



the Swamp Scene

friends of great swamp national wildlife refuge

ISSUE FORTY THREE
NOVEMBER 2013

Highlights

Fall Festival 2013	2
Photo Contest Winners	3
Flying Squirrels	4
Interns and Grad Students	6
Bluebird Season Update	8

Board of Directors

Susan Garretson Friedman
President

Karen English
Vice-President

Laura Nally
Secretary

Laurel Gould
Treasurer

John Breault

Jen Dawson

Rich Dufort

Joyce Payeur

Judy Schmidt

Elaine Seckler

Dorothy Smullen

Kathy Woodward

Jonathan Rosenberg
GSNWR Liaison

Laurel Gould
Editor

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



Printed on recycled
paper

WOOD TURTLE HEAD-START PROGRAM—ANOTHER SUCCESSFUL YEAR

By Laurel Gould

The turtles are gone! In mid-September, 28 wood turtle hatchlings were driven up to Massachusetts to spend the winter in the care of high school students at Bristol County Agricultural High School in Dighton, Massachusetts. They will be tended, fed, and monitored all winter long as this exciting head-start turtle research program, funded by Friends of Great Swamp, continues for a third year. On September 14, the Friends received an update on the program from Dr. Kurt Buhlmann, Refuge biologist Colin Osborn, and summer biology intern Alyssa Frediani. According to the team, the research results are very promising, the program is progressing well, and the Refuge is keen to continue this research in 2014. Here are some of the program highlights provided by Kurt Buhlmann.



Kurt introduces Great Swamp head-start turtles to Bristol High School students.



Turtles settling in at their winter home in Massachusetts.

HIGHLIGHTS OF THE 2013 HEAD-START PROGRAM

Five wood turtle nests were successfully protected this past June. Four of the nests hatched for a total of 34 hatchlings, comprising the 2013 group of head-start turtles.

Twenty-eight of the 34 hatchlings were driven to the Bristol County Agricultural High School on September 17 by Kurt Buhlmann, Colin Osborn, and Alyssa Frediani. These head-start turtles will spend the winter in the care of the high school students.

While they were at the high school, the team had an opportunity to give a talk to the sophomore science class. Science teacher Brian Bastarache is managing the students and the turtles for the next nine months, until they return to Great Swamp next spring.

The other six hatchlings from the 2013 group were released at the Refuge (direct release as compared to head-started). Three of the six have tiny bat transmitters on them that will only last a few weeks, but will provide some insights into where these tiny hatchlings go during their first few weeks of life in the big world.

More photos and further head-start updates on page 9

14TH ANNUAL FALL FESTIVAL—SEPTEMBER 7, 2013—A GOOD TIME WAS HAD BY ALL



Photo: Myra Henry



Photo: Larry West

- Clockwise from upper left*
- ♦ The Blue Goose (aka staff member Jerfelis Pimentel) with young admirer.
 - ♦ A total of 577 visitors enjoyed the Festival.
 - ♦ Budding archer, compliments of NJ Division of Fish and Wildlife.
 - ♦ A few of the 80+ volunteers who made the day!
 - ♦ Dave Miller brought out the Refuge heavy equipment for the enjoyment of young riders.
 - ♦ The theme was "Celebrating Pollinators" and Girl Scout Gold Award candidate Michaela Pesce shows off her "insect hotel" project with staff member Dave Sagan.



Photo: Myra Henry



Photo: Peter Osborn

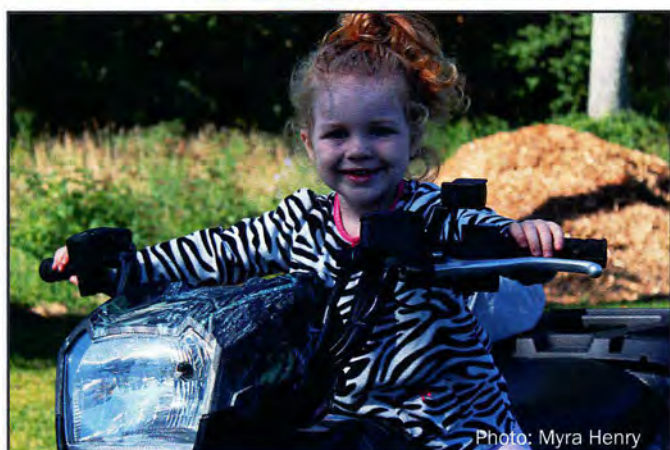


Photo: Myra Henry



Photo: Jim Mulvey

FRIENDS 2013 PHOTO CONTEST WINNERS ANNOUNCED AT FALL FESTIVAL FOR THE SECOND YEAR IN A ROW—THE FOXES TAKE FIRST PLACE!



The winners of the 2013 Friends of Great Swamp Photo Contest were announced on September 7 at the annual Fall Festival. Awards were presented by our judges: Jim Gilbert, professional wildlife photographer, and Dave Sagan, Refuge Visitor Services Specialist. Winners received gift certificates to the Friends' Nature Shop.

Last year, a yawning fox kit photographed by Jim Mulvey won first place in the Wildlife Category. This year, a fox kit lying on the ground (as was the photographer!) won Best of Youth for Ashleigh Scully.

More than 150 entries were submitted by 34 photographers. Winning photographs are on display

at the Visitor Center and are posted on the Friends web site. In the Visitor Center Library you can enjoy a slide show which includes all of the photos entered in the contest.



THE 2014 PHOTO CONTEST HAS BEGUN!

Entry forms will be available at the Visitor Center, Refuge Headquarters, and on the Friends web site. The rules are basically the same but the "People and Recreation" category has been replaced with a new category—"Wilderness Area." This new category helps focus attention on the 50th anniversary of the signing of the Wilderness Act next year. The Great Swamp Wilderness Area was the first designated wilderness area in the Department of the Interior. Photos in this category may contain any subject, but must be taken within the Great Swamp Wilderness Area.



The Friends have been sponsoring the photo contest for many years and we now have an incredible resource of 800+ fabulous photos of the Refuge. These pictures have been a treasure trove for Friends and staff. They have been used locally and nationally in displays, exhibit panels, publications, calendars, and at the Visitor Center. Thank you photographers! And a special thank you to volunteer Ray Lord who works behind the scenes to organize the photos for judging, catalogs and maintains the photo library, and creates the DVD slide shows that our visitors, volunteers, and staff enjoy.

FRIENDS 2013 PHOTO CONTEST WINNERS

Youth: Best of Youth—Ashleigh Scully.

Birds: 1st Place—Chuck Hantis (Flicker); 2nd Place—Robert Lin; 3rd Place—Jim Mulvey.

Wildlife: 1st Place—Jim Mulvey (Click beetle); 2nd Place—Margaret Whiting; 3rd Place—Kevin Ladny.

Plants: 1st Place—James T. Yardley (Chicory); 2nd Place—Judi DiMaio; 3rd Place—Judy Gorab

Landscape: 1st Place—Richard Harris (Sunrise and Geese); 2nd Place—Lauren Lozowski; 3rd Place—Larry West.

People and Recreation: 1st Place—Wendy Moynihan (Enjoying the Boardwalk); 2nd Place—Jim Mulvey; 3rd Place—Elaine Seckler.



THE NOCTURNAL SOUTHERN FLYING SQUIRREL

Story and Photos by Leo Hollein



The southern flying squirrel (*Glaucomys volans*) is a common resident of the Great Swamp National Wildlife Refuge as well as deciduous forests throughout eastern North America. They are members of the squirrel family but are seldom seen since they are strictly nocturnal. On the Refuge, they occasionally nest and roost in bluebird boxes, but are found more often in wood duck boxes that are located inside the tree line. Flying squirrels can glide from the trees to many of the duck boxes. Bluebird boxes are typically located on posts in open areas and are difficult for flying squirrels to access.



Exiting wood duck box

In the winter, flying squirrels are known to congregate to keep warm. A group of six squirrels was found this past winter during the inspection and cleaning of a wood duck box. It was fascinating to watch while one by one they exited the entrance hole and glided to a nearby tree. In suburban areas, bird boxes attached to trees or holes in attics are attractive to flying squirrels. I have a box attached to a white pine in my yard which has been used as a nest by these squirrels for the last few years.

Flying squirrels have large eyes and whiskers. Both are very useful adaptations for their nocturnal life style. They are about the same size and weight as the eastern chipmunk (*Tamias striatus*). They have also been called flying mice, which is English translation of their Latin name.

Flying squirrels don't fly but they are excellent gliders. They have soft, light, flat tails and can flatten their bodies into a rectangular shape by extending membranes that stretch from the equivalent of their wrists to their ankles. The tail is used for balance and breaking as they land. They can leap and glide impressive distances, over 100 feet easily.

MANY ANIMALS PREY ON FLYING SQUIRRELS

Southern flying squirrels feed on fruit and nuts from oak, hickory, and beech trees. Large caches of small pin oak acorns, stored by flying squirrels for winter consumption, are found on occasion during the annual inspection and cleaning of wood duck boxes. They also feed on insects, buds, flowers, mushrooms and lichens, carrion, bird eggs and nestlings. Flying squirrels not only prey on birds but are also prey items for birds. Owls, hawks, snakes, raccoons and other predators, including domestic house cats, might include flying squirrels in their diet. Flying squirrel remains are found in wood duck boxes used by eastern screech owls during the winter. The owls do not consume the tail.

Most flying squirrel nests are made of strippable bark. Red cedar, plentiful on the Refuge, is the bark of choice. However, white cedar is used in other locations. As the reintroduced white cedars become established on the Refuge, they could become the preferred nest material as the bark contains insecticidal oils. As shown in the photo below, the adult squirrel can make a covered nest with the strips of bark.



Flying squirrels raise two litters of 2–7 young per year. The young are born without fur and with closed eyes and ears. They are mobile in five weeks. Parents leave their young after nine weeks. Young squirrels become independent after four months. The average range of an adult female is about 15 acres while the male has a larger range of about 40 acres. The ranges of individuals overlap that of others.

At the Visitor Center, there is a model of a flying squirrel. Visitors are amazed to learn that flying squirrels are actually fairly common on the Refuge. Since they are exclusively nocturnal, actual sightings are rare. Autumn nights are the best for observing flying squirrels because they are busy gathering food for winter.



NOT JUST FOR HUNTERS!

DUCK STAMPS ARE FOR BIRDERS TOO! ... and conservationists, hikers, wildlife enthusiasts, wildlife photographers, families who enjoy the outdoors ... and for everyone who appreciates our natural world ... by Laurel Gould

Have you purchased your 2013 Duck Stamp yet?
No?
Well, why not?

If you are interested in nature, in getting children outside, in the Great Swamp National Wildlife Refuge and other refuges, in the future of our natural world, then you should buy a duck stamp—or two—to support this vital conservation initiative. Buy one for a friend or for family. Get a budding naturalist started on a new hobby—collecting duck stamps. Duck stamp dollars buy land for refuges. You'll never spend a better 15 bucks.

The Duck Stamp is one of the most successful conservation programs in history. Since its inception in 1934, the stamp has generated more than 800 million dollars, which has been used to purchase or lease more than 6 million acres of prime habitat—an area larger than New Jersey. Your investment is put to good use; ninety-eight cents of every dollar is used for land acquisition or leasing.

Throughout the first four decades of its existence, the Duck Stamp was known as the “Migratory Bird Hunting Stamp.” It was, and still is, a required purchase for waterfowl hunters throughout the U.S. Over the years, the number of hunters has decreased, and inflation and rising land prices have diminished the stamp's ability to purchase and conserve important wildlife habitat. The stamp is now an important investment in conservation for all who are interested in nature. When the 1977 stamp was issued, it was renamed the “Migratory Bird Hunting and Conservation Stamp.” Just those two additional words, but what a huge change. The market for duck stamps now specifically includes non-hunters—birders, wildlife enthusiasts, conservationists, and all who appreciate and enjoy nature—*isn't that you?*

2013 FEDERAL DUCK STAMP WINNER ANNOUNCED

Last month, South Dakota artist Adam Grimm won the 2013 Federal Duck Stamp Art Contest. Grimm's oil painting of a canvasback pair, selected from over 200 entries, will be made into the 2014-15 Federal Duck Stamp, which will go on

sale in June 2014. This is Grimm's second Federal Duck Stamp Contest win. His art previously appeared on the 2000-2001 Federal Duck Stamp.



Adam Grimm, of Burbank, S.D., won the 2013 Federal Duck Stamp Art Contest with his oil painting of a pair of canvasbacks

The current duck stamp serves as an entry pass at any national wildlife refuge that charges an entry fee. Of course there is no entry fee at Great Swamp National Wildlife Refuge—you can visit as often as you want without charge—freely enjoying the benefits of the Duck Stamp program.

So, even though you don't need a duck stamp to visit and enjoy Great Swamp National Wildlife Refuge, purchase one anyway—to help conserve and protect wetland habitats in the National Wildlife Refuge System for the benefit of wildlife and the enjoyment of people.

Don't wait! Buy your duck stamp today. Stamps cost \$15. Buy yours at the Friends' Nature Shop or at Refuge Headquarters; they are also available at many post offices. For more information about the Federal Duck Stamp program, check out the official web site [www.fws.gov/duckstamps].



*The wind that makes music in November corn is in a hurry.
The stalks hum, the loose husks whisk skyward in half-playing swirls, and the
wind hurries on...*

A tree tries to argue, bare limbs waving, but there is no detaining the wind.

—Aldo Leopold

2013 SUMMER INTERNS FUNDED BY FRIENDS AND MUSHETT FAMILY FOUNDATION

It was a busy summer at Great Swamp National Wildlife Refuge with four interns and three graduate students. Thanks to the Mushett Family Foundation for sponsoring an intern for the 10th year and the Friends again sponsored a biology intern, also for a 10th year.

New this year were two habitat restoration interns, part of an overall Friends' sponsored project to plant native plants to replace the invasive species that have been the focus of volunteer work days for the past few years. The Friends are delighted with the results from this first year of the habitat restoration project.

In addition, the Friends provided funding for research grants to two graduate students from Frostburg State University in Maryland. As part of an overall effort to assess the impoundment areas on the refuge, these two-year projects will provide valuable scientific data on which to make future decisions about impoundment management. Here's what the interns and graduate students had to say about their summer experiences at Great Swamp.

Waking up in late June, I realized my time at the Great Swamp National Wildlife Refuge was flying by. I am so thankful to the Mushett Foundation for providing this wonderful opportunity to work here. My fun times this summer were spent tracking turtles and bird banding. Turtle radio tracking is great because you are guaranteed to find an adorable little turtle. One time the search for a couple of the head-start wood turtles led me to finding a tiny spotted turtle.

Banding doves, geese, and ducks was always remarkable because of how fragile but strong the birds are. From wrestling geese to holding ducks like babies, I enjoyed bird banding so much. Working mainly on refuge maintenance, I have helped make the refuge a more beautiful place by painting gates, weed trimming, and carpentry work. I have enjoyed doing so many other things including invasive plant removal, checking bat boxes, and assisting the conservation officer, contaminants biologist, and visitor center staff. I am from the suburbs of Atlanta, Georgia and graduated from Berry College with an environmental science bachelor's degree. I hope to go to graduate school for herpetology and work on the conservation of reptile and amphibian species.

Nate Schwartz, General Intern

Sponsored by Mushett Family Foundation

As a biological intern this summer, I have gained so many valuable skills that I know will serve me well in the future. This internship was more rewarding and exciting than I had hoped. I was able to participate in a variety of conservation and habitat restoration projects.

My main work involved radio tracking head-started wood turtles from 2011 and 2012, tracking bog turtles, and nest protection for both species. I was thrilled to be able to be a part



Interns and Graduate Students (left to right): Nathan Schwartz, Megan Spindler, Alyssa Frediani, Christina Straway, Becca Hiller, Melissa Gallo, Casey Wagnon

of these projects; most people do not even have the opportunity to see wood or bog turtles and I got to interact with them regularly. In addition to the turtle work, I was also able to gain bird banding experience by working with doves, ducks, and geese. I got my first taste of bat research helping one of the graduate students monitor her bat boxes. I also participated in various habitat restoration projects and invasive species removal tasks.

Even though I have lived in New Jersey my whole life, I had never visited the swamp, and I'm so glad I got to spend this summer exploring this amazing place. I will definitely be returning throughout the coming year to visit and volunteer whenever I can.

Alyssa Frediani—Biology Intern

Sponsored by Friends of Great Swamp NWR

INTERNS *(continued from page 6)*

From the start of this internship I knew I was at the right place at the right time. Working with the U.S. Fish and Wildlife Service has been one of the best experiences. I got to work with some amazing people, helping the grad students and other interns with their projects and also working on my own projects.

The main project I got to work on was removing invasive plant species and planning a spring planting project for the Overlook site on Pleasant Plains Road. I was a part of putting together an herbarium and mapping phragmites with a Trimble unit. I got to work side by side with some great volunteers during the Invasive Species Control Work Days and Strike Team work days. I also got to help with Canada geese banding, duck banding, and took a fun field trip to Duke Farms.

Overall, the time I spent at Great Swamp has had an impact on me and I want to thank the Friends group for funding my internship and everyone else who works at Great Swamp. My future plans are to get my bachelors degree in wildlife management from the State University at SUNY Cobleskill and continue working with the U.S. Fish and Wildlife Service.

*Christina Straway, Habitat Restoration Intern
Sponsored by Friends of Great Swamp NWR*

The first thought that crossed my mind as I entered Great Swamp was, "Am I really only 26 miles west of Times Square?" It didn't seem possible; everything was so green and lush, teeming with wildlife. I grew up in

Maryland and currently attend Frostburg State University, where I am studying Wildlife Biology with minors in Ethnobotany, Animal Behavior, Forestry, and Biology. This summer at Great Swamp was my first internship, and it was an amazing experience.

As habitat restoration interns, my partner Christina and I had the goal of creating and implementing a restoration plan for a specific site on the Refuge. We focused our efforts on the Overlook area, leading invasive removal work days, spending hours researching and analyzing native plants, and planning future work on the site. In addition to this, we've participated in other restoration projects, planting native shrubs along trails and monitoring previous plantings, participating in and even leading Strike Team and Invasive Species Control Work Days, mapping phragmites with GIS, and collecting and pressing plants to expand the refuge herbarium.

In addition to this habitat restoration work, I've also had the chance to work on other projects around the refuge. I've tracked turtles, helped grad students with bird point counts, conducted active acoustic surveys of bats at night, and even banded wood ducks and Canada geese.

I would like to thank the Friends group for funding my internship. This summer has been an amazing experience and I've learned so much!

*Becca Hiller, Habitat Restoration Intern
Sponsored by Friends of Great Swamp NWR*

First and foremost, I would like to say what a fantastic summer this has been. This entire field season, I have been captivated by the sheer magnitude of wildlife and beauty that this Refuge has to offer, and I can't thank the Refuge staff and the Friends of Great Swamp enough for this wonderful opportunity.

Over the summer I have been collecting data on medium to small sized mammalian predators (meso-carnivores) at, and around, the five impoundments. This data has encompassed a remote camera survey and weekly scat collections. The overall objectives of this research were to gain insight into the degree of waterfowl predation, distribution and occurrence of meso-carnivores, and to test four novel techniques for monitoring predator populations.

Throughout the summer I have collected images of more than 3,000 target and non-target species and have accumulated over 200 meso-carnivore scat samples.

From this year's data I have seen some patterns emerge. 1.) About 10 % of scats collected did have avian feathers present, and 90% of those were from red fox.

2.) The impoundments pools 3B and 2 have been the most diverse and active areas for carnivore activity.

3.) Raccoons, opossum, and red fox are the most abundant meso-carnivores around all five impoundments and skunk, mink, coyote, and otter were found in low to moderate abundance.

Over the fall and winter I will begin the initial stages of analyzing this year's data and will begin to form a more complete assessment of the distribution, occurrence, and ecology of meso-carnivores at, and around, the impoundments. Beginning next spring I will continue the remote camera survey and weekly scat collections and will combine that data with this summer's data to form a robust assessment of the meso-carnivore complex.

I look forward to next summer's field season and another great experience.

*Casey Wagon, Graduate Student
Research Funded by Friends of Great Swamp NWR*

(continued on page 10)

BLUEBIRDS RAISE ORPHAN HATCHLINGS

Story and photos by Leo Hollein

The colder than usual average temperatures in March (37.1 versus 40.9 °F) and April (50.4 versus 52.3 °F) delayed the start of bluebird nesting and negatively impacted bluebird productivity for the season. The average temperatures in both March and April were the lowest levels in the last six years. The very high rainfall total (9.33 inches) in June produced a bumper crop of flying insects that helped tree swallow productivity.

During the 2013 season, 140 boxes were monitored. These nest boxes had a total of 149 nestings (nests with eggs).

SPECIES	NESTINGS	FLEDGLINGS
Bluebirds	63	217
Tree Swallows	82	280
House Wrens	1	6
House Sparrows	3	0
TOTAL	149	503

NOTABLE EVENTS DURING THE SEASON

- Five very young orphan bluebird hatchlings from The Raptor Trust were successfully raised in our bluebird boxes.
- A number of unusual bluebird nests – white eggs, a “dwarf” egg, and a record number of clutches with 6 eggs.
- Black bears pulled down five song bird nest boxes. One clutch was rescued from a nest box knocked down by a bear.

BLUEBIRDS ARE EXCELLENT FOSTER PARENTS

In June, The Raptor Trust received several clutches of very young bluebird hatchlings. Their parents were killed by predators. One clutch was a day or so old; the other was about three days old. These hatchlings required brooding as they were too small and naked to control their own body temperature. Feeding these tiny chicks would be challenging. The Raptor Trust did not believe they could raise them. They suggested the young be placed in



Hatchling less than a day old

Refuge bluebird nest boxes. Five hatchlings were put into four boxes that had young hatchlings, or eggs about to hatch. All five orphan hatchlings survived and fledged. The adult bluebirds either did not know they were orphans or are willing to raise any hatchlings in their nest. Three orphans that remained with Raptor Trust did not survive.

The nests with orphans were visited weekly. There were several interesting observations. Although the orphans were originally a little larger or smaller than the host hatchlings, all the chicks seemed to be the same size after a week or so. Evidently the parents distribute the food to keep all their young at a similar size. Two-day old hatchlings were placed in a nest with five eggs about to hatch. The parents not only fed the orphans but continued to brood their eggs until all hatched. Although the two orphans were noticeably bigger at the first post-introduction visit, all appeared the same size on the second visit. The parents successfully fledged seven young.



UNUSUAL BLUEBIRD CLUTCHES IN 2013
The photo (left) shows a clutch of bluebird eggs. Two are normal sized while the other is about a third of normal size and rounder. The smaller egg is

malformed and did not hatch. This type of egg is called a “dwarf” egg. It does not contain an egg yolk. This nest was abandoned by its parents. This is the first bluebird “dwarf” egg observed in over 700 bluebird nestings at Great Swamp.

Both white bluebird eggs and six-egg clutches were observed this season. These are not as rare as dwarf eggs, but are infrequent enough to be noted. Both clutches of white eggs were laid by the same bluebird pair. The six-egg clutches were laid by separate bluebird pairs. The previous high for six-egg clutches in a season was three in 2007. The two coolest Aprils at the Refuge in the last ten years were 2007 and 2013. This could explain the larger number of clutches with six eggs, as bluebirds lay larger clutches in cooler weather.

BLACK BEARS ACTIVE EARLY IN THE SEASON

Black bears took down five bluebird boxes in May and early June. It seemed as if they would easily exceed the record number of seven boxes taken down during the 2012 season. However, the predation stopped and no boxes were touched after June 6.

Four of the five boxes predated by bears had nesting tree swallows. One of the boxes was knocked down but the nest and hatchlings were not harmed. Fortunately Lou Pisane was monitoring his boxes shortly after the incident and he restored the nest box to an upright position. The tree swallows resumed feeding their young and four hatchlings eventually fledged.

Many thanks to Jennifer Dawson, Nancy Felicito and Lou Pisane who monitored nest boxes and reported their findings on a weekly basis during the 2013 nesting season. Thanks to the volunteer group for their help in maintaining and modifying the nest box trail during the off season. Thanks to Paul Ford for building new boxes and repairing others for the trail.

—Leo Hollein



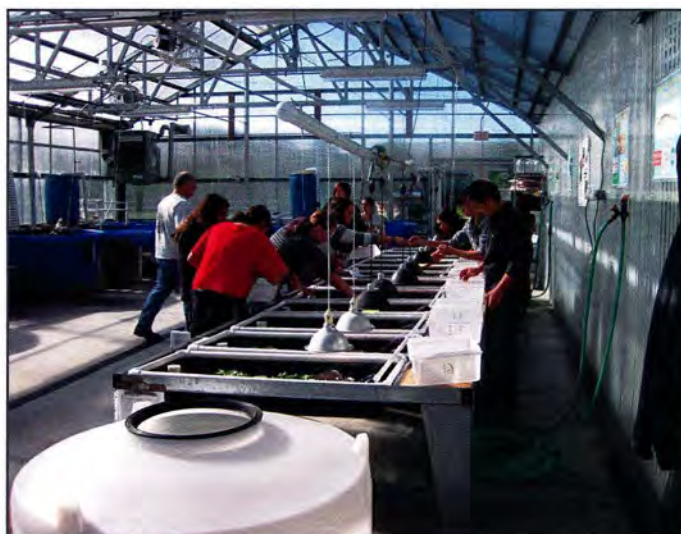
HEAD-START UPDATE *(Update information and photos provided by Kurt Buhlmann), (continued from page 1)*

2011 WOOD TURTLE HATCHLINGS UPDATE: The 2011 hatchling group, which were head-started September 2011–May 2012 and released back at Great Swamp in May 2012, continue to do well. We are in radio contact with nine of the original 22, but only confirmed four mortalities. They are doing the things we think they should be doing—setting up home ranges, using the habitat on the Refuge we think they should be in, Growing!!—substantially, actually. They successfully overwintered last year, and even went to the same areas in the stream with resident adult wood turtles.

2012 WOOD TURTLE HATCHLINGS UPDATE: Alyssa has been also tracking a subset of the 24 hatchlings that were head-started September 2012–May 2013, and released back at the Refuge this past May 2013. Of the 24, we released 18 without radios, but tracked six with radios. All six are alive and have set up home ranges and are doing well. As of October 1, three had moved to a grassy rivulet near where they were released.



The Team (left to right) Alyssa Frediani, Colin Osborn, Dr. Kurt Buhlmann, science teachers Aaron Caswell, Brian Bastarache



View of the tanks in the greenhouse at Bristol County Agricultural High School (Massachusetts).



Students measure head-start turtles—part of the ongoing monitoring that takes place during the winter months.



Close up view of the tanks in the greenhouse. Note lights above and filters.

INTERNS AND GRAD STUDENTS *(continued from page 7)*

As I write this article, I cannot help but think about how fast this summer has gone by, and what a busy summer it has been! With the collaboration and help of the Great Swamp staff, Friends group, interns/grad students, and Frostburg State University, I have been able to conduct the first of two field seasons of research for the waterfowl study funded by the Friends of Great Swamp NWR. Once data collection is completed, we hope to have a better understanding of how breeding waterfowl are using the impoundments and other habitats here at Great Swamp, information that will assist in guiding management decisions.

This summer's research has consisted of point counts along the impoundment perimeters, habitat surveys, brood observations, and analysis of data collected from wood duck nesting boxes over the years. Data from 69 point counts and 53 brood sightings were collected. Wood ducks, mallards, and hooded mergansers were all seen on the refuge with broods this summer. Wood ducks were observed most often. Further information will be available as data processing continues.

Next spring and summer I will continue the projects started this summer and begin radio tracking waterfowl to get more accurate and precise information on habitat preferences. Until then I will be at Frostburg State University working on my master's degree.

I would like to extend a whole-hearted "thank you" to everyone who has made me feel welcome here at Great Swamp. I could not have asked for a better group of people to work with this summer.

Megan Spindler, Graduate Student
Research Funded by Friends of Great Swamp NWR

WE'RE CALLING IT "50-50-15"

In 2014, the Refuge and the Friends will be celebrating!

The first "50" celebrates the 50th anniversary of the signing of the Wilderness Act.

The second "50" commemorates the Dedication of Great Swamp National Wildlife Refuge. And... the Friends, established in 1999, are 15!



We'll kick off the celebration at the Friends Annual Member Meeting on December 7, 2013 with special guest speaker, Deputy Refuge Manager, Steve Henry.

Watch for more information and lots of special events, programs, and celebrations all year!

GREENHOUSE CHAMPION NEEDED!

Do you love plants? Do you want to enhance the Refuge and help our planet?

The Refuge is looking for a volunteer(s) to spearhead the raising of native plants in the greenhouse located at the Helen C. Fenske Visitor Center.

The project would begin in late winter and continue through spring. Plants will be used in habitat restoration projects.

The Friends will recruit volunteer "workers" to assist. For more information, or to volunteer, contact

Karen English
[<info@friendsofgreatswamp.org>](mailto:info@friendsofgreatswamp.org)

IRA CHARITABLE ROLLOVER EXTENDED THROUGH 2013

The American Taxpayer Relief Act of 2012 extended the IRA charitable rollover.

If you are age 70 1/2 and over and must take an IRA distribution, you can direct a qualified distribution, up to \$100,000, directly to Friends of Great Swamp National Wildlife Refuge. The amount counts toward your required minimum distribution.

No federal income tax is due on the distribution, making the IRA charitable rollover a tax-wise way to give.

For more information, please contact Laurel Gould
[<info@friendsofgreatswamp.org>](mailto:info@friendsofgreatswamp.org)

HOLIDAY GIFT MEMBERSHIPS AVAILABLE

This holiday season, consider giving a membership to Friends of Great Swamp National Wildlife Refuge.

For a gift membership, at any level, we'll send a personalized gift packet.

Members receive the Swamp Scene newsletter, monthly event postcards, and a 10 percent discount in the Friends' Nature Shop.

Just fill out the gift membership form on the next page. We can send the gift packet to you, or directly to the recipient; specify which you prefer.

What a great idea for a lasting and memorable holiday gift!

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

ANNUAL MEMBERSHIP APPLICATION

☐ EASTERN BLUEBIRD—\$15-\$49

☐ PAINTED TURTLE—\$50—\$99

☐ RIVER OTTER—\$100—\$249

☐ MONARCH BUTTERFLY—\$250—\$499

☐ WOOD DUCK—\$500 +

☐ New Member?

TOTAL ENCLOSED \$ _____

You may also join online at www.friendsofgreatswamp.org

Name _____

Address _____

City _____ State, Zip Code _____

Phone Number _____

E-Mail Address _____

Gift Membership From: _____

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

We need more Friends ...

Become a Friend Today—or,
Give a gift membership to a friend.

Thank you

Memberships help support the projects and programs at Great Swamp National Wildlife Refuge.

Membership Benefits

- The Swamp Scene Newsletter.
- A 10% discount in Friends Nature Shop .
- Notifications of upcoming events.
- Satisfaction in knowing you are helping protect wildlife and wild places while safeguarding a national treasure for future generations.

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



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



Friends of Great Swamp
National Wildlife Refuge

THE SWAMP SCENE NOVEMBER 2013

Friends of Great Swamp National Wildlife Refuge
Is an independent, volunteer, non-profit organization
dedicated to

Promoting stewardship of the natural resources of the Refuge,
Inspiring an appreciation of nature through education and outreach,
Engaging in partnership activities that support and enhance the Great Swamp National
Wildlife Refuge and the National Wildlife Refuge System.