

FRIENDS OF GREAT SWAMP NATIONAL WILDLIFE REFUGE

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FRIENDS ACCEPT AWARD FOR 2006 FRIENDS GROUP OF THE YEAR!



Six board members traveled to Columbus Ohio to accept the award from U.S. Fish & Wildlife Service Director, Dale Hall. Back row l-r, Laura Nally, Dorothy Smullen, Laurel Gould, Judy Schmidt, Dale Hall, (front l-r) Kathy Woodward, Lisa Molinari.

Story on p.6

VOLUNTEERS ACHIEVE RECORD NUMBER OF HOURS

By Tom McFadden, Outdoor Recreation Planner, GSNWR



Leo Hollein (l) with 1,000 hour award

During fiscal year 2005, volunteers donated 7,765 hours of service. This is an all-time record and an increase of 23% over last year! Since the program's reorganization in 1982, a total of 71,845 hours have been contributed by 2,548 volunteers, ranging in age from tiger cub scouts to senior citizens. This effort is equivalent to \$952,295 worth of donated time! The continued contributions of volunteers is greatly appreciated. Thank you—and keep up the good work!

Great Swamp takes much pride in its Volunteer/Friends Program and the volunteers take that same pride in their contributions. Some of the activities volunteers were involved in included surveys and censuses, water level management, invasive species control, deer hunt assistance, habitat management, visitor services, interpreted walks, trail patrol, litter pick-up, trail maintenance and facility maintenance, development of the Discovery Den, bookstore staffing, advocacy, wood duck box checks, youth fishing derby, boundary clearing and posting, mowing, administration support, fall festival, photography, bluebird box checks.

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241 Pleasant Plains Road
Basking Ridge, N.J. 07920
973.425.9510

KEEPING UP WITH FRIENDS—NEWS, HIGHLIGHTS & UPDATES

SNAKES, FROGS & TURTLES!

By Pat Giaimo

Have you ever wondered what snake that was resting on the hummock, or which turtle was sunning on the log? Do all frogs look alike to you? Now you can answer your questions by checking out the new posters which have been posted in the kiosks at the Wildlife Observation Center and the Overlook. The posters were researched and compiled by Friends volunteer Gail Rapa-port and Watershed biologist Mike Horne and depict the reptile and amphibian species which may be seen on the refuge with large, clear, full-color pictures making it easier to identify which turtle, frog or snake you saw. The write-up under the frog pictures includes their call; the snake poster indicates species rarity. When they were first posted in the kiosks, there was general agreement that it was a wonderful way for both visitors and volunteers to identify the unknown. The question, "What's being seen?" could be answered by a look at the posters to show which turtles to look for, which frogs were calling, and which snakes were resting on the hummocks. Many thanks to Gail and Mike for all their efforts.



weekends at the Bookstore & Gift Shop. Or tell the volunteers at the Wildlife Observation Center what you have seen and it will be recorded on the sightings board. And now visitors can write down their sightings any time using the new bird logs—a clipboard where visitors can write their sightings—and check out what's being seen around the refuge.

Volunteer Bill Smullen constructed attractive cabinets to house the bird logs—one outside the Bookstore and one at the Wildlife Observation Center. Volunteers check the logs every week and record new sightings on the master list which is maintained in the Bookstore. So... let us know what you've seen—become part of this year-long project, and enhance your bird-watching fun.

REFUGE WORK DAYS

By Judy Schmidt

In order to keep up with the many things that the refuge needs help with, the Friends have started a new Refuge Work Days program. As the staff identifies projects that need to be done, we plan a work day. One of the first things we did was adopt Pleasant Plains Road. Last summer we trimmed the brush around the roadside signs. In February, 18 Friends came out to cut, pull, and cart away most of the invasive multiflora rose that was growing around the Overlook and the area around the deep pond. Brush on the sharp bend was cleared and at the end of the morning there was a noticeable improvement. The second Refuge Work Day of the year was in March when 13 Friends arrived to sand and stain the kiosk at the Overlook, paint the donation box, rake the gravel, clean the David Holden memorial plaque, remove more multi-flora rose along the roadside, and replace some of the refuge signs along the road. While we worked, we were able to enjoy some of the things that make this such a special place—wood ducks and mallards in the pond, wood frogs calling, and herons bringing nesting material to their nests. Work days are not only good for the refuge but a great way to meet with Friends and enjoy nature. Help us make a difference and join us at the next work day.

REPORT YOUR BIRD SIGHTINGS—WE'RE KEEPING TRACK!

By Pat Giaimo

The refuge bird brochure lists 244 species, some common (think grackles or bluebirds) and some uncommon or rare (think glossy ibis or indigo bunting). But how many of the 244 species are actually seen (or heard) in a single year? We thought it would be fun and interesting to keep track of the total number of species of birds identified on the refuge in a year—so we've started a refuge bird list for 2006. The winter season (January and February) gave us only 43 species of birds but that included a snowy owl reported in February—and that species is not even listed in the refuge accidentals! But spring is migration time and the sightings have increased, with a total of 169 at the end of May. If you are a visitor to the refuge, you can help. Report your sightings on

MEMORIALS & TRIBUTES

In Memory of Frank Lincoln Phillips
James T. Yardley and Anne B. Yardley
In Memory of George Mironchik
Mary Mironchik
Laurel M. Gould

A tribute to high school friends Doug MacPhillomy and Alan Smith, who helped save Great Swamp
James Dean McRae, Tokyo Japan

REFUGE NEWS, HIGHLIGHTS & UPDATE



WETLANDS HIKE—Watershed Biologist Mike Horne pointing out pristine wetlands at one of the most scenic sites on the refuge during the May Members-Only event. This was the site of the former Harding Landfill, which through partnerships, innovative solutions, and lots of hard work has been remediated and the area restored—a real Refuge success story.

STAFF CHANGES AT GREAT SWAMP

Welcome: New deputy refuge manager, **Steve Henry**, arrived in late May. Steve comes to Great Swamp from the Charles M. Russell NWR in Montana. Look for an in-depth interview in an upcoming issue. Former Refuge staff member **Marilyn Eames** is back at Great Swamp, at least for the summer. Marilyn is focusing on the bat survey program and will be tracking and studying bats on the refuge, particularly the endangered Indiana bat discovered last year. The Refuge is also fortunate to have two interns this summer, **Chris Klaube** from Bridgewater, NJ is being sponsored by the Mushett Family Foundation; **Scott Kuhn** from Winfield, Kansas is being sponsored by the Friends. **Susi Ponce** is back again this summer as a student trainee under the Student Career Experience Program (SCEP). **Georgina Jacquez** is also on board for the summer as an Eco Intern. Watch for more information about these folks.

Goodbye—and Best of Luck: Law Enforcement Officer **Chris Kelly** is leaving the Refuge for a new position at Eastern Massachusetts Refuge complex. A familiar face to most of the visitor services volunteers, Chris always made it a point to stop by on weekends and talk to the volunteers. We wish Chris and his family all the best in this new assignment.

FUTURE VISITOR CENTER UPDATE *by Kathy Woodward*

Even before the purchase of the Weatherlea Farm was finalized in August 2004, staff from the Regional Office and the Refuge asked for input from our Friends group into the anticipated functions of a visitor facility. Subsequently engineers from Oak Point Associates created initial designs for additional input and analysis. In April 2006, Oak Point submitted a conceptual design report with a phased implementation plan. A copy of the *Visitor Facility Renovation* is in the Friends Library. In brief, the plan initially provides for a reception area, exhibit space, a bookstore, library, Discovery Den, auditorium, and staff and Friends offices.

However, to open the facility many basic renovations are required to meet code requirements, including creating an access road and parking, replacing furnaces, removing underground fuel tanks, drilling a new well, upgrading the septic system, renovating restrooms, and creating handicapped accessible entries. Later phases will address landscaping and construction of a multipurpose room and additional parking. The process will take considerable time and money.

The Friends group continues to be involved in the planning process. Possible projects, in the short term, include planning trails and retrofitting the current garage to serve as a meeting and educational area until later phases are completed. Our Friends group will be counting on many more people to help make the future visitor facility a place to inform and educate.

WE'RE BUSY AS BEAVERS AT REFUGE HQ WE NEED VOLUNTEER HELP

How would you like a job where you make your own hours, work with knowledgeable professionals, and meet and greet the nicest people?

We are looking for volunteers to work at the front desk at Refuge Headquarters.



You should be able to work two to three days per week for several hours each day—your choice of day and time.

Duties include answering the phone, minor filing, photocopying—and of course greeting visitors.

It's a great opportunity to help the Great Swamp National Wildlife Refuge.

For more information, contact Tom McFadden at 973-425-1222, ext. 14

THE GREAT SWAMP HAWK

Story and photo by Colin Osborn, Biological Technician, GSNWR

Of all the thrilling sounds of spring in the Great Swamp, there are few that I enjoy hearing more than the piercing, repeated cry of "keeyuur" by the red-shouldered hawk (*Buteo lineatus*). This crow-sized hawk is distinguished by its orange-banded chest, dark tail with narrow white bands, translucent "windows" across its wingtips, and the red shoulder patches from which it gets its name. The red-shouldered is a hawk of forested wetlands and nests mainly in extensive hardwood swamps. Its specific preference for this type of habitat earned it the former name "swamp hawk." It hunts from a perch and feeds mainly on amphibians, reptiles, and small mammals but also eats birds, insects, fish, and crayfish. Its diet varies by season and in the warmer months when frogs, snakes, and other herps (reptiles and amphibians) are plentiful, it feeds mainly on them but in the colder months when the herps are hibernating, its diet switches to mostly rodents.

Red-shouldered hawks migrate south usually in late fall, although some stay and spend the winter. I have seen individuals and pairs in their respective territories throughout the winter here. Migrants return north very early in the spring with peak flights from mid-March to early April. Pairs typically use the same nest site year after year. Their courtship flights are quite spectacular and involve calling repeatedly while circling, swooping, and diving. They are very vocal in their territories especially during the breeding period. For these reasons, spring is by far the best time to locate and observe red-shouldered hawks. Females lay two to four (normally 3) eggs from early to late April. Incubation takes 28 to 33 days and the nestling period, which is the time it takes until the young fledge, is 39 to 45 days.

The 1966 Golden Press *Birds of North America* field guide describes the red-shouldered as "one of the most common hawks of eastern North America." Today, the breeding population is listed as endangered and the non-breeding population is listed as threatened in New Jersey. So what happened between then and now to cause such a drastic change in this bird's population? The main cause has been loss of habitat due to the development, filling, draining, and fragmentation of wetlands as well as the clearing of forestland. The red-shouldered hawk is very specific in its habitat requirement and the large-scale loss of it in New Jersey and much of the eastern United States has caused their population to decrease dramatically. They now occur very locally in the state, concentrated mainly in the few vast and undisturbed forested wetland areas remaining. Without the New Jersey Freshwater Wetlands Protection Act of 1987 and large, protected wetland areas like Great Swamp National Wildlife Refuge, the red-shouldered hawk might have been eliminated

from the state completely. The critical habitat that the refuge supports is also responsible for maintaining populations of other wetland-dependent threatened and endangered species such as the American bittern (*Botaurus lentiginosus*) -

State endangered, breeding; the barred owl (*Strix varia*) - State threatened; the blue-spotted salamander (*Ambystoma laterale*) - State endangered; the bog turtle (*Clemmys muhlenbergii*) - State endangered, Federally threatened; and the Indiana bat (*Myotis sodalis*) - State endangered, Federally endangered.



This spring has been an exciting one for red-shouldered hawks in and around the refuge. I have heard and seen more of them this year than I have in my previous two springs here. By far the most exciting event though is the pair nesting directly behind the Great Swamp (Morris County) Outdoor Education Center in Chatham. The center has closed off the area behind the building to minimize disturbance and afford the hawks the space and tranquility they will need to nest successfully. As of early May, when this article was written, there was at least one recently-hatched nestling. By the time this issue is out in June the nestlings should be several weeks old and the parents feeding them tirelessly to ensure that the young will be healthy, strong, and ready to take their first flight. The center has set up spotting scopes in their rear classroom in which the nest and the hawks can be viewed, providing the rare opportunity to see wild, nesting red-shouldered hawks. I strongly recommend you take advantage of this opportunity—who knows, maybe you will get to see one of the young fledge the nest.

The refuge is always interested in knowing about sightings of red-shouldered hawks, so if you see any here, please record your observations on the "Bird Sightings Log" located next to the front door of the Friends of Great Swamp Bookstore or at the Wildlife Observation Center.

A WOODCOCK EVENING

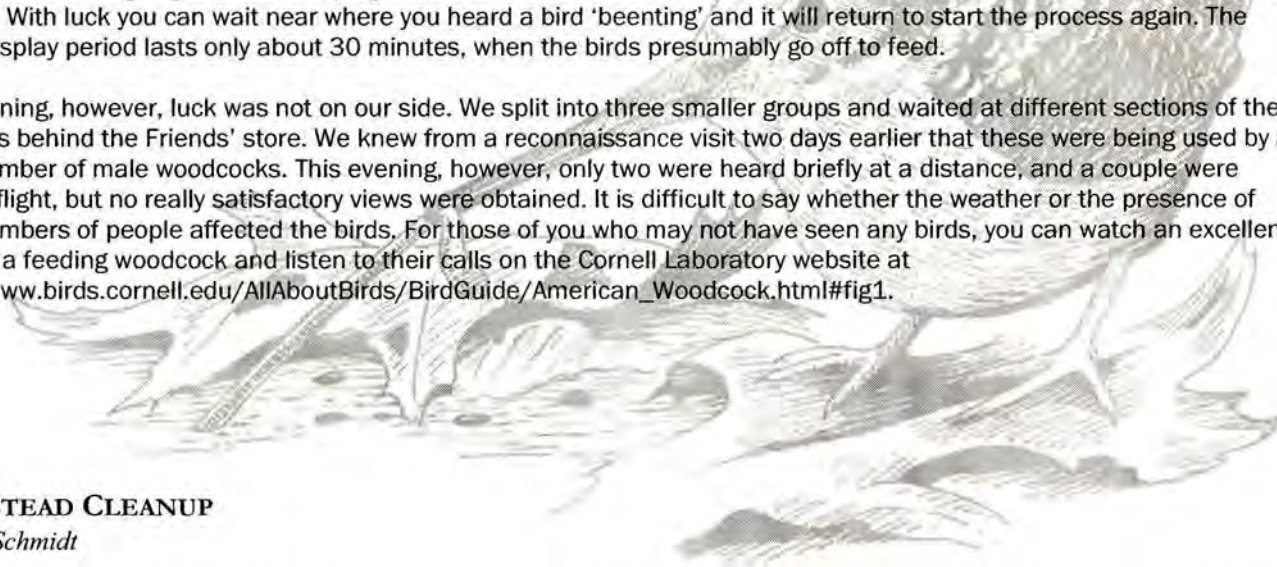
By Terry Carruthers, *Walking Experiences*

The American woodcock is a beautiful, fascinating bird. They are the only shorebird to nest in woodlands, where their marvellous camouflage colors of brown, buff, gray, and black allow them to blend in with the patterns of the woodland floor. They feed on invertebrates and earthworms, using their long, flexible beak to probe into the leaf litter. When foraging they walk around slowly, with a peculiar rocking gait, at the same time holding their head steady. Apparently they may be directing their weight over their front foot to disturb worms below the leaf litter, making them easier to detect. Normally secretive, inconspicuous birds, they are best seen during the early part of the breeding season when males put on a special display to attract females. The Friends of Great Swamp and the Greater Watchung Nature Club have cosponsored an annual outing to watch this display for a number of years.

The cool, damp weather on the evening of March 25th did not deter the woodcock-watchers as about 55 people of all ages turned out for the 2006 Woodcock Watch. The outing began at 4:00 pm with a visit to the ponds at the western end of Pleasant Plains Road. A very obliging juvenile red-tailed hawk offered great views at 15-20 feet as it perched on a low branch. The group had good views of wood, black and ring necked ducks, green-winged teal, eastern bluebirds, belted kingfisher, and up to 10 Wilson's snipe flying in formation. One obligingly landed on the far side of the small pond at the Overlook, but offered only brief glimpses as it fed among high vegetation.

Co-leaders Pete Axelrod and Andy Lamy introduced the woodcock theme to the group by performing their woodcock display and vocal imitations, worth coming to see even if nothing else turns up. Around dusk woodcocks will leave their normal resting area in the woods and fly out to fields or woodland clearings. While on the ground the males display by turning slowly in a full circle, a quarter turn at a time, making what David Sibley describes as an explosive nasal 'beent' sound while doing so. Depending on whether the bird is turned towards or away from you, the sound may seem close or far away. It then lifts off into the air in a wide spiral, his wings making a distinctive whistling sound. From a height of 200-300 feet he descends in a zig-zag manner, chirping as he does, and lands close to where he started from, or near a female if one is present. With luck you can wait near where you heard a bird 'beenting' and it will return to start the process again. The whole display period lasts only about 30 minutes, when the birds presumably go off to feed.

This evening, however, luck was not on our side. We split into three smaller groups and waited at different sections of the ride-lines behind the Friends' store. We knew from a reconnaissance visit two days earlier that these were being used by a good number of male woodcocks. This evening, however, only two were heard briefly at a distance, and a couple were seen in flight, but no really satisfactory views were obtained. It is difficult to say whether the weather or the presence of large numbers of people affected the birds. For those of you who may not have seen any birds, you can watch an excellent video of a feeding woodcock and listen to their calls on the Cornell Laboratory website at http://www.birds.cornell.edu/AllAboutBirds/BirdGuide/American_Woodcock.html#fig1.



HOMESTEAD CLEANUP

By Judy Schmidt

8:00 am—Earth Day, April 22, 2006

Weather forecast—rain, heavy at times. Craig Bitler and I looked at each other wondering if we would be the only ones to show up for the Spring Homestead Cleanup due to the weather. But wouldn't you know—by 8:30, eleven volunteers and staff member Colin Osborn arrived dressed for the rain and ready to go!

You never know where Craig will take us and this time was no different. We headed for a spot on Meyersville Road where none of us had ever been before—and the rain was holding off. After working our way down a steep hill, we arrived at what should have been a lovely vernal pool. Instead, the pool was surrounded by tires, plastic bottles, and a refrigerator. We went to work and within an hour the debris

was gone and the pool was indeed lovely. We then spread out and discovered lots more tires, metal shavings, large pieces of metal plate, and a Vespa car—all of which had to be lugged some distance to the trail, then loaded into the truck. We filled the truck five times. We worked until noon, then went to the Bookstore for lunch, when it finally started to rain. It was a good way to celebrate Earth Day. Something to ponder... One of the neighbors came down to ask who we were and who sent us. You could tell by the questions that he wondered if we were forced to do community service. The same thing happens when we do roadside cleanups. Wouldn't it be nice if every day was Earth Day and those who chose to clean up the litter left by others were looked upon as just good people?

2006 REFUGE FRIENDS GROUP OF THE YEAR *by Laurel Gould*

As reported in the last issue, the Friends of Great Swamp has been recognized as the 2006 Refuge Friends Group of the Year by the National Wildlife Refuge Association (NWRA) and the National Fish and Wildlife Foundation who annually recognize a Friends group for exceptional contributions in support of a national wildlife refuge. Past winners include Ding Darling (Fla.), Blackwater NWR (Md.), Chincoteague Natural History Association (Va.). Wow, what company! The 2006 award was presented in Columbus Ohio at the U.S. Fish & Wildlife Service (F&WS) Director's Reception on March 23. President Judy Schmidt was invited to attend the ceremony and receive the award. But the board agreed – we couldn't let Judy go alone. Kathy Woodward contacted NWRA to ask if a number of us could attend the ceremony. Their response: "the ceremony was a joint event, including 20+ awards from Fish & Wildlife Service so our moment in the sun would be just that , a

moment!" Undeterred, six board members signed up to travel 1,000 miles to Columbus for the award. We planned to rent a van, leave Wednesday afternoon, stay overnight about half-way, spend Thursday sightseeing, celebrate on Thursday night, and return to NJ on Friday. Well, we did it! And it was a great trip and a truly memorable experience. It was really impressive how many attendees, mostly U.S. F&WS employees, were so pleased to see us and thanked us for what we do. All six of us trooped

up on stage for the award—and just barely fit (notice our matching Friends of the Year jackets!) We now have a beautiful engraved Tiffany plate and a \$2,000 check—and a wonderful feeling from being recognized for accomplishing so much in such a short time. Thank you to each and every one of our members, volunteers, partners, supporters, and Refuge staff for making this possible.



Our Trip to Columbus
By Judy Schmidt

Travel log: Great Swamp to Columbus Ohio, March 22 – 24, 2006: Five friends (Judy Schmidt, Kathy Woodward, Dorothy Smullen, Lisa Molinari, Laurel Gould) rent a van; One friend (Laura Nally) uses frequent flyer miles from Newark; Two Refuge staff (Tom McFadden, Bill Koch) fly from Allentown, PA

Wednesday, March 22

With Lisa driving, we load the van with 5 Friends and baggage and we're off at 4:00 pm. Bird list starts within 30 minutes (this is done at 65 miles an hour).

Talk a lot about refuge things – start eating within the next hour. Arrive at motel in PA, check in, get back in van, and go for coffee and ice cream.

Thursday, March 23

Hit the road early. Lisa driving. Talk about refuge things. Breakfast time. Stop to eat and discover 4 out of 5 can get the "Senior Breakfast Starter" (the 5th lies about her age). Tell anyone who will listen that we are Friends Group of the Year. Back on the road: Bird list growing. Talk and laugh a lot about refuge things.

Do some thinking puzzles. "A man walks into a bar and asks for a drink of water. The bartender points a gun at him. He says thank you and leaves. What just happened?"

Solve puzzle 130 miles later.

Arrive in Columbus, check in at motel, make a Friends group of the year sign for car window.

Back in van and go to Franklin Park to see live butterfly display and eat.

Go to airport to pick up Frequent Flyer Mile Friend.

Go back to motel to put on matching Friends of the Year jackets. Go to North American Wildlife and Natural Resources Conference where we meet up with Bill and Tom.

Meet and rehearse with other award winners.

Receive award (lots of picture taking and compliments).

Feel real proud of our Friends group.

Eat while showing off our Friends display to conference attendees.

Head back to motel but stop for ice cream and coffee.

Friday, March 24

Heading home. Hit the road early. Lisa driving. Drop off Frequent Flyer Mile Friend at the airport.

Talk about our award and look for birds as list is not growing.

Stop for breakfast and tell any one who will listen we are Friends Group of the Year.

Talk a lot about being Friends Group of the Year.

Arrive home, just making van drop-off deadline.

Trip summation

Kestrels - 5

Laurel asking Lisa if she can drive - 10

Cracker Barrel Signs - 15

Winning Friends Award - Priceless

WILD TURKEYS IN GREAT SWAMP—THEY WEREN'T ALWAYS SO COMMON

Story and photo by Leo Hollein

There have always been turkeys in the Great Swamp National Wildlife Refuge (GSNWR) but until 1989 they were all of the human variety. Now wild turkeys (*Meleagris gallopavo*) are commonly seen or heard on early April and May mornings in the fields along Pleasant Plains Road. In fall and winter, turkey flocks (usually of the same sex) can occasionally be seen from roads in the Refuge and in winter they frequent the feeders at the Raptor Trust on White Bridge Road.

Wild Turkeys are native to New Jersey and were abundant during the colonial period. However, they were extirpated from New Jersey in the mid nineteenth century due to unlimited hunting and deforestation. In 1977 the New Jersey Division of Fish and Wildlife began transplanting wild turkeys to selected areas in New Jersey (1). The turkeys established themselves and successfully bred. Trapping and transplanting turkeys around the state further enhanced the New Jersey population. The New Jersey Christmas Bird Count (CBC) turkey count broke 100 for the first time in 1990 (1). The CBC turkey counts have skyrocketed in the 1990s. New Jersey is now estimated to have about 25,000 turkeys that are concentrated in the northern half and southwestern corner of the state.

Twenty young wild turkey males (jakes) and hens captured in other parts of New Jersey were released into the GSNWR in February 1989. These were the only turkeys that were relocated to the GSNWR. Over time the wild turkey population has grown explosively from this original release. The GSNWR has an excellent turkey environment consisting of hardwood forests, plenty of water and open fields. The forested areas in what is now the GSNWR have primarily developed since the Refuge was established in 1964. Periodic mowing in the management area maintains open fields, promoting wildlife density and diversity.

In late March the flocks of turkeys that have foraged together through the fall and winter begin to disperse. Mating activities take place in April and May. Eggs are laid in a ground nest that is covered with leaves by the hen when she is not brooding the eggs. A turkey hen is a true "single mom." The hen makes the nest, incubates the eggs and tends the young. The tom's only parental duty is to fertilize the eggs. A typical turkey brood consists of 10 to 15 young (poults). It is strange to see such a large bird like a mature wild turkey shepherding a group of poults that appear only slightly larger than newly hatched chickens. The poults have a dark mottled coloration. Hens softly utter a tuk tuk sounding call if the poults wander too far away. Hens are very alert to potential threats and lead their young away when approached. Hens can also be very aggressive to humans or other perceived threats

during this period. Despite the best efforts of the hen, the brood size may be halved due to predation in the first month or so. There are many potential predators in the refuge, including hawks, foxes, coyotes and feral cats.

The poults sleep under the wings of the hen at night, initially on the ground and then on a branch of a tree. Surprisingly poults can fly after several weeks. This is long before they have reached adult size and coloration. Although they spend most of the time on the ground and prefer to run rather than fly when alarmed, turkeys roost in trees at night. They tilt their bodies, push off with their strong legs and fly almost vertically to the roost branch. In the mornings they open their wings, step off the branch and appear to parachute to earth with little movement of their wings.

By August the poults are as large as chickens with a grayish coloration. Insects are their main food source at this stage. By late October poults have grown to the size of an adult hen. They have the typical dark adult turkey body color with a rusty tail. By now only about a third of the original brood may have survived. The family group will remain together through the winter. In late March or early April the group will disperse as mating season approaches.

In the fall and winter turkeys feed on acorns, other nuts and fruit. They will scratch like chickens or white-throated sparrows in leafy forest understory or in snow searching for food. Turkeys have trouble walking in fluffy snow but can travel well once a crust has formed.

Turkeys will visit suburban feeders in the fall and winter.



Hen turkey in alert posture

They take possession of ground feeding areas and chase away competing crows and squirrels. They are also agile enough to fly up and eat from elevated platform feeders. When turkeys drink, they dip into the water to get a mouthful and then elevate their heads to swallow.

Wild turkeys have joined the whitetail deer and Canada geese in dramatically expanding their population in and around the GSNWR. Hopefully,

natural predation and food supply will control their population so that it will not be necessary to implement programs to control their numbers as is required for whitetail deer and Canada geese.

Footnote 1 - J. Walsh, V. Elia, R. Kane and T. Halliwell, *Birds of New Jersey*. New Jersey Audubon Society, Bernardsville, NJ, 1999, pp. 203-205.

THE MAGIC OF THE BINOCULAR

By George Helmke

We live in a high-tech world. We are astounded by the advances in technologies that have given us computers, the internet, cell phones, digital cameras and so many other developments in electronics, optics and medicine. But to me the simple binocular, the most important tool of the nature lover, is a modern marvel. Many high-tech minded people overlook it, unmindful of its almost miraculous extension of our vision.

It is interesting to note that binoculars have been around for a long time. A child of the telescope, binoculars owe their popularity to the fact that two eyes are better than one for an observer. Those of us who can remember back to the 1920s and 30s will recall that Galilean field glasses were widely used. They had been introduced in 1823. Unfortunately they were not hinged to adjust for the distance between our eyes and their image quality was marginal in many cases. In 1854 Ignaz Porro, an Italian engineer, invented and patented an arrangement of prisms which increased the focal length within each optical tube and provided a correctly oriented image. However, the optical glasses available at the time made it difficult to make use of Porro's design.

It was 1873 when Ernst Abbe, a mathematician at the Carl Zeiss optical works in Jena, Germany, using glass from the Schott glass works, also in Jena, was able to design a truly useful prism binocular. Today's binoculars with quality optical glass and anti-reflection coated lenses have reached an impressive degree of perfection.

Ignaz Porro's original prism arrangement, although still widely used, now has a popular counterpart: the roof prism binocular. The roof prism makes it possible to maintain an in-line optical path within each viewing tube. The chief advantage of this arrangement, as I see it, is that the birder or naturalist carrying the binocular on a neck strap finds them hanging straight down in a

comfortable position against the body. Roof prism units also are usually lighter in weight than those using the Porro design. However the wider separation of objectives of the Porro design pro-

*The magic of the binocular
will greatly increase
the joy of
wildlife observation.*

vides a more pronounced three-dimensional image of mid-distance objects than the roof prism design.

Things to look for when purchasing binoculars: Articles dealing with natural history and birding often discuss binoculars. When written by people selling binoculars they frequently recommend the best, usually units of the roof prism design costing between \$800 and \$1,700. However, the more familiar Porro prism binocular, with many good models priced below \$100, provide excellent image quality, satisfying the great majority of observers.

One should be familiar with the specifications relating to binoculars and their use. Two numbers are the most commonly used, for example, 7X35. Here the 7 refers to the magnification. The object in view is brought 7 times closer. A turtle 100 feet away would appear to be 14.3 feet away. The number 35 is the diameter in millimeters of the objective lens, at the opposite end from the eyepiece lens. The larger this lens, the greater its light gathering ability, an aspect important to any observer during twilight hours. The power, or magnification, is an important

quality. A magnification of 8X provides a better, closer view and 10X is even better in this regard, but at higher power some people have difficulty in hand holding binoculars. Modern optical/electronic design has solved this problem and image stabilized binoculars are now available, usually at a high price. The 7X35 binocular is a popular model and more have been manufactured than any other, but the 8 or 10X40 seems to be most popular among birders.

There are several things to look for in the ideal instrument. The binocular should have a center focusing wheel, not individual eyepiece focusers. Eyeglass wearers should look for binoculars with sufficient eye relief, or distance between the eyepiece and the front of the eyeglasses so that they can see the full field. This should be at least 15 millimeters. Field of view is another important consideration. This value is



The author enjoying wildlife observation with his binoculars

often given as the width of the field in feet at a distance of 1000 yards. However, an angle of view measurement is more useful. It may be converted from the field of view in feet by dividing by 52.5. The dividend is the viewing angle in degrees. One of my favorite binoculars exhibits a width of field of 578 feet at 1000 yards. This corresponds to an angular measurement of 11 degrees, which is considered a wide view. In general, binoculars having a viewing angle of 7 degrees or more can be classified as wide-angle units.

Adjusting your binoculars:

To get the most from your binocular it

should be in proper adjustment. Adjustment is straightforward. First, look through the binocular and adjust the spread between the eyepieces so that the field of view appears as one circular image. Then close the right eye and adjust the center focus wheel using only the left eye to focus sharply on any mid-distance object. Then close the left eye and open the right eye. Without turning the center adjustment wheel rotate the diopter adjustment at the right eyepiece to bring the right eye image into sharp focus. The binocular is then in proper adjustment. In a few binocular models the adjustment for the right eye is made by a wheel near

the hinge at the objective end of the unit.

The magic of the binocular will greatly increase the joy of wildlife observation. Is it any wonder that some people, this writer included, collect these wonderful instruments? I have a friend in New York with a collection of over 500 units! But binoculars do little for the collector; binoculars bring those precious far away objects of nature close to the observer for enjoyment and better understanding. Borrow from the Friends Bookstore if you do not have a binocular and increase the pleasure of your next visit to the Refuge.

LONG AGO IN THE GREAT SWAMP

By Don McLellan

While sharing experiences and personal history with other volunteers during the Friends Spring Volunteer Training Session, I had a dim recollection that I had written about the Great Swamp many years ago. I promised session leaders Kathy Woodward and Laurel Gould that I would see if I could locate the articles I had written. So, I checked microfilm copies of *The Chatham Press* for 1938 and 1939 in the Library of the Chathams. Sure enough, there were my articles.

A new Cub Scout pack, probably the first in Chatham, was started in March of 1939. My brother John and I were in Den 1 (of 5) and our father was on the organizing committee. Cub Scouts in those days were in the 9-10-11 year old range. Now, I believe, they are younger. Apparently only men were involved in the leadership; no women are mentioned in the reports. Some of our activities would not be on today's approved list, but maybe the statue of limitations has expired.

Our weekly meetings were on Saturdays. As "Keeper of the Buckskin" for Den 1, I sent reports of the meetings to the newspaper which ran them along with reports of Boy Scout and Girl Scout meetings. I found one definite mention of the Great Swamp in the issue of May 19, 1939.

The following week, May 26, an article refers to a hike which I believe was in the Great Swamp. [After a morning meeting and baseball game]... "We went for a hike. We tried to catch some frogs but were unsuccessful. Bernie Miller caught a water snake and had to leave us to take it home. After we had gone quite far we had to turn back for fear of getting poison ivy."

Donald McLellan, Keeper of the Buckskin

The Chatham Press, May 19, 1939

Den 1 held its regular meeting Saturday. In the morning we went to the Great Swamp on a nature hike. When we got there we divided into two groups. The group that I went with had Mr. Miller for a leader. The other group had Mr. Pettingill for a leader.

Mr. Miller's group found many interesting things including lady's slipper, five fingered cinquefoil, wild canary, mountain laurel, false Solomon's seal, true Solomon's seal and dogwood. After we came

back Mr. Pettingill's group had thirty points. Mr. Miller's group had sixty-two points.

In the afternoon we went down to see the fleet. When we got there we had to wait in the rain for a long time before we could get on a boat. We got on by climbing up a ladder to the main deck. First we saw some sailors cooking. We saw the pilot's room. We came down to a deck and saw two American flags drying. We were interested in the armory which had rifles, machine

guns, and swords. We also were interested in the anchor and chain. Coming in we were in the front of the boat and got splashed. On the way home we stopped at an automat and had hot chocolate and sandwiches.

Donald McLellan, Keeper of the Buckskin

That summer we moved away so I lost track of the Cub Scout group, but my research brought back many pleasant memories. Most important, the Great Swamp survives.

VOLUNTEER AWARDS—CONGRATULATIONS! (continued from page 1 by Laurel Gould)



100 Hour Club—(L-R) Rich Dufort, Hanina Rawnicki, Dennis Branden, Gail Rapaport, Chuck Whitmore, Pat Giaimo

Each year, the Refuge and the Friends co-sponsor a volunteer recognition ceremony. This year, at the 20th annual event, 90 volunteers, staff, and guests enjoyed an evening of good food and great company, with awards and prizes for all. Awards were presented by Tom McFadden and Refuge Manager, Bill Koch.

100-Hour Club (engraved name tag): Dennis Branden, Tom Clifford, Rich Dufort, Pat Giaimo, George Helmke, Ray Lord, Roz Mytelka, Laura Nally, Lori Prosser, Gail Rapaport, Hanina Rawnicki, Deb Scala, Evan Towt, Chuck Whitmore.

250-Hour Pin: Laura Nally, Lou Pisane, Deb Scala, Nancy Schenck, Barbara Wingel.



Jean Sebesta receives President's Award

500-Hour Pin and plaque: Dorothy Smullen, Jack Higgins. **1,000-Hour Pin:** Leo Hollein; **1,500-Hour Pin:** Laurel Gould. **2,000-Hour Pin:** Judy Schmidt.

For her 4,492 donated hours, retiring volunteer Jean Sebesta was awarded a **4,000 Hour Pin**. Jean was also presented with The President's Call to Service Lifetime Award—signed by George W. Bush! And just when we thought the awards were over, Bill Koch presented Tom McFadden with a pin and plaque for 30 years of service—a complete surprise to Tom (much to the delight of the audience). It was a special evening and a wonderful way to celebrate the generous donation of volunteer time to the Great Swamp.

Listed below are the active volunteers in Fiscal Year 2005 (October 2004 through September 2005) with their cumulative hours contributed to Great Swamp NWR since they first became a volunteer.

- | | | | | |
|---------------------|------------------------|----------------------|-------------------------|-------------------------------|
| Joann Apgar—31 | Roger Edwards—186 | Louise Jensen—171.5 | Lillian O'Brien—37 | Gina Smith—38.5 |
| Pete Axelrod—88.5 | John Engelhart—43.5 | Corey Johnson—6 | Tom Ostrand—31 | Jack Smith—136 |
| Bill Ayres—231 | Alan Finn—156 | Ken Johnson—28 | Ruben Owens—6 | Bill Smullen—56 |
| Brenda Ayres—185 | Ralph Fischer—3 | Kelsey Jordahl—1.5 | Sandy Parr—8.5 | Diane Smullen—7 |
| Betsy Barton—4 | Joanne Foster—8 | Susan Katz—40 | Lauris Partizian—11 | Dorothy Smullen—669 |
| Ken Bliss—18.5 | Thomas Freeman—4 | Jane Kendall—66.5 | Liz Peck—523.5 | George Solovay—833.5 |
| Neil Borman—537.5 | Susan Friedman—54.5 | Anastasia Kidd—4.5 | Diane Peer—64 | Chris Stadtmueller—52 |
| Dennis Branden—198 | Larry Fuhro—52.5 | Laura Kostecka—3 | Dixon Peer—211.5 | Bob Stanton—311.5 |
| Bob Brandt—444 | Laura Fuhro—57 | Andy Lamy—4 | Louis Pisane—259.5 | Matt Steffens—25.5 |
| Bill Burress—4.5 | Robert Furstner—246.5 | Merris Larkin—113 | Don Post—5 | Claudia Thomas—3 |
| Linda Byland—97 | Jane George—66.5 | Kathy Lawson—36.5 | Lori Prosser—111.5 | Bob Thompson—334 |
| Steve Byland—641.5 | Spencer George—28.5 | Bradley Lord—5 | Sandra Pruzansky—35.5 | Evan Towt—239 |
| Tyler Bynum—2 | Pat Giaimo—113.5 | Ray Lord—102.5 | Gail Rapaport—173.5 | Esther Warner—4 |
| Terry Carruthers—22 | Charles Gould—118 | Neil MacRitchie—12 | Hanina Rawnicki—210 | Elaine Weyuker—23 |
| Teri Catalano—87 | Laurel Gould—1,705.5 | Kevin Marino—8 | Suzann Regetz—4 | Joanne White—8 |
| Tom Clifford—178 | Steve Gruber—112.5 | Leroy Markel—2.5 | Shirley Richardson—20.5 | Justin Whitehurst—23 |
| Al Cossa—389 | George Helmke—115.5 | Ann McCord—36.5 | Charlie Risberg—108.5 | Chuck Whitmore—112 |
| Betsy Coyne—19.5 | Greg Henderson—35.5 | Don McCord—34.5 | Edythe Risberg—151 | John Wilmot Sr.—420.5 |
| George Coyne—33 | Mariana Hernandez—15.5 | Kathleen McCort—7.5 | Kareen Rosenberg—34 | Barbara Wingel—253 |
| Jaime Crusellas—5 | Jack Higgins—565 | Emily McQueen—28 | Blaine Rothauser—85 | Carl Woodward—192 |
| Robin Crusellas—5 | Mary Anne Higgins—3 | Andrea Meau—32.5 | Deb Scala—250.5 | Kathy Woodward—758.5 |
| Jim Cullen—547 | Chris Hildebrand—34.5 | George Mironchik—336 | Joe Scala—26 | Also special thanks to: |
| Joann Cullen—50 | Mike Hiotis—40 | Lisa Molinari—606.5 | Nancy Schenck—323 | • AT&T |
| Rich Cummings—4.5 | Bob Hofmann—3 | Alberta Mount—355 | Judy Schmidt—2,205 | • Morris Land Conservancy |
| Jim Detizio—569.5 | Leo Hollein—1,022 | Jen Murphy—568.5 | Mary Ann Schmit—23 | • Scout Troop 53, Randolph NJ |
| Betty Ann Dhein—16 | Marjorie Impell—5 | Roz Mytelka—114.5 | Jean Sebesta—4,492 | • Toyota |
| Steve Dhein—26 | Dorian Jakubek—8 | Joe Nally—33.5 | Marv Sebesta—900 | |
| David Dietz—12 | Stan Jakubek—45.5 | Laura Nally—268 | Willard Shearin—396 | |
| Alex Dufort—4 | Carlos Jaramillo—7.5 | Mike Newlon—96 | Frank Shyers—25 | |
| Rich Dufort—128.5 | | Melinda Nye—34.5 | Sybil Skowronski—8 | |

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 group 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 the 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 gift item.

You know you are a Friend of Great Swamp when...

(by Kathy Woodward)

Your social calendar revolves around Roadside clean-up and the Volunteer dinner.

You have at least two "Judy" mugs and three "Ron Orlando" tee shirts.

The bulk of your holiday shopping is done at the Friends Bookstore.

You have at least one set of clothing just for Homestead cleanups.

You have several recipes that use Craisins.

You wave to everyone on the Auto Tour Route.

You get impatient waiting for the sign-up letter for volunteering at WOC.

You know what a Blue Goose is and you have a planned response when asked to wear the costume.

You've actually walked in the Wilderness Area.

You know lots of reasons we are the 2006 Refuge Friends Group of the Year!

Friends of
Great Swamp
National Wildlife Refuge

JUNE 2006

Friends of Great Swamp NWR
241 Pleasant Plains Road
Basking Ridge NJ 07920

