TRACKS

Conserve Wildlife Foundation of New Jersey • Vol.. 01 No. 01

ENDANGERED SPECIES SPOTLIGHT

Photo: Chris Davidson

American Oystercatcher

If you spend time along the New Jersey coast, there's a good chance you have seen or heard an American oystercatcher. Standing nearly a foot and a half tall with a long orange-red bill, the stocky black, brown, and white oystercatcher is not easily overlooked. Their loud calls and gregarious behavior makes them even harder to miss.

Despite being so striking, you may not have heard as much about the oystercatcher as you have heard about other coastal species, such as the osprey or piping plover. In fact, until recently, significant information gaps existed about oystercatchers in the state. That is changing now that researchers have begun to focus more attention on them.

Once abundant along the entire Atlantic coast, oystercatchers were believed to be extirpated in the Northeast as a result of intensive market hunting and egg collecting in the 1800's. With the passage of the Migratory Bird Treaty Act of 1918, the oystercatcher began to rebound. However, various factors including habitat loss from coastal development, human disturbance from recreational activity and elevated predator levels have kept the population low.

Just how low is one of the questions biologists are now addressing. A range-wide aerial survey from New Jersey to Florida and the Gulf coast conducted in the winter of 2002-03 led to a population estimate of approximately 11,000 oystercatchers. In 2003, biologists in New Jersey began including oystercatchers in their annual breeding surveys of other beach nesting birds. Those surveys have found on average, about 60 breeding pairs on barrier beaches. However, because oystercatchers nest on back-bay marsh habitat as well, this only reflects a portion of the population.

In 2004, Tom Virzi, a PhD candidate at Rutgers University, began studying oystercatchers in hopes of better identifying the factors that impact reproductive success in the different nesting habitats. Virzi's research quickly revealed that more oystercatchers were nesting in the back-bay areas, especially near inlets, than on the barrier beach strands. However, it wasn't until 2007 that Virzi was able to survey most of the state's suitable nesting habitat in the coastal zone. He found 332 breeding pairs, substantially more than expected. Because some areas were not included on the survey, experts estimate that approximately 400 pairs of oystercatchers nest in New Jersey.

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Editor's Commentary

Welcome to the first edition of Tracks, your membership newsletter. In these pages we tell stories about New Jersey's wildlife and the people who care for them. In this issue you will learn about efforts to protect the red knot, a small shorebird with one of the longest migrations on the planet. You will read about the American oystercatcher and the new data being collected on the New Jersey population. You will meet Todd Pover, manager of our beach nesting bird program, and engage in a little phenology as spring brings new awakenings and new arrivals.

We are thrilled to have your support and we want to share with you how this support helps protect our precious biodiversity.

With over 40 species in New Jersey threatened with extinction, we need to remain vigilant. We have accomplished much in recent years as our wildlife recovered from threats like DDT, habitat loss and collection. Yet our wildlife today faces challenges—new and complex challenges that require sound science, effective management and successful restoration efforts to overcome them.

At Conserve Wildlife Foundation, we use your support to develop sound science, implement management programs and carry out restoration efforts. We also use your support to educate about our wonderful rare wildlife—where they live, how they live and what we do to protect them. This newsletter is a perfect vehicle for all these stories.

I hope you enjoy this new edition of Tracks and get inspired to get out and see what is happening in our natural world.

Become a Happy CAMPer and Help Our Frogs and Toads

The sound of calling frogs and toads is a sure sign that spring has arrived in New Jersey. Several species of frogs start calling in early March. Of these, the most recognizable is the Northern Spring Peeper. This tiny frog is found throughout the state and its call (a high-pitched peep, peep, peep) can be deafening when heard in a chorus of hundreds of individuals.

Not only are these calls a welcome sign of spring they are also what we use to count New Jersey's amphibian populations. A healthy amphibian population is a good indicator of the overall health of the environment. Because frogs and toads use a variety of wetlands to breed, a loss of amphibians can often mean a loss of important wetlands or degraded water quality.

There are 16 species of frogs and toads in our state. Each species has a unique vocalization or "call" that can be heard during their mating season. Male frogs use the call to attract females and warn off other males in the vicinity. Males typically call for one to two months each year. Because of the calls, we carry out the census on amphibian populations during the mating season.

The Calling Amphibian Monitoring Project (CAMP) is a way for volunteers to get involved with the amphibian census. The goal of this program is to assess the distribution, abundance, and health of New Jersey's amphibians. This assessment is part of a larger initiative called the North American Amphibian Monitoring Program (NAAMP) and the data collected in New Jersey is added to this national database.

CAMP in New Jersey is carried out on 63 survey routes throughout the state. Volunteers choose a route and conduct roadside surveys (after dusk) along a 15-mile route three times a year.

CAMP is a volunteer opportunity that allows you to listen, learn and contribute to a nationwide study. It's also a great opportunity to get outside and hear the frog and toad symphonies of New Jersey.

We are always looking for new CAMPers to adopt a route and help count our frog and toad populations. You don't have to be an expert and you can learn to distinguish the calls. If you are interested in learning the calls of NJ amphibians you can take the public quiz on the NAAMP website http://www.pwrc.usgs.gov/naamp/. Select New Jersey and see how well you know your frog and toad calls.

If you would like to find out more about becoming a CAMP volunteer, please contact Larissa Smith at (609) 628-0402, or you send her an e-mail at Larissa.Smith@hughes.net

written by Larissa Smith

The ENDANGERED SPECIES SPOTLIGHT – *American Oystercatcher*

Virzi said, "The most exciting finding from my research has been locating such a large number of oystercatchers breeding on salt marsh and back-bay islands in New Jersey. I think this has major conservation implications for the species since we are now able to identify and begin protecting important breeding areas away from the barrier beach strands."

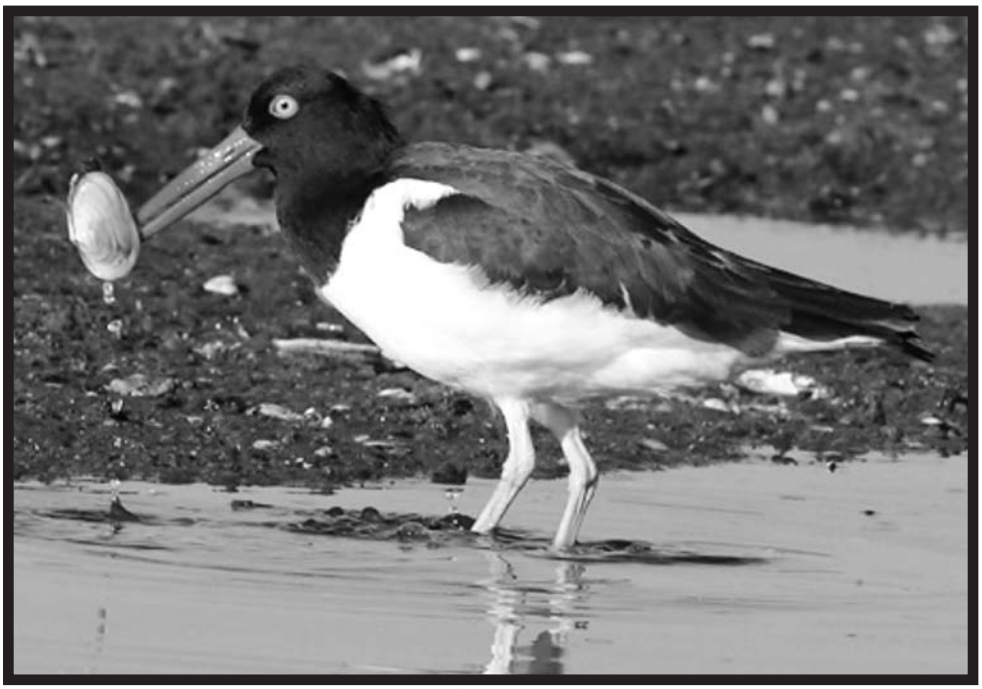
New Jersey is also important for oystercatchers during the non-breeding season. As the northernmost state in the wintering range, some years it is host to nearly 1,000 oystercatchers, slightly less than 10% of the population. Unlike during the breeding season when they are highly territorial, oystercatchers gather in large roost flocks in the fall and winter. The flocks, which are generally in or near inlets, vary considerably in size. In New Jersey, flocks in Absecon and Hereford inlets are especially important as they number 200-350 birds each and often account for the majority of birds present during the non-breeding season.

Although we know much more about oystercatchers now, many questions remain. We hope that continued monitoring and research will provide information about how long they live, chick survival rates, movement patterns, and population trends.

Oystercatchers are not currently listed as an endangered or threatened species in New Jersey, but experts are concerned enough to have recently proposed that their status be changed to a species of "special concern." Other birds – piping plovers, least terns, and black skimmers – that share the same nesting habitats and face the same threats have already been listed. If oystercatchers are to avoid that fate, a comprehensive conservation effort guided by the recent surge in research is critical.

written by Todd Pover

American Oystercatcher feeding on a clam



A Tale of Two Species

On Thursday, January 31st, Conserve Wildlife Foundation of New Jersey hosted a very special event. We premiered a movie called "Crash: A Tale of Two Species" which was made by Allison Argo, an award-winning filmmaker for the PBS documentary series, *Nature*.

The film, which aired nationally on February 10th, follows the intersecting lives of the red knot and the horseshoe crab. The red knot is a shorebird with one of the longest migrations on the planet. The horseshoe crab is a living fossil that emerges annually from the deep ocean to lay eggs that the red knot depends upon for survival.

Horseshoe crabs begin to spawn on Delaware Bay beaches in May. Red knots begin to arrive at the same time. Because the horseshoe crabs spawn on the Delaware Bayshore at the precise time that the red knot stops to feed on its eggs, New Jersey plays a critical role in the survival of these birds.

The reason we are concerned about the red knot and the horseshoe crab is that their population numbers are declining. The loss of red knots is due to a fall in the horseshoe crab population. Horseshoe crabs are harvested for conch and eel bait, and increased demand has lead to increased harvests and decreasing numbers of crabs laying eggs.

When the red knot arrives on the Delaware Bayshore, it is famished from its long flight from Tierra del Fuego, the southernmost tip of Chile. It has to eat quickly to gain weight to fuel its flight to the Canadian Arctic. The eggs of the horseshoe crab provide the perfect meal to allow the red knot to gain weight quickly. But fewer crabs mean fewer eggs and fewer red knots reaching the weight they need to make the arduous journey to their breeding grounds.

"Crash: A Tale of Two Species" explores these issues in a beautifully-shot, eloquently-told film that shows in a clear manner how these birds depend on the crabs. The film followed biologists Larry Niles

Photo: Chris Davidson

Celebrating Wildlife and the People Who Care for It

Women & Wildlife 2008: Awards and Art

March is National Women's History Month and during that time we celebrate and recognize the achievements of exceptional women in the wildlife sciences. Our Women & Wildlife Awards are presented every year to two special individuals for their work, the advances they have made for women in their professions and the contributions they have made to New Jersey's wildlife. Awards are made for Leadership and Inspiration.

Our honorees have distinguished records of achievements with demonstrated leadership in their fields. They have served as important role models and/or mentors to others. By acknowledging these special people, we hope to encourage more young women to see the biological sciences, especially wildlife biology, as real career possibilities.

This year we were thrilled to honor Barbara Brummer and Diane Nickerson, two amazing women who embody the spirit of our Women and Wildlife awards.

Dr. Barbara Brummer was honored with the 2008 Women & Wildlife Leadership Award. She provides a strong voice for the protection of New Jersey's wildlife through her role as state director of The Nature Conservancy, her service on the NJ Endangered and Nongame Species Program Advisory Council, and as a board member of the New Jersey Audubon Society.

For Barbara, the key to wildlife conservation is educating and encouraging stewardship in the next generation. She shares her enthusiasm for nature and wildlife by teaching college classes, leading field expeditions, and providing guidance for the College of Science and Mathematics Advisory Council at Montclair State University and the Pocono Environmental Education Center. As a scientist, educator, and conservation leader, she has devoted great energy and passion to the protection of wildlife and habitat in our state.

Diane Nickerson, our 2008 Women & Wildlife Inspiration Award honoree, is director of the Mercer County Wildlife Center. For the past 13 years Diane has skillfully managed and expanded the capabilities of this busy rehabilitation center, training a corps of volunteers to treat and care for more than 2,000 injured, ill and displaced native animals each year. She and her small staff reach out to the community with an average of 100 educational programs annually to promote wildlife conservation and encourage peaceful co-existence with wildlife.

Diane is a leader in bringing recognition to wildlife rehabilitation as a profession. She is currently Vice President of the Board of Directors of the New Jersey Association for Wildlife Rehabilitators and an active member of the Board of Directors for the National Wildlife Rehabilitators Association.

These outstanding women received their honors at *Women & Wildlife 2008: Awards and Art* on March 29, 2008 at the historic Prallsville Mills in Stockton, NJ. Tickets to the event supported rare wildlife protection in our state. We are especially grateful to Mack-Cali Realty Corporation and PNC Bank for their sponsorship.

The awards reception was graced with an exhibit of New Jersey wildlife art and photography created by area artists. Artwork and photographs were on sale on the day of the event to help advance wildlife conservation in New Jersey. The exhibit was open to the public on March 30 from 11:00 a.m. until 4:00 p.m.

Building a Better Bat Gate

There is an abandoned iron mine in northwestern New Jersey called the Hibernia Mine. The largest wintering population of bats in the state is hibernating in one of the unused shafts right now. Over 30,000 bats use this location every winter. Among the species of bats that use Hibernia Mine are Indiana bats, protected by federal law because their population has declined about 57% in the last 40 years.

Hibernation is vitally important for New Jersey's bats. It allows them to survive during a time when few food resources are available to them. Bats in New Jersey hibernate between October and April. When insects start to disappear in the fall, bats mate and go into hibernation. As bats prepare for hibernation, they pack on winter weight by eating lots of insects. This weight is stored as fat reserves that the bats need to survive the winter.

Once insects return in the spring, the bats come out of hibernation and return to their summer roosts where females form colonies to raise their young and males roost alone or in small groups.

Hibernia Mine is one of only a few places remaining in the state where bats can hibernate. But every year, the bats are put at risk when people breach the gate to the mine and enter into the bats' sanctuary. This disruption kills hibernating bats because the change in temperature and the increase in light and noise cause the bats to "wake up," increasing their metabolic rate and causing them to burn fat quicker. When this happens they starve to death before spring comes. A single disturbance can cause a bat to use as much as 68 days of fat supply.

Hibernia Mine is protected by a metal gate that doesn't yield easily. It takes time and equipment to breach the gate. This season

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A Tale of Two Species

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and Amanda Dey as they followed the red knot on its long journey and gathered with other scientists to track, trap and band these birds. It showed how the science we gather on the species we seek to protect is an important tool in wildlife conservation.

Conserve Wildlife Foundation of New Jersey was thrilled to host the premiere showing of this film.

We chose to host this event for a number of reasons. We wanted to promote the story of the red knot and the horseshoe crab and engage as many people as possible in the conservation efforts taking place to protect them. (See side box comment on recent actions.) We wanted to talk about the role of Conserve Wildlife Foundation of New Jersey in this extensive, international effort that brings together scientists from many countries in a collaborative effort to gather data, draw conclusions and suggest actions to take.

Conserve Wildlife Foundation also wanted to thank the many members who responded to our call for support to help get this movie made. With the generous support of our members, we were able to send biologists to Chile and to the Arctic and make sure that the film crew was able to capture the birds at the beginning of their journey as well as the absence of birds at the end. One of the final scenes in the film where the team of biologists search for, and fail to find, any red knots nesting in their historic locations in the Arctic was very moving and brought home to many in the audience the real effects of the population's decline.

***Nature* Executive Producer Fred Kaufman and Deputy Commissioner John S. Watson, Jr. of the NJ Department of Environmental Protection**

Elizabeth Dean and Richard Wilcox

(left to right)
Bernadette McLaughlin, Rich Hessen, Michael Pleus and Richard Weiman

You can follow the work of the international shorebird team through their blog at *shorebirdproject.blogspot.com* Add a comment and let them know your thoughts on their work.

(Little Brown Bats pictured above) Bats are beneficial to us. A single little brown bat can catch more than 1,200 mosquito-sized insects in one hour!

This wonderful film was broadcast nationally on February 10th. On February 11th, the New Jersey Marine Fisheries Council met to consider whether to extend a two-year moratorium on harvesting horseshoe crabs. This moratorium was designed to allow the crab population to recover to levels sufficient to support a healthy population of red knots. Attendance at the meeting was incredible with about 60 people speaking in support of the moratorium and 4 in opposition. Following testimony from scientists and comments from the public that were heavily in favor of extending the moratorium, the Fisheries Council voted 5 to 4 to veto the moratorium. This vote ignored scientific data, the New Jersey Department of Environmental Protection's request and public opinion. We will continue to push for restrictions on horseshoe crab harvests to stop this bird and others like it from becoming extinct under our watch.

Do You Hear What I Hear?

Listening to the Breeding Calls of New Jersey's Frogs and Toads

On a cool winter night early in March, I heard a whistling noise way off in the distance. I couldn't place it at first, but soon I realized that it was a sound of spring. Yes, with snow still blanketing the ground, I was listening to a breeding chorus of Northern spring peepers, a little treefrog no larger than a paper clip. This tiny treefrog is abundant throughout New Jersey and can be recognized by its high-pitched chirpy whistle.

Frogs and toads need watery areas called wetlands to breed. Different species prefer different types of wetlands. Some species are very particular and have very specific needs. The wood frog is very particular. It is habitat-sensitive and prefers temporary ponds called vernal pools for breeding. The bullfrog, on the other hand, is a species that doesn't mind if it lives in a large lake, small pond, or slow stream.

Photo: Brian Zarate

Wood Frog

"New Jersey is home to only 16 species of frogs and toads... "

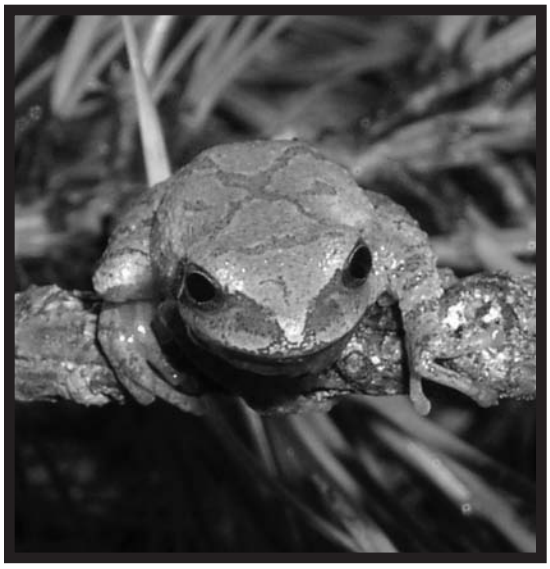

Photo: John Bunnell

Northern Spring Peeper

During the mating season, frog and toad species produce easily recognizable calls that attract females and warn off other males. These calls allow us to identify the types of species, estimate the number of individuals, and monitor the health of the population over time. Calling generally occurs only during the breeding season.

Mating seasons differ depending on the species. Wood frogs and Northern spring peepers are some of the earliest to call and breed. Wood frogs can call as early as late February in the southern part of the state. Other species of frogs such as the Northern gray treefrog wait until May when the weather is warm and humidity is high.

New Jersey is home to only 16 species of frogs and toads, making it easy to learn about each species and its habitat needs. Now is the perfect time to start learning about their habits and habitats since they will soon awaken from their winter sleep. *Are YOU ready?*

Kids of All Ages Get Out and Listen!

1. Find an area of woodland near your house. It does not have to be a big area. It does have to have a pond or other wet area.

2. Once the weather starts to warm up, put on your boots and walk into the woods. When you approach the wet area, be very quiet. Sssssh!

3. Listen.

4. Can you hear any spring peepers, bullfrogs or other frogs calling? Listen for a few minutes it may take some time for your ear to pick up the sounds.

5. Let us know what you heard by submitting your comments to our wildlife blog found at *conservewildlifenj.org*

ATTENTION EDUCATORS

Download a free group activity entitled Calling All Frogs at www.conservewildlifenj.org/callingallfrogs.pdf This fun-filled activity simulates a breeding amphibian chorus.

Available for purchase:
New Jersey's Frog and Toad Calls – CD $10.00
Field Guide to Reptiles and Amphibians - $15.00
Or purchase them both as a package for $23.00
Plus $3 shipping and handling

Please call Maria on (609) 984-0621 to order today.

BEHIND THE SCENES *Todd Pover, Beach Nesting Bird Project Manager*

What is the best thing about your job?

Certainly working close-up with rare wildlife is a huge appeal. In the end, being part of the dedicated conservation "community", including both colleagues and the public, is most rewarding.

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

Wait! Successful conservation takes much longer than I imagined. There are numerous political, social, and practical issues that need to be addressed beyond the biological circumstances. Nature has something to say, too – despite all your efforts, some years are less successful because of factors like the weather.

Why did you decide to become a biologist?

This is actually a second career for me. I wanted a job where I could make made a bigger impact. I began volunteering for various organizations, including for the state's Endangered and Nongame Species Program. I had one of those rare "aha" moments as soon as I discovered the piping plover project.

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

Being a travel planner or travel writer would be a nice third career. Writing a book about piping plovers - a "behind the scenes" tale so to speak – might be fun.

If you could be one animal what would you be and why?

No disrespect to the other birds I study - least terns, black skimmers, and American oystercatchers – they are all fascinating, but predicatively enough I'd have to pick the piping plover. I've invested so much of my time in this species and for all we know about their behavior, there is still much we don't understand. Being a piping plover would be the ultimate "fly on the wall" experience.

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

On-the-ground management is essential to the species we protect. If we can't effectively communicate how and why we need to protect them, our efforts are going to fail. E-mail makes that job incredibly easier and faster. We can also exchange ideas with researchers practically anywhere in the world.

Todd Pover holding an American Oystercatcher

What were you doing before you answered these questions?

Spending some "downtime" with my family, something that can be difficult during the breeding season when the job is virtually "24/7". My wife is something of a "plover widow" when the field season rolls around.

Building a Better Bat Gate

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a metal cutting tool powered by a generator allowed intruders to gain entrance to the mine. There is no reason for anyone to be in the mine during the winter. Even biologists hesitate to survey the mine as often as they could, for fear of causing a disturbance among the bats. We can ask ourselves why people feel the need to take such destructive action or we can do something to stop it.– With your help, we plan to do something to stop it.

This winter, we are launching a special appeal to raise money to buy a better gate that will be impossible to breach. We want to protect this large population of bats for our sake and for the sake of the future of the species. A new gate will cost us $5,000. We have raised $1,560 so far and have a commitment of $1,000 from other sources. Can you help us raise the additional funds needed to protect these special creatures? Just add your check or credit card number to the enclosed envelope and write the words Bat Gate in the Special Donation section. Thank you.

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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.

This column will let you know about upcoming phenological events. You can let us know when you observe these events at www.conservewildlifenj.org. Look for our blog page and submit a comment.

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?*

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?*

Bald eagle chicks begin to hatch. Hatching will continue throughout March and April depending on when the eggs were laid.

Fourth week: Barred owls begin their mating rituals and can be heard calling throughout their wetland territory. *Have you heard the "who cooks for you, who cooks for you allllll" song of the barred owl?*

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. *Check out the peregrine cam at www.conservewildlifenj.org/teacher/web/cams.html*

Third week: Bats begin to emerge from hibernation. Of New Jersey's 9 species of bats, 6 species over winter in New Jersey caves, mineshafts, and abandoned railroad tunnels. *Have you spotted any flying mammals lately?*

Fourth week: Deep within the Pine Barrens, warmer temperatures in late April and early May cause corn snakes 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.

Third week: Shorebird numbers reach their peak on the Delaware Bay. Joining red knots are ruddy turnstones, sanderlings, and semipalmated sandpipers. *Have you witnessed one of New Jersey's greatest wildlife phenomenons?*

Fourth week: Bobolink females prepare their grassland ground nests for laying a clutch of five to six eggs. The eggs will hatch in 11 to 13 days. *Have you heard the bubbly song of the bobolink echoing from an overgrown field in New Jersey?*