TRACKS

Conserve Wildlife Foundation of New Jersey • Winter 2011

Photo: Rob Somes

ENDANGERED SPECIES SPOTLIGHT

Allegheny Woodrat

The Allegheny woodrat, *Neotoma floridana magister*, has experienced rapid declines over the last 30 years. Historically present along the Appalachian Mountains from the Tennessee River north through southeastern New York, woodrats have been disappearing from the northern part of their range since the 1980s. Extirpated from New York and large sections of Pennsylvania, only isolated populations remain in Ohio, Maryland, and in New Jersey at the Palisades. The U.S Fish and Wildlife Service considers the Allegheny woodrat a species of concern and New Jersey listed the woodrat as endangered in 1991.

This medium-sized rodent ranges in size from 8 to 9in length with a 6 to 8 in tail. Males can weigh over 10 oz with their smaller female counterparts not exceeding 8.8oz. Both sexes have brownish-gray fur, with white throat, feet, belly, and armpits. Woodrats are distinguished by their large, hairless ears, and a hairy tail that is dark gray above and white below. They have four toes on the front feet and five on the rear. Unlike the Norway rat, an introduced species that is common in urban areas and farms, Allegheny woodrats are meticulously clean, causing no threat to human safety. They play an important role in their ecosystem.

Allegheny woodrats occur along mountain ridges in barren rock outcrops, caves, cliffs, and talus fields. Dens are deep in rock fissures, and nests consist of sticks and twigs lined with shredded bark. Woodrats are primarily noctural, venturing out at night to collect buds, seeds, leaves, fruit, nuts, and fungi from nearby forests. A species of Neotoma or packrat, woodrats also collect a variety of non-food objects such as bottlecaps, coins, feathers, and bones; a habit that still perplexes scientists.

Breeding occurs from early spring into the early fall. Allegheny woodrats are not prolific breeders, frequently having only 2 young per litter and 2 litters per year. The young are born hairless and weigh half an ounce. After 5 days they begin to grow hair and by 14 days their coat is full. At 3 weeks their eyes open and they are weaned after four weeks. Most young will not breed until their second year.

Snakes, bobcats, foxes, weasels, hawks, and owls all prey upon the woodrat; however, natural predation is not the cause the woodrat's dwindling population. Loss of habitat, increased exposure to parasites, and a decrease in food availability are all contributing to the Allegheny woodrat's declining numbers.

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From Our Executive Director

Bats with Benefits! Learning from Old World Librarians.

On a recent trip to Portugal, I visited the historic city of Coimbra and its university, which is one of the oldest universities in the world. The historic part of the university contains the beautiful, baroque Joanine Library, which was built in the 18th century and houses over 200,000 volumes on medicine, history, law, philosophy and theology.

According to literature about the library, hundreds of bats "watch over" these thousands of books and have done so for over two centuries. Professor Palmeirim from the Science faculty took sound recording equipment into the library to record the bats' high-frequency calls. Studies of these recordings and of the bat droppings found in the library, led the Professor to conclude that at least two species of bats are feeding on bugs that would otherwise be feeding on the ancient tomes housed in the library.

The Professor also found records from 200 years ago that testify to the purchase of special table coverings as a protection against bat droppings, clearly showing that the bat population has been protecting the library from book-eating bugs for a long time. According to the Director of the Library, Carlos Fiolhais, the same hide cloths are still in use today to protect the now antique tables from bats.

While this is an extreme example of the benefits of wildlife, it is also a wonderful illustration of a human response to wildlife. The keepers of the library knew the advantages of the bat population and, instead of expelling them for dropping on their expensive tables, they covered the tables to protect them. They started a tradition that continues today and adapted to live and value this species rather than working to expel it.

As bats and other species continue to cling to existence and adapt to live proximate to humans, we would be well-served to follow the example of our forebears and develop solutions to keep such wildlife close by and remain the beneficiaries of their existence.

Margaret O'Gorman

Margaret O'Gorman
Executive Director

1

Anywhere, Anytime Education

Education is a vital component of wildlife protection. If people don't understand what we do and why we do it, then they will never fully support it, either through their personal ethos or financial support. So whenever we have a chance, we are educating people through nonformal education opportunities. Here are a couple of ways that CWF connect with the public through "anywhere, anytime education"

ENDANGERED SPECIES SPOTLIGHT – *Allegheny Woodrat*

Habitat fragmentation is the leading cause for species decline in New Jersey and the Allegheny woodrat is no exception. Limited to rocky habitats where they can hide and nest out of sight, woodrats also depend on surrounding forests for their food and nesting materials. These forests are becoming increasingly fragmented and disturbed which limits the resources available for the woodrat.

One major cause of woodrat declines is due to the raccoon roundworm, a parasitic nematode that occurs naturally in raccoons' intestines. Woodrats contract this parasite through roundworm eggs that are shed into raccoon's scat. Once infected, raccoon roundworm attacks the woodrat's nervous system and ultimately causes death. Raccoon populations are increasing in number. These subsidized predators have a significant impact on their environment both directly through predation and indirectly by spreading disease like raccoon roundworm.

Food availability is directly related to population fluctuations in rodents, like the woodrat. Following years of abundant mast, the fruit and nuts produced by trees, rodents will have more young; in years of poor mast, rodents will have less. The loss of chestnut, oak, elm, and other fruit-producing hardwoods has caused a decline in food availability and possibly a decline in the population of Allegheny woodrats. Changes in the plant community caused by increased deer browse may also be a factor.

Vigilant monitoring and intensive management by the Endangered and Nongame Species Program and CWF has preserved the last remaining Allegheny woodrat population in New Jersey. Biologists are able to determine the presence of roundworm in local raccoon populations and can treat the animals with medicated bait. Providing supplemental hard mast to the population also helps to preserve this sole population. After 4 years of declining population numbers, a 77% increase in capture rate was recorded from 2008-2010; however, it is too early to tell if this increase is significant.

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.

1 **Photo 1: At the Wild Outdoor Expo in September, CWF staff helped participants build bat houses to take home and install on their property. As people built their homes, we chatted about the benefits of bats and debunked many of the myths that plague these incredibly beneficial animals. Many of the participants left with a greater understanding of the importance of bats to the environment and how humans can help improve roosting habitat for them.**

2 **Photo 2: Close, personal encounters with wildlife can have a powerful impact on our conservation ethos. Robby, pictured here, can attest to that…He was able to help band red knots along Delaware Bay as part of our research studies on this threatened shorebird and in the process, a wildlife lover and protector was born.**

3 **Photo 3: The Wydner family get up-close with an American kestrel chick - one of seven that fledged from nest boxes on their Holland Township farm this summer. The Wydners kindly allow the nest boxes to be monitored bi-weekly each summer, and in return they have the chance to interact with biologists, take part in wildlife research, and learn more about the ecology of their land.**

CONSERVE WILDLIFE
FOUNDATION OF NEW JERSEY

Play A Round For Wildlife

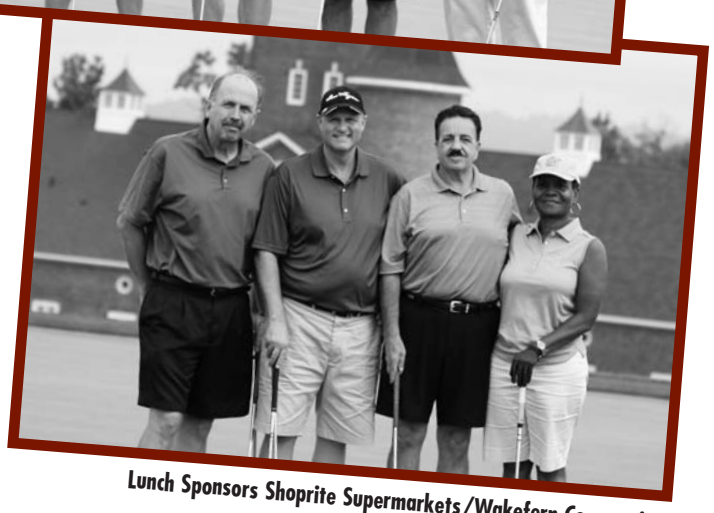
Annual Golf Classic

This year's golf classic was among our best ever. Our new venue, Trump National Golf Course in Bedminster, offered high quality amenities and a challenging course. Every golfer seemed to enjoy the day out. We offered new competitions and interesting raffle items. We closed the day with dinner and cocktails in the elegant ballroom. Golfers were able to bid on incredible silent auction items including featured trips to Ireland, Costa Rica, the Big Apple and our own Jersey shore, golf outings at many of the state's most desirable private courses, and beautiful photographs and hand-crafted gifts and accessories. At the end of it all, over $50,000 was raised to support CWF's mission of protecting New Jersey's rare wildlife. This contribution makes a great difference to our research, restoration and recovery efforts on behalf of imperiled wildlife in New Jersey.

Please mark your calendar for **Thursday, September 20, 2012**, for next year's event. To discuss sponsorship opportunities, please call Liz at 609-292-3707.

Ward Sander, Al Komjathy, and Robert Smith represent longtime sponsor Anheuser-Busch.

Jack Doherty is recognized for the day's only hole-in-one.



Lunch Sponsors Shoprite Supermarkets/Wakefern Corporation.

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CWF Board member Bob Coleman tries his hand at the putting contest.

Ryan Lowery tees off for the Robertet Fragrances foursome.

Board member Rick Weiman accepts his prize from CWF Biologist MacKenzie Hall.

Conserve Wildlife Foundation of New Jersey's

Play A Round for Wildlife Golf Classic – September 15, 2011

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

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Human Hands Help Rebuild Eagle Nest

Photos by K. Clark and J. Webber

The CWF-ENSP Eagle Project Partnership works all year to identify eagle nest areas, and monitors nesting activity between December and July. It's important work, and rewarding when people can be thrilled at the sight of bald eagles nearly anywhere you go in New Jersey. Some days are more difficult and rewarding than others, though. On Friday, May 13th, 2011, we had the team together to visit two eagle nests in Cumberland County. At the first nest, we banded two eaglets and things went smoothly. We didn't have too far to travel to the second nest, and though we hadn't climbed this tree before, we had no reason to think it wouldn't be equally smooth.

We had to walk through some muddy salt marsh and woods to get to this nest in Sea Breeze, not far from Delaware Bay. As we approached the nest, we noticed it looked haggard; sticks hung down droopily and clumped in several parts of the big willow oak. Two adult eagles circled overhead, though, clearly upset with our intrusion into their nest area. We set up our equipment and Mick Valent, ENSP biologist and chief eagle-nest-tree-climber, began his ascent into the tree. As he got about half way up, he called down, "There's no nest here!" Nest materials were clumpy but he could see no discernable nest. About that time the ground crew, which always scouts around for identifiable prey remains, found the remains of an eagle nestling: it had been dead for perhaps ten days. Our spirits sank.

The nest observers, Earl and MaryEllen Holton, were with us; they knew there had been two chicks as of two weeks ago. With the adults still circling over us, we searched the area for a second grounded chick; the adults would not have been so upset with our presence unless they were still caring for a chick. As we walked the area, Mick had kept climbing the tree.

"There's a chick here!" In disbelief, Mick climbed high enough to find a brown eaglet sitting on a patch of sticks less than 12" across, barely big enough to support the bird. He lowered the bird to the ground in a duffel bag following our normal protocol. The ground crew, Larissa Smith (CWF) and Dr. Erica Miller (veterinarian from Tri-State Bird Rescue & Research), checked the eaglet over, took measurements and banded. Measurements indicated she's a female (slightly larger than a male even at 6 weeks of age). She was tagged with leg band 679-01773 and green color band D/36, so that she will be identifiable in any future encounters.

In the meantime, everyone else was pressed into action to rebuild this eagle nest. Jeremy Webber, a forester with NJ Division of Parks and Forestry, joined Mick in the tree. Several of us gathered sticks and found-wood, large and small, which could be used in a new nest. Walt Wilkens (another eagle project volunteer) cut suitable pieces to lengths requested by Mick, and tied each onto a rope Jeremy pulled up into the tree. Using two supporting limbs of the tree, Mick built a platform by laying and tying each piece using a sturdy line we had with us. When the platform was secured, he and Jeremy gently lifted the remains of the eagle nest onto it, then secured the nest to the platform with more line. They finished off the nest by adding soft grasses, mostly old Phragmites reed, we had gathered from the ground.

The eaglet, which had rested comfortably in the open duffel bag while "home" was being improved, was raised back up, and Mick released her from the bag and removed the hood from her head. For the first time in perhaps 10 days, this eaglet had some room to relax. Viewers of the Duke Farms webcam (http://dukefarms.org/Education/Eagle-Cam/) know that eaglets will lie down in the nest quite a lot, but this eaglet did not have that luxury; she was lucky to cling to the remaining nest fragment, and we felt lucky to get to her in time to help.

Eagle project volunteers continued to check on the nest (by telescope from a safe distance) since mid-May, and Walt reported that she took her first flight from the nest on June 22!

By Kathleen Clark, DFW-ENSP

Photos from top to bottom: 1) Mick climbed until he found the eaglet on a remnant patch of nest. 2) Mick had to create a foundation for the new nest using materials on hand. 3) Mick built a platform of small logs, building out from the tree stem. 4) Mick and Jeremy moved the nest fragments onto the platform. 5) Mick returns the eaglet to the new nest. 6) End of the day: the eaglet sitting in the rebuilt nest!

BEHIND THE SCENES

Brian Henderson

What is the worst thing you have to do for your job?

Every job has parts that just aren't fun. For me those are quality controlling rare sighting data and entering large amounts of field survey data, tasks that are repetitive, dull, require close attention and are crucial to maintaining and expanding our rare sightings database.

What is the best thing you get to do?

I love getting out in the field to help biologists survey for animals. The conditions are sometimes miserable, but I'm glad I've been able to help hunt down great blue heron rookeries, bald eagle nests, bog turtles and bats.

What wildlife "lives" in your office?

There's no wildlife in my actual office, but I sit near a window that overlooks downtown Trenton and I'll occasionally spot a red-tailed hawk that frequents our neighborhood (and nested on our block a few years ago) along with various migrant birds passing through like the cedar waxwings I saw this morning.

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

Eastern box turtles have always been a favorite animal of mine. Hibernating through the winter and foraging for worms and berries and basking in the sun in the summer seems like a nice life. Plus if you can manage to avoid cars and well-intentioned but curious children you can outlive most other animals.

What were you doing before you answered these questions?

Coordinating plans to conduct a mobile acoustic survey for bats tomorrow night. We'll be attaching an acoustic monitoring device to a car and slowly driving through and around the grounds of Duke Farms in order to survey the local bat population.

One thing most people (most co-workers) don't know about you?

When I was in high school I had a website with information about caring for pet bearded dragons called The Dragon's Den.

Brian Henderson

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 piping plovers, bats, and the 2011 eagle nesting season.

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.

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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 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?

November

First week: **Red-shouldered hawk migration peaks in New Jersey. Visit one of NJ's hawk watching sites. Visit *www.hawkcount.org* to find one near you.**

Cold temperatures for one to two consecutive weeks during late October to late November compel bog turtles to retreat to their wintering sites.

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.**

Snow geese migration peaks in New Jersey. Other waterfowl such as brant, black duck, buffleheads, and green winged teal can also be found. A great place to witness waterfowl migration is at the Edwin B. Forsythe National Wildlife Refuge in Atlantic County or Sandy Hook National Seashore.

December

First week: **Harbor and harp seals begin arriving at their wintering areas in New Jersey. They use small islands along the coast of New Jersey.**

Second week: **Wintering raptors, such as northern harriers, long-eared owls, and short-eared owls, are present throughout the state.**

Most Delaware River shortnose sturgeon overwinter from December to March in the area of Roebling, Bordentown, and Trenton.

Fourth week: **Bald eagle pairs begin courtship rituals and nest rebuilding. Their displays can be quite spectacular, with the pair locking talons and tumbling towards the ground.**

January

First week: **Eastern tiger salamanders begin breeding in vernal pools in southern New Jersey.**

Third week: **Long-tailed salamanders mate in underground tunnels near freshwater springs. The female will secure her clutch of eggs to stones or wood within the water. She will lay about 90 eggs.**