART SHOW & CELEBRATION

Show included Great Swamp art, educational and interactive exhibits, music, birds of prey demonstrations, and crafts by local artisans.



Children looking at macro-invertebrates from The Great Swamp. Photo by Don Turner

HIKES & RAMBLES

Pine Island hike, Tower Hill hike, Ice Pond rock ramble



Ramblers enjoyed a spectacular view of Ice Pond from land preserved by the Putnam County Land Trust. Photo by Beth Herr



The Tower hike at an overlook in Ciaiola Park. Photo by Gordon Douglas

CANOE TRIPS

Educational canoe trips in the Great Swamp for birders, scout groups and the public...a fund-raiser for FrOGS.



To see it is to love it—a paddle in the swamp is an unforgettable experience. Photo by Laurie Wallace

RESEARCH

Turtle studies, migratory waterfowl and Audubon bird counts, water quality studies



Group learning about what they might find while collecting data. Photo by Jim Utter

Sightings in the Watershed

A Cranberry Mountain Encounter

by John Foley

Slipping my coffee and watching the sunrise last November from my tree-stand, I felt it was going to be my lucky day. Four or so hours later, having seen only squirrels, a flock of robins and no deer, boredom took over and I made my way back down the tree. Walking back over a crest of a hillside, I was startled by the crunching of dry leaves and caught a glimpse of movement. Suddenly I realized the noise was not being made by a deer, but a black bear climbing the hill towards me. Within seconds, the bear was within a mere 20 yards of me.

Boredom instantly turned to pure adrenaline as my heart pounded in my chest. The bear came to a halt, then perched its two front limbs on exposed bedrock and glanced back down to the direction from which it had come. I realized the wind blowing in my direction was keeping my scent from reaching it; this bear was not aware of my presence. I admired some of the darkest shades of black I've ever seen glistening in the sun off of its back.



My moment of awe and wonder was over when I suddenly noticed the bear's head had turned; it was glaring at me. We both seemed to experienced mutual feelings of awkwardness when our eyes met to realize the "too" close proximity. Suddenly, the bear arched its head upward, emitting a large breath of steam into the cold air from its shiny wet nostrils. I did not want the bear to feel threatened, so I grunted a loud, "Hey" and in seconds, the bear had

retreated in the direction it came from, resembling a large hairy boulder bouncing clumsily down the hill. Then it sounded like a locomotive as it exploded through an impenetrable patch of mountain laurel before disappearing into woods. The whole experience, lasting less than a minute, will remain a treasured memory forever!

Otter Magic

by Diana Lee

As I was paddling along the crystalline edges of the south flow of The Great Swamp in the beginning of December, the starkly crisp winter day made summer a distant promise. The chatter of a kingfisher provided the background to my musings of days gone and shorter ones to come leaving me feeling gloomy. Familiar ripples and a right bend in the river signaled the final stretch to my waiting van.



Suddenly, dark brown shapes appeared in shiny contrast to the collapsed beige of water plants. Beaver? The time of day and size was correct, but too sleek, too sinuous. The bodies appeared and disappeared in rapturous movement, foraging for crayfish in the weedy shallows. A lighter, larger leader made a stand, locking my gaze, while others popped up to sneak a whiskery look. The leader then began whistling, turning this way and that. The others disappeared... and with them, my melancholy. Somehow the winter seemed suddenly warmer, the spring closer!

Frigid Weather Brings Uncommon Visitors

by Gordon Douglas

Just before Christmas on a misty morning we went out and were surprised to see a large flock of white waterfowl on the lake glistening against the gray of the day. At first I thought they were

swans, but even through the haze they were clearly not big enough to be swans. Binoculars confirmed that the visitors were beautiful pure white Snow geese.

We occasionally see one or two Snow geese mixed in a flock of Canada geese, but seeing an entire flock of 51 Snow geese was a truly memo-



Sketch by Jean Hannon

rable sight. Two or three of the geese were of darker plumage. They were once called "Blue geese" and believed to be a separate species. We now consider these relatively uncommon darker Snow geese to be only a variant.

Dr. Jim Utter came over, camera in hand, to see the sight. He thinks that the unusually frigid weather had frozen the Snow geese's normal stopover site and forced the flock our way, and that they were probably headed to the Chesapeake Bay. They left early the next morning.

While once over-hunted, Snow geese now number over five million and are overcrowding the arctic breeding grounds needed by many long distance migrating birds. Our son tells me that flying over the Mid-west he saw huge flocks of Snow geese in the agricultural fields "looking like giant patches of snow". They may be numerous elsewhere, but seeing them here was a marvelous sight.



Sketch by Judy Kelley-Moberg

Bears Awake and The Day of the Bobcat

by Jill Eisenstein

On the morning of December 30, after several unseasonably warm and rainy days and nights following the frigid weather before Christmas, the first pink stretches of sun revealed the backyard destruction caused by a large and hungry mammal. Two metal poles were bent to the ground. One birdfeeder was smashed to smithereens, and the other two were mangled. So much for the notion that black bears sleep through the winter!

The next morning began turning colder. At the edge of the property, a large medium-brown cat emerged from the snarl of multiflora roses - upright ears, long whiskers, short tail—a bobcat! It walked along the edge of lawn and briar, the edge of tame and wild, sniffing the ground, picking up its feet and putting them down carefully as if making its way through broken glass. Every now and then, it stopped and looked up toward the house, listening intently. It disappeared into the shrubs and reappeared, sniffing, looking, listening. Eventually, it turned and headed down into the valley. Wow, I thought, I'm so lucky to be able to see this sight out my back window.

A few minutes later, a second bobcat appeared in about the same spot as the first. Just a bit smaller, it was in much more of a hurry, walking/running along the edge of the property...as if it were trying to catch up with the first one. It disappeared at exactly the same spot as the first.

Two in one day. That was a record! I smiled to myself. I think we have a healthy bobcat population down in that valley.

And then, The Big One appeared! It came up from the valley near where the first two had come up, but walked closer to the house, as if fearless and in charge. It was twice the size of the first bobcat, with huge feet and a broad chest. Instead of following the other two, it turned to the east and slowly cat-walked out of sight. For me, the final day of 2013 was the Day of the Bobcat!

The Year of the Salamander

by John Foley and Jill Eisenstein

Partners of Reptile & Amphibian Conservation (PARC) has declared 2014 "The Year of the Salamander." Not only harbingers of ecological health, salamanders are one of the most diverse and biologically unusual animal groups in the world. They mystify scientists to this day.

Of the 18 species known to live in New York State, nine have been documented in The Great Swamp: Jefferson's, Blue-spotted, Spotted, Marbled, Northern Two-lined, Four-toed, Red-spotted newt, Redback, and Northern slimy.



Spotted Salamander. Photo by Judy Kelley-Moberg

Some of the salamanders that live in our watershed are mole salamanders, which refers to their fossorial (underground) lives in the forest. Seldom seen and never heard, they tunnel underfoot, eating worms and other invertebrates in the soil. But on a warm and rainy night in early spring, they emerge from their subterranean tunnels en masse. These are the ones we will be looking for on "The Night of the Salamander," and these are the ones we try to keep tabs on in the vernal pools of the watershed. Some emerge at the same time as the Wood frogs, some even earlier. Guided by a strong internal compass, they head toward their ancestral vernal pools to mate, migrating sometimes more than 500 feet (that's far for a 3-7 inch short-legged creature), over land and across roads, driven by a force more powerful than fear of cars or humans. They complete their entire mating cycle within 7-10 days, and the fertilized eggs transform into terrestrial juveniles within one season, as the pools in which they are born usually dry out by late summer.

Solar-Powered Salamanders?

One of the most common species in our area is the Spotted salamander. Each dark gray body, sometimes measuring more than 5 inches from the end of its rounded nose to the tip of its tail, sports startlingly luminous yellow spots. Like most mole salamanders, they deposit their egg masses on submerged woody debris in the pool. For some time, it has been known that algae forms in the egg membrane of Spotted, providing a beneficial microhabitat for the developing embryos. But in 2011, a scientist studying Spotted salamander egg development observed small green pigments inside the cell membranes of the embryos themselves. Upon DNA analysis, he discovered not only is there algae in the egg membrane, but also in the actual embryo! Invertebrates such as coral use a similar process, but this has never before been found in a vertebrate. So, the Spotted salamander is the only vertebrate known to obtain energy through photosynthesis. Further studies have now shown the embryonic algae only exists in some, but not all, Spotted salamanders. Once the embryo hatches, the algae dissolves. How does it get there? Some studies suggest it may be inherited from the mother.

We also have two spring-breeding mole salamanders that are listed as species of Special Concern in New York: the Jefferson's and Blue-spotted. These two species actually interbreed, so it is quite difficult to tell what kind you are seeing, but generally, the Blue-spotted is smaller (3-5 inches) than the Jefferson's (4-8 inches) with more distinct blue flecking.

The black-and-silvery-white patterned Marbled salamander, though a mole salamander like the other three, has a different breeding cycle. It lays its eggs in the fall. The female wraps her body around the eggs and guards them until a late fall rain makes a pool in which the larvae can hatch and overwinter under the ice.

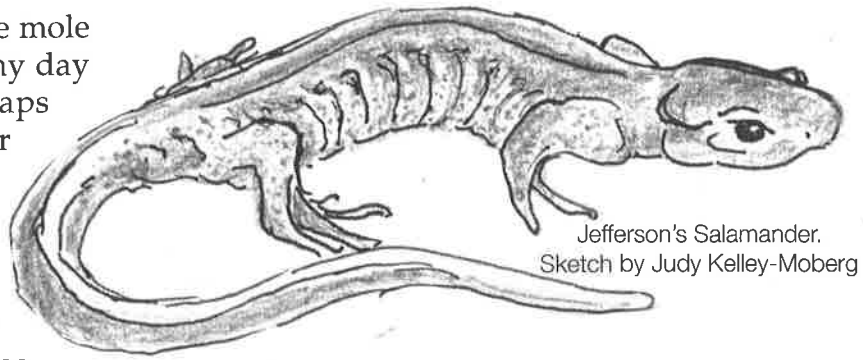


Marbled Salamander. Photo by John Foley

If you don't get to see one of the elusive mole salamanders, keep your eyes out any rainy day through the summer and fall for perhaps the most readily recognized of all of our salamanders, the Red Eft. It's the tiny (1-3 inches) brilliant orange dry-skinned land form of the Red-spotted Newt. After transforming from aquatic larva into terrestrial form, it spends 2 to 5 years wandering around woodlands and breathing with lungs before returning to the breeding pond as an aquatic newt. Three lives in one!

The other species of salamanders in The Great Swamp are above-ground forest dwellers all their lives. Woodland salamanders lay their eggs on land. When the eggs hatch, the juveniles look like the adults instead of gill-breathing larvae.

Ecologically, salamanders play a very important role in the food web and are one of the most important indicator species to judge forest health. Most absorb oxygen through moist membranes in their skin and at the back of their throats. This permeable membrane allows more than oxygen to pass through, and toxins have put many of them at risk. (Good reason to look but not touch; we have stuff on our skin that is toxic to them!) Add to that the hard-wired drive of the mole salamanders to return to the vernal pool where they were born. This hard-wiring is old technology and does not allow for manmade changes—like roads (thousands are



crushed while migrating to and away from spring breeding grounds), and developers that level small dips in the landscape that once filled with spring rains. Especially for the mole salamanders, the loss of a vernal pool, however small and insignificant to us, is the loss of a gene pool.

Unfortunately, salamanders are in decline not only due to habitat loss, but to a fungus that has been infecting all amphibians worldwide. This disease has decimated some species to the point of extinction. Acid rain also plays a negative role by compromising water quality.

Night of the Salamander

In honor of the Year of the Salamander, the topic of FrOGS' annual meeting is salamanders and vernal pools. We are also offering a "Night of the Salamander" adventure! We are hoping to catch a glimpse of our elusive and lovely mole salamanders as they journey to their spring breeding grounds. See the calendar!

First Annual Great Swamp FUNd-raising Flotilla!

Paddle for The Swamp
Saturday, May 17th/Rain date May 18th

Join us for a paddle through the gorgeous Great Swamp! Put in at the Patterson Environmental Park and be met with food and festivities at the Green Chimneys' pavilion. Entries limited to the first 50 canoes and kayaks; for experienced paddlers only. Your entrance fee and sponsorship will make you part of a team that supports The Great Swamp's protection, scientific research, and education. Water time will be approximately five hours. Be on the winning team—FUN and Fund-raising!

Check the FrOGS website and Facebook page for registration information.

ATTENTION PHOTOGRAPHERS... *The Great Swamp Needs You!*

The visual image has proven to be one of the most powerful ways to introduce the public to the value and beauty of the land and helped create the greatest National Parks in this country.

FrOGS wants to sponsor a photo competition to raise public awareness of The Great Swamp Watershed and encourage public stewardship. Adult and student entries would include 3 photos (natural or manipulated) with a common theme. The photos will be on display at our Great Swamp Celebration but we'd also like to "take the swamp on the road" and display the winners' works throughout the Watershed. Stay tuned...the art committee is working out the details.

Why FrOGS?

Once Thanksgiving was over, I was inundated with annual appeals, were you? They came in my mailbox, in my inbox; I half expected when I opened the front door to see someone standing there in a sandwich board asking me to support a cause. One of the ones I got was from FrOGS, so I started to think...with all these great non-profit organizations trying to make a difference in the world, and all of them needing money to do it, which ones should I support, and why? Just what does FrOGS do that requires money?

On January 6, FrOGS and Claire's Garden Center put together a reception to celebrate the acquisition of a large tract of land in Patterson, land that would be preserved in perpetuity for the use of the public. I went. An individual from the Trust for Public Land made some observations. He works a lot with groups that are trying to preserve land as green space (mostly land trusts), but he was impressed with this group called Friends of the Great Swamp. It is smaller than many he has worked with, but unique. He liked their energy and enthusiasm. And unlike most, he noted, they not only work to acquire land to protect wildlife and water quality, but they actually conduct research about the animals and the water they work to protect.

Before they speak, they are out in the field, counting birds and frogs and salamanders; protecting turtle nests; noting changes in habitats; looking for New England cottontail signs, Wood turtles and Bog turtles; checking water quality; and helping amphibians cross the roads. Out in the field one spring, they discovered that the new species of leopard frog lives in The Great Swamp. Armed with this information, they approach decision makers with sound logic. Although the countless *hours* are donated, the collecting, testing, building predator excluders, measuring and analysis requires equipment and costs money.

Through scientific study, FrOGS has found that in order to protect the quality of the water that flows from the ridges into the swamp, the uplands have to remain forested and be protected from chemicals, sewers and impervious surfaces...so they have been working on land acquisition to protect the uplands and buffer areas of this special place for the future. Some of the money comes because they spend tireless volunteer hours working on grants, but then there are legal fees and other land acquisition fees...and they have to find the money for that.

Another part of the FrOGS mission is to educate people about the plants, animals, water, and recreational

opportunities of this treasure in our midst. Many of us are familiar with the canoe trips they have led for many years, but we also know that we can enjoy paddling on The Great Swamp on our own. What many don't know is that they are working on videos and educational materials to share with schools...hands-on replicas, books, hand-outs, maps, and other tools to teach about habitats and animals, and the treasure of the watershed and wetlands we have in our own back yards. Having been a teacher, I know educational materials cost money; I was always surprised how much!

I could take The Great Swamp for granted. It has been here for thousands of years. In some places, it's doing just fine, but in others, it is struggling. It needs a watchdog. It needs a group that studies the habitats and the water quality, that teaches others about it, that puts together deals to protect it. The animals that can't speak for themselves about their health and their habitats need spokesmen. I often think of the line from the song Big Yellow Taxi: "Don't it always seem to go that you don't know what you've got til it's gone?"

We need to think locally as well as globally. In a rapidly changing world, it is small groups of committed people that will save the last great places in our communities, corners too small for the big organizations to care about. I moved to this area because of its natural beauty. I want to save the rainforests, the polar ice caps, the plants and animals that are so important to the earth...but I also want to make a difference right here. If I save the rainforest but neglect The Great Swamp, will my children have to go to the rainforest for beauty? I want the earth to hear the roar of the Siberian tiger, see the unfolding of exotic tropical plants, breathe the oxygen supplied by the plankton in the ocean. But I also want to save the soundless local salamanders and turtles, protect the floodplain at the bottom of this ridge, make sure our wetland keeps being able to provide clean water for us to drink and a home for wild ducks, otters, the new leopard frog, the secretive bobcats, and other animals right here. Here is a group that is conducting scientific research, writing grant applications, acquiring land, interfacing with other groups and with governments, teaching young and old, and reaching out with both passion and logic.

Yes, I will keep supporting the big environmental organizations, but I will definitely support the efforts of this small but energetic group that speaks for the treasures right outside my door.

—A FrOGS Supporter