



Photo: © Kathy Clark

## ENDANGERED SPECIES SPOTLIGHT



Photo: © Jim Verhagen

### Peregrine Falcon (*Falco peregrinus*)

Peregrine Falcons, *Falco peregrinus*, dive faster than any other bird of prey in the world, reaching speeds of over 200 miles per hour. Though they are the world's most widespread raptor and one of the most widely found bird species, Peregrine Falcons became endangered in many locations due to the use of harmful pesticides, especially DDT.

When DDT use became widespread in the 1950's, it slowly entered the food chain and affected the raptors when they ate other animals that had consumed the toxin. DDT caused the adult falcons to lay thin eggs that cracked underneath them during incubation, or caused the young chicks to die early. By 1964, these birds of prey were essentially gone east of the Mississippi River. The Peregrine Falcon was federally listed as endangered under

the Endangered Species Conservation Act of 1969.

The New Jersey Division of Fish and Wildlife began a restoration program in 1975 to bring back the Peregrine Falcon population. Hacking, or placing captive bred birds in boxes meant to mimic a natural nest site, began statewide. Young chicks were bred and raised in captivity, then gradually released along the coast from hacking towers built across the state. This process continued until 1980, with a total of 55 young birds released.

In 1980, the first wild nesting occurred at Forsythe National Wildlife Refuge in Brigantine, Atlantic County. In New Jersey, the Peregrine's recovery continues to grow at a slow but steady pace. Today, there are 26 known nesting pairs in habitats throughout

the state. Though their reproduction remains strong, biologists are concerned for the Peregrine's long-term recovery. Pesticides, PCBs, and heavy metals continue to threaten their population.

Peregrine Falcons usually nest in mountain ranges, river valleys, or along coastlines, but they now nest increasingly in cities and urban areas. Though New Jersey is one of the most densely populated states, the falcons have found suitable habitat with plenty of ledges to nest on and abundant prey close by.

Peregrines are primarily bird-eating raptors, but will occasionally hunt small mammals, reptiles, and even insects. The falcons can grow to a body length of 13 to 23 inches with a wingspan reaching lengths ranging from 29 to 47 inches.

*continued on page 3*



## A Note From the Executive Director

*Conserve Wildlife Foundation of New Jersey has always been driven by the expertise and commitment of our biologists. Their incredible knowledge and dedication to protecting New Jersey's at-risk wildlife has helped our state establish*

*a model to emulate. After all, if New Jersey – the most densely populated, heavily developed state in the nation – can give rare wildlife species the opportunities they need to survive or even thrive, then other states may be inspired to do likewise.*

*But none of our successes would be possible without one other group of people – our volunteers. These passionate and devoted individuals brave New Jersey's most challenging environments to help CWF protect wildlife.*

*They wade knee-deep in windswept marshes to build and put up osprey platforms.*

*They help shepherd salamanders and frogs across roads on cold, rainy nights.*

*They endure harsh weather and conditions to capture the perfect rare wildlife sighting or photo.*

*While those hardy volunteers brave the elements, others assist with less physical tasks – they help count at-risk species like bats and beach birds. Yet no matter the species or project, CWF volunteers often experience memorable moments that would otherwise be missed.*

*Volunteers feel the joy of holding a tiny tree frog the size of your thumb – one that you might overlook even if it was calling loudly from a branch inches from your face.*

*They experience the beauty of cradling a delicate shorebird taking a break from its grueling 9,000-mile migration.*

*They feel pride as they watch that fledgling bald eagle make its first flight from their neighborhood nest.*

*CWF volunteers are vital to our efforts for so many groups of species – bats, beach nesting birds, amphibians, raptors, shorebirds, and diamondback terrapins – as well as our education and outreach programs and events. Let us know if you'd like to join the team, whether in the field or the office or from your own home.*

*So on behalf of our staff – and the imperiled wildlife we protect – let's give our current volunteers a well-deserved thank you!*

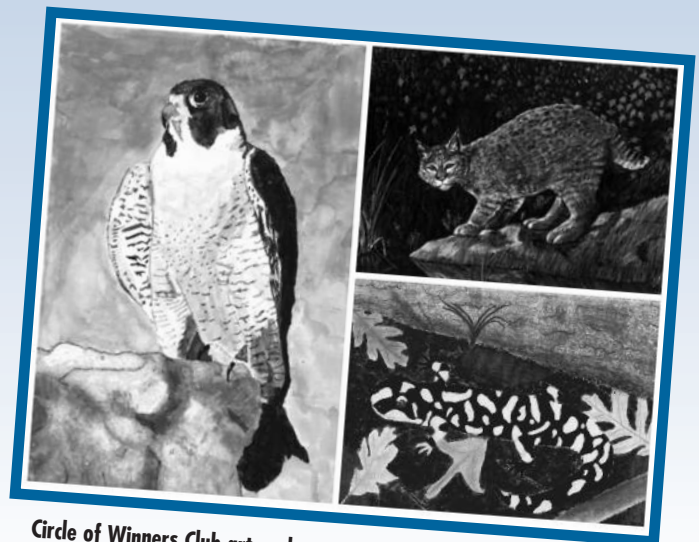
**David Wheeler**  
Executive Director

## Young Artists and Writers Bring their Talents to “Circle of Winners” Club

By Maria Grace

What does winning the Species on the Edge contest mean to a child? Preliminary feedback suggests that the impact of winning the contest can be profound and life-changing. To uncover these stories and see how those students' passions for the environment, art, and writing have developed over time, CWF invites all the past and current winners of the **Species on the Edge Art & Essay Contest** to join the Circle of Winners. CWF will offer members unique access to upcoming wildlife events, academic and professional networking, merchandise discounts, and up-close and personal wildlife experiences. Best of all it's free – and easy to join.

Do you know a past winner of the **Species on the Edge Art & Essay Contest**? Have them register for the Circle of Winners Club by visiting: <http://tinyurl.com/17pzlzm>



Circle of Winners Club artwork


# ENDANGERED SPECIES SPOTLIGHT – *Peregrine Falcon*

Both the male and female have similar plumage and markings, but the females grow noticeably larger in size and weight. Their plumage is usually bluish-black to slate grey in color, with darker markings on their wing tips. These birds mate for life and do not make long distance migrations.

By age one, the falcon already reaches sexual maturity and will usually reproduce between the ages of two and three. During breeding season, between February and March in New Jersey, these birds become very territorial and require a little over half a mile between each nesting pair. The

female will generally lay three to four eggs in one clutch and these eggs will then be incubated for 29 to 33 days, mainly by the female. Peregrine Falcons can live in the wild for up to 15 years.

The Conserve Wildlife Foundation has teamed up with The New Jersey Division of Fish and Wildlife to monitor and protect the state's Peregrine Falcon population. We currently seek funding for our Falcon Cam, a webcam that has monitored the Peregrine Falcons nesting on a Jersey City skyscraper rooftop for over a decade. Thousands of viewers have enjoyed the

thrill of watching the falcons court, incubate and raise their young. (See page 5 for related story.) This project is in great need of funding to modernize and continue streaming the Falcon Cam and to help biologists ensure that these amazing birds continue to recover. 

By *Stephanie Feigin, CWF Intern*

Works cited:

- Cade, Tom J.; Burnham, William. 2003. *Return of the Peregrine: A North American Saga of Tenacity and Teamwork*.
- Clark, K.E., Y. Zhao, and C. Kane. 2009. Organochlorine pesticides, PCBs, dioxins, and metals in postterm peregrine falcon (*Falco peregrinus*) eggs from the Mid-Atlantic states, 1993–1999. *Arch. Environ. Contam. Toxicol.* 57:174-184.

## 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.*

## Wildlife Goes to School

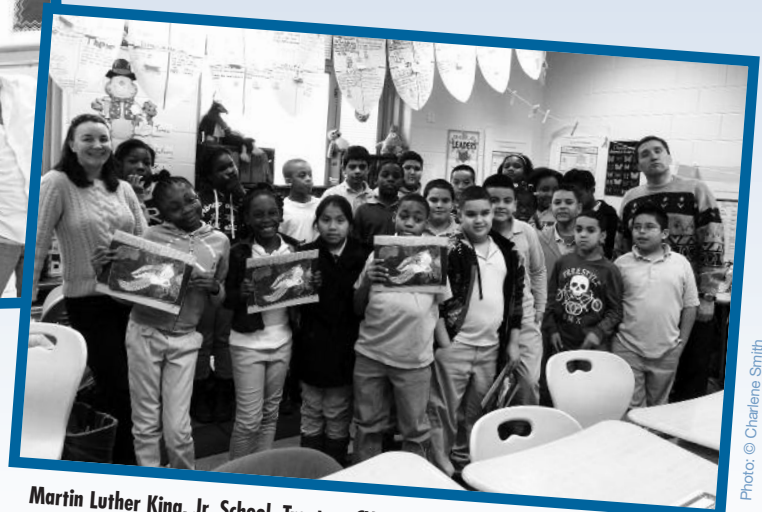
By *Maria Grace*

Thanks to generous funding from PSEG and Church & Dwight, CWF's educators have delivered numerous free presentations to students in Mercer and Essex County schools. These free programs are aimed at increasing participation in our *Species on the Edge Art & Essay Contest*. More participation means more students exploring creativity, their talents for art and writing, and their knowledge of the world around them.

Over 500 students from the target areas enjoyed the chance to learn about NJ's rare wildlife and CWF's work to protect our incredible biodiversity.



**Quitman Street School, Newark:** Students from Quitman Street School in Newark were thrilled to enjoy a presentation about New Jersey's rare wildlife to jumpstart their work for the Species on the Edge Art & Essay Contest.



**Martin Luther King, Jr. School, Trenton:** CWF's Maria Grace visited Ron Maurais's enthusiastic students from the Martin Luther King, Jr. School in Trenton to talk about New Jersey's endangered and threatened wildlife.

Photo: © Maria Grace

Photo: © Charlene Smith



# CFW Wildlife Gala Celebrates Extraordinary Progress

By Liz Silvernail

Over 100 CWF friends and colleagues gathered this winter to honor five outstanding women for their contributions to wildlife conservation. Their leadership and inspiration on species and habitat protection in New Jersey has been extraordinary.

Those 8th annual Women & Wildlife Awards proudly honored Tracy Leaver, Founder of Woodlands Wildlife Refuge, for “Inspiration”; Linda Mead, President of D&R Greenway Land Trust, for “Leadership”; Jo Ann Frier-Murza, first Chief of the State’s Endangered and Nongame Species Program (ENSP), for “Legacy”; Pat Sutton, an expert in gardening for wildlife, for “Education”; and Dr. Edith Wallace, a Northern New Jersey naturalist and educator, for “Service”.

Our event also commemorated the 40th Anniversary of New Jersey’s Endangered Species Conservation Act. This landmark legislation directed the Department of Environmental Protection to protect, manage and restore the State’s endangered and nongame wildlife species. Over the past 40 years, state biologists have made New Jersey a national leader in bringing key species back from the brink of extinction and extirpation.

New Jersey Director of Fish and Wildlife Dave Chanda, ENSP Chief Dave Jenkins, and CWF Executive Director David Wheeler spoke at the event about the successful recovery of species like the bald eagle, peregrine falcons, and ospreys, and the State’s important partnership with CWF to carry out the critical work necessary to keep New Jersey’s rare wildlife in our future.

The lucky winners of our silent auction brought home stunning wildlife photography, handcrafted jewelry and gifts, exciting weekend getaways, and adventurous opportunities to join our biologists in the field. CWF staff also engaged guests in a “show and tell” about their work with photographs, equipment, and reports.

CFW gratefully thanks our many generous sponsors and supporters for helping to make the event a success. The funds raised advance our critical programs to protect rare wildlife across the state. ✈



The 2014 Women & Wildlife Aware winners from left to right: Pat Sutton, CWF’s Executive Director David Wheeler, Tracy Leaver, Jo Ann Frier-Murza, CWF Former Board Chair Martin McHugh, Edith Wallace, and Linda Mead.

## Women & Wildlife

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**ENSP Chief Dave Jenkins, ENSP Principal Zoologist Kathy Clark, Ecologist Liz Johnson, ENSP Principal Zoologist Mick Valent, and Legacy Award Winner Jo Ann Frier-Murza.**



**Brandee Chapman, DEP Assistant Commissioner Rich Boornazian, and David Wheeler.**



**Fish & Wildlife Director Dave Chanda, NJ State Federation of Sportsmen's Clubs President Frank Virgilio, NJ State Federation of Sportsmen's Clubs Membership Director, Pola Galie, and CWF Consultant Larry Niles.**

## High-Flying Family: A New Jersey Falcon Saga

By Charlene Smith

In 1999 Peregrine Falcons were first observed flying around 101 Hudson Street. They have since become a fixture in the skies above downtown Jersey City and many other urban areas across the state. Today, Peregrine Falcons thrive in urban areas, living high up on skyscrapers much like the cliffs they are accustomed to, with an abundance of pigeons to feast upon.

The famous pair who lives here year round and calls the Mack Cali building their home have been prolific over the years. The female is estimated to be about 11 years old.

“The age makes sense in explaining the large egg clutch, the failure of eggs to hatch and the damaged chicks we’ve seen the past few years” says Kathy Clark, a biologist for the Endangered and Nongame Species Program.

The male was banded as a nestling at Riverside Church in New York. He is 10 years old, and has been nesting in Jersey City since 2006.

The high number of fledglings reared from the 101 Hudson Street nest is surprising considering the many factors against them. About half of fledglings do not make it through their first year, but the survival rate after a year goes up over 80%.

Unfortunately, the last two years have proven disappointing. In 2013 there were four eggs found in the nest but only one hatched and that hatchling later died. A foster hatchling (from Sea Isle City) was introduced, accepted, and nurtured by the adults. Only two fledged out of three eggs in 2012, and one later died.

In contrast, the two prior years fared much better. Three eggs were laid in 2011, but one was found to be impaired and non-releasable while the two fledged successfully. In 2010, four eggs hatched, fledged, and banded, and in 2009 two fledged out of three eggs.

Peregrine falcon nests all over the state face similar challenges, enjoying healthy periods followed by trying times. Yet the Jersey City nest captures our attention thanks to the Falcon Cam. Hundreds of thousands of people have enjoyed watching the falcon reality show during the spring, and the Falcon Cam has also yielded tremendous insights for our scientists studying falcon behavior. CWF has taken responsibility for the Falcon Cam from the State due to funding costs – and we need our supporters’ help to keep it online this year.

Today more than 25 pairs of peregrines nest in New Jersey and their reproduction here remains strong. However, biologists remain concerned for their long term recovery since they have some of the highest loads of DDT and mercury (Clark et al. 2009). After all, this species of falcon was once extirpated from their nesting grounds in the Eastern United States due to the widespread use of DDT back in the 1950s. ✈



**To learn more about how you can keep the Falcon Cam online this spring, visit:**

[www.ConserveWildlifeNJ.org/falconcam](http://www.ConserveWildlifeNJ.org/falconcam)



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# Connecting Human Health and Horseshoe Crab Mortality on the Delaware Bayshore

By Jen Smith, CWF Intern

Last spring, the Conserve Wildlife Foundation partnered with American Littoral Society to restore Delaware Bayshore beaches that were ravaged by Hurricane Sandy. Those newly restored beaches then hosted the triumphant return of horseshoe crabs and the migrating shorebirds that depend on them.

As the largest spawning area of horseshoe crabs in the world and a vital part of shorebird migration, Delaware Bayshore beach restoration was crucial for both crabs and shorebirds like the red knot. This year, CWF will partner with New Jersey Audubon to expand our approach with an ambitious initiative to reduce horseshoe crab mortality through their role in the medical industry.

The chemical lysate, only found in horseshoe crab blood, is used to detect bacterial contaminants in all injectable drugs and implantable devices. Lysate is the only U.S. Food and Drug Administration-approved chemical for drug and implant testing, so it is a vital part to the medical industry and to human health. To get lysate, technicians take as much blood as possible from a horseshoe crab without killing it.

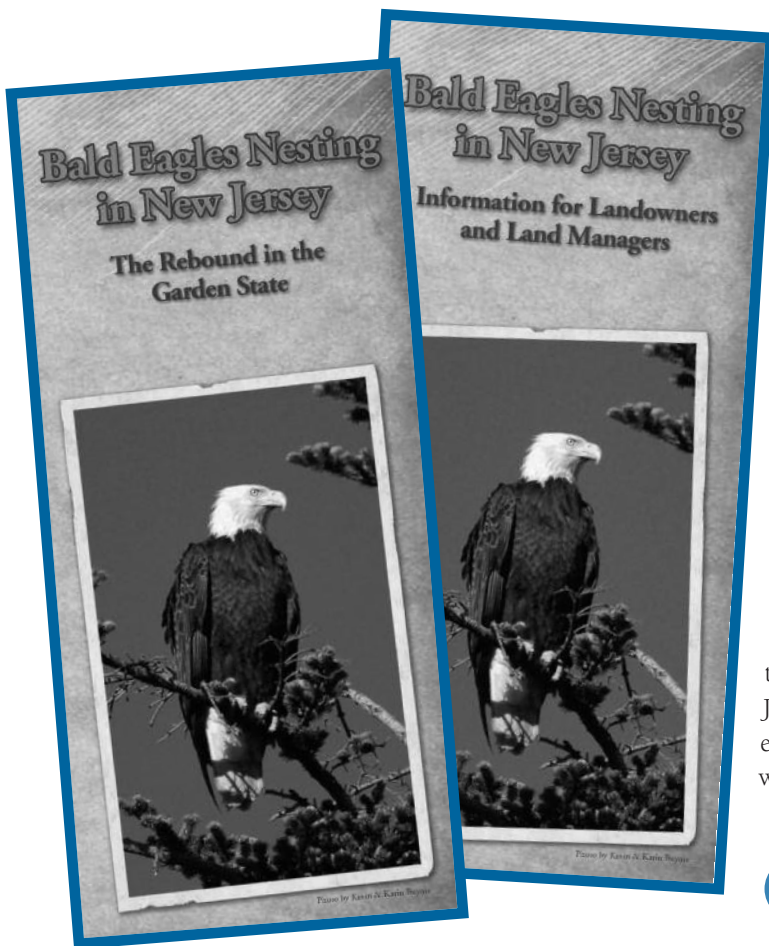
“Currently the mortality rate for the bleeding procedure can be as high as 30 percent. Our biologists are seeking to reduce that

number to 5 percent,” explains Dr. Larry Niles, who has designed this horseshoe crab proposal for CWF. “By working together to establish an accepted technical standard and open access to the results, we hope to ensure a viable and sustainable use of horseshoe crab populations that benefits both people and birds.”

The timing is essential. Horseshoe crab eggs are a vital resource for the red knot, which is endangered in New Jersey and Delaware and is currently under review to be listed as endangered at the federal level. Red knots and other shorebirds feast on horseshoe crab eggs to stockpile energy for the long migration to the Canadian Arctic where they mate.

“This is a unique chance to develop a bay-wide pact between the states of New Jersey and Delaware, the conservation groups fighting for horseshoe crab and shorebird survival, and the primary drug companies producing and using lysate,” said David Wheeler, CWF Executive Director. “This would allow us to address the needs of human health and local job creation without negatively impacting the ecosystem we worked so hard to restore.”

This project is generously funded by the Doris Duke Charitable Foundation and is set to begin in Spring 2014. ✈



## Bald Eagles Nesting in the Garden State

By Larissa Smith

The New Jersey Bald Eagle nesting population is steadily increasing with 148 nesting pairs monitored in 2013 and 177 young fledged. These numbers appear even more extraordinary when we recall that New Jersey was down to a single nesting pair just a few decades ago!

As the nesting population increases, so do the incidences of eagles nesting in close proximity to humans and human activity. More than half of New Jersey's eagle nests are located on private property, which makes it important to advise and educate landowners, land managers, and the general public about the potential for various human activities disturbing the eagles.

To address this issue, we received State Conserve Wildlife funding to produce two informational brochures about co-existing with New Jersey's bald eagles. One informative brochure is for anyone interested in eagles, while the other is designed specifically for landowners with eagle nests located on their property. ✈

The brochures are available online at:

[www.ConserveWildlifeNJ.org](http://www.ConserveWildlifeNJ.org)



# CWF Brings Top Bat Scientists to New Jersey

By MacKenzie Hall



Seven years ago, White-nose Syndrome first reared its deadly head, killing nearly every bat in a cave outside of Albany, New York. The disease has since spread to roughly

half of the United States and much of Canada. An estimated 6 million bats have died, as White-nose Syndrome earns the fear and attention of scientists and citizens across the world.

There is hope, however. A growing number of bat experts are tracking the disease and its fallout, especially here in the northeast where it all began. A record-setting 170 researchers, conservationists, educators, students, and enthusiasts from 19 states gathered in January for the annual Northeast Bat Working Group (NBWG) meeting. CWF hosted the mega-meeting in Clinton, New Jersey, spanning three days and highlighting more than 40 talks and workshops to update and inspire each other.

Insight and ideas abounded. On the White-nose front: Pennsylvania Game Commission biologists shared their “Fat Bats” study, which found that bats are now entering hibernation heavier than before. The behavior may possibly be an adaptation to beat the energy-zapping disease. As for the few little brown bats left, Dr. Brooke Maslo from Rutgers University used winter counts and banding data from New Jersey’s Hibernia Mine to show that they are now surviving winter at almost-normal rates.

Researchers are using their creativity to better understand historic bat ranges, like museum collections and State Health Departments. The New York Rabies Lab, for example, has yielded more than 80,000 bat records since 1981. Don’t worry – the vast majority tested negative! We are exploring how we can do likewise in New Jersey.

Our meeting covered many issues impacting bats, including wind power, migration, acoustic detection, forest management, and the ever-important public outreach. White-nose Syndrome has made bats’ futures more precarious than ever – but the partnerships and collaboration of the NBWG gives us reason to hope. 🦇

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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 features the winners of the 2013 Species on the Edge Art & Essay Contest, and stories about the Jersey City peregrine banding and the OspreyCam.*

*If you would like to subscribe to Explorations, please send your email address to [info@conservewildlifenj.org](mailto: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.



Use your Smart Phone to scan this code for more information about *Conserve Wildlife Foundation of New Jersey.*



## MARK YOUR CALENDARS!

### May 9 and May 19 **Marine Mammal Stranding Workshops for First Responders**

#### **Two Dates to Choose From:**

Friday, May 9th

Monmouth University, West Long Branch, NJ

Friday, May 19th

Stockton College, Galloway, NJ

The purpose of these FREE 1-day workshops is to help first responder personnel (local police, park staff, animal control personnel, lifeguards, etc.) to understand how to handle marine mammal and sea turtle strandings. Topics that will be covered include identification of marine mammals and sea turtles, regulations that pertain to marine mammal and sea turtle protection, proper stranding procedures, and proper public education and outreach.

**Learn more at [www.conservewildlifenj.org/getinvolved/event/marinemammalworkshop/](http://www.conservewildlifenj.org/getinvolved/event/marinemammalworkshop/)**

### JUNE 6 TO JUNE 8 **NJ Wildlife & Conservation Conference**

Friday, June 6th to Sunday, June 8th

Tropicana Casino and Resort, Atlantic City, NJ

The 2nd Annual NJ Wildlife & Conservation Conference is designed to find common ground among wildlife enthusiasts and sportsmen, learning and sharing information focused on wildlife conservation, setting the stage for innovative partnerships. This year, topics of interest include climate change, energy, human-wildlife interactions, horseshoe crabs and red knots, the NJ Wildlife Action Map, and more.

**Learn more at [www.conservewildlifenj.org/getinvolved/event/njwcc/](http://www.conservewildlifenj.org/getinvolved/event/njwcc/)  
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