



Photo: Ben Wurst

RARE SPECIES SPOTLIGHT



Photo: Robert Lin

Red-shouldered Hawk

Hawks, eagles, and owls are known as raptors or birds of prey. Some raptor species like bald eagles, peregrine falcons, and ospreys are familiar to most people because they are easy to identify and highly visible. These species are also often covered by the media because of the work being done to bring about and maintain their magnificent recoveries in New Jersey. Some other species of raptor in New Jersey are much less well-known. The red-shouldered hawk (*Buteo lineatus*), a forest hawk listed as an endangered species in New Jersey, is one such raptor. It is not highly visible and can go undetected in the wetland forests where it lives and nests. Today, we believe fewer than 200 pairs of red-shouldered hawks breed in New Jersey, but little is known about whether this number is increasing or decreasing.

The red-shouldered hawk is a small "buteo" (pronounced "beauty-o"), or soaring hawk. It gets its name from red or rust-colored patches on the upper shoulders. It has bold black and white stripes on its tail and flight feathers, a red-orange chest, and pale underwing feathers. It is one of the most beautiful hawks in eastern North America.

It ranges in North America along the Atlantic Coast from New England to Florida, west to the Mississippi River Valley into Texas and Florida, with a small isolated population along the coast of California. In New Jersey, the red-shouldered hawk is a year-round resident, but during spring and fall many migrate through the state along the Atlantic Flyway. Its habitat is comprised of forested areas that are periodically flooded (e.g., forested wetlands).

Pairs of these hawks exhibit a high level of site fidelity. They return to the same nest, year after year, although not necessarily to the same tree. They build stick nests in a crotch or fork in large trees that are below the forest canopy. The female lays 3 to 4 eggs that are incubated for around 33 days. The young are cared for by the adults for another 10 to 15 weeks or until they can hunt on their own. The young will return to nest near where they originated. This hawk has a varied diet of small mammals, birds, reptiles, and amphibians.

Red-shouldered hawks require large areas of unfragmented forested habitat (between 250-650 acres) to nest. They usually nest more than 3,000 feet away from the nearest house, although there are a few pairs in northern New Jersey that have set up residence closer to people.

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Editor's Commentary

Through the Bat Project, described on page 6, we create habitat to help this valuable species. We also create habitat for ospreys, peregrines and others. We restore habitat for bog turtles, song birds and butterflies. For piping plovers and least terns, we protect habitat. It's all about habitat.

Humans, you see, are pretty flexible. We live in apartments, condos and houses. We live at sea level or up in the clouds in skyscrapers. We live with our sisters and brothers, our partners in life or our college roommates.

Rare wildlife species are not so adaptable. Bald eagles can't live in cities. Ospreys can't nest on rooftops. Bats don't make lifelong partners and young animals of all species must fend for themselves when seeking places to nest or breed. Wildlife species require particular habitats to meet their needs.

Habitat is a critical component of everything we do. It's the beginning and end of our work. If we don't have habitat, we don't have wildlife. If we don't protect fields, forests and estuaries, we won't have a rich biodiversity in our future.

Conserve Wildlife Foundation is, therefore, passionately in favor of preserving habitat. Without preserved land, we can't guarantee the future of the rich array of species that live in every part of our state. Unfortunately, the state Green Acres Program that funds protection of natural areas and wildlife habitat is out of funds, just when there are great opportunities to preserve land at reduced values in the current real estate market. This November we have a chance to protect our legacy through a statewide ballot question asking us to approve \$400 million in bonding to continue funding for the state's land preservation efforts. The cost will be only \$10 annually per household. You can show your support for habitat by voting YES on the Green Acres, Clean Water Preservation Bond Act. A YES vote will secure a place for our wildlife in our future.



Group Seeks New Routes to Make Way for Wildlife

In a state as developed as New Jersey, roads are a necessary part of our lives. While allowing people to get from place to place, roads have the opposite effect on New Jersey's wildlife. For animals, roads are obstacles. They disrupt natural migration corridors and fragment habitat. Animals attempting to cross to find food, migrate or return to their breeding grounds are not always successful, as we can see by the evidence on our roadsides. Recent efforts to reduce the impact of roads on wildlife have been mostly after the fact.

However, a new group has been established to work proactively and identify potential conflicts between wildlife and roads, as well as stretches of road where amphibians and reptiles could benefit from crossing structures that allow safe passage.

This New Jersey Roads and Wildlife Working Group includes staff from the Department of Environmental Protection, DEP's Division of Land Use Regulation, the Department of Transportation

and Conserve Wildlife Foundation. By working more closely with the agencies responsible for planning and engineering roads, this group hopes to emphasize the needs of wildlife in the early planning stages of road projects.

The first full meeting was held in July and served mainly as an opportunity for the members to become acquainted and brainstorm ideas. Reception was positive among all groups, and early ideas discussed included developing a statewide "connectivity map" of open space and identifying known areas of high mortality for vulnerable species. These hotspots will be targeted for amphibian and reptile tunnels to reduce mortality and restore habitat connectivity.

The Roads and Wildlife Working Group is just beginning. Expect to hear more about specific projects in the future as these ideas are put into action. ✈

RARE SPECIES SPOTLIGHT – Red-shouldered Hawk

These hawks are easily disturbed by human activities like hiking and off-road vehicle use. They can abandon a nest early in the season if they feel threatened. Their need for intact forests and minimal human disturbance restricts the number of places they can breed in New Jersey and may be limiting their population growth.

In the early 1800's, red-shouldered hawks were quite common in New Jersey. As the human population grew, so did hunting of birds of prey. Many birds were shot to prevent them from killing poultry and game birds. In the early 1900's, their

decline continued as forests were cleared and wetlands filled. By 1979, surveyors found only 100 nesting pairs, and the species was listed as threatened. In the 1980's, surveyors found only 36 pairs. This discovery led to increased protection for the red-shouldered hawk. Its status was reclassified as endangered in 1991.

Biologists have continued to study this species to determine the overall health of the population in New Jersey. Woodland raptor surveys and sighting reports from the public have provided the Endangered and Nongame Species Program (ENSP)

with data to help judge population trends. Red-shouldered hawks may suffer if essential habitat continues to be lost or degraded by development and forest fragmentation. Current research and data analysis conducted by ENSP will more accurately determine the population's status and trends in New Jersey. We hope that conservation measures, including wetland protection and wise forest management, will help protect this interesting raptor. ✈

written by Ben Wurst, Habitat Program Manager

To see more of Robert Lin's photographs visit http://www.flickr.com/photos/robert_lin/



Volunteers Flock to Beaches to Protect Endangered Birds

Spending a day as a volunteer monitor for endangered beach nesting birds is nothing like a typical day at the beach. No boogie board. No bathing suit. No beach badge. Instead it's part bird watching, part science classroom and a little bit of baby-sitting.

Piping plovers, least terns, and black skimmers arrive on our beaches to breed in the spring, long before the throngs of beachgoers arrive for the summer tourist season. The beaches become crowded just as the birds begin laying eggs or caring for their young. Because these birds can be disturbed very easily by people and pets, their nesting sites are protected with fences and signs and patrolled on a frequent basis.

We work closely with the state's Endangered and Nongame Species Program, overseeing a small number of paid seasonal employees that monitor the sites and collect data. However, getting to every nest site can be difficult with as many as 30 sites scattered along the state's 127-mile coastline.

"Volunteers have become an indispensable part of the project," says Todd Pover, our Beach Nesting Bird Project Manager, "and not just because it means more people are helping to keep an eye on the nesting sites. Volunteers bring incredible enthusiasm and energy to this work."

Individual volunteers have always been a part of the beach nesting bird project since it was started by the state in the 1970's. Over the past several years, we have been fostering

partnerships with other organizations to provide long-term volunteer support on a site specific basis. Individual volunteers are still welcome, but, according to Todd, the group approach is more efficient because it plugs into existing resources and promotes "local ownership" of nesting sites.

Thus far, the volunteer effort has focused on the Monmouth County region with the Wreck Pond Watershed Association, Shark River Cleanup Coalition and Monmouth County Parks System having all joined forces with the Foundation to create volunteer monitoring programs. Todd trained about 150 volunteers from these three groups in the past two years. The training is critical because, in addition to monitoring, the volunteers interact with the public, providing on-site outreach and education. Based on its early success, we hope to expand the group volunteer model to other parts of the state as well.

"The increased monitoring provided by volunteers is no guarantee the birds will be successful, as there are many factors such as flooding and predators that are out of our control," says Todd. "But because people and pets are major limiting factors for beach nesting birds, the volunteers help make breeding success more likely." ✈



Volunteers from the Wreck Pond Watershed Association and Shark River Cleanup Coalition helping to erect a fence to protect endangered least terns in Belmar, NJ

New! Adopt a Species

We are thrilled to launch our beautiful new Adopt a Species Gift Package. Completely redesigned by artist and graphic designer Sarah Shuhart, our Adopt a Species Gift is a wonderful way to show the wildlife lover in your life that you care. It's the gift that gives twice!

Sarah (who is profiled on page 7) took us beyond traditional photographs with her design makeover. She painted portraits of New Jersey's rarest animals and transferred these images onto certificates of appreciation for adopters. She also designed a series of cool collectible decals for each animal.

For your Adopt a Species gift, you can choose among 12 different animals from bald eagles to blue-spotted salamanders. The gift materials include a beautiful adoption certificate, a cool collectible decal of your adopted animal, an Adopt a Species bookmark, and a one-year membership to Conserve Wildlife Foundation of New Jersey. You can adopt a species for yourself or as a special gift for a friend or loved one. See our website for details or call Patricia Shapella at 609-292-3707.




Attention Teachers

Adopt a Species EDU – Especially For You!

The Adopt a Species EDU package is a wonderful way to connect students to the natural world, participate in a service learning project and teach important concepts related to wildlife conservation – food chains, predator-prey relationships, migration, biodiversity, endangered species, and MORE! We provide the information and you design the program to suit your educational needs.

In return, students and teachers receive a beautiful certificate of adoption, bookmarks, a cool collectible classroom decal, a one-year membership to Conserve Wildlife Foundation of New Jersey, and the satisfaction of knowing you are helping protect rare wildlife throughout the state.

Adopt a Species EDU applications can be down-loaded at www.conservewildlifenj.org/teacher/classroom/aas.html or call (609) 984-0621 for more information or email info@conservewildlifenj.org. 

When you symbolically adopt a species, you support New Jersey's rarest animals, restore important habitat, and foster pride in New Jersey's rich wildlife heritage.

Conserve Wildlife Foundation Golf Classic, May 26, 2009

Our thanks to all our sponsors, players and volunteers who helped make this year's event a great success!

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SPECIAL CLEARANCE SALE

New Jersey Wildlife Viewing Guide

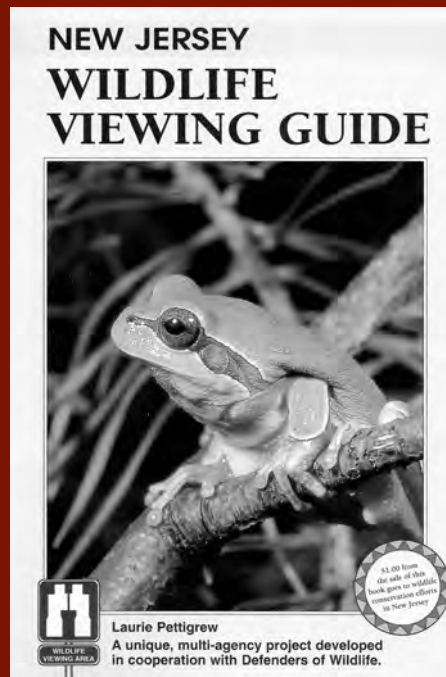
This colorful guide lists 87 of New Jersey's premier wildlife viewing locations. Includes beautiful photographs, maps, directions and detailed descriptions for each site.

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Ten distinctive full-color note cards with envelopes. Features photographs taken by wildlife biologists or volunteers. Each note card shows a different animal and profiles the species. Blank inside.

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You can order online through our website: conservewildlifenj.org/support/cwfstore.html or call 609-292-3707.

Making Every Membership Dollar Count

When you become a member of Conserve Wildlife Foundation, you invest in our organization and the work we do. We want you to feel confident that your contribution is used wisely to save the animals you care about. With our dedicated staff, extensive volunteer network, wildlife expertise and ability to engage the public, we offer you big benefits in wildlife protection.

We are the only non-profit organization dedicated to the protection of New Jersey's endangered and threatened wildlife. We make our small staff of 10 people much more effective by engaging volunteers, student interns and seasonal assistants to extend our protection efforts. We are small, but we use our resources wisely.

We do the hands-on work needed to protect our rarest animals and their habitats. Our staff and volunteers patrol beaches to protect beach nesting birds. We build and install osprey nesting platforms, kestrel boxes and bat houses to provide homes for animals to raise their young. We ensure safe passage across busy roads for frogs, toads and salamanders heading for their breeding grounds. We get our hands dirty to protect our biodiversity.

We make the most of our volunteers. This year our volunteers surveyed summer bat roosts, counted frogs and toads, monitored bald eagle nests, planted trees to help restore forest habitat and trapped and banded shore birds. Our volunteers help us achieve our wildlife protection goals.

We provide scientific evidence to guide decisions about endangered wildlife in our state. We conduct research and analyze data about piping plovers, migrating shorebirds, tiger salamanders and many other species to help inform policy and wildlife management decisions. Our GIS Specialists identify critical wildlife habitat by recording and mapping details about endangered wildlife sightings. These sightings are crucial to future protection efforts.

We build awareness of the challenges to our wildlife's survival. Through our educational programs, speaking engagements and publications, we help people of all ages learn about New Jersey's endangered and threatened animals and the threats to them. We build appreciation for the rich diversity of wildlife in our state. With this knowledge, we hope people in New Jersey learn to respect the rare wildlife in their home state and make choices to protect its future.

Your Conserve Wildlife Foundation membership is very important to us. We do our best to give you the biggest return on your investment. If you haven't renewed your membership, please take a moment to add your check or credit card number to the enclosed envelope. An extra gift this year would be welcome in these challenging times. Thank you for keeping our wildlife protection efforts strong. 🦋

Update on New Jersey's Bats

Bats are a hot topic of conversation lately. These miniature mammals, whose nocturnal habits lend them a general anonymity and mystique, are now front-page in the media, in schools and among anyone concerned for the environment or animals. Our bats are in trouble. We're paying attention.

Since the winter of 2006-2007 when White-nose Syndrome (WNS) was documented in New York State, the malady has spread to nine eastern states and killed an estimated one million bats. The cause-and-effect relationship between the fungus that gives the syndrome its name and bat deaths is not well understood. What we do know is that afflicted hibernating bats are unable to maintain the deep slumber required to conserve energy over the winter and they often starve for want of nutrition. We profiled WNS in the spring edition of Explorations, our e-magazine. The article can be found at www.conservewildlifenj.org/explorations/spring09/valent.html

The extent of New Jersey's bat mortality isn't clear yet, although three of our largest known wintering populations were hit by WNS this past winter. These abandoned Morris County iron mines also house the federally endangered Indiana bat.

This year's Summer Bat Count helps us compare the size of maternity colonies (i.e., summer congregations of mother bats and their young) with pre-White-nose Syndrome numbers. Data from our volunteers is still coming in, but we can report mixed results so far: seven sites reported similar bat numbers as in years past; seven sites have fewer bats now (~53% fewer bats on average); seven sites have no remaining bats. Three colonies increased in size (up an average 60%).

Lorna and Phil Wooldridge have kept tabs on a bat colony at the Free Union Church in Great Meadows, Warren County, for years. "We anxiously counted the bats emerging from the church attic in June and were thrilled that the numbers were higher than last year" says Phil. But on closer examination, the 100-plus church bats were found to be mostly big brown bats (*Eptesicus fuscus*), whose overwintering habits are less well-known. They may not have come into contact with WNS-affected bats or environments.

Kate and Mark Mulligan's barn bats, however, are mostly little brown bats (*Myotis lucifugus*), our most common species and the hardest hit by WNS. While the Mulligans have not taken a formal tally before, they do feel that bats numbers are as high this year as last (perhaps 200-300). Thirty of these bats – along with a few hundred others across New Jersey – were banded and inspected in July.

Banding and inspection of bats this summer is an action advanced by the national White-nose Syndrome Task Group. The group wants to know if surviving females from the hibernation areas produced young this spring. They also want to assess the bats that survived the fungus this winter. Bats afflicted with the fungus show wing scarring and other physical indications. We're working with zoologist Mick Valent to access roosting bats; record wing conditions, age, and reproductive status; and attach bands to identify individuals during future surveys. This data will be fed into the national study. For now, we continue to observe... and wait. ✈



Photo: Phil Wooldridge

More than 100 big brown bats keep a low profile in the attic of Free Union Church in Great Meadows, Warren County

Get Out!

The fall is a wonderful time to get out and do some heavy-duty wildlife watching as cooler temperatures and low levels of humidity make being outside pleasant and enjoyable. Hiking is an easy and exciting way to connect with the natural world. It requires little gear – a good pair of sneakers will do, and, of course, don't forget to pack a yummy picnic lunch to eat when you reach your destination.

Some great places to hike include the Delaware Water Gap and Worthington State Forest in the north; Baldpate Mountain

in the Sourlands in the center of the state; and the Batona Trail that runs throughout the Pinelands. You don't have to go far to experience autumn in New Jersey. Check out www.njtrails.org, www.trails.com, and www.nynjtc.org to find some local hiking trails near you.

Don't forget your map and binoculars, and keep your eyes and ears open to the possibilities of an exciting wildlife experience. ✈

BEHIND THE SCENES

Sarah Shuhart

Editor's Note: Last year, Sarah Shuhart contacted us and asked if we needed any design help. She offered to volunteer her time and talents. The result of this offer is the beautiful, professional, high-quality Adopt a Species Gift Package she developed. We hope you appreciate Sarah's work as much as we do.

What delights you in your daily work?

I enjoy (too much, probably) the process of making to-do lists. These find their way into my computer, my purse or car notebook, onto scraps of paper and calendars; the lists include things to do for the day, the week, the month, the year, etc. It's always satisfying to check something off on any of the running lists and say, "Ok! What's next?"

What is the one tool or resource that makes your job easier?

One fantastic resource I discovered while working on the Adopt a Species project is Flickr, a social networking site that focuses on photography. Through this site, I was able to reach out and connect with enthusiastic zoologists, biologists, herpetologists and weekend-camera-carriers who generously donated their photos of rare and endangered wildlife. Their contributions have taken this project to a new level!

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

Right now, I am attempting to break into a career in graphic design. I'd like to create design that helps send out a positive environmental or social message; volunteering with CWF has given me a preview of what I'd like to be doing professionally.

What is the best thing anyone ever taught you?

My grandmother has said that happiness is a choice, which has been very empowering to me. It reminds me that I largely create and control my own circumstances, whether it be the happiness in my own life or the environment in which I live.

What is one thing you learned working here that surprised you?

I was surprised how my awareness changed after working with CWF. I catch myself looking for bobolinks when gazing out a window, or trying to spot a bog turtle when walking through a park!

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

I think I'd like to be a Pine Barrens tree frog. I have visited the Pine Barrens only a few times, but I think it'd be a nice place to live.

What were you doing before you answered these questions?

I was checking out the blog of "No Impact Man" and then noticing that my Dunkin' Donuts coffee cup is glaring at me. 🦋



Explorations

In addition to TRACKS, we also produce an electronic newsletter called Explorations. This newsletter tells more stories about New Jersey's wildlife, enabling us to take advantage of electronic communications to present more full-color photographs and more links to information. The most recent edition of Explorations featured a story about building a maternity ward for bats, an update on what it takes to protect amphibians migrating to vernal pools, and an article about bald eagles and the EagleCam.

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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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 indicates 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.

Share your seasonal observations by visiting our blog at www.conservewildlife.blogspot.com

September

First week: Bats begin returning to their hibernaculum. The largest known bat hibernaculum in New Jersey is Hibernia Mine, at one time home to more than 30,000 bats. Due to white-nose syndrome, the bat population at Hibernia Mine may have been decimated by up to 90%. A count this winter will provide valuable data.

Third week: Yellow-crowned night heron migration peaks in New Jersey. Southbound migration will continue through mid-November.

Fourth week: Cooper's hawk migration peaks. The record daily total at Cape May Point was 1,231 Cooper's hawks on Sept. 26, 2006. Southbound migration will continue until November.

October

First week: Osprey migration peaks. New Jersey ospreys have been tracked with satellite transmitters to Venezuela, Colombia and Brazil's Amazon River basin.

Red knots arrive in their wintering areas beginning now and continuing through November. The largest concentration of red knots uses the tidal flats of Bahia Lomas in Chile.

Second week: Bobcat young of the year begin to disperse from their mothers. They may choose resting sites up to a third of a mile away.

November

First week: Red-shouldered hawk migration peaks in New Jersey.

Third week: Wood turtles have returned to streams and creeks and will begin hibernating. They winter in muddy stream bottoms or in abandoned muskrat holes.