

FRIENDS OF GREAT SWAMP NATIONAL WILDLIFE REFUGE

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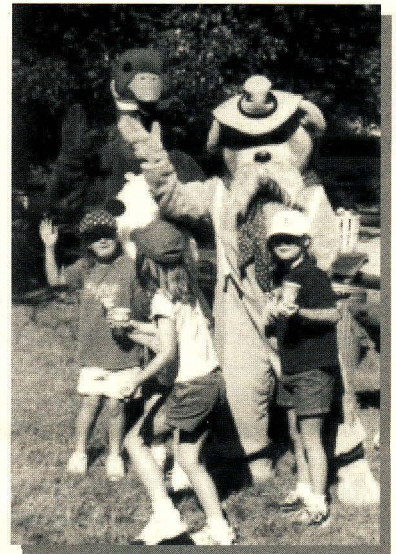
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FALL FESTIVAL AND CENTENNIAL CELEBRATION — 2003

September 6, 2003: On a bright and beautiful fall day, more than 850 visitors participated in a smorgasbord of outdoor activities at the 4th Annual Friends of Great Swamp Fall Festival.

This year, in honor of the 100th anniversary of the national wildlife refuge system (1903 – 2003), the Festival was co-sponsored by the Great Swamp National Wildlife Refuge. Walks, workshops, games and crafts for kids, as well as a variety of exhibits were held at the Friends Office and Bookstore, at Refuge Headquarters, and at the Wildlife Observation Center.

A number of environmental partners helped make this a special centennial event, including Morristown National Historical Park, NJ Division of Fish and Wildlife, New Jersey Audubon Society, The Raptor Trust, Somerset County United Way, NJ Conservation Foundation, the U.S. Fish & Wildlife Service's NJ Field Office, and New Jersey's four other wildlife refuges.



A special thank you to Forsythe National Wildlife Refuge Manager Steve Atzert who joined us in person with a display and brochures.

Each year, Basking Ridge artist Ron Orlando creates a new design for our Fall Festival t-shirts – this year's design is a magnificent barred owl—thank you, Ron.

The annual Fall Festival is an opportunity for visitors to enjoy outdoor activities, to learn about wildlife and wildlife habitat from Refuge staff, naturalists and professionals, and to find out more about the special treasure that is Great Swamp.

Thanks to all of our leaders, exhibitors, and volunteers who made this event a resounding success.



PRESIDENT'S MESSAGE

From Kathy Woodward

Part of the fun of writing for our newsletter is highlighting a Refuge staff member or Friends. During my recent interview with Tom McFadden, the Refuge outdoor recreation planner, Tom said our Friends group was "the best thing that ever happened to the Refuge". While the praise felt great, when I made light of it, Tom persisted and noted that our Friends group keeps finding new projects and ways to enhance the Refuge and to educate our public.

Later that same week, I discussed the possibility of a media visit to Great Swamp NWR with someone who hasn't visited the Refuge for over a year. I de-

scribed the completion of our frog video, our expanded bookstore, the new native plant garden around the Friends office, the spruced up "auditorium" with frog embellished curtains, painted floor and replaced ceiling tiles, the refurbished and improved board walks and the newly installed Visitor Information Station at the Wildlife Information Center. I concluded by saying, "It's like when you were here last, only better."

The Friends Board and members have worked very hard during the last few years, and it shows. But, the more we do, the more ideas we have. Much of the energy has come from our Board,

but increasingly, members are stepping forward by staffing the Bookstore, leading educational walks, joining home-stead cleanups, writing for the newsletter, supporting events and much more.

If you have the time and talents, we can use your help. There are a variety of opportunities throughout the year including weekend staffing at the Wildlife Observation Center during migration, helping out at the Friends Bookstore & Gift Shop, volunteering for wood duck box cleanup and bluebird trail monitoring, as well as helping out at events. We look forward to more Friends supporting Great Swamp National Wildlife Refuge!

KATHY WOODWARD ELECTED TO NWRA BOARD

The National Wildlife Refuge Association (NWRA) was established in 1975 to build support for the Refuge System at the national level. Over the years, the Association has promoted beneficial legislation and addressed refuge threats. As a leading member of the Cooperative Alliance for Refuge Enhancement (CARE), a group of 21 organizations, NWRA has made great strides to increase funding to the Refuge System. Increasingly, the Association recognized the importance of grassroots support. During the past eight years, NWRA has helped build and strengthen Friends groups by providing resources and tools for use to benefit local refuges.

At their June Board meeting, Kathy Woodward of Friends of Great Swamp was elected to the Board of Directors of NWRA. Kathy is excited about the opportunity to learn about refuges and the Refuge System and support the Friends initiative.

NEW SIGN FOR FRIENDS

Last winter, Friends member John Raab was asked to make a new sign for the Pleasant Plains Road office and bookstore. John had previously built and donated the pamphlet boxes at Wildlife Observation Center, as well as bluebird houses and suet feeders, for sale in our bookstore.

For this project, John brought in two experts. He recruited Dr. Jonathan Messerli, Harvard graduate and former President of Susquehanna University and Dr. Jack Grossman, Penn State graduate and previous head of the Art Department at Kutztown University. This powerful trio set about designing, creating, lettering and installing the large sign now on the front yard of the Friends office. It sure helps when Friends have friends! Our warmest thanks to John, John and Jack!

HOMESTEAD CLEANUP – FALL 2003

By Judy Schmidt

Oct 4 was cold and cloudy with a threat of rain, yet a dozen volunteers showed up to help clean up sites that Refuge biologist Craig Bitler had selected. First we removed the remains of a barn from the old Kutcher farm on White Bridge Road. Into the truck went timber, a metal roof, an old lawn mower and the doors from an old truck.

Further down on White Bridge Road, we hiked into the site of an old hunting lodge – about a quarter of a mile through beautiful duck habitat, a heron rookery, over two ditches into the woods where we found cinder blocks, a rusted refrigerator, and lots of pipe and metal. Not too much stuff, but boy do cinder blocks get heavy when you have to carry them a quarter mile out to the road! It had started to rain by now, but we voted to tackle one more site closest to Black Brook.

At Noon, wet, dirty, and tired we went back to the Friends office for a well-earned lunch – and of course to present the traditional Golden Glove award to the "dirtiest" volunteer. This year, we were all so muddy it was impossible to choose, so the award went to volunteer David Strong who carried the rusted refrigerator a quarter mile by himself. We all got a chance to take a closer look at the bottle which we pulled out of the swamp (intact but empty). It is embossed "Dr. Daniels Wonder Worker Liniment – Natures cure for men or beast!"

After lunch we got a Craig Bitler math lesson – there were 25 sites to be cleaned up in 1999, minus at least 10 cleaned up over the past few years, leaves 24 sites still to be tackled? So it looks like we'll be doing this for a while longer. Look for the next Homestead Cleanup in Spring 2004. You too could be the winner of the Golden Glove Award!!

SPOTLIGHT ON... TOM MCFADDEN, OUTDOOR RECREATION PLANNER

Interview by Kathy Woodward

Tom McFadden began working at Great Swamp NWR on July 13, 1981. In these 22 years, Tom has initiated several new programs, worked with innumerable volunteers and interns, and presented the story of Great Swamp to many people and community organizations. It is little wonder that Tom is the staff member who is easily associated with the Refuge. Yet, Tom's travels and influences have spread to areas beyond his home state of New Jersey.



Photo (L-R): McFadden, T.R. Bear

Even before Tom finished college, he worked as a Park Ranger in law enforcement during the summers at Delaware Water Gap National Recreation Area. With this background, Tom next worked for the Army Corp of Engineers at Dismal Swamp in Virginia and then helped manage a 900 unit camp site complex at Lake Shelbyville, Illinois, where domestic problems often surfaced on Friday nights! Employed next by the National Park Service, Tom developed advanced skills working in law enforcement at Philadelphia's Independence Park for two years.

Tom finally saw the light, joined U.S. Fish and Wildlife Service, and worked for two years in law enforcement at Virginia's Chincoteague NWR. This tourist destination refuge has many year round activities which put Tom in contact with many people. Tom also had the opportunity to work jointly with the National Park Service and U.S. Fish and Wildlife Service while at Chincoteague. The beach provided many surprises including odds and ends to help furnish Tom's house and a message in a bottle from a kid in New Jersey. Not surprisingly, Tom sent back an answer.

Tom was glad to return to New Jersey to be near family with his position as outdoor recreation planner at Great Swamp and the Refuge was glad to have him. Tom quickly established a volunteer program, initiated the volunteer newsletter, roadside clean up and volunteer recognition dinner. The annual roadside clean-up became a sign of spring, right up there with the return of the herons and the first spring peepers.

Tom worked closely with the Youth Conservation Core program through the 80's and then facilitated the intern program, which gives several students a year the opportunity for field experience. Tom also serves as liaison to community groups. In his Service uniform and traveling slide show, Tom is a sought after speaker for local groups.

With the increase security concerns, post 9/11, U.S. Fish and Wildlife Service personnel with law enforcement background were called to provide staffing at key government facilities. In the last year Tom has worked in Washington, D.C., St. Louis, and Vieques, an island off the coast of Puerto Rico. While Tom enjoys the travel, he is acutely aware of the responsibilities of Great Swamp which wait for him on his return. He also misses free time to work on his log home and having a chance to take pictures, bike and canoe.

In reflecting on his time at Great Swamp, Tom has seen an increase in administrative responsibilities, although he thoroughly enjoys the diversity of duties. In addition to coordinating volunteer activities, Tom can "have a hand in everything" from helping with the deer hunt to mowing fields. Tom said the biggest change is that "the land is all gone". Building developments have taken many of the farms and open spaces in the watershed.

On the Refuge, Tom has seen great improvement in the public facilities. He notes that the road into the Wildlife Observation Center was affectionately called "Crater Road". At the Wildlife Observation Center, Tom is proud of the rebuilt boardwalks and the two wildlife blinds, which are accessible for wheelchairs. He also notes that the Friends group is "the best thing that has happened to the Refuge". Tom is the staff liaison to the Friends Board and we feed him well, so his enthusiasm may be somewhat biased.

Tom has several more years before retirement and, while many of his personal goals for the Refuge have been achieved, when pressed, he has a thought or two about the future. He would like to see a visitor center that could tell the unique story of the area to the public. He also mentioned the thought of a walking trail across the Refuge, but he mused of who would build and maintain it. Sounds like a perfect project for more volunteers!



REFUGE STAFF 1982

(L to R) Gormley, Fillio, Laskowski, Gutzke, McFadden, Klimas

WORLD SERIES OF BIRDING 2003—SWAMP STYLE

Each year the Great Swamp National Wildlife Refuge supports NJ Audubon Society's World Series of Birding by issuing a limited number of permits to official teams. These permits grant access to areas of the Refuge normally closed to the public and at hours the Refuge is normally closed. As a condition, each team is required to submit a Great Swamp birding checklist for their team. These checklists are consolidated to provide additional sources of data for Refuge staff. Here are some of the details for the World Series of Birding, May 10, 2003.

- 26 teams received permission to bird in the Refuge.
- 4 of the top 5 World Series winning teams visited Great Swamp (scouting or competing).
- 130 different species were identified by sound or sight, down from 153 species in 2002.
- The Refuge Rovers team, sponsored by the Friends of Great Swamp, birded ONLY in the Great Swamp Refuge, and tallied 112 species between 3:00 am and 6:00 pm.
- 25 of the 26 teams counted the sora rail, 23 counted the Virginia rail; there were 18 teams reporting barred owls, 15 great horned owls, and 13 screech owls.

GREAT SWAMP BUTTERFLY COUNT—2003

By J. Michael Pollock, Teacher-Naturalist, New Jersey Audubon Society, Scherman-Hoffman Wildlife Sanctuary, member – New Jersey Butterfly Club

Each year around the Fourth of July, the North American Butterfly Association (www.naba.org) sponsors butterfly counts across the nation. Patterned after the Audubon Society Christmas Bird Counts, these citizen-scientist surveys provide a valuable snapshot of the health of the nation's butterflies from year to year.

The first annual butterfly count at the Great Swamp was held in 1994. This summer was the 10th anniversary count. Coordinated by Chris and Paula Williams of the North Jersey Butterfly Club, the 2003 count was held on Saturday, July 5. Five teams of observers fanned out throughout the Great Swamp National Wildlife Refuge and nearby butterfly "hotspots".

During these counts, an experienced observer leads each party, however, observers of all experience levels are encouraged to participate. Butterflies are identified by species and approximate numbers are recorded for each species by location. These results are then tabulated and compared to past years.

The spring of 2003 was very wet and cool. The result was that many species were not observed anywhere in New Jersey until much later dates than usual. Although the weather had warmed by July, this late spring was reflected in the results with lower than normal counts in both total species identified and total individuals. A total of 42 species were identified this year compared to 43 in 2002 and a high of 50 species in 1999. The total number of individuals was 2142, noticeably lower than the 3780 in 2002.



Michael Pollock shows Fall Festival visitors a caterpillar

Notable absences this year included the Black Swallowtail, American Copper, Gray Hair-streak, Red-spotted Purple, and Common Buckeye. Also absent were the Horace's and Wild Indigo Duskywing, Dion Skipper, and the Mulberry-winged Skipper (a Great Swamp specialty and a big disappointment).

Anyone interested can visit the NABA website and follow the local chapter links to the North Jersey Butterfly Club for meeting times, fieldtrips, and locations. If you would be interested in joining the count next year (you do not need to be a member of NABA to count), contact Chris and Paula Williams, williams.christopher@worldnet.att.net, during the late spring for updated information.

From the checklist of the Great Swamp Butterfly Count—species identified during the 2003 count: Eastern tiger swallowtail, spicebush swallowtail, cabbage white, clouded sulfur, orange sulfur, harvester, coral hair-streak, banded hairstreak, hickory hairstreak, striped hair-streak, Eastern tailed-blue, summer azure, great spangled fritillary, pearl crescent, Baltimore checkerspot, question mark, eastern comma, Compton's tortoiseshell, mourning cloak, American lady, red admiral, viceroy, Appalachian brown, little wood satyr, common wood-nymph, monarch, silver-spotted skipper, Southern cloudywing, least skipper, European skipper, Peck's skipper, tawn-edged skipper, crossline skipper, long dash, Northern broken dash, little glassywing, sache, Delaware skipper, Hobomok skipper, Zabulon skipper, back lash, dun skipper.

GRANT FUNDS NEW INFORMATION CENTER

By Laurel Gould

This past year, the Friends of Great Swamp received a generous grant from the Mushett Family Foundation thanks to the efforts of John Engelhart and Jack Higgins, both of whom are Friends members and volunteers. The grant covers two projects one of which is to install an information center at the Wildlife Observation Center.

If you have visited the boardwalk trails at the Wildlife Observation Center (WOC) in the past few months, you have seen the new building that sits just off the parking lot area. Although not yet completed, the building is already fulfilling its purpose which is to enhance the visitor experience at the WOC by providing improved facilities for greeting visitors, answering questions, and providing information. WOC is by far the most popular destination in the Refuge, hence the selection of this location for the information center.

The new building arrived and was constructed on-site on September 5. It was promptly put into service for Fall Festival activities on September 6 and since then volunteers have been staffing the information center every weekend. Between September 7 and November 2, 3,189 visitors have been counted, thousands of questions have been answered, and brochures, checklists, and maps have been distributed. Hundreds of kids in the area must be sporting "blue goose tattoos", the prize given to those who played the new Boardwalk Bingo game. Weekend staffing ended November 2 and will resume in March with spring migration. However, the information center will also be used during the year as a starting place for educational group tours that meet at WOC.

The Mushett Foundation grant also provided funding for the development and printing of a guide to the Wildlife Tour Route on Pleasant Plains Road. The guide, to be published in 2004, will highlight key stops along the auto route with informative text and illustrations about what visitors are seeing – or what they should be looking for!



Information Center Dedication Ceremony—October 14, 2003

Judy Schmidt, Dorothy Smullen, Sharon Marino, Laurel Gould, Charlie Gould, Alberta Edwards, Roger Edwards, Bob Thompson, Bill Koch, Kathy Woodward, John Engelhart, Tom McFadden, Jonathan Loerch, Mitchell McCann, Merris Larkin, Jack Higgins

The Mushett Family Foundation is a private charitable organization which has as its primary objective the funding of national and international programs which advance medical science, protect the earth's environment and alleviate poverty. Created by the late Dr. Charles W. Mushett, a former research director of Merck & Co., Inc. the foundation recognizes the necessity of funding institutions which work to preserve land and wildlife, provide enlightened stewardship of these natural resources and educate the public on the importance of environmental stewardship.

FROG VIDEO COMPLETED THANKS TO GRANT FROM NFWF

Earlier this year, the Friends completed a new video on Frogs of the Great Swamp National Wildlife Refuge, thanks to a grant from the National Fish and Wildlife Foundation (NFWF). The video uses photographs of the frogs and toads which can be found on the Refuge and includes the calls for each of the frogs and toads thanks to special permission from the NJ Dept of Fish & Wildlife. The video program will be used as the introduction to frog walks next spring and is also available for loan to members, and to school and youth groups, or other organizations. The Friends thank video producers Brisun Productions Inc., a local television and film production company for their contributions to this project.

*News from the Refuge***GSNWR SUPPORTS CORNELL ORNITHOLOGY STUDIES***By Leo Hollein*

The Cornell University Laboratory of Ornithology conducts research on birds. The Lab encourages and uses data gathered by organizations and individuals throughout North America. Specific protocols for data requirements as well as data gathering are provided to contributors. One of the Cornell programs seeks data on cavity nesting birds. For several years data obtained on about a third of the nest boxes in the GSNWR have been entered into the Lab website for the "Cornell Nest Box Network". This data includes a description and specific location of the nest box as well as details on nesting including species, number of eggs, number of hatchlings and young fledged. Estimated dates of the first egg, first hatchling and fledging are also inputted. The Laboratory aggregates, analyses and reports the data annually to all participants. Annual and longer-term trends in reproductive success by geographic areas are identified. Anyone with a nest box wishing to participate in this program can obtain details on the web site: birds.cornell.edu/birdhouse

Nestbox Temperatures Monitored in 2003

In 2003 the GSNWR also participated in a study of nest box temperatures during bluebird egg laying and incubation periods. Small temperature recorders were tied into the nest cup with a small wire and attached to the inside wall of the nest box with a plastic holder. The temperature data loggers were only installed in nests that had one to four eggs in an attempt to monitor temperatures during both the egg laying and incubation periods. Bluebirds lay one egg per day and do not begin incubating the eggs until the clutch is complete or nearly complete. Bluebirds typically have clutches of 4-5 eggs. Delaying incubation until the clutch is complete or nearly complete is a strategy aimed at having all the eggs hatch on the same day.

These data recorders were preprogrammed to record the temperature in five-minute intervals for seven days. A temperature recorder was also installed to measure the outside ambient temperature. After the seven-day period was completed, the nest and nest box temperature data loggers were removed. The data was sent electronically to Cornell. The temperature data loggers were then reprogrammed for use in another nest. During the 2003 season a total of twelve bluebird nests in the Great Swamp were monitored.

The graph shown here plots nest cup and nest box temperatures for a three-day period. The lower line measures the air temperature inside the nest box. This temperature slowly changes and primarily reflects typical day/night ambient temperature variations. The absolute temperature will differ from ambient due to the insulating qualities of the wooden walls and the presence at times of the female bluebird.

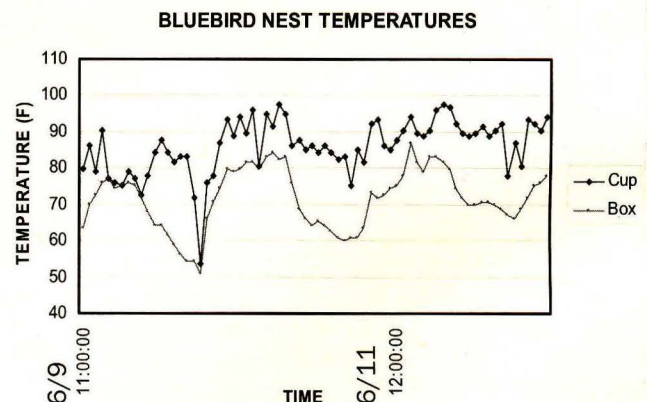
The upper line measures the temperature in the nest cup. This temperature changes quickly and dramatically at times. This is caused by the female bluebird's periodic absence from the nest. As shown in the graph the female leaves every day at dawn to forage. This is her longest daily absence from the nest. The female frequently leaves the nest for shorter periods during daylight hours. This is illustrated by the frequent temperature swings. These short absences have been attributed to preventing the eggs from overheating. During night time hours the temperature is steady indicating the female broods the eggs continuously at night.

This nest had three eggs at the start of graph. The fourth and final egg was laid after the loggers were installed. It was most likely laid either before or after female left the nest to forage (the dip to nearly 50 degrees on the graph) at dawn of the first 24-hour period. It also appears that the female did not begin seriously brooding the eggs until after this first dawn foraging trip.

The Cornell Lab is analyzing all the data provided by the GSNWR and others. Questions the lab is attempting to address include:

- How does nest box temperature affect clutch size (number of eggs laid)
- How does nest cup temperature impact number of eggs that don't hatch
- What determines when females begin brooding eggs
- How does temperature impact the time required for eggs to hatch

The GSNWR again plans to participate in nest box temperature monitoring for the 2004 nesting season. This may include obtaining data from tree swallow as well as bluebird nests.



SOURCE GRAPH SHOWS DATA COLLECTION IN 5-MINUTE INTERVALS

AROUND THE REFUGE... NEWS AND UPDATES

New Visitor Facility: The Refuge is pursuing an exciting opportunity to act on the long-recognized need for a primary Visitor Facility. The Refuge is currently working on the acquisition of the 15-acre Weatherlea Farm located on Pleasant Plains Road approximately 1.4 miles north of the Friends gift shop.

The farm's main house and indoor riding arena would be modified to accommodate visitor information needs, exhibits, the Friends gift shop and office, meeting

rooms, classrooms, and an auditorium. The facility, not far from I-287's exit 30A, would serve as the first stop for visitor information and orientation to the Refuge. The property is bounded on two sides by the Refuge and on the southwestern border by the Passaic River. Refuge staff are currently working on an Environmental Assessment for the project.

Refuge Staff News: Helen Johnson, who first came to the Refuge as an intern and later joined the Refuge staff, left in September for a new career on the west coast. We will miss Helen and wish her good luck in her new ventures.

Just in time for the Fall Festival, Sharon Marino joined the refuge staff as Deputy Refuge Manager, filling the position previously held by Paul Steblein. Welcome Sharon.

VOLUNTEER OPPORTUNITIES... AND A CALL FOR USED BOOKS

Wood Duck Box Cleaning—It's wood duck box cleaning and repair time. If you would like to do a hands-on job for the Refuge, and you have some free time weekdays in December, January, or February, please call Marilyn Eames at 973-425-1222 x20 and join the house cleaning volunteer team. It's a wonderful chance to help the Refuge, the wood ducks, and the other birds that use the wood duck boxes.

Bluebird Trail Team—A volunteer is needed to participate in monitoring bluebird nest boxes in the management area of the Refuge. Duties include visiting boxes every 7–10 days from mid-April to early August and recording status—nest, eggs, hatchlings, and fledging success. Boxes are scattered and require walking through fields. Time required to visit and record data will vary from 2–4 hours per visit depending on nesting activity.

If interested, please call Leo Hollein at 973-538-3451.

Wanted—Used Books... If your bookshelf is overcrowded and you have natural history books that you no longer want—bring them on over to the Bookstore any weekend. We will review all donations and either add them to our Friends Library—or mark them to sell in the Used Book section of our Bookstore & Gift Shop. Either way, your books will find a new home!



NEWS FROM THE BOOKSTORE & GIFT SHOP

From Laurel Gould

For the third year in a row, Basking Ridge artist Ron Orlando created an original design for the Fall Festival. This year, Ron's drawing is a magnificent barred owl – a nesting resident of the Swamp – perched on a branch.

The barred owl design is available on t-shirts and on sweatshirts. We also have for sale Ron's newest limited edition print, *Early Morning Flight* – a majestic great blue heron flying over the marsh – it is a stunning print.

We have a new Great Swamp pewter key chain with a wood duck on the front. The same wood duck medallion is also available on a slate paperweight—perfect for keeping the Swamp in mind while working!

A new scrambler puzzle game is keeping visitors to the Bookstore busy as they try their luck – if you can complete the puzzle in 5 minutes, you win one free! So far, we haven't had any winners.

We have expanded our selection of natural history books and field guides as well as children's books on a wide variety of nature themes.

Stop by soon – the coffee's always on!

Our winter hours are:

- Saturday 11:00 am – 4:00 pm
- Sunday 11:00 am–4:00 pm

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.

Friends of
Great Swamp
National Wildlife Refuge

NOVEMBER 2003

