



# the Swamp Scene

friends of great swamp national wildlife refuge

ISSUE FIFTY-THREE  
MARCH 2017

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## GREAT THICKET NATIONAL WILDLIFE REFUGE—IT'S OFFICIAL

By Kathy Woodward, Friends President; Photo credits: USFWS



Federal, state and local officials gathered on January 18, 2017 in Dover Plains, New York to celebrate acquisition of the 144-acre Nellie Hill Preserve, the first unit of Great Thicket National Wildlife Refuge—the 566th national wildlife refuge. The refuge aims eventually to conserve and manage up to 15,000 acres of shrubland and young forests in 10 target areas of six states: New York, Connecticut, Maine, Massachusetts, New Hampshire and Rhode Island.

This first unit of the new refuge will be managed as part of the Refuge Complex that also includes Great Swamp, Wallkill River, Cherry Valley (PA), and Shawangunk Grasslands (NY) National Wildlife Refuges.

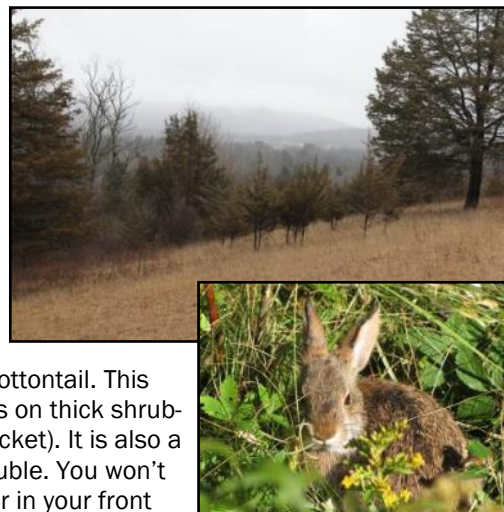
Nellie Hill Preserve, donated to U.S. Fish and Wildlife Service by The Nature Conservancy, is a unique property with varying habitats that attract migrating birds and other wildlife. From the rocky summit of a 120-foot cliff, trails provide views of grasslands, sloping meadows, oak forests, and limestone woodlands. Five springs and two ponds provide a water source for wildlife throughout the year.

So why shrub lands and why the Northeast region? "There is one species that epitomizes the answers to these questions: the New England cottontail. This furry critter is one of many species that depends on thick shrub-by habitat to survive (hence the name Great Thicket). It is also a species whose dispersed populations are in trouble. You won't find the New England cottontail munching clover in your front lawn, like the more common Eastern cottontail. They like it thick," said Joe McCauley, Regional Representative, Northeast Region.

Habitat for the New England cottontail is in short supply, to the point where it was a candidate for listing as a threatened species under the Endangered Species Act. The collective effort by six states and the Service to manage additional land in a shrub-land state was the primary reason the decision was made not to list the species.

While the New England cottontail is a prime beneficiary, the refuge will also provide habitat for monarch butterfly, ruffed grouse, golden-winged warbler, box turtles, spotted turtles, whippoorwill, blue-winged warbler and Hessel's hairstreak butterfly.

Mike Horne, Complex manager, and refuge staff are eager for Friends to visit this newest unit, a two-hour drive north of Great Swamp NWR.



## THE GREAT(EST) BACKYARD BIRD COUNT, FEBRUARY 17–19, 2017

By Laurel Gould, Volunteer; Photos by Walter Willwerth and Robert Lin

**T**he Great Backyard Bird Count is an annual, international event where people around the world count birds to create a snapshot of bird distributions and populations in order to determine trends and track important changes over time. The Friends have long participated in this event but this year was the best ever.

### FIRST: THE WEATHER

It was tee-shirt weather, which may have kept the bird numbers low, but visitors came out in great numbers—we welcomed over 400 people to the Visitor Center.



### SECOND: THE GOURDS

Thanks to master gourd grower, Walter Willwerth, we offered a new activity for visitors. Walter donated 25 gourds that he had grown and Bonnie O'Connor, Friends volunteer and artist, worked with the visitors to create beautifully decorated nest gourds.

### THIRD: PINE CONE BIRD FEEDERS

Thanks to volunteer naturalist Dorothy Smullen, kids smeared pine cones with a suet-seed mixture to create a hanging bird feeder for woodpeckers and nut-hatches. Dorothy also presented a slide show on identifying common winter birds—great preparation for the daily guided bird walks.

### FOURTH: THE VOLUNTEERS

Dozens of volunteers assisted with the many activities that were offered. They also counted birds at the feeders, they helped kids play Bird Bingo and gave out the prizes, they led daily bird walks ... and they reported all of the sightings to the Cornell Lab of Ornithology.

### FIFTH: THE EAGLES

So much of what you see and experience at Great Swamp NWR is good luck—being in the right place, at the right time. Sunday's bird walk was a perfect example.

The group walked from the Visitor Center to the Overlook, counting birds along the way. At the Overlook, binoculars scanned the horizon for raptors. All of a sudden, two immature bald eagles were sighted. While everyone watched, they suddenly locked talons, spiraled down toward the ground, then—in a flash—separated and were gone.

Thanks to photographer Robert Lin who somehow managed to get some photos of the experience. Thanks too to volunteer Kevin Murphy who remembered a Walt Whitman poem called

*The Dalliance of the Eagles*. He pulled the poem up on his phone and read it out loud to the group, still standing at the Overlook. It perfectly described the magical moment we had all just experienced.



Photo by Robert Lin

### THE DALLIANCE OF THE EAGLES

By Walt Whitman

Skirting the river road, (my forenoon walk, my rest,)
 Skyward in the air a sudden muffled sound, the dalliance of the eagles,
 The rushing amorous contact high in space together,
 The clinching interlocking claws, a living, fierce, gyrating wheel,
 Four beating wings, two beaks, a swirling mass tight grappling,
 In tumbling turning clustering loops, straight downward falling,
 Till o'er the river pois'd, the twain yet one, a moment's lull,
 A motionless still balance in the air, then parting, talons loosing,
 Upward again on slow-firm pinions slanting, their separate diverse flight,
 She hers, he his, pursuing.



## PUT YOUR STAMP ON CONSERVATION—BUY A DUCK STAMP



Federal Duck Stamps buy land for national wildlife refuges. Since 1934, \$800 million dollars in proceeds from Duck Stamp sales have helped acquire and protect more than 6 million acres of wetlands within the Refuge System—including 2,808 acres at Great Swamp—31% of the total refuge. Dollar for dollar, this is the best investment you can make in the future of America's wetlands.

Duck stamps are not just for hunters. **Everyone** who enjoys birding, hiking, photography—or just finding peace and renewal at a national wildlife refuge should be supporting this incredibly successful program. The stamp also serves as an entry pass to any national wildlife refuge that charges a fee. We all know, there is no fee at Great Swamp National

Wildlife Refuge. But wouldn't it be something if the hundreds of regular visitors to Great Swamp NWR purchased just one duck stamp—an annual \$25 donation to help all refuges nationwide.

Each year, the U.S. Fish and Wildlife Service holds an annual wildlife art competition to select an image for the next Federal Duck Stamp. This year's winner is Jim Hautman—a fifth win for this Minnesota artist. These Canada geese will be made into the 2017-2018 Federal Duck Stamp, which will go on sale in late June 2017. Federal Duck Stamps are sold at the Helen C. Fenske Visitor Center. Buy a duck stamp today and support *your* national wildlife refuge.



### SAVING THE GREAT SWAMP

Following two successful showings, this documentary may next be seen on public television. By December, we anticipate that copies will be available on DVD. Stay tuned!

*Correction and apologies from our article in the December 2016 Swamp Scene. The co-producer is Larry Fast.*

### INTERNATIONAL MIGRATORY BIRD DAY

Join our celebration of the importance of stopover sites and their habitats for migrating birds.

Sunday, May 14, 2017

Program on bluebirds, Mother's Day bird walks, Fun activities for kids, Free posters.

### DO YOU LIKE WORKING OUTDOORS? DO YOU WANT TO MAKE A DIFFERENCE? JOIN US AND VOLUNTEER

#### VOLUNTEER ORIENTATION

Learn about the many volunteer opportunities.  
April 1, May 7, June 10

#### GREAT SWAMP STRIKE TEAM

Help eradicate emerging invasive plant species.  
1st and 3rd Fridays, April–October

#### THURSDAY INVASIVE PLANT CONTROL TEAM

Help control invasive plant species around the  
Visitor Center and on Refuge trails.  
2nd & 4th Thursdays, May–September

#### GARDENKEEPERS

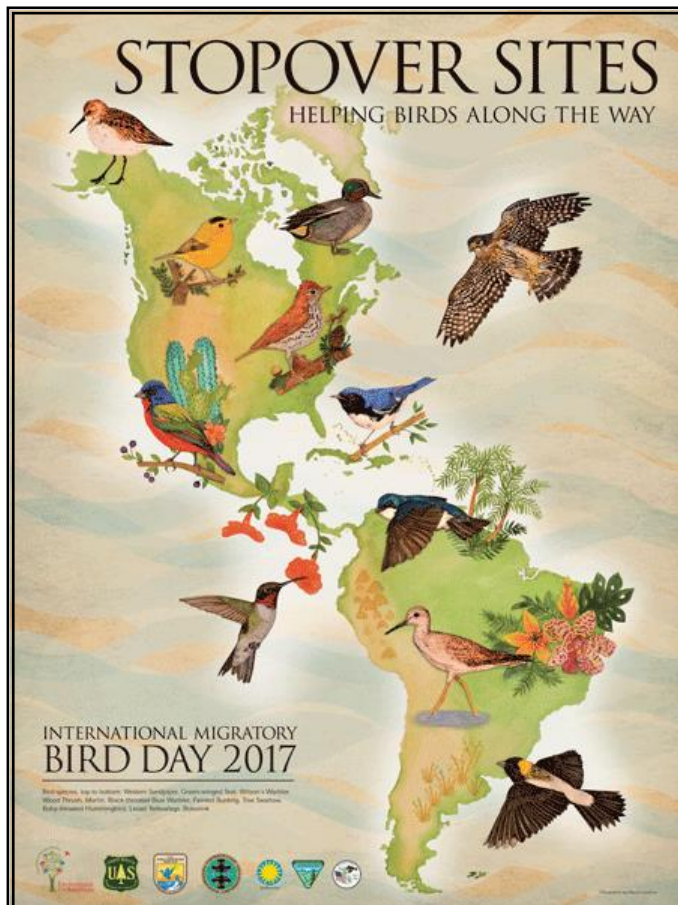
Help maintain native plant gardens at the Visitor Center.  
Weed, plant, mulch ... and more!  
Beginning April 1

Come to one, many, or all of the work days.

Reservations are not necessary.

Check the **Calendar of Events** on the Friends website for location, times, and more details.

*Join us and make a difference!*



## OPOSSUMS ARE COMMON, BUT RARELY SEEN

By Leo Hollein, GSNWR Volunteer

The Virginia opossum (*Didelphis virginiana*) is the only marsupial (pouched mammal) found in the United States. Opossums are common in the refuge. They were the third most common predator photographed by trail cameras during Casey Wagnon's study of predators. Only raccoons and red foxes were photographed more frequently. Opossums are primarily nocturnal and are seldom seen.

I have observed opossums a few times in the refuge. One encounter is shown below. The opossum was active on a winter day. When approached, it quickly assumed its namesake activity by playing possum (lying on the ground faking death with mouth open and eyes closed). This is actually an involuntary



Opossum playing 'possum

action. Opossums faint and play dead in response to extreme stress. This may cause larger predators to lose interest. An opossum playing possum will regain consciousness in a half hour or longer.

The fur of their face tends to be lighter than the rest of their body. Typically it is pale grayish-white. The photo confirms that possums are active in the winter. Their ears and tails are bare and can suffer frost bite. Their long prehensile tail is useful in climbing. Opossums are excellent tree climbers and spend much of their time aloft. They nest in tree holes, brush piles or in dens made by other animals.

Another encounter is shown at right. This opossum was trapped in a



have-a-heart trap used to capture raccoons that consume bait corn and harass waterfowl at the duck trapping site in the summer. Opossums are rarely trapped. None have been reported since opossums were trapped six times in 2005. All the trapped opossums were released in the refuge. The trap is baited with canned cat food. Opossums are omnivores and eat both plants and animals. While opossums hunt birds, snakes, worms and insects, they are also scavengers that seek carrion and discarded food.

As do other marsupials, a female opossum gives birth to tiny helpless young after a short gestation period. These babies try immediately to crawl into the mother's pouch, where they continue to develop. As they get larger, they will go in and out of the pouch and sometimes ride on the mother's back as she hunts for food. Opossums may give birth to as many as 20 babies in a litter, but fewer than half of them survive. Some never make it as far as the pouch.

Virginia opossums are very short lived mammals for their size. In the wild, individuals typically only survive about 1.5 to 2 years. Captive opossums generally survive to be 3 to 4 years old. These cat-sized marsupials are successful in suburban environments because they are small, nocturnal and have many young. There are also fewer predators in suburbs. It is more likely to see an opossum in your yard at night than in the refuge during the day.



Opossum in a have-a-heart trap





## CELEBRATING THE 114TH ANNIVERSARY OF THE NATIONAL WILDLIFE REFUGE SYSTEM

*"We're in the forever business..."*

The Department of the Interior is responsible for the management and conservation of most federal land and natural resources—20% of our nation's lands. This includes national parks, national monuments, and of course national wildlife refuges. On March 1, 2017, Ryan Zinke was sworn in as the 52nd Secretary of the Interior.

"I am honored and humbled to serve Montana and America as Secretary of the Interior," Zinke said. "I shall faithfully uphold Teddy Roosevelt's belief that our treasured public lands are 'for the benefit and enjoyment of the people' and will work tirelessly to ensure our public lands are managed and preserved in a way that benefits all Americans for generations to come. This means responsible natural resource development, increased access for recreation and sportsmen, and conservation that makes the land more valuable for our children's children."

There are 566 national wildlife refuges, at least one in every state. You know many of them. In New Jersey—Wallkill River, Cape May, Forsythe (Brigantine). You may also have visited Blackwater (MD), Chincoteague (VA), or Ding Darling (FL). There are really big refuges out west such as National Elk Refuge (WY), Bosque del Apache (NM), Red Rock Lakes (MT), and of course, Alaska's Arctic National Wildlife Refuge.



Celebrating 114 years! Photo and cake by Laura Scaff (ladidak@hotmail.com)

Refuges are managed by the U.S. Fish and Wildlife Service for all Americans.

On March 12, the Friends celebrated the 114th anniversary of the National Wildlife Refuge System—first established in 1903 by President Theodore Roosevelt. We enjoyed a short movie about the refuge system and a custom-designed blue goose cake, created by LaDiDa Catering Chef Laura Scaff. Then our special guest speaker, Karl Fenske, Helen Fenske's son, told us about life growing up in the swamp when he was a kid—before it was a refuge. He told us how the 1959 Port Authority's announcement of plans to build a 10,000 acre jetport in the swamp changed his mother's life—and had a major impact on his own. He spoke to a full house and the audience, sitting where planes might have been touching down, learned a lot about how one person can make a difference. The baton has been passed to us and we are now the stewards of this refuge for present and future generations.

### FISCAL YEAR 2018 BUDGET

President Trump has released his proposed budget for Fiscal Year 2018, which calls for increases in defense spending and a massive 12 percent cut to the Department of the Interior. A cut this aggressive would devastate the Refuge System and would result in permanent refuge closures, staff layoffs, limited hours of operation for refuges that can remain open, loss of hunting and fishing access, termination of volunteer programs, and declines in essential wildlife management programs, like habitat restoration and invasive species removal.



It's important that everyone communicates with Congress. Let your elected officials know how you feel about refuges and the National Wildlife Refuge System. Here are some useful tools and suggested actions.

### NATIONAL WILDLIFE REFUGE ASSOCIATION

The National Wildlife Refuge Association is an organization that has worked tirelessly on behalf of the System. They provide current information on important issues, or you can sign up for their monthly newsletter and subscribe to Action Alerts. Website: <[www.refugeassociation.org](http://www.refugeassociation.org)>

### MAKE YOUR OPINION KNOWN

Call, email or write your elected representatives to Congress. To find the name of your Congressman, just type in your zip code at this website: <<http://www.house.gov/representatives/find/>>. You can be instantly connected with your members' offices by calling the Capitol Switchboard at (202) 224-3121.

Outgoing Secretary of the Interior, Sally Jewell, left two requests in her January 2017 farewell speech:

1. Don't stop, and
2. Connect with our next generation.

As she often remarked:

*"We're in the forever business."*



## WOOD TURTLE HEAD-START PROJECT—2016 UPDATE

By Colin Osborn, Fish and Wildlife Biologist, and Kurt Buhlmann, Savannah River Ecology Laboratory, University of Georgia



The 2016 season was yet another successful year for the wood turtle head-start project. In late May, all 50 individuals from the 2015 cohort were released back to the site, bringing our grand total of head-started turtles released to date (2011 to 2015 cohorts) to 152!

We chose not to attach transmitters to any of the 2015 cohort turtles because we have been continuously tracking a lot of older head-starts from the first 4 cohorts (2011 to 2014), and feel that maintaining contact with them is of greater importance. We recaptured all of those radioed individuals in late May and early June and re-measured them and replaced their transmitters. Mortality was thankfully low again this year with only 3 confirmed losses (one apiece from the 2011, 2012, and 2013 cohorts). Cause of death was unable to be determined definitively for any of them but predation was suspected. A low rate of loss like this is to be expected though, because even with head-starting, these turtles are still young and vulnerable to larger predators (e.g., raccoons, coyotes, otters, etc.)."

Overall however, our survivorship numbers are excellent. We currently have radios on 22 individuals from the 2011 to 2014 cohorts, which equates to a known survivorship of 22% of the 102 released from those first 4 cohorts. We of course do not radio-track all of the head-starts, but rather a proportion of each cohort and extrapolate survivorship estimates from those radio-tracked to the whole cohort.

The following are our predicted survivorship numbers...

**2011 COHORT:** originally 22 of 22 with radios, and in October 2016 (right before hibernation): 7 of those were known alive. Since we lost radio contact with some of them over the years and presume that at least a few of them are still alive, 7 is the minimum known alive.

**2012 COHORT:** originally 6 of 24 were given radios, and in October 2016: 3 of those were alive = 50%, extrapolation to the 24 originally released, means 12 of them "should" be alive.

**2013 COHORT:** originally 8 of 28 were given radios, and in October 2016: 2 of those were alive = 25%, extrapolation to the 28 originally released, means 7 of them "should" be alive.

**2014 COHORT:** originally 6 of 28 were given radios, and in May 2016: 5 of those were alive = 83%, extrapolation to the 28 originally released, means 23+ of them "should" be alive.

Thus, 7 (2011) + 12 (2012) + 7 (2013) + 23 (2014) "should" be alive based on our radio-tracking of subsets. Total minimum predicted alive = 49 (of the total 102 released [2011-2014 cohorts]) which is 48%.

Based on generous survivorship estimates for wild juveniles, we would expect a maximum of around only 13 of those 102 individuals (13%) to have made it this far had they not been head-started.



Kurt Buhlmann compares the size of the 2014 (left) vs. the 2011 (right) head-starts.

Our own recapture results of head-started versus direct-release individuals show an even greater separation. From fall 2007 to fall 2015, we released a total of 227 direct-release hatchlings. To date, we have only recaptured 3 of them (1.3%). Of the aforementioned 152 total head-starts released to date (2011 to 2015 Cohorts), we documented the existence (recaptured or were actively tracking) 38 of them (25%) in 2016 alone! Those numbers indicate a clear and major survivorship advantage as a result of head-starting.



The 2016 nesting season (late May through June) was not as good as usual but still managed to produce a decent batch of hatchlings.

We protected 6 nests consisting of a total of 41 eggs. Twenty (49%) developed, hatched, and emerged successfully between mid-August to early September. The rest of the eggs failed as five (12%) died in development and sixteen (39%) were infertile. We do suspect that the hot, dry summer caused some mortality of embryos in the eggs.

Of the 20 hatchlings, 1 escaped from the nest cage after it emerged (an “unmarked direct-release”) because a deer stepped on the cage cover corner and broke it. The remaining 19 were all sent up to Bristol County Agricultural High School (BCAHS) in Dighton, MA to be head-started. As of the writing of this article (early March), all 19 are doing great up there. They will return to the refuge and be released back to the site in early June.



2016 hatchlings after emerging from their nest. These and 16 others were sent up to Massachusetts to be head-started.

The most exciting discovery of 2016 was the recapture of 2011 cohort individual #472. Like the rest of its cohort, it was fitted with a radio transmitter in late May 2012 and released at the site. It survived its first season and behaved normally, up until it was time to settle in for hibernation.

Wood turtles hibernate within their home streams/rivers/creeks or occasionally a proximal tributary. But this

individual, despite spending the latter part of the active season right near the stream, traveled over 100m away from it when the evening temperatures began to drop and ended up settling in a man-made pond. So it spent the winter with the painted and snapping turtles down in the muddy bottom.

In early spring 2013, its radio was found shed a few meters from the edge of the pond. This seemed to indicate that it emerged successfully from hibernation but there was also the possibility that it was picked off in the pond by an otter which dragged it out onto the land where the trauma caused the radio to detach. We could only hope to recapture #472 in the future to confirm that it did indeed survive its first winter in this unusual hibernaculum.

Three years later, we got our wish as #472 was found in early May basking along the edge of the stream in the heart of the site. It was now big and healthy and, at only 4 years old, it was already displaying obvious characteristics indicating that it was a male: a large head, a concave bottom shell (known as the plastron), and a long, thick tail. These are sexually dimorphic traits.

We attached a new radio to #472 and tracked him throughout the season. Interestingly, he did not return to the pond in the fall to hibernate but is in the stream at the complete opposite end of the site. It is always good to “reconnect with an old friend” like this and we’re certain that there are more individuals from the early cohorts that we lost contact with or were never radioed to begin with, that have survived—and it’s just a matter of time until we cross paths with them again.



2011 head-starts. Note the vast size difference. 472 (left) is a male and 455 (right) is a female

We are very much looking forward to the 2017 field season and hope our results are worthy of some more “turtle interest stories” to report in upcoming editions of *The Swamp Scene*! As always, we would like to thank the Friends of Great Swamp NWR for continuing to generously fund this crucial conservation project and thank you also to the Marta Heflin Foundation for their support.



## MARK YOUR CALENDARS!

ENDANGERED SPECIES DAY

SATURDAY, MAY 27, 2017

10:00 AM TO NOON

HELEN C. FENSKE VISITOR  
CENTER

Join us for this annual event.

You'll have a chance to ask  
questions of Colin and Kurt

... and you'll meet some of the  
head-start turtles.

## U.S. FISH AND WILDLIFE SERVICE—URBAN WILDLIFE CONSERVATION PROGRAM

*Goal: To create a connected conservation community*



In the last issue of Swamp Scene, we reported on the exciting partnership with Groundwork Elizabeth. That relationship has continued to expand. Here is an update reprinted from the U.S. Fish and Wildlife Service, *Urban Conservation in the Northeast*, *Urban Conservation Update*, March 2017.

### Building a sense of community around nature

In early January, four college-aged students and graduates from Groundwork's Elizabeth trust participated in a 2-day interpretive workshop designed to facilitate the delivery of high-quality programming at the Elizabeth Nature Center and other project sites. Very similar to the workshop held a few weeks later for Yonkers youth, the training led students to identify and then develop interpretive programs for the stewardship lessons most important to the community, particularly within Elizabeth's last remaining stand of eastern deciduous forest (Travers Branch) which is accessible from the highly-visited Phil Rizzuto Park. The students developed outlines for interpretive themes to be finalized as wayside exhibits and guided walks, incorporating Leave No Trace and stewardship concepts while also developing a sense of community pride around Travers Branch. The programs will be launched this summer, alongside installation of a pavilion donated by Phillips 66 for the site.

### Plans laid for summer success

Thanks to a generous contribution by the Friends of Great Swamp National Wildlife Refuge, planning meetings were recently held to envision how Groundwork-Elizabeth will thoroughly integrate its students with work experiences at Great Swamp National Wildlife Refuge this summer. Thanks to the Friends, two Groundwork-Elizabeth students will be paid to work at the refuge for 12 weeks of biological, visitor services,



Graduation certificates for Groundwork Elizabeth Green Team workshop participants with Friends volunteers, Staff and Groundwork Elizabeth leaders.

Photo by Lia McLaughlin

and research projects, strengthening their resumes and gaining meaningful conservation experience. In addition to those positions, Groundwork-Elizabeth's Green Team (a group of approximately six students paid to work on conservation projects within Elizabeth) will spend 2-3 days a week at the refuge working alongside staff and volunteers, soaking up naturalist skills and helping with invasive species control and other project needs. The remaining days will be spent applying these skills to projects within Elizabeth, building volunteer and skills-based capacity to improve conservation within the urban environment. Both organizations are eager to get started!



Photo by Jim Duffy

“We need the tonic of wildness —  
to wade sometimes in marshes where the  
bittern and the meadow-hen lurk,  
and hear the booming of the snipe...”

-- Henry David Thoreau



## GROUNDWORK ELIZABETH AND FRIENDS OF GREAT SWAMP NWR—A GREAT PARTNERSHIP

*Dionis Ramirez, Groundwork Elizabeth Youth Leader, Interview by Laurel Gould*

In 2016 and again in 2017, the Friends awarded grants to Groundwork Elizabeth to bring one of their Green Team youth members to the refuge. Dionis Ramirez has been providing support for staff and volunteers since July 2016. He has become a familiar face on weekends, welcoming and orienting visitors to the refuge. He has translated our Boardwalk Bingo into Spanish and participated in many other activities at the refuge including assisting with group walks for schools and scouts. As we approach the end of this year's grant, I talked to Dionis about his experiences.



*You're from Elizabeth. Have you lived there all your life?*

I was born in Puerto Rico and raised in both Puerto Rico and the Dominican Republic. I've been living in Elizabeth since 2012, when I came to the United States, at age 16, with my family.

*How did you become involved with Groundwork Elizabeth?*

At the end of my second year in college, a classmate showed me a flyer about volunteering opportunities with Groundwork Elizabeth. I did some research and was amazed at their achievements with so many different projects and the positive changes that they were making within my community. I realized that it was an organization that I wanted to become involved with and help achieve their mission.

*What are some projects you've done with Groundwork Elizabeth?*

I've been involved with the restoration of an historic chapel at Gateway National Recreation Area, returning it to its 1952 visage. I've participated in the creation of innovative interactions between people and nature in Elizabeth using technology, paintings, games and social events. As a Youth Leader, it's been rewarding to help young high school students learn how to work together as a team and gain an appreciation for the environment and their community.

*I understand you had a chance to visit the Grand Canyon last year.*

I had the opportunity to travel to a Youth Summit at the Grand Canyon, where there were representatives from more than 20 Groundwork USA trusts from all over the United States. It was an amazing place to be and a fulfilling opportunity. It was exciting to work together with people from different GroundWork trusts to develop ideas for resolving environmental challenges and social issues that we are all facing.

*What have you enjoyed most while you've been at Great Swamp?*

I enjoy everything that I do here. It's been a good learning experience and a fascinating opportunity to grasp knowledge from the staff and volunteers full of interesting conversations, advice and enjoyable times. I

have learned so much from everyone ... about wildlife and habitat, how to identify birds, trail maintenance, interpretation, leading groups of all ages, and welcoming visitors from all over the world.

*Do you think this has also benefited Groundwork Elizabeth?*

Definitely. There is a much stronger relationship with the Friends and refuge staff and we have an active partnership involving people of different ages and ethnicities working toward a shared goal. Another benefit has been the sharing of ideas. For example, I helped the Friends by translating their Boardwalk Bingo game into Spanish. I then modified this to create an Elizabeth-specific NatureWalk Bingo which we use in our programs in Elizabeth.

*Next year you'll be a senior at Kean University. What comes next?*

I am majoring in Sustainability Sciences with a concentration on Business. Right now, I am weighing my options between a career in environmental law or sustainable business practices.

*It sounds like you have some exciting summer plans.*

I've been accepted for an internship to PSEG Institute for Sustainability Studies based at Montclair State University. I'll be working on a team developing sustainable strategies for different companies. We'll be involved in a number of projects—performing energy audits, developing strategies for energy reduction, completing a water usage audit and reduction plan, creating multi-faceted recycling plans, designing an environmentally preferable purchasing plan, calculating the company's carbon footprint and offering strategies to reduce it. I'm very excited to have this opportunity.



Photo by Judi DiMaio

## FLICKERS DIFFER FROM OTHER REFUGE WOODPECKERS

Story and photos by Leo Hollein, GSNWR Volunteer



Seven different woodpecker species are permanent residents or annual visitors to the Great Swamp. They can be categorized as follows:

- ◆ Permanent residents: Downy, hairy, red-bellied and pileated woodpeckers
- ◆ Partial migrants: Red-headed woodpecker and yellow-shafted (Northern) flicker
- ◆ Migrant: Yellow-bellied sapsuckers pass through the refuge going north to breed and going south to winter.

All of these woodpeckers except the yellow bellied sapsucker breed here.

The yellow-shafted flicker resides in Eastern North America. Flickers are large, attractive, brown woodpeckers decorated with black spots, bars and crescents. Only the pileated woodpecker is larger than the flicker among refuge woodpeckers.

When flushed from the ground or tree, a flicker is easily identified by a flash of yellow in the wings and a bright white flash on the rump as it flies away with

an up and down path using heavy flaps interspersed with glides.

The flicker's call is a sustained laugh - *ki, ki, ki, ki*. Like most woodpeckers, flickers drum on objects as a form of communication and territory defense. In such cases, the object is to make as loud a noise as possible. In my yard they have the annoying habit of knocking on my metal chimney guard on spring mornings.

Flickers are unique among refuge woodpeckers in feeding primarily on the ground for ants and beetles. They use their very slightly curved bill to dig into the ground just as other woodpeckers peck holes in trees to reach food. A male flicker on the ground is shown above. Only the male flicker has a black moustache at the base of the beak.

Flickers have strong migratory tendencies. When the ground freezes, flickers lose access to their main food source. Most migrate South in the winter but a few remain in the refuge and feed mainly on fruits and seeds. Flickers typically perch horizontally across

branches rather than travel up and down tree trunks like other woodpeckers.

Flickers are cavity nesters who typically nest in trees but they will also use posts and birdhouses if sized and situated appropriately. They prefer to excavate their own nests although they will reuse and repair damaged or abandoned nests. Flickers seek out rotten and soft wood trees when creating a new nest. It takes about 1 to 2 weeks to create a new nest which is built by both parents. The entrance hole is roughly 3 inches wide. Their cavities are about 13-16 inches deep. A typical clutch consists of 6 to 8 white eggs supported on wood chips. Incubation is by both sexes for approximately 11 to 12 days. The young fledge in 25 to 28 days.

The photo below shows a female flicker (no mustache) bringing food to her hatchlings. This nest was in a dead tree along the Great Brook. Abandoned flicker nests create habitat for other cavity nesters in subsequent years.

While populations of flickers have declined in North America, they are not considered a species at risk. They are common in the refuge during the warmer months.





## 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](http://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 on the line above so we may notify 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



## **THE SWAMP SCENE MARCH 2017**

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.