



# the Swamp Scene

friends of great swamp national wildlife refuge

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MARCH 2018

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## GOT BEARS?

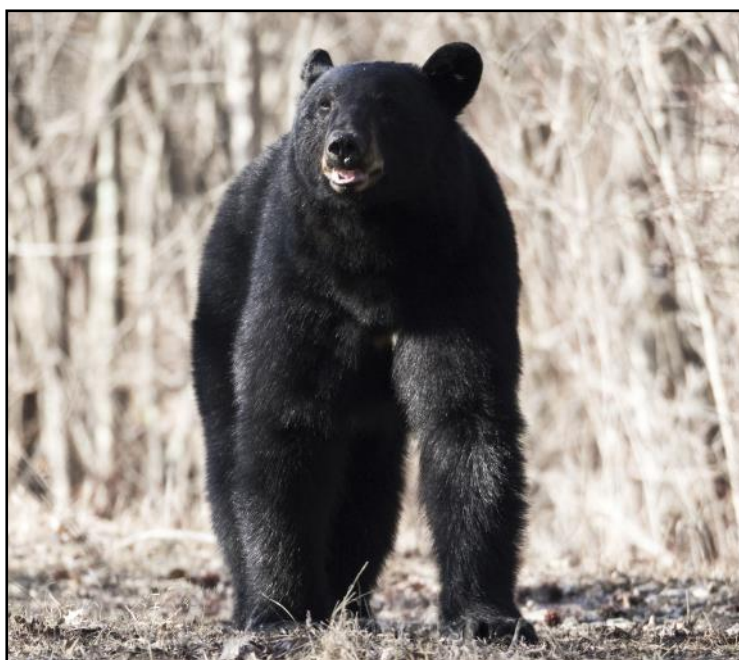
By Jonathan Rosenberg, GSNWR Visitor Services Manager; Photo credit: Robert Lin, Volunteer

The American Black Bear (*Ursus Americanus*) is native to New Jersey and has occurred state-wide through the 1800's. Their distribution included the geographic area known as the "Great Swamp". However, by the mid-1900's, fewer than 100 black bears existed and were mostly restricted to northern New Jersey.

In 1953, the New Jersey Fish and Game Council classified the black bear as a game animal, affording it protection from indiscriminate killing. Over the last thirty-five years, the State's black bear population has been increasing and expanding its range southward and eastward from the forested areas of northwestern New Jersey.

Since 1980, the New Jersey Division of Fish, Game and Wildlife has steadily increased its efforts to manage our now large and expanding black bear population. Management decisions are based on science and data on bear populations. Bear study areas have been predominantly west of Route 287 and north of Route 80. There is a huge void in our understanding of black bears in the Great Swamp especially in the context of their repatriation in their historic range.

Commencing this spring, refuge personnel will be working in concert with personnel from the New Jersey Division of Fish and Wildlife to fill the gaps in our understanding



of black bears. Our research will include live trapping, tagging and releasing. When appropriate, select bears will receive radio collars and will be monitored using radio telemetry to acquire information on survival, mortality, home range, reproduction and habitat use.

Black bear populations in our study area are influenced over time by many dynamic factors to include, but are not limited to: available habitat, changes in human tolerance for bears, human population growth, development, and changes in bear behavior. Given time, black bears can adapt and learn new ways to relate to people.

Public education and sharing of scientific information obtained during this research study will be a critical element of our best management practices.



## PRESIDENT'S CORNER

By Joe Bahniewiczak, President, Friends of Great Swamp National Wildlife Refuge



Spring is in the air and with it is the arrival of the many birds and waterfowl that will make Great Swamp NWR either a stop on the way north or their seasonal nesting home. In order to welcome these visitors, much work has proceeded over the winter. Friends' volunteers inspected and cleaned almost 200 wood duck nest boxes that will serve as nesting sites for wood ducks and mergansers. Refuge staff has been busy clearing plants in the impoundments and mowing fields in order to provide the habi-

tats that are needed for the variety of avian visitors. Also, for the first time, the Friends invasives Strike Team worked through the winter to improve the refuge's habitat. Buoyed by the successes in 2017 to reduce infestations of water chestnut, common buckthorn, and mile-a-minute vine, the team has continued its battle against glossy buckthorn during the normal off-season.

Winter's gray frown is slowly being replaced by the colorful smile of spring as the refuge's flora begins its season of renewal. Spring renewal also applies to our visitor center this year. The front desk area of the visitor center, where volunteers sit to greet visitors, was renovated this past January. This area now has a new front desk with an improved design, a new counter for Nature Shop sales, more space for storage, and improved lighting. These renovations have brought more openness to the area and make it easier for volunteers to interact with visitors.

This time of year also tends to get us energized about the upcoming warmer weather, and many of the Friends find this time of year perfect for bird watching and nature photography. In order to provide more opportunities for these activities, the Friends will be constructing an elevated observation platform just down Pleasant Plains Road from the visitor center. Also a boardwalk will be constructed this spring over the last unimproved segment of the trail to the Friends blind at the Wildlife Observation Center (WOC), an improvement that will surely be welcomed by the many visitors to the WOC.

During springtime there are many things to do at Great Swamp NWR; attending a Second Sunday lecture, taking a guided walk or, one of the best things (in my opinion), visit the WOC to see the frogs and turtles as they emerge from their winter hibernation. There are also many volunteer activities that can be fun and rewarding. I hope you come often to visit the refuge this spring.



## INTRODUCING NEW BOARD MEMBER ALLEN DREIKORN



I was raised in Hackensack, New Jersey and attended public schools there. I then attended Rutgers Newark, where I received a BS in Chemistry. I left New Jersey to attend graduate school in Philadelphia, then joined Eli Lilly in Indianapolis where I was a Discovery Chemist in their Agrochemical Division focusing on fungal disease prevention in

food crops. I retired in 2000 and in that year I co-founded Semafore Pharmaceuticals, a small cancer research company in Indianapolis. I helped grow the company until it took a compound into clinical trials and then I retired a second time.

After 46 years in exile, my wife, Patricia, and I returned to New Jersey to be near our daughter and her family. Patricia also volunteers for the Friends at the Visitor Center and the Wildlife Observation Center.

While in high school, friends and I used to go to the Green Pond in Morris County to bow hunt deer (unsuccessfully) and just enjoy the woods. In Indianapolis, we lived in the rural outskirts of the city, within walking distance of a large wooded area that was initially part of an army base and, after the base closed, became Fort Harrison State Park. We enjoyed birding and hiking the trails there for over 40 years. When we moved back to New Jersey and were looking for something similar, we discovered the Great Swamp and the volunteer opportunities. I especially enjoy the opportunity to work with the invasive species eradication groups and was delighted to be invited to join the Friends Board.



## 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 the Refuge 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 Bob Hautman—a third win for this Minnesota artist. This pair of mallards will be made into the 2018-2019 Federal Duck Stamp, which will go on sale in late June 2018. Federal Duck Stamps are sold at the Helen C. Fenske Visitor Center. Buy a duck stamp today and support *your* national wildlife refuge.



## CITIZEN SCIENCE—TRACKING MIGRATIONS WITH TECHNOLOGY

People who vacation in the southern states during late winter often reporting sightings of hummingbirds, purple martins, or Monarchs—migrating species that are working their way north. But you don't have to rely on friends for this information. Using the Internet, you can track migrations in real-time and even participate in citizen science projects by reporting your own sightings.

### PURPLE MARTINS

The Purple Martin Conservation Association (PMCA) provides information on purple martin scout arrival dates and locations. According to PMCA, scouts are the oldest individuals who migrate north as early as weather allows. Martin scouts will remain at the site where they nested the previous year, or move on if they are migrants, resting on their way to their

breeding site further north. The Scout-Arrival Study documents the first sightings of purple martins based on data submitted by purple martin landlords. This is important in order to set up the season's purple martin housing at the appropriate time. Refuge volunteers and staff use this data to determine when to put up the gourd racks at the refuge in order to be ready for the arrival of purple martins. As of March 21, 2018, purple martins are reported in Delaware and Maryland. *Time to put up the racks!* Information: [www.purplemartin.org](http://www.purplemartin.org)



Purple Martin Gourd Racks at the Visitor Center, March 2018

Photo: Peter Lebovitz

### RUBY-THROATED HUMMINGBIRDS

A common question at the Visitor Center is "When should I put up my hummingbird feeder?" You can answer that question yourself by following the hummingbird migration on a website called Journey North. Ruby-throated hummingbirds spend the winter in Mexico and Central America. Observers along the Gulf Coast watch for the first flights across the Gulf of Mexico and keep their feeders filled for the hungry migrants. These sightings are reported to Journey North. Maps on the website show the progress of the migration. As of March 22, 2018, ruby-throated hummingbirds have been reported in Louisiana, Florida, Alabama and Georgia. Too soon for our feeders to go up, but it won't be long.

### MONARCHS

Journey North is also the place to check for Monarch migrations as the butterflies move north from Mexico. The Fall migration from August to November is also tracked. Their progress is mapped real-time as observers report their sightings from the field. As of March 22, 2018 observers reported Monarchs by the hundreds along the Texas Gulf Coast.



### JOURNEY NORTH

Now it its 25th year, Journey North is one of North America's premiere citizen science projects for students and for the general public. This site tracks migrations for many species as well as seasonal data.

Journey North: [www.learner.org/jnorth](http://www.learner.org/jnorth)

## THREE WEASEL SPECIES ARE REFUGE RESIDENTS

By Leo Hollein, GSNWR Volunteer

The Great Swamp has three resident members of the weasel (Mustelidae) family. They are the long-tailed weasel (*Mustela frenata*), the mink (*Neovison vison*) and the river otter (*Lontra canadensis*). All three were photographed by trail cameras during the study of refuge predators by Casey Wagnon. The fisher (*Pekania pennanti*) is another member of the weasel family that has reportedly been heard or seen in the refuge. However, there is no definitive documentation. All four of these species are native to North America. They are active throughout the year. Weasels tend to be solitary and are primarily nocturnal. They are seldom seen. I have been fortunate to observe all three resident species during the day.

All weasels are aggressive carnivores. They have short legs and elongated bodies. The three species coexist in the refuge because they are different sizes, have different diets and use different habitat. Weasels are curious. They are good swimmers and climbers.

### LONG-TAILED WEASEL

The long-tailed weasel is the smallest weasel species in the refuge. It has a cinnamon brown coat with a white underbelly, a long bushy tail and a small narrow head. They are approximately the same size and weight as a gray squirrel. At a distance the most notable differences are the brown color and long tail that is about half as long as the weasel.

Long-tailed weasels are terrestrial. Their nests are usually found in rock piles, junk heaps and old burrows dug by others. They prey on a diverse group of animals including small rodents, rabbits, reptiles, and birds. A weasel in the refuge predated a clutch of bluebirds in a nest box supported by a wooden post that did not have a predator guard. The weasel was able to enter a 1 ½ inch diameter entrance hole to attack the hatchlings.



LONG-TAILED WEASEL

Photo by Steve Byland

### MINK

Mink have a dark chocolate brown coloration with pale underparts, nearly black feet and black tail tip. Mink may also have a white chin or throat. They are about 50% heavier and longer than long-tailed weasels.

Mink are semi-aquatic. They prefer a habitat with permanent water as well as aquatic and upland vegetation. They usually construct their dens on or near the banks of waterways. Dens are usually lined with feathers, fur, grass, or leaves.

Mink scat samples found by Casey Wagnon during his study were analyzed to determine their diet. The most common and nearly exclusive remains identified were mammals and crayfish. This is indicative of their semi-aquatic life style and consistent with their preference to seek food in upland vegetation and shallow water.

### RIVER OTTERS

River otters have brown-to-gray fur with undersides that are a lighter, silvery shade. The river otter is much larger and more aquatic than the other two resident weasels.



An adult can weigh between 11 and 30 pounds. They are well-equipped for aquatic life. They have long muscular streamlined bodies, webbed feet and long whiskers that are used to detect prey in dark waters.

River otters create dens at the edge of water. The den typically has many tunnel openings, one of which generally allows the otter to enter and exit from the water. Analyses of otter scat from the refuge found the otters almost exclusively fed on aquatic species, namely fish and crayfish.

While otters are seldom seen, they leave signs of their presence. The most common are latrines where otters leave the water and defecate on land. Other animals also use these latrines. Even the untrained eye can see the remains of crayfish shells at these latrines. River otters are also known to slide in mud and snow. While inspecting wood duck boxes in winter, we came upon a long slide in the snow that ended at the water's edge. This slide was definitely made by an otter.

#### FISHER

Nearly 7,000 photos of animals in the refuge were taken by trail cameras over a two

year period. No fishers were photographed. It is very likely that fishers are not currently permanent residents of the refuge. Fishers inhabited New Jersey in the past but were extirpated due to overtrapping and deforestation. However, they are making a comeback as some have been photographed by trail cameras and trapped in Sussex County. They evidently migrated from New York and/or Pennsylvania where they were reintroduced a few decades ago.

Fishers are terrestrial and prefer to live in forested areas. They make dens in hollow trees and prey on small animals, including porcupines. Their name is a misnomer as they rarely eat fish.

Adult fishers are larger than mink and weigh between 4 and 12 pounds. Their fur is a dark brown. Perhaps in the future they may become residents of Great Swamp National Wildlife Refuge.



MINK

*Photo by Richard Derosier*



RIVER OTTER

*Photo by Richard Hernandez*



## GROUNDWORK ELIZABETH & GREAT SWAMP NATIONAL WILDLIFE REFUGE—A SPECIAL PARTNERSHIP



Ricardo Diaz (right) and Dan Correa tally bird sightings at the Great Backyard Bird Count

A lot has happened since 2016 when the U.S. Fish and Wildlife Service first announced an Urban Wildlife Refuge Partnership with Groundwork Elizabeth (GWE). Friends and refuge staff have helped with projects in Elizabeth and hosted GWE young people at the refuge working together on a variety of activities. Friends funded two GWE interns last year and will be doing the same again in 2018. Staff have led interpretive workshops for GWE students to expand their skills. The refuge and Friends are supporting GWE grants to enhance the Peterstown Community Center with pollinator gardens as well as restore the Travers Creek Nature Preserve in Elizabeth.

Groundwork Elizabeth Executive Director Jonathan Phillips, his wife, and young people from GWE joined the Friends and Hispanic Access Founda-

tion intern Dan Correa at the February Great Backyard Bird Count—and maybe next year, it will be held in Elizabeth!

In February, the refuge hosted an interpretive workshop (see story below) and also in February, Groundwork Elizabeth honored Past President Kathy Woodward and the Friends (see story page 7).

Groundwork Elizabeth is a non-profit organization based in Elizabeth. They are part of Groundwork USA, a national organization that engages urban youth in developing community based partnerships which promote environmental, economic, and social well-being in urban communities. The partnership with Great Swamp National Wildlife Refuge offers the opportunity for urban youth to experience the outdoors, engage in educational opportunities, and participate in hands-on conservation projects.

## GREAT SWAMP NATIONAL WILDLIFE REFUGE HOSTS WEEKEND WORKSHOP

By Marilyn Kitchell, *Wildlife Biologist, GSNWR*

On February 3-4, 2018, Great Swamp National Wildlife Refuge hosted six Groundwork Elizabeth students for a weekend workshop intended to build the organization's capacity to provide effective interpretation within Elizabeth's urban spaces.

Participants included two high school students, two Groundwork employees, and two Kean University students who are leading a class project to develop interpretive signage for Phil Rizzuto Park, which contains the last remaining stand of deciduous forest in all of Elizabeth.

After getting a two-hour introduction to the basics of interpretation, the students spent half a day collectively identifying goals and objectives for the projects specific to the audience that will be using the park, and developing themes and subthemes for the signage that would lead to stewardship behaviors and personal connections to the park's resources.

Day 2 provided time to delve into research for the specifics of signage content, as well as some fun time spent hiking the refuge's boardwalks and practicing archery.



Student feedback was very positive, and both refuge staff and Groundwork partners are looking forward to the final interpretive products that may result from this effort.

## KATHY WOODWARD & FRIENDS OF GREAT SWAMP NWR HONORED BY GROUNDWORK ELIZABETH



Friends Past President Kathy Woodward accepts Outstanding Conservation Partner Award

At Groundwork Elizabeth's 14th Annual Winter-Green Gala, Kathy Woodward was honored as the Outstanding Conservation Partner of the year on behalf of Friends of Great Swamp NWR. The Gala, held February 20, 2018 at the Hilton Newark Airport, recognized Union County and City of Elizabeth Community Spirit Awards as well as their Business Champion and Volunteer of the Year.

The Conservation Partner award celebrates the Urban Wildlife Refuge Partnership between Groundwork and U.S. Fish and Wildlife Service volunteers and staff. In her acceptance, Kathy praised

Groundwork Elizabeth's Green Team Youth Program. The Green Team trained at Great Swamp NWR and then published nature guides that explore Elizabeth's native flora, fauna, and habitats for the benefit of local residents.

Groundwork youth also developed environmental lesson plans and intergenerational programs for the local community. The Friends of Great Swamp and the USFWS staff visited the Peterstown Community Center, the headquarters of the Green Team, to give input on the development of pollinator and community gardens. Kathy was thrilled to see peregrine falcons flying over the Elizabeth River.

The Friends provided stipends for youth to intern at the Refuge. The interns worked with volunteers and staff on wildlife population monitoring, habitat management, and visitor services programs. The Green Team also assisted refuge volunteers with invasive plant removal workdays at Great Swamp NWR. This reciprocity of experience is an important component of the partnership. Kathy noted that we and the environment benefit from this growing relationship. In addition to a plaque, Kathy received resolutions from the City of Elizabeth, Union County Board of Chosen Freeholders and the New Jersey Legislature.



### URBAN WILDLIFE REFUGE PARTNERSHIPS

*Where the U.S. Fish & Wildlife Service,  
Community, and Partners  
come together to promote conservation.*



## BLAZING TRAILS THROUGH GREAT SWAMP NATIONAL WILDLIFE REFUGE

*By Jim Mulvey, Co-Chair, Friends Trail Blazers Committee*

**D**id you know that there are 12.4 miles of designated trails in the Wilderness and Management areas of the Great Swamp National Wildlife Refuge? And did you know that a hardy group of volunteers are responsible for maintaining these trails throughout the year and after major weather events?

Different trails have different needs depending on where they are located in the refuge. The Wilderness Area is located on the eastern side of Long Hill and

New Vernon Roads and comprises about half of the refuge. There is a network of trails marked by different colored blazes which can be accessed at four different trail heads. This area was established by the Great Swamp Wilderness Act in 1968 and trails are designed to maintain a wilderness character. As such, any trail maintenance in this section of the refuge is performed without the aid of power tools. In the Wilderness Area, a fallen tree is not necessarily going to be cleared from a trail if it can

be stepped over and does not present a safety hazard. Hand saws and crosscut saws are the name of the game when a tree does need to be removed. A chain saw would only be used in a special circumstance and with specific permission from the Refuge Manager.

On the other hand, a fallen tree in the Management Area would promptly be removed to provide easy passage. Management Area trails include the Bockoven, White Oak and Nature Detective Trails and the Wildlife Observation Center. Many of these trails are ADA compliant and offer an opportunity for people of all ages to enjoy.

Throughout the refuge, trail maintenance focuses on keeping the trails clear of aggressive shrubs, vines and poison ivy. Branches are pruned back and fallen limbs are removed; blazes are added and litter is picked up. If an invasive plant is identified, this information is passed along to the Strike Team, another group of dedicated volunteers who see to keeping the refuge clear of unwanted and troublesome plants.

There are currently about 20 volunteers who maintain these trails. They vary in age, background, and experience level, but all have a passion to keep the trails that they maintain in tip top shape. New volunteers are initially interviewed by Jona-



Wilderness Area Trail Maintenance Tools  
*Photo by George Solovay*

than Rosenberg, the refuge's Visitor Services Manager. This meeting helps to determine if trail maintenance is a good fit for the volunteer and which area in the refuge would be best suited for them. The next step is to work with an experienced trail maintainer and get some first-hand training. Once they are comfortable with the responsibilities, they are ready to become part of the team.

Trail maintenance is most often done in teams of two or three and is performed every month or two depending on the time of year, so it does not entail a large commitment of time. If this sounds like something that you might be interested in, attend the next scheduled volunteer orientation program or email Friends at: [info@friendsofgreatswamp.org](mailto:info@friendsofgreatswamp.org). We are always looking for new volunteers.



Clearing Boardwalks in Management Area *Photos by Jim Mulvey*



## THE COMMON YELLOWTHROAT OR “BLACK-MASKED GROUND WARBLER”

By Leo Hollein, Photos by Leo Hollein, GSNWR Volunteer and Meta Griffin, Graduate Student (nest and eggs)

The common yellowthroat is one of the most widespread of all the warblers in North America. It nests in the refuge as it prefers marshes, wetland edges and the understory of moist woods that are found here. The common yellowthroat and the yellow warbler are the two most common nesting warblers in the refuge.

This Neotropical migrant arrives in early May and a few linger into October. A male common yellowthroat is shown at right. His most noticeable field mark is a bold black mask across the eyes. The mask is thinly bordered in white on top. The female is similar to the male but lacks the black mask. Both sexes have their namesake yellow throats. The male's throat is brighter.

Common yellowthroats have, in the past, been called black-masked ground warblers. This reflects the male's mask as well as the tendency of this species to stay low to the ground and sulk through tangled vegetation. There is no need to strain your neck looking into the tree tops for this warbler. Listen for its “witchety-witchety-witchety” song and look for it moving through the underbrush. Yellowthroats are inquisitive and will usually respond to phishing by coming into the open.



Common yellowthroats nest on or close to the ground in dense underbrush. The nests of these small warblers are five inches in length and weigh less than half an ounce; they are very difficult to locate. Shown below is a common yellowthroat nest with five spotted eggs

that was found and photographed by Meta Griffin who was a graduate student studying the populations of song birds in the refuge. Meta also photographed the same nest after the eggs had hatched. The five hatchlings have the distinctive yellow throat and are close to fledging.



If you ever find a nest with eggs or hatchlings on or close to the ground, leave the site in the opposite direction from where you came. This will reduce the chance of a mammalian predator following your scent to a dead end at the nest and depredating the clutch.



### GREAT SWAMP NATIONAL WILDLIFE REFUGE - A FACT YOU MAY NOT HAVE KNOWN

Order Number Entering Refuge System: November 30, 1960, Number 245

There are now 566 national wildlife refuges.

## SKUNK CABBAGE HERALDS SPRING

By Laurel Gould, Friends Volunteer; Photos by Robert Stapperfenne, Friends Photo Contest Library



It's February. Snow covers the ground and it is cold outside. This is when I go looking for the first sign of spring, long before the official vernal equinox. Walking along a stream, I spot the purplish-green hooded flowers of the skunk cabbage poking up through the snow. How is this possible?

Skunk cabbage has a remarkable ability to produce its own heat which allows it to melt the snow around it and bloom even when the ground is frozen. So

what pollinates a flower in winter? The skunk cabbage has a couple of tricks.

The flowers emit the smell of rotting meat—which is like perfume to flies and carrion beetles. But the hood also serves as a little warming hut where insects can heat up their flight muscles.

The plant not only produces heat, it regulates the temperature as well, keeping the air inside the hood at a comfortable 68 degrees regardless of the outside temperature.

Do not try to eat this plant! It contains calcium oxalate crystals, which will cause a severe burning sensation in your mouth, throat and esophagus. Some animals, however, seem immune to these crystals. For the black bear, just coming out of hibernation—and ravenous—skunk cabbage is an important food source.

It's April now and as the showy spring wildflowers are appearing, the flower of the skunk cabbage has withered. But its huge, bright green, cabbage-like leaves carpet the wetlands. They are visible well into the summer and are often the first time that many people even notice the skunk cabbage plant.

So, around Valentine's Day, head out into the wetlands to look for skunk cabbage flowers—a reassuring sign that spring is on its way.



## 2018 REFUGE PHOTO CONTEST—GIVE US YOUR BEST SHOT(S)

Since the first Refuge Photo Contest in 2000, Friends have accumulated a collection of more than 1,000 photos of the refuge. This library forms a treasure trove of pictures in all seasons—depicting landscapes, plants, birds, butterflies, and other wildlife, and even some people photos. These pictures are put to constant use for publications, on websites and in social media. They illustrate our slide shows and outreach events. Images are requested by the U.S Fish and Wildlife Service or by other publishers, such as the Black River Journal, who are writing articles about Great Swamp.

The 2018 Friends Photo Contest is underway. There are six categories: (1) Raptors (new this year), (2) Birds (other than raptors), (3) Pollinators... and other insects, (4) Any other wildlife, (5) Plants and Fungi, and (6) Landscapes. There is also a special Youth category for photographers age 16 or younger. Each participant may enter up to five photos total. Entry forms and contest rules may be downloaded from the Friends website or picked up at the Visitor Center. Entries may be submitted online, by mail or in person.

We will award prizes at Fall Festival (September 15, 2018), but everyone who enters their photos is a winner to the Friends. Your generous donation of these images has created a unique and incredibly valuable resource. Thank you all.

Now... ***Start Snapping!***



## 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 \_\_\_\_\_

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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  
32 Pleasant Plains Road  
Basking Ridge NJ 07920



## **THE SWAMP SCENE MARCH 2018**

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.