



Photo: John F. Bunnell

ENDANGERED SPECIES SPOTLIGHT



Photo: John F. Bunnell

Northern Pine Snake (*Pituophis m. melanoleucus*)

Snakes are beautiful creatures, vibrantly marked with varying colors and textures. They are misunderstood and all too often feared because of stories, myths, and legends that demonize them. In fact, they are incredibly beneficial to the environment, holding an important place in the food web, eating rodents and small animals, thus keeping the population in check. New Jersey is home to 23 species of snakes, 4 of which are endangered or threatened.

The State threatened Northern pine snake (*Pituophis m. melanoleucus*) is a fascinating snake with a unique ability to burrow. It is not venomous and is highly secretive. Adult northern pine snakes can grow to 6 feet. They have a distinct white or light gray base color with varying amounts of black or brown blotching.

Active from mid-April to mid-October, pine snakes spend the rest of the year in underground dens with other pine snakes and in some cases with other snake species. Female pine snakes lay eggs in underground burrows, with clutch sizes of 4 to 16 eggs. The eggs are large and produce large hatchling snakes, which, shortly after hatching in late August will, using scent, follow adult pine snakes to suitable hibernacula for overwintering.

The pine snake's ability to excavate its own deep burrows is unique to the species. Northern pine snakes burrow for prey such as moles, voles, and shrews as well as for nest excavation and hibernating. Northern pine snakes have fairly narrow habitat requirements they prefer well-drained, sandy, upland pine and pine-oak forests. These sandy habitats make

burrowing possible. Pine snake nests are found almost exclusively in open areas with loose sandy soils and little vegetation. They are very loyal to their hibernacula and nest sites, using the same den and nest sites in successive years.

The New Jersey population of northern pine snakes is found only in the Pinelands Region of the state. A recent study suggests that the historic range of pine snakes in New Jersey has been reduced in size by at least 17%. Similar range reductions have been documented in all of the other 10 states where the pine snake exists (AL, GA, NC, KY, SC, TN, WV, VA, MD, and DE) As of 2009, this pine snake is believed to be absent from the states of WV, VA, MD, and DE. This means that the New Jersey northern pine snake population is totally separated from all other populations of northern

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Line 58 – Check it now to help wildlife



Every year the state income tax form contains a “check-off” for wildlife. This year, that check-off is placed at Line 58 on the form. It can also be found in all standard tax preparer software for New Jersey state income tax returns.

By checking the box, you can direct some of your refund towards rare species protection in New Jersey. Your contribution is sent to the Endangered and Nongame Species program (ENSP), the state entity responsible for rare wildlife in New Jersey and one of our key partners.

ENSP does not enjoy regular funding in the state budget and so must depend on funds from Washington DC as well as revenue from the Conserve Wildlife License Plate and the Income Tax Check Off for its operations. The income tax check-off is very important to this effective state program.

An investment in ENSP provides a good return on your money. As an investor, you fund conservation management that grows the populations of bald eagles, ospreys and peregrine falcons – all species decimated in the mid-20th century from the pesticide DDT; cutting edge research that answers questions about the continued declines of bats, shorebirds and other species; and habitat restoration that creates wetlands for salamanders and turtles and cedar swamps for butterflies.

Your tax check-off supports these efforts to secure our wildlife legacy.

When you make a contribution through your state income tax return, you are contributing to a Program with proven success, supported by dedicated volunteers and aided and abetted by partners like Conserve Wildlife Foundation.

You’ll come across Line 58 sometime between now and April 15th, make sure you check it off.

—Margaret O’Gorman, Executive Director

Please Join us for Conserve Wildlife Foundation’s

Women & Wildlife Awards Reception

Sunday, March 27, 2011

Visit www.conservewildlifenj.org for details



Linda Tesauro holds eaglet while Dr. Erica Miller checks its overall health.



ENDANGERED SPECIES SPOTLIGHT – Northern Pine Snake

pine snake populations, with the next closest population 400 miles away in southern North Carolina.

As a state threatened species in New Jersey, northern pine snakes face a number of serious threats. One of the most prominent threats is the loss and degradation of suitable habitat. 37,631 acres or almost 7% of the total of northern pine snake habitat has been lost to development between 1986 and 2007. Other threats to the pine snake include illegal collecting, impacts from off-road vehicles, changes in the natural fire

regime in the Pinelands, habitat degradation from decreased forest management, impacts associated with roads, and natural and subsidized predators.

The New Jersey Division of Fish and Wildlife's Endangered and Nongame Species Program (ENSP) continues to work with Conserve Wildlife Foundation and state agencies to protect and manage habitat for this species. In 2010, the Department of Environmental Protection denied a petition submitted by the NJ Builder's Association to delist this species and remove its "threatened" status. Since that time, the State's Green Acres program has continued to pursue land acquisitions

that contribute to the growing amount of state open space that permanently protects habitat for this species. ENSP is currently working with the State Forest Service and Bureau of Land Management on habitat management plans that will lead to enhancements of pine snake habitat in protected areas. ENSP has also established a "Roads and Wildlife Working Group", on which CWF participates, that is working to reduce the impacts roads are having on this and other species of wildlife throughout the state. ↗

ENDANGERED OR THREATENED

What's the difference?

An endangered species is in danger of becoming extinct throughout all or most of its range. A threatened species is likely to become endangered in the foreseeable future.



Photo: Brian Zarate

2011 Women & Wildlife Honorees Announced

Two outstanding women who have led and inspired us in the fields of wildlife science and natural resource protection will be recognized by Conserve Wildlife Foundation of New Jersey. Dr. Erica A. Miller and Linda Tesauro have been selected as our 2011 Women & Wildlife honorees.

As a renowned veterinarian and wildlife rehabilitator, Dr. Erica A. Miller has volunteered her skills on behalf of New Jersey's bald eagle population for the past 16 years. Erica is a proven leader in the wildlife rehabilitation community at both the state and national level. She is a member of the New Jersey Endangered and Nongame Species Advisory Council. As a past president and long-time member of the Board of Directors for the National Wildlife Rehabilitators Association, Erica has developed the standards of ethics and professionalism in her field. As an oil spill response expert, she spent 6 months on the Gulf of Mexico last year where she treated over 1,400 birds, established four treatment centers and brought her considerable expertise to rehabilitating the wildlife impacted by the environmental disaster. She is an authority on wildlife health, disease, toxicology and rehabilitation.

As Founding Executive Director of Conserve Wildlife Foundation of New Jersey, Linda Tesauro successfully formed a non-profit organization in 1998 dedicated to protecting the state's rare wildlife and supporting the Division of Fish and Wildlife's Endangered and Nongame Species Program. Critical habitat was being lost to land development at an increasing rate, and aggressive conservation efforts were needed to ensure the protection of endangered and threatened species. Inspired by her son's love of nature, Linda focused her fundraising and management skills on establishing the base of support and credibility upon which the Foundation's programs and partnerships have been built for over 12 years. Her dedication to raising the awareness and funding required to preserve New Jersey's natural resources continues to be an inspiration to those who continue her legacy.

Join the celebration on Sunday, March 27 at Prallsville Mills in Stockton, New Jersey, by reserving your place at www.conservewildlifenj.org or calling Liz Silvernail at (609) 292-3707. Tickets are \$50 per person. All proceeds are used to advance the protection of rare wildlife. ↗

Wildlife Action Plan in Action - Hillsborough Habitat Restoration

Hillsborough Parks Get Sassafras-y

Hillsborough Township is a special place. This Somerset County town falls within one of New Jersey's least fragmented agricultural blocks – important both to local heritage and to the many rare grassland bird species (like the vesper sparrow and the meadowlark) whose lives are delicately dependent on farming. The Sourland Mountains, which sweep northward into Hillsborough, have great significance to forest wildlife, migrating songbirds, human residents and recreationists. Few other towns in the state have better wide-open spaces or deep-dark places, let alone both.

To help preserve the legacy of farm and forest, the Conserve Wildlife Foundation has worked with Hillsborough to design wildlife habitat projects and find grants to fund them. The latest example is a tree planting (“afforestation”) on more than seven acres at Hillsborough's Farm Park on Wertsville Road. This Open Space park is mostly comprised of young woods that have sprung up as farm fields were abandoned. A 2-acre and a 5-acre field remained open, although the 5-acre field had gone fallow several years ago and is filling in with exotic shrubs like autumn olive and multiflora rose.

Because of the park's proximity to the Sourlands and its low value to farmers, a forest restoration made the most sense here. Conservation Resources Inc. provided a \$20,000 grant on behalf of the Raritan-Piedmont Wildlife Habitat Partnership to pay for plant materials, temporary deer fencing, and coordination. The US Fish and Wildlife Service kicked in another 1,000 trees toward the future forest.

In mid-November, with the help of Hillsborough's Parks & Recreation staff and a number of volunteers, CWF planted over 1,500 native trees & shrubs and erected fencing to protect the saplings from deer browse. We used 23 different plant species with many purposes in mind...including:

- Oaks to produce acorns, a great food source for many animals;
- White pines to grow densely for winter wildlife shelter;
- Hackberry and sassafras to host the larvae of certain butterflies;
- Shagbark hickories to provide roosting space for bats in summer;
- Elderberry, bayberry, and dogwoods to fuel migrating songbirds as well as animals who spend their winters here.

Want to get your fingernails dirty (and sassafras-y)? We'll be planting another 250 trees & shrubs at the neighboring Otto's Farm Park this spring. Volunteers are also needed to help keep the ever-relentless invasive plants at bay. Please email mackenzie.hall@conservewildlifenj.org if you want to help! 🗝



(Clockwise from top)

Volunteer John Muth gives a young white pine tree a new home.

Volunteer Elliot Hodge spent his day-off from school planting trees. Thanks to his mom, Anne Heasley, for dragging the kids along!

Beth Cuzio of the US Fish and Wildlife Service delivers trees for the project. Fred Tenore (Hillsborough Park & Rec) helps out.

Kids Raising Money For Wildlife Part I

Meet Jack Weiman, Hugh Brophy and Ariel Koltun-Fromm, three young men who care deeply about wildlife and took action to support its protection.

Instead of asking for birthday presents from their family and friends, Jack and Hugh invited their party guests to help save endangered species. As ambassadors for these imperiled creatures, they figured out a practical way to help. They raised money for Conserve Wildlife Foundation and also awareness for the need to keep these animals safe. Jack's father, board member Rick Weiman, made sure guests left the party equipped to learn and spread the word about our work with various field guides and a t-shirt in their "goody" bags. Hugh's mother, Mary Brophy, put the money Hugh raised towards an Adopt-A-Species, which meant that Maria Grace, our Education and Outreach Manager, was able to give a wildlife program to Hugh's school and present them with a framed certificate. With the help of their parents, these boys took a tremendous step towards preserving the environment they will pass along to their own children.

Protecting our wildlife heritage is also of great importance to Ariel Koltun-Fromm. He chose Conserve Wildlife Foundation as the recipient of his bar mitzvah gifts. Passionate about the plight of red knots, Ariel learned of our work through our website and took on the responsibility we all share to protect our wildlife heritage. A resident of Pennsylvania, he called attention to the fact that our mission benefits rare wildlife. As Ariel told more people about our programs, contributions came in from many states. Through his thoughtful endorsement of our work, Ariel raised over \$2,500. Conserve Wildlife Foundation is proud to count him as a member of our International Shorebird Team.

We are grateful to these young supporters. Their contributions allow our biologists to strengthen and enhance our work in the field. Exceptional young environmentalists such as Jack, Hugh and Ariel inspire us with their generosity and commitment to the natural world. ✈



Ariel Koltun-Fromm



Maria Grace presents Hugh Brophy, and his mom Mary, with a Certificate of Appreciation.



Jack Weiman

Kids Raising Money For Wildlife Part II

Hugh Brophy is one cool kid. He decided to forego birthday presents and instead have donations made to Conserve Wildlife Foundation of NJ in his name. He raised over \$500 and decided to adopt a peregrine falcon – one for himself and one for the students at his school, Princeton Day School (PDS). Because they adopted the peregrine falcon, Maria Grace from CWF visited the 3rd and 4th grade students to tell them all about this wonderful bird. So on a wintery morning in January, Maria headed to PDS equipped with laptop, projector, and her sidekick, Petey, the taxidermy peregrine falcon, that lives in the CWF office in Trenton.

Maria spent the next hour talking to the kids about endangered wildlife – what species are endangered both here in NJ as well as across the globe; why these animals are endangered; why it is important to protect them; and what we can do to help protect wildlife as well as the entire environment. The students also learned about some of the success stories of the Endangered Species Act, namely the return of the peregrine falcon to the skies of New Jersey.

New Jersey was the first state to successfully reintroduce the peregrine falcon to the eastern half of the US after the pesticide DDT wrecked havoc across the world, poisoning food chains, and hampering reproduction in birds of prey. Today, peregrines are doing quite well with 25 known pairs living throughout the state.

All present on that cold January morning learned a lot about NJ's endangered wildlife, a subject often not talked about enough. As a thank you to Hugh, his parents, and his fellow students, CWF presented him with a Certificate of Appreciation to be displayed at the school, further educating the students and visitors of PDS about the rare wildlife that call New Jersey home.

To learn more about CWF's classroom programs, visit our website www.conservewildlifenj.org/education/teacher/programs/ or call Maria at (609) 984-0621. ✈

What We Talk About When We Talk About Protected Species

Earlier this year, a proposed change to the state's endangered species rule created a firestorm of criticism about the removal of the Cooper's hawk from the Endangered Species list. People who should have known better decried what they saw as the release of 31,000 acres from "protection" into "development" as a result of the recovery of the Cooper's hawk.

In New Jersey, the protected status of land is not necessarily linked to the Endangered and Threatened Species list. Because, in most areas of the state, an animal being on the Endangered and Threatened Species list does not necessarily mean that the habitat critical to its survival is protected in any way. Not all habitat is equal in the state of New Jersey.

New Jersey's Endangered and Nongame Species Conservation Act protects individual animals from what is euphemistically known as a "take." Under the Act, a take is defined as any action that will harass, hunt, capture or kill wildlife. As an example, if I own a tract of upland forest that contains red-headed woodpecker,

I cannot harass, hunt, capture or kill the woodpecker. I can, though, eliminate the forest during a time when the woodpeckers are not breeding or raising young and, in so doing, destroy the habitat needed by the woodpecker.

In New Jersey, certain areas are afforded a higher level of regulatory protection because of their ecological sensitivity like the Pinelands and Highlands regions and lands falling within the coastal zone, flood plain and freshwater wetlands designations. Outside these regulated areas, habitat can be adversely impacted even if a listed species is confirmed to occur there.

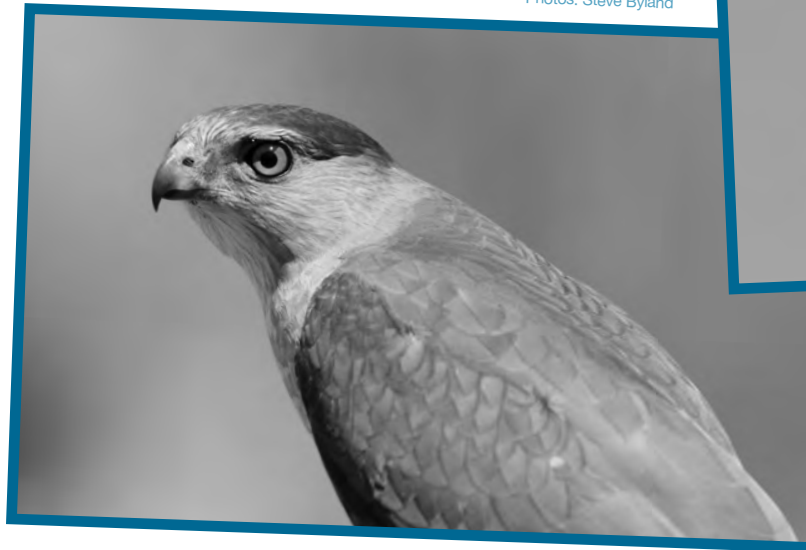
In regional planning areas like the Pinelands and the Highlands, it is understood that habitat is important for the survival of an endangered or threatened species. In these regions it remains illegal to "take" such a species, but it is also against the regulations to destroy habitat critical to the survival of the species. In areas of

the state regulated under Coastal Zone and Freshwater Wetlands regulations, habitat is also protected.

Outside of these regulated areas, threatened and endangered species habitat has no protection.

With 70 plus species on New Jersey's Endangered and Threatened Species list, it is incumbent upon us all to understand what we mean by protected when it comes to both wildlife and the habitats on which they depend. ➤

Photos: Steve Byland



Cooper's Hawk

Get Out! Look for signs of spring

The ground may still be covered in snow but signs of spring are nearly upon us (if not already here):

American woodcocks may have begun their breeding dance complete with their "peent-peent-peent" call. Visit fields or young forested habitats at sunset and listen for their call. Watch in awe as males take to the sky in this unique mating ritual.

Mourning Cloaks are one of the few butterflies that overwinter in New Jersey as adults. They hibernate, finding a tree cavity or some loose bark to crawl underneath and wait out the winter. By overwintering as adults, they get a head start over other butterflies in the spring. Look almost anywhere for this butterfly with dark middles and creamy-colored edges with blue spots – open woods, parks and gardens, and along the edges of streams, lakes, and ponds.

Spring ephemerals, or short-lived woodland wildflowers, like marsh marigolds, spring beauties, bloodroot, and dutchman's breeches, are beginning to emerge. Take a walk in the woods and look carefully for these harbingers of spring. ➤



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BEHIND THE SCENES

Maureen Barrett is a volunteer for Conserve Wildlife Foundation of NJ. She has counted bats, surveyed horseshoe crabs, banded shorebirds, monitored bald eagles, surveyed reptiles and amphibians, listened for calling amphibians, and installed fencing for beach nesting birds. Most recently, she helped to install an osprey platform in her backyard! Maureen is a Science Teacher at Harrington Middle School in Mount Laurel.

What do you most enjoy about volunteering?

Volunteering for CWF fulfills both personal and professional interests. I am a middle school life science teacher, but I am also a life-long learner. I love learning about nature and the environment. Participating in CWF projects teaches me about New Jersey's wildlife while building a stronger foundation from which I teach.

If you couldn't do what you are doing now, what profession would you attempt?

I would love to be either a wildlife photographer or a marine biologist. Or better yet, I would like to be an underwater photographer who works for National Geographic.

What wildlife "lives" in your office?

Our pride and joy is a 100-gallon salt-water 'touch tank.' The tank is home to snails, fish, clams, mussels, crabs, whelk, and more. We also have a bearded dragon, king snake, and a tarantula.

If you could be one animal (that lives in NJ of course!) what would you be and why?

I would be an osprey and nest near the Delaware Bay in Fortescue. I know where there is a new platform waiting for me!

What were you doing before you answered these questions?

I was teaching my second period class about worms. The students were

comparing and contrasting flatworms, roundworms, and segmented worms. Their homework assignment is to write a poem about worms: An Ode to a Worm. The students are writing poetry in their language arts classroom, so this assignment is a great way to integrate science and language arts.

Why did you become involved with the CWF volunteer projects?

I first became involved with CWF to learn about New Jersey's wildlife. As a child I spent a great deal of time outdoors, but at some point in my adult life, I got away from it – away from nature. Fortunately, I found my way back, and the CWF volunteer projects help me stay in touch with New Jersey's outdoors. ↗



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Explorations

In addition to TRACKS, we also produce an electronic magazine called Explorations. This e-magazine tells stories about New Jersey's wildlife, enabling us to take advantage of electronic communications to present full-color photographs and links to more information. The most recent edition of Explorations featured reports about habitat restoration, the Endangered Species List, and more.

If you would like to subscribe to Explorations, please send your email address to info@conservewildlifenj.org and put "Explorations" in the subject line.

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Our mission is to protect and preserve the rare and imperiled species of wildlife that live, breed, and migrate through our state by restoring habitat, managing species, educating and engaging citizens, and conducting research.

TRACKS TRACKS

CONSERVE WILDLIFE FOUNDATION OF NEW JERSEY • VOL. 04 NO. 01



PHENOLOGY FUN

Phenology is the study of the timing of natural events. The word comes from a Greek word that means "coming into view." Events like the first openings of leaf and flower buds and the first calls of frogs and toads are all considered phenological events. The timing of these events indicate local and global weather and climate changes, as well as other changes to the landscape and habitat. These events are also fun for you and your family to discover and record. What natural wonders have you discovered today?

March

First week: Wood frogs, the earliest frog to breed in New Jersey, can be heard calling from vernal pools. *When did you first hear the quacking call of *Rana sylvatica*?*

Bald eagle chicks hatching. Hatching will continue throughout March and April depending on when the eggs were laid. *Have you witnessed the hatching of eagle chicks?*

Second week: The high-pitched whistling call of Northern spring peepers can also be heard early in March. *Have you heard the call of New Jersey's smallest treefrog this season?*

Third week: Osprey begin to return to their nesting territories throughout New Jersey. A record number of ospreys nested in NJ in 2010 with over 600 young produced. *What will the numbers look like for 2011?*

April

First week: Peregrine falcons begin laying and incubating eggs. They lay a clutch of three to four eggs. Incubation lasts 32 to 34 days.

Second week: Hibernating butterflies begin to appear. There are seven

butterflies that are considered either endangered or threatened in New Jersey.

Third week: Deep within the Pine Barrens, warmer temperatures cause the Northern pine snake to awaken from hibernation.

May

First week: After journeying from their wintering grounds at the tip of South America, red knots begin to arrive on the Delaware Bay to feast on horseshoe crab eggs. They stay just a few short weeks before they continue their journey to their breeding grounds in the Arctic.

Peregrine falcon chicks begin to hatch. Check out the peregrine cam at www.conservewildlifenj.org/education/peregrinecam/

Third week: Black skimmers (*Rynchops niger*) begin laying eggs on New Jersey beaches. The female lays a clutch of two to six eggs which will be incubated by both adults for 21 to 25 days.

Fourth week: Bog turtles begin mating activity as air temperatures exceed 77°F. Females will deposit their eggs through mid-July, in open areas with raised hummocks of sedge or sphagnum moss.