



# the Swamp Scene

friends of great swamp national wildlife refuge

ISSUE TWENTY SIX  
DECEMBER 2007

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## FRIENDS PHOTO CONTEST WINNERS ANNOUNCED—2008 CONTEST BEGINS



Forty-eight photographers submitted a total of 205 photos to the 2007 Friends Photo Contest including a record seven photographers in the Youth Category.

According to volunteer judge Blaine Rothauer: "Judging gets tougher and tougher every year; the quality is increasing, yet there is a unique diversity." Winners of the 2007 Photo Contest were announced at the September Fall Festival.

- First Place: Steve Byland, "Northern Harrier"
- Second Place: Jim Gilbert, "Blue-winged warbler"
- Third Place: John Filipe: "Goose landing after eating bad flight food"

### Runners-up:

- Neil Nappe: "Snapper laying eggs"
- Michael Stadelmeier: "Frost and Fog"
- Robert Lin: "Eastern phoebe and dragonfly"
- Youth Winner: Austin Huffman, "Snake head"

The 2008 contest is underway—the same rules apply and the contest form is available on the Friends website.

The Friends photo library continues to grow and will be getting even more use as we start preparing exhibits and displays for the new visitor center.

Thank you to all photo contest participants over the years.

Pictured: Northern harrier (top), Blue-winged warbler (middle left), Snake head (middle right), Goose landing (bottom)



## KEEPING UP WITH FRIENDS & THE REFUGE—NEWS, HIGHLIGHTS & UPDATES

### Visitor Center Update—Progress Continues

Renovations at the Helen C. Fenske Visitor Center continue with the conversion of the two-car garage to an auditorium and display space. The outbuildings have been demolished following archeological surveys contracted by U.S. Fish & Wildlife Service and trees trimmed or removed. Construction work has begun on the new outdoor restrooms and the pavilion and both should be done by the 1st quarter of 2008.



Permits required for the new access road are still pending with the state. According to Deputy Refuge Manager Steve Henry, "We're still shooting for a grand opening next fall. Let's hope!"

### National Wildlife Refuge Week Display Set Up at Long Hill Township Library

During October, the display cases at the Long Hill Township Library were full of "swamp stuff", publicizing National Wildlife Refuge Week at the Great Swamp National Wildlife Refuge and the recreational opportunities which abound.

Long Hill Township is one of the three municipalities that make up the Refuge and the Great Swamp is literally in the back yard of Long Hill residents.

Friends volunteers Judy Schmidt and Laurel Gould collected a variety of materials to highlight the Friends, the Refuge, and National



One of the three library display cases

Wildlife Refuge Week activities. There were posters, colorful brochures from wildlife refuges across the country, bookstore items, decoys, and historical materials.

It was a bright and lively display filling three display cases.

Library Director Mary Martin said the kids really enjoyed looking at the display of frog toys and turtle shells while the adults appreciated learning about all the great things available at the Great Swamp National Wildlife Refuge.

### New Committee Plans Bird Feeding Garden

They call themselves the GardenKeepers and, under the committee leadership of Friends volunteer Nancy Felicitio, the group has been meeting to develop a plan for a native plant garden on the north side of the visitor center. The objective is to include native plants that are good sources of food, cover and nesting for wildlife as well as supplementing this with bird feeders and water sources.

The group has inventoried the site, created an initial list of potential plants to be included, and developed a number of possible designs. In preparation for spring, the group laid down black plastic to kill the weeds and seeds

over the winter and removed invasive euonymus bushes. The committee plans a January meeting to finalize design plans for spring planting. If you are interested in joining this committee, send an e-mail to [webmaster@friendsofgreatswamp.org](mailto:webmaster@friendsofgreatswamp.org).



GardenKeepers David Mracek and Mary Jane Walsh

### Thank You

- To the Presbyterian Church of Chatham Township for their donation.
- To Bryan K. Walton for his individual contribution.

Thank you to our members who have included a donation along with their membership renewal.

Anne Troop, Deborah Lewinson, Leslie & Karen Schlessinger, Mary Ann Schmit, David Dietz & Jane Kendall, Naomi Epstein, Marianne Cummins, Gene & Anne Noser, Kathy & Carl Woodward, Kevin Ashton, Sally Dudley, Cindy Barilla, Michael Stadelmeier, Marvin & Jean Sebesta, Leslie Wentz, Marguerite & Jim White, Laurel & Charles Gould, Merris Larkin, Rosemary Klimas, Diane & Dixon Peer, Geoff & Dawn Buchan, Janet Stadelmeier, Angelo A. Gangerelli, Daniel & Amy Dziemian, Mary Jane Walsh, Lisa Molinari, Marc Mallett, Wanda Knapik, Assumption School of Morristown, Elaine Seckler & Marylou Szivos, Pat Giaimo.



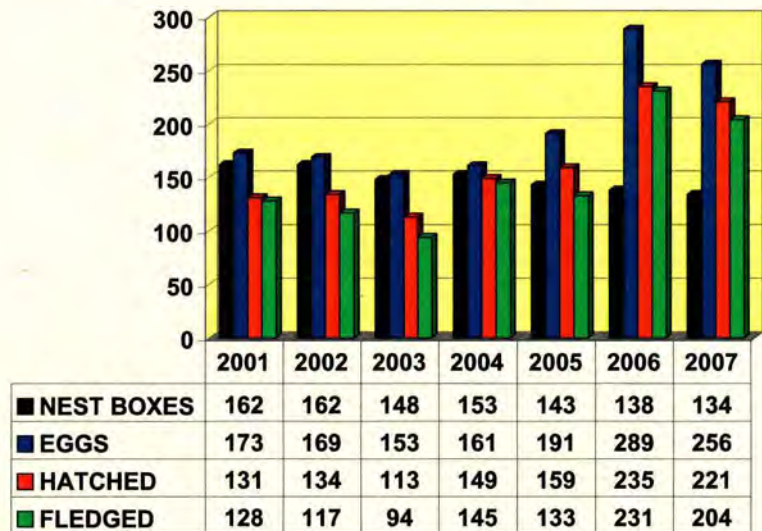
## NESTING BLUEBIRDS—MORE NOW THAN A FEW YEARS AGO

By Leo Hollein

Despite less than optimum weather conditions, bluebirds had a productive year in 2007 fledging 204 young. An unusually cold April delayed bluebird nesting and subsequently lowered the number of second nesting attempts by bluebirds. A very dry May and June reduced the food supply in the Swamp and resulted in raccoons frequently raiding the nest boxes for snacks.

The chart presents the bluebird nesting history for the 2001 through the 2007 seasons. As shown, bluebird nesting success for 2007 was only surpassed by the 231 fledglings produced in 2006. Eighty seven percent of the boxes had at least one nesting (nest with eggs). Tree swallows were the most common nesters and fledged 277 young. House wrens fledged 16 young.

GREAT SWAMP BLUEBIRD NESTING HISTORY



## MY SUMMER VACATION

By Tony Cullen, Maintenance worker, Great Swamp National Wildlife Refuge

Some of you may notice that I conspicuously disappear for a couple of weeks almost every summer. Those of you that know me well realize exactly where I am going, to fight wild fires. Here's a brief account on what I do when out on a fire detail.



Tony Cullen, busy at the Refuge  
Photo by Chuck Whitmore

It starts by making yourself available, which is hard to do when things are busy around the refuge. Once you are available you get the call to go out. I typically go out with a 20 person hand crew and they send us wherever our resource is needed. I have been fortunate to see a lot more of the west than I would have if not for being a firefighter (Oregon, Montana, Idaho, Nevada). Once out there you do a myriad of things: digging hand lines to block the fire from advancing, walking sections of land to make sure no new fires start, using hoses and hand tools to suppress the fire, or even rehabbing the landscape once the fire is out.

You typically have very long days of hard work (12-16 hours) and short, very restful nights (6-8 hours). You usually work in dry, warm, smoky, and dusty conditions. You can be anywhere from a couple of thousand feet up to 9,000 feet in altitude (which is a big change for an east coast native). The work is physically and mentally demanding; you must be in good shape to work the long hours of manual labor and you must always have your wits about you if things start to go wrong around you. Another dynamic is being able to get along with twenty different personalities for over 14 days in stressful situations.

When you have time off the line it is spent at a base camp which provides all of your daily needs and comforts, typically from a tent or trailer of a truck. You have food trucks where you line up to get your breakfast, bagged lunches, and dinners. There are trucks that have sinks and showers so you can clean up and brush your teeth. Then there are tents that have different functions to keep the camp and the fire operations running smoothly such as supply, safety, command, operations, logistics, finance/administration, weather, planning, medical, and law enforcement (occasionally mail, laundry, and phone service). It is essentially a highly functional "tent" city; it is truly amazing to see.

This is what I've done almost ever summer since 2002 and despite the hard work that is involved, it is a very rewarding job. The residents of an area that are affected by fire are always appreciative to have you there and really make the inherent dangers of the job worth it. How can I complain when I have had such great experiences in the past five years. I do a hard day's work and I am rewarded by getting to hike around beautiful country, sleeping under a cool, starry sky, and helping people in their time of need.



## ATLANTIC WHITE CEDAR RESTORATION PROJECT AT GREAT SWAMP

By Laurel Gould

If you have driven down Pleasant Plains Road recently, you may have noticed dozens of green net cages scattered throughout the fields and wondered what they were for. Each cage protects a young Atlantic white cedar tree; the green cages are deer guards.

Atlantic white cedar (*Chamaecyparis thyoides*) was, historically, an important part of this area's plant community; core samples taken at Great Swamp contain seed from Atlantic white cedar. However due to logging and drainage of the wetlands, the species long ago disappeared. Refuge biologist Craig Bitler is now reintroducing this native species to the Refuge. Last spring, 400 seedlings were planted in fields along Pleasant Plains Road, each tree encased in a protective green cage. A small number were also planted on Long Hill Road near the Wildlife Observation Center. It's been a learning experience. A mini-drought in July necessitated hand-watering of the seedlings by interns and volunteers. Subsequently, it was discovered that rodents were girdling the young trees, so volunteers are now experimenting with recycled plastic bottles as tree guards. But Atlantic white cedar is a resilient and fast growing species. Some day you may drive by and see what no one has seen in more than 100 years here at Great Swamp—a native Atlantic white cedar forest.



Volunteers (l to r) Jack Higgins, Bob Furstner, and Kathy Woodward plant, water, and "cage" Atlantic white cedar

## SEPTEMBER 8, 2007—EIGHTH ANNUAL FALL FESTIVAL AT GREAT SWAMP NWR

For the eighth year in a row, the Friends of Great Swamp kicked off the fall season with their annual Fall Festival at Great Swamp. A record-setting 695 visitors and volunteers were counted—there were exhibits, live fish, refuge heavy equipment, lots of activities for kids, and the famous frog-jumping contest! And once again, Ron Orlando donated an original design for the 2007 t-shirts and sweatshirts—a red-tailed hawk (pictured at right). Thank you Ron—and thanks to all the Friends' volunteers, Refuge staff, environmental partners, and visitors who made this event such a success.



## OCTOBER 14, 2007—THE BIG SIT! COMES TO GREAT SWAMP NWR

By Pat Giaimo, *The Big Sit!* coordinator

The Big Sit! is an annual, non-competitive, sedentary event started by a Connecticut Audubon group several years ago. The objective is to designate a circle 17 feet in diameter and "sit" inside this circle for 24 hours, counting all the bird species seen or heard. This year the U.S. Fish & Wildlife Service encouraged national wildlife refuges to participate in The Big Sit! in order to publicize refuges as birding hot spots. The Friends of Great Swamp accepted the challenge and set up a 17 foot circle in the Refuge's Overlook parking lot with volunteers identifying birds from midnight to 9:00 p.m.



Although the title of the event was "The Big Sit!", there was not much sitting done. Instead, everyone inside the 17 foot circle was scanning the fields, wetlands, and woods to spot and identify yet another elusive species. By the time the 19 hours were over, a total of 59 different bird species had been identified. The highlights included three different bald eagles—one, an adult in full plumage, flew over the parking lot in the morning; a second, a curious juvenile, swooped low over gathered birdwatchers, so quickly and so low that cameras could not readied. Several red-headed woodpeckers, also a scarce bird, were seen. Many

Friends spent some time inside the requisite circle to do their bit towards spotting birds, including several who were there from the midnight starting time until well into the afternoon. Visitors, driving or bicycling past, stopped by to see what was going on—and, in many cases, joined right in. The Results were reported to Bird Watcher's Digest, event host. The Friends are looking forward to holding this event again next year.



## LEAKING FUEL OIL TANKS

By Michael Horne and Frank Stillingner

The natural beauty and ecological diversity of the Great Swamp Natural Wildlife Refuge depend on the quality of the water flowing into it from the surrounding watershed. The presence of a high human population density surrounding the Refuge assures that its beauty and diversity have a large appreciative audience. But it has a downside too, usually inadvertent, but nonetheless consequential for the Refuge's water purity. Some of the sources of water contamination are well known. These include road salt, as well as fertilizers, herbicides, and pesticides from lawn care activities. Less known are the worrisome threats from leaking underground residential fuel oil tanks.

Although a substantial percentage of private homes and businesses surrounding the Refuge are heated in cold weather by natural gas, many others were originally built with heating oil furnaces, and still maintain them. Typically these heating systems involve underground storage tanks. Unfortunately such out-of-sight tanks are subject to water-mediated corrosion processes both from inside and outside, leading to leakage of fuel oil into the water table. The average usable lifetime of a buried fuel oil tank is about 30 years. But this estimate varies considerably depending on the condition of the surrounding soil, and whether over the years small amounts of water have been incidentally delivered to the tank interior along with the fuel oil. One obvious symptom of leakage is that the heating system runs out of fuel too early, but this is a late-stage indicator that would likely require extensive and expensive remediation, especially in situations where the tanks lie in close proximity to sensitive natural areas such as wetlands or streams.

Fuel oil pollution of ground and surface waters can have very damaging biological effects on affected wildlife, both plant and animal. Although not as visually obvious as spilled crude oil coating waterfowl, the mix of volatile and non-volatile organics in heating oil damages natural food chains, starting at the bottom, and can suppress threatened and endangered species populations. Fuel oil is also toxic to most plant life which can predispose affected areas to colo-

nization by non-native and invasive plant species as the natural plant community is removed. A recently discovered late-stage fuel oil leak in direct proximity to the Refuge has raised serious concerns about sensitive fish and frog populations, and its possible habitat disruption for the federally endangered Indiana bat and federally threatened bog turtle.

Remediation costs can be very high. In some cases such costs can be covered by homeowner insurance. But all things considered it is a better bet for homeowners to undertake pre-spill tank modifications. This usually requires removal of the underground tank, and replacing it with one above ground or in a basement area. Alternatively, double-walled tanks specifically designed for safe fuel containment can be installed either above or below ground. Pre-leak costs in the \$1500 to \$2500 range can balloon frighteningly to the \$500,000 or higher range once serious leakage has been detected and remedied. Further, governmental agencies may require additional habitat restoration work following the remediation of a spill and could also seek damages based on impacts to the natural resources.

With widespread public awareness of potential fuel tank leakage situations, the threat of that source of water contamination in the future should be minimized. In the case of the Great Swamp watershed, this would help to free Refuge personnel and resources to attend constructively to other wildlife habitat challenges. That would be a constructive step toward ensuring a proper long-term future for our valuable local environmental treasure, the Great Swamp National Wildlife Refuge.

Additional information about problems arising from fuel oil tank leaks may be found on a substantial variety of internet-accessible sites. For the State of New Jersey position on leakage cleanup details one can consult <http://www.state.nj.us/dep/srp/publications/brochures/homeowner/>.

## THE SWAMP SCENE—FRIENDS NEWSLETTER HAS A NEW NAME!



This issue of the Friends newsletter sports our new name—The Swamp Scene. As you will recall, last fall the Friends sponsored a newsletter naming contest and from the thirty-eight names which were suggested, the Board chose The Swamp Scene as the name that best captured the purpose of the newsletter, the focus of the Refuge and the spirit of the swamp. Congratulations to Kathy Woodward who submitted the winning entry.

Thanks to Friends Board Member and volunteer Lisa Molinari who designed and created the new masthead.

And once again, a special thanks to volunteer George Helmke who thought our newsletter needed a name and then worked to make it a reality.



## VOLUNTEERS & NEW IDEAS ENLIVEN & ENRICH 2007 FALL MIGRATION STAFFING AT WOC

The Wildlife Observation Center (WOC), also called "the boardwalks" (because of the boardwalk trails), is the most popular visitor destination at the Great Swamp National Wildlife Refuge. During the spring and fall migration seasons, the Friends coordinate volunteer staffing at WOC. Volunteers greet visitors, hand out maps and suggest trails, distribute the popular boardwalk bingo game, record and help identify wildlife sightings, and answer questions. Here is a closer look at WOC...



Volunteers (L to r) Esther Warner, Bill Burress and Chris Hildebrand (just going off-shift!)

### The Statistics Are Impressive... *by Kathy Woodward, Volunteer Coordinator*

Fall is a special time to be on the boardwalks at the Refuge. This year, our volunteers and new initiatives helped visitors understand and appreciate the Refuge and its inhabitants with increased clarity.

Our experienced volunteers signed up early and several took advantage of the opportunity to be at the Wildlife Observation Center the same time every week during September and October. Betsy Coyne noted that coming every Thursday was so easy for her and her husband, George. Following the volunteer training in September, seven new volunteers joined the roster. After her second day at WOC, Helen Chandler declared that she's going to try and get a job in the Refuge System when she completes college.

Our volunteers keep finding new ways to engage our visitors. This fall, following the recommendation of volunteer Jack Higgins, we added a Picture Boardwalk Bingo for younger children. These laminated sheets, with pictures

of common plants and animals, helped parents help their children observe and learn. Fortunately, the frogs, snakes, turtles, plants and mushrooms provided lots to see and admire. The volunteers who greet our visitors also keep learning and Board member, Laurel Gould, provided another chance to learn and share information with a Wildflower of the Week series.

The combined efforts resulted in spectacular numbers for fall 2007. We had greeters at the Wildlife Observation Center four days a week from the first week in September through the first weekend in November. Fifty-five volunteers staffed WOC a total of 42 days, donated 540 volunteer hours, and greeted 6,313 visitors!

### Making a Boardwalk Visit More Rewarding ... *by George Helmke*

An anonymous gift has made it possible for the Friends to purchase a spotting scope and two-way radios for use at WOC. The radios make it possible for a boardwalk volunteer to call back to another volunteer at the Friends Information Center to report an interesting sighting visible from one of the trails. Arriving visitors can then be alerted and directed to the sighting. The spotting scope further enriches the visi-

tor experience by providing an enlarged image of the turtle, snake, frog, plant or bird, larger than can be seen through binoculars. The Friends are indebted not only to the gift-giver, but to Wild Birds Unlimited, Scotch Plains, for discounting the cost of the scope and the gift of the associated tripod. To visit WOC and walk the trails is always a rewarding experience. With the radios and spotting scope, it will be even more rewarding for visitors and volunteers alike.



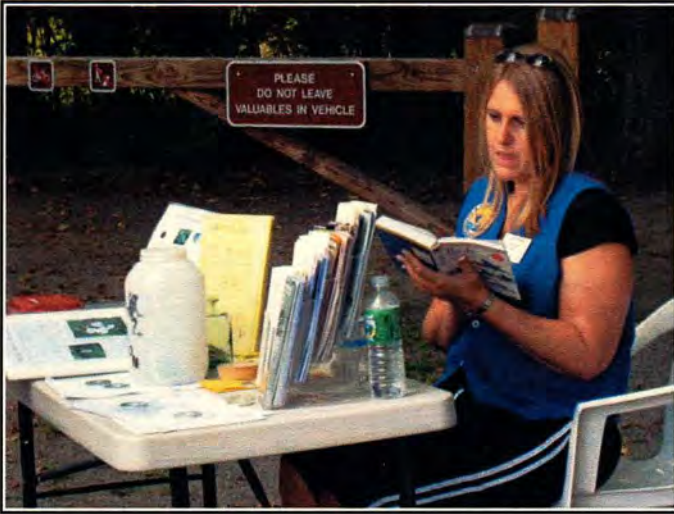
George Helmke demonstrates use of the new spotting scope to volunteers Chris Petrillo (left) and his mom Gail.

### Volunteering for Service Hours... *by Chris Petrillo*

When walking the trails at the WOC, you may see a 14-year old wearing a blue volunteer's vest. That 14 year old would be me, Chris Petrillo. I'm sure some of you may have been surprised to see such a young face volunteering, but it's nothing out of the ordinary for me and my classmates; we're doing it for school. You see, at Bishop George Ahr High School in Edison, the students have a special part of their religion grade that they must fulfill each quarter of every year. It's called service hours. Students volunteer at various functions in and around the community. The program allows us to help give back to our communities and it fills us with the satisfaction of helping others. While some may assist at a school-oriented activity, I chose to volunteer here at the Great Swamp. Being here at the Great Swamp brings together my lifelong love for the natural world and the service that I need to fulfill. I enjoy my time here and this gives me the option of spending time with nature as well as helping the community.



## VOLUNTEERS & NEW IDEAS ENLIVEN & ENRICH 2007 FALL MIGRATION STAFFING AT WOC



Volunteer Janene DePalo checks out a field guide to verify a reported sighting



Volunteers Elaine Weyuker and Tom Ostrand point out wildlife to WOC visitors



Volunteer Pat Giaimo explains the various trail options to WOC visitors

*Thank you from all of us on staff!  
If it were not for folks like you  
there would be no one at WOC greeting  
visitors.*

Tom McFadden, Outdoor Recreation Planner



Taking time out from litter patrol (hence the fish net), volunteer Ray Cabrera poses with WOC visitors



Volunteers Steve Gruber (above) and George Solovay are raising the side railings on the boardwalks to allow water and leaves to run off thus keeping the boardwalk surfaces dry and clear.



## SNAPPING TURTLES DESERVE RESPECT

Story and photos by Leo Hollein



The largest turtle in the Great Swamp National Wildlife Refuge is the common snapping turtle (*chelydra serpentina*) that can grow from a third of an ounce hatchling to a 45 pound adult male. The common snapping turtle has a range throughout North America and into South America. Only its cousin the alligator snapping turtle, that occurs in the southern U.S. is a larger North American fresh water turtle.

Like other turtles, the snapper hatchling (pictured below) is a miniature adult. It has the signature long tail that exceeds



its top shell (carapace) in length—a feature unique to snapping turtles. The rear of the carapace has distinct notches that are not found in other turtles in the Refuge. The under shell (plastron) is small and less than half the size of the carapace. This configuration leaves a lot of the turtle unprotected by its shell. The snapper compensates by developing a large head, hooked beak, powerful jaws and a flexible neck that can be used to defend itself. Adult snappers are very aggressive if threatened or cornered while on land. Observe them from a safe distance.

The common snapping turtle spends most of its life in the water. Its nostrils

are on the tip of its head and enable the turtle to breathe while barely surfacing. Snappers occupy streams and ponds in the Refuge where they feed primarily at night on a variety of animals and some aquatic vegetation. They prey on fish, frogs, snakes, smaller turtles, ducks and ducklings as they patrol their watery territory. Ducks trapped for banding occasionally have injuries from snapper attacks. Snapping turtles avoid confrontations with humans while in the water. Snapping turtles, especially adults, are not usually seen sunning themselves.

Adult snappers are most often seen out of water during late May and early June when females seek a place to deposit their eggs. Female snappers can store live sperm and produce fertile eggs from a mating that occurred late in the previous season.<sup>1</sup> As I was monitoring the refuge bluebird box trail on a warm, humid morning in late May, I was

amazed to count 7 adult females on the unpaved dike roads around pool 3. There were a number of scrapes where snappers had tested for potential nest sites. When a suitable location is found, the snapper excavates a 3–7 inch deep hole with its powerful rear claws. All the digging is done with the hind legs. The female typically deposits 20–40 round hard-shelled white eggs that resemble ping pong balls and covers the nest before leaving. Thus concludes the parental duties of the snapper as the eggs are on their own.

**Most Snapper Nests are Plundered**  
Most snapper nests fall prey to predators. Raccoons, possums, skunks and foxes follow the adult turtle scent trail to the nest and feast on the eggs. If a nest is not plundered within several days, the scent trail dissipates and the nest may survive. The eggs incubate by ambient temperature for about 3 months and hatch in early September. The sex of the snappers is determined by temperature, as sex of the embryo is not fixed genetically. Higher temperatures

result in female hatchlings while lower incubation temperatures produce males. There may be enough temperature difference between the top and bottom of a large snapping turtle nest to produce both males and females from the same clutch of eggs.<sup>1</sup>

**Hatchlings Exit Nest Through One Hole**  
In the management area, a number of sites have been established and fenced in as part of a turtle nesting survey. Turtles can enter these protected areas and lay their eggs; the fencing prevents predators from disturbing the nests. Snapping turtles have been the main beneficiaries of these safe havens as



Plundered snapper nest

nearly all of the hatchlings recovered from these survey sites are snappers. The hatchlings all exit the nest through one small hole. Thirty hatchlings were recovered from one nest. The hatchling turtles are released in the Refuge after they have been weighed and measured. Upon release they have the ability to sense the nearest water source. They promptly head directly for the water and the relative safety it provides. Snappers can live up to 40 years in the wild and become sexually mature after about 5 years.<sup>1</sup> Young snappers are potential prey until their carapace grows to about 4 inches. After that humans are their only real threat. Snappers were once the most common ingredient in turtle soup. Of course, collection of snappers is not permitted in the Refuge. However, crossing a road can still result in a fatal encounter if car meets snapper.

1. Carroll, D.M. *The Year of the Turtle*. Camden House Publishing, 1991.



# "MISSING TREES" ART PIECE AT GREAT SWAMP NWR

By Kathy Woodward

The northwest corner of the Friends Bookstore & Gift Shop parking lot was graced with a piece of art work this fall. The cut-out tree sculpture was part of a multi-site installation by local artist, Pat Brentano Bramnick.

A seasoned artist and instructor at Kean and Rutgers Universities, much of Pat's art has been about nature. She has raised concern that many of the entrances to

"the Garden State" lack greenery.

This theme came close to home

when the new owners of a prop-

erty in her neighbor-

hood removed many mature trees during construction. When Pat was chosen by Monmouth Art Museum to do a solo show this fall, she decided to focus on

"the wanton destruction of mature trees in New Jersey."

Ms. Brentano acknowledges that many people associate art with galleries and relatively few people go to galleries. Monmouth Museum was intrigued by her idea of the installation of coordinated art in locations with groups who are preserving trees. The cut-

out sculptures were set in

locations that had

nature as a backdrop. The

concept is to see

through what is missing

to what could and

should be present. In

addition to the piece in the

Refuge, additional "trees"

were displayed by the Madison

Shade Tree Commission, Trailside Museum, Raptor Trust, Great Swamp Watershed Association, and others. Ms. Brentano hopes the publicity will benefit

*We do not own nature. We are part of it.  
Trees are integral to our survival.  
The Missing Trees installation is a metaphor for  
the natural world. The cut out trees call atten-  
tion to what is gone and remind us to respect and  
preserve what remains.*  
Pat Brentano



Missing Trees, 2007.  
Wood, paint, aluminum, 4 x 5 ft.  
Photo from [www.patbrentano.com](http://www.patbrentano.com)

organizations that are helping preserve trees.

Friends of Great Swamp NWR were delighted to host Pat's art. The background autumn colors of the Refuge's landscape seen through our "tree" reminded all of us of our good fortune and heightened our appreciation of Great Swamp National Wildlife Refuge.

For additional information and photos, visit Pat Brentano's web site at: [www.patbrentano.com](http://www.patbrentano.com).

## NOVEMBER 8, 2007—ADVOCATES FROM NEW JERSEY TRAVEL TO D.C.

By Susan Garretson Friedman

As we all know, Federal funding is essential to the health of the National Wildlife Refuge System and to Great Swamp National Wildlife Refuge. While the House of Representatives has proposed a new high of \$451 million for the national wildlife refuge system budget, (which would only fund the system at the 2004 level adjusted for inflation), the Senate has proposed a much lower amount of \$414 million.

In early October Evan Hirsche, president of the National Wildlife Refuge Association (NWRA), and others testified before the House Natural Resources Subcommittee on Fisheries, Wildlife and Oceans. As stated in a press release on the event, they "detailed how the lack of funds is undermining the biological integrity of refuges, impeding public outreach opportunities, fostering lawlessness on refuges, and limiting their ability to adapt to

habitat changes wrought by climate change."

So when Desiree Sorenson-Groves, NWRA Vice President, Government Outreach, approached a number of New Jersey Friends groups about traveling to D.C. to "testify" to New Jersey's Senator

Frank Lautenberg, she had quite a few eager takers (see photo). We met with Senator Lautenberg and his aide Arvin Ganesan. The senator was pleased to see the group and began by reminiscing about environmental actions he had taken and his own commitment to get the U.S. to combat global warming. We gave the Senator packets of refuge specific information and statements on the overall funding issue, describing adverse effects at our various refuges resulting from budget cuts, some of which seemed to surprise and impress the Senator. After discussing the "realities" of the budgeting situation, he stated his support for a higher budget number.

It was rewarding to take our message to the Senator in person, but it remains to be seen how the budget will actually fare. You can help by making your voice heard. Go to the NWRA web site [www.refugenet.org](http://www.refugenet.org) and click on the Refuge Action Network link. The more voices that are raised, the louder the message!



(L to r): Kathy Woodward (Friends of Great Swamp NWR), Ed Bristow (Friends of Forsythe NWR), Susan Friedman (Friends of Great Swamp NWR), Senator Frank Lautenberg, Beth Ciuzio, (NJ Audubon), Marie Springer and daughter Mary (Friends of Wallkill River NWR), Arvin Ganesan, Desiree Sorenson-Groves.



# AS WE'VE HEARD TELL—FINDING THE FEDERAL AGRICULTURAL CENSUS

By Chuck Whitmore

Most readers of this newsletter will have participated as “countees” in the federal population census that was conducted in year 2000 by the U.S. Census Bureau. Information from that and other population censuses conducted after 1930 is available in the form of statistical and other reports for the public’s use. Information from federal population censuses conducted in 1930 and before is also available in the form of images of the original enumeration sheets, and this source information is used widely in genealogy work and other historic research. The History Committee of Friends of Great Swamp National Wildlife Refuge accesses these records, particularly those from the mid-1800s, as part of its effort to understand how things were in the Great Swamp at that time. Such access is easily and conveniently gained through subscription services provided online by the Morris County Library Network.

Not long ago, we became aware that information on agricultural and industrial activity had also been gathered by the federal government during the mid-1800s, through efforts parallel to those that created the better-known population census records. We were eager to look at images of the enumeration sheets, which we anticipated would give us such details as the crops grown on farms that then occupied much of the Great Swamp plus other details of rural life. Likely sources were queried, including local libraries, offices of government agencies with related missions, and possible online sources. The closest documents that we were able to find were compilations of statistical abstracts listing agricultural production by county.

Since that kind of information would not be specific about what a farm at the corner of Long Hill and White Bridge roads, for instance, might have produced, we continued our search for the more detailed enumeration sheets. By telephone we learned from a specialist at the U.S. National Archives and Records Administration in Washington, D.C. that the original records of the early federal agricultural and industrial censuses had not been cared for as well as those of the early population censuses, and she was not optimistic that we would be able to find images of them for our area of interest in New Jersey. Checking further here in Morris County, we visited the library at Drew University in Madison, which we were given to understand was a federal records depository. A helpful research librarian there took us deep into the stacks of that library to find several volumes full of the statistical abstracts—the same generalized information that we had previously located. Not being familiar with our area of inquiry, the librarian afterwards contacted a colleague at another library and then reported back to us that the New Jersey State Library in Trenton would likely be the most convenient place for us to find the microfilm images of the enumeration sheets that we sought.

A telephone call to Trenton confirmed that the State Library’s microfilm collection included the desired portions of both agricultural and industrial censuses, and during a visit there we were led directly to Drawer 6 in Cabinet C, where the microfilm had been waiting all the time. We came away with several dozen pages of paper copies from the images

of handwritten agricultural census records made by enumerator James H. Bunting during July 1870 in Chatham and Passaic (now Long Hill) Townships, among others. For 1870, each spread of two enumeration sheets has information on forty farms, set out in 52 columns. Briefly described, the information includes the “Name of agent, owner, or manager” and the “Acres of land”. An additional group of columns covers livestock, another group covers field crops (broken down into eight different grains plus peas and beans, cotton, and potatoes), another group covers dairy products, and so on. While not all of the crops listed on the form were produced in Morris County, significant amounts of data related to farming in this area were entered in 29 of the columns.

Having paid scant attention to the guidance, “Be careful what you wish for ...” we have now begun analysis of this wealth of information and intend to combine the results with other information from population censuses and land ownership records. We hope that a picture will emerge to give better understanding of the way in which land in the Great Swamp was being used nearly 150 years ago.

1870-71 5317

# SCHEDULE 3.—Productions of Agriculture in *Passaic Township* in the County of *Morris* Post Office: *Madison*

Name of Agent, Owner or Manager	Acres of Land							Value of Land, 1870														Value of All the Crops													
	Enumerated							Total Value														Value of All the Crops													
	Enumerated							Total Value														Value of All the Crops													
	Wheat	Indian Corn	Oats	Rye	Barley	Other	Other	Wheat	Indian Corn	Oats	Rye	Barley	Other	Wheat	Indian Corn	Oats	Rye	Barley	Other	Wheat	Indian Corn	Oats	Rye	Barley	Other										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25											
1 <i>Thomas L. Lee</i>	40	5					5000	75					3	3					2	300					2.4	150	30								
2 <i>Bartholemew L. Lee</i>	50						1000	300	150				5						4	1125				3.0	10	100	150								
3 <i>William Nicholas</i>	40						2000	100					1	1					1	115				2.2		150									
4 <i>Beins Lafayette</i>	17	4					4500	15					1	1						100				1.0											
5 <i>Stiles John</i>	100	60					4500	125	500				3	3						400					100	200									
6 <i>Brady Henry</i>	65	20					2000	450	100				6	2					9	900				3.0	15	150	100								
7 <i>Johnson John</i>	60						4000	150					2	1					2	185					2.5	100									
8 <i>Bailey Ebenezer</i>	32	8					6000	75					2	1					2	390				3.0		75									
9 <i>Brockman Francis</i>	125	25					10000	500	100				7	2					5	1300				2.5	15	300	175								
10 <i>Adams Alexander</i>	20						2000	25					1	1					3	490				4.0		150	120								
11 <i>Miller William</i>	80	67					10000	300	1100				3	5					12	2	625			6.6	250	240									
12 <i>Garrett Egan</i>	100	100					3000	200	2000				4	6					2	8	4	1240			7.5	500	70								
13 <i>Beane William</i>	110	45					10000	600	100				2	1					2	2	9	1260			1.0	100	160								
14 <i>Brady William</i>	150	300					25000	150	500				3	9					4	49	3	1165			6.1	300	125								

Copy of a section of a page of the Agricultural Census of 1870 for Passaic (now Long Hill) Township, Morris County. Note handwritten names and statistics. Preprinted columns include acres of land, present cash value, and specific plant and animal crops. Detail here includes “Horses”, “Mules and Asses”, “Milch Cows”, “Working Oxen”...



## FRIENDS OF GREAT SWAMP NATIONAL WILDLIFE REFUGE MEMBERSHIP APPLICATION

The Friends of Great Swamp is an independent, non-profit organization organized in 1999. Our operations and activities are managed by an all-volunteer Board of Directors. As our mission statement indicates, our focus is Refuge-centric — we support the goals, projects, and mission of the Great Swamp National Wildlife Refuge.

To become a member of the Friends of Great Swamp, fill out the information on this form, and mail with your check to:

Friends of Great Swamp National Wildlife Refuge  
241 Pleasant Plains Road, Basking Ridge, New Jersey 07920  
*Ask about our school or corporate memberships.*

### Annual Membership

Membership Type	<input type="checkbox"/> Family - \$25	<input type="checkbox"/> Individual—\$15
Gift	<input type="checkbox"/> Family - \$25	<input type="checkbox"/> Individual—\$15
Renewal?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Donation—Thank You! \$ \_\_\_\_\_

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_  
 State, Zip Code \_\_\_\_\_  
 Phone Number \_\_\_\_\_  
 E-Mail Address \_\_\_\_\_  
 Gift Membership From: \_\_\_\_\_

*(If this is a gift, please include your full name on the line above so we may notify the recipient)*

### **We need more friends . . .**



**Members are important!  
Give a gift of membership  
to a friend.**

Memberships help support the mission and projects at Great Swamp.

Members also receive the following benefits:

- Quarterly Newsletter
- 10% discount in Bookstore & Gift Shop
- Notification of coming events
- Feeling of accomplishment in supporting the Great Swamp National Wildlife Refuge.

Gift Memberships will include a coupon redeemable at the Friends Bookstore & Gift Shop for a Great Swamp pin or patch.





**friends of great swamp  
national wildlife refuge**

**DECEMBER 2007**

Friends of Great Swamp National Wildlife Refuge  
Is an independent, non profit organization  
dedicated to  
Promoting the conservation of the natural  
resources of the Refuge  
Fostering public understanding and  
appreciation of the Refuge, and  
Engaging in activities that will support the mission of the  
Great Swamp National Wildlife Refuge.