



## ENDANGERED SPECIES SPOTLIGHT

### Northern Metalmark (*Calephelis borealis*)

The northern metalmark (*Calephelis borealis*) is currently a Special Concern butterfly species that has been suffering a dramatic decline in New Jersey. New Jersey historically hosted over two dozen populations of this species but over the last decade it has been reduced to two small metapopulations scattered over a half dozen locations in Sussex and Warren counties.

Northern Metalmarks generally fly slowly, are easily approached, and are relatively easy to identify. They are small in size (wingspan of 1"-1 1/4") and their wings are chestnut colored on the upper side and orange on the underside. The larval hostplant, roundleaf ragwort, can also be easily identified in the field. It is useful for finding suitable habitat during the nonbreeding seasons.

Overall, this species occurs across a wide range from Connecticut south westward through New Jersey, Pennsylvania, and West Virginia and westward through Ohio and Indiana. Within this range it often exists in metapopulations made up of small colonies numbering less than 20 individuals. In New Jersey, Northern Metalmark is restricted to the limestone outcrop areas that occur in Sussex and Warren counties. Primary habitats are openings within woodland or forested areas. Within this area, it is found in what could be called sunny glades and habitat edges predominantly in old field/mid-successional red cedar stands. It is in these areas that its host plant roundleaf ragwort (*Packera* [Senecio] *obovatus*) is abundant. Northern metalmark adults nectar on a wide variety of herbaceous plants within these habitats and will travel out of the

habitat to find nectar and to disperse in order to colonize new locations.

This species is currently threatened by all of the usual suspects that cause problems for many of our rare species. These include habitat loss and fragmentation due to human activities, habitat change as a result of succession and canopy closure, and the invasion of non-native species. Many extirpated sites seem to have succumbed to a combination of canopy closure (shades out nectar plant species) and invasive plant competition. Invasive plants cause a wide variety of problems for this species. Invasive herbaceous plants such as Japanese stilt grass crowd out the foodplant. Shrubby invasives such as amur honeysuckle or autumn olive increase the shading of the understory and speed the closure of the open glades that this species inhabits.

*continued on page 3*



Conserve Wildlife Foundation  
Executive Director Margaret  
O'Gorman holds an osprey  
chick for banding

## From Our Executive Director

### Valuing Nature

*Earlier this year, the World Wildlife Fund published the ninth edition of its Living Planet Report. This report "documents the change in biodiversity, ecosystems and humanity's demand on natural resources." It shows trends in the state of the planet's biodiversity across 2,688 species of mammal, bird, reptile, amphibian and fish. This is one of the biggest wildlife trend surveys on earth.*

*According to the report populations of vertebrates were on average one-third smaller in 2008 than they were in 1970, representing a global decline across many species groups. The home range of tigers globally has shrunk to 7% of what it was. Cod populations have been reduced by 74%, while river dolphins teeter on the brink of extinction. The report makes for grim reading that echoes our experience in New Jersey where recent changes to the state's threatened and endangered species saw the addition of previously common species like the cattle egret and American kestrel.*

*In the Living Planet Report, we are introduced to a Kenyan farmer called Margaret. Through a series of vignettes, we see how Margaret's life is tied to the land in Kenya and how her beneficial management of the land is ensuring that it will provide for her for a long time. Through her story we understand the importance of healthy habitat to ecosystem services and human health and wellbeing. Habitat protection and restoration is more than a luxury, more than something we do on land we've preserved for the future. It is a fundamental part of a living planet.*

*The World Wildlife Fund, through this story, suggests how we can all live in tune with our environment, just like Margaret. No, we are not asked to move to Kenya and farm in subsistence ways. We are, instead, asked to preserve natural capital, produce in better ways and consume more wisely. It asks us to account for environmental costs, reward conservation, share resources and make ecologically informed challenges. The authors of the report believe that by taking a One Planet Perspective, we can conserve biodiversity, ensure ecosystem integrity and secure food, water and energy. It all starts with valuing nature. When we value nature, we want to preserve it. When that happens we begin to safeguard the natural capital of the earth. We begin to live within our ecological means and not exceed the biocapacity of our blue planet.*

*The report closes with words from inspirational leaders. Nelson Mandela said, "It always seems impossible until it's done." In the mid to late 20th century, it seemed impossible to recover bald eagles to today's historic numbers and it seemed impossible that peregrine falcons and ospreys would ever thrive again in New Jersey. Reversing the trend in the Living Planet Report may seem impossible, but if we start by valuing nature, we may just get it done.*

[http://awsassets.panda.org/downloads/lpr\\_2012\\_final\\_120507.pdf](http://awsassets.panda.org/downloads/lpr_2012_final_120507.pdf)

A handwritten signature in cursive script that reads "Margaret O'Gorman".

Margaret O'Gorman  
Executive Director



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## ENDANGERED SPECIES SPOTLIGHT – Tidewater Mucket

Lastly, vines such as Asian bittersweet, choke out canopy trees and create dense canopies that further alter the habitat structure at these sites. The combination of these problems serves to decrease the quality of the habitat at many of our northern metalmarks sites which, in turn, leads to diminished populations and the extirpation of smaller colonies.

In order to combat these declines, a greater effort has been made to survey and monitor all of our known northern metalmark colonies and to begin habitat restoration and enhancement efforts at several locations. This work has been focused on the White Lake population and is being conducted in conjunction with The Nature Conservancy, the caretakers at this site. Over the past two winters extensive areas

of invasive plants have been removed and treated at two of the main populations. Areas of open soil were also seeded with native wildflowers to provide nectar sources for the adults. These sites will be monitored for the next several years to determine the population's response to the habitat improvements. The host plants have already shown a positive response through greater areas of flowering plants that were once heavily shaded. We have also seen some localized recolonizations of small sites that had closed in and were opened back up through our management efforts. It is hoped that if some of our core populations can be increased in size they will serve as a source for the colonization of surrounding unoccupied suitable habitat. If successful, the management practices and techniques developed will be used as a

guideline for the restoration of other northern metalmark sites within New Jersey.

Northern metalmark is a species on the edge in New Jersey but potentially could be restored to past numbers and distribution through greater land stewardship efforts. ✈

*Written by: Robert Somes- Senior Zoologist  
New Jersey Division of Fish and Wildlife,  
Endangered and Non-game Species Program*

### 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.*

## Become a Monthly Supporter – Help Stop Species Loss 12 Times a Year



Photo: © Eric Sambol

**A monthly gift is quick and easy to set up. Just visit:** [www.conservewildlifenj.org/getinvolved/donate/](http://www.conservewildlifenj.org/getinvolved/donate/)

Choose the amount that works best for you, and your gift will be securely transferred from your credit card or bank account each month. You will receive a tax receipt for your cumulative contributions each January. You will also receive our membership benefits – our newsletter, *Tracks*, our e-magazine, *Explorations*, and invitations to our events and presentations. Your monthly pledge can be canceled at any time. ✈

Now you can commit to protecting wildlife by becoming a monthly contributor to Conserve Wildlife Foundation of New Jersey and sustain our work throughout the year.

As a monthly supporter, you will be helping to stop species loss in a real and tangible way.

- For \$10 monthly, you will help us to build and install an osprey platform.
- For \$20 monthly, you will buy 12 feet of fencing to protect terrapins crossing Great Bay Blvd in Little Egg Harbor.
- For a dollar a day, or \$30 monthly, you will allow us to deploy a steward on Delaware Bayshore beaches to protect shorebirds from dangerous disturbances.

As a thank you for your pledge, we will send you one of our baseball hats to wear and show your support for rare species in New Jersey.



# Women & Wildlife Awards Presented for Leadership, Inspiration and Education



Women & Wildlife Award honorees with their nominators: Left to right: Lillian Armstrong, Laurie Pettigrew (Leadership), MacKenzie Hall, Jackie Kashmer (Inspiration), Dale Rosselet (Education) and Jerry Schierloh

Executive Director  
Margaret O’Gorman  
thanks guests  
for coming



CWF supporters and friends enjoy the awards presentations



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**Over 5,000 visitors expected at Third Annual NJ Wild Outdoor Expo**  
**September 15-16, 2012 — 10 AM – 5 PM Daily**  
**Colliers Mills Wildlife Management Area, Jackson Township, NJ**  
**Admission and parking FREE**

*Come experience a wide array of outdoor activities, including fishing, hiking, kayaking, rock climbing, camping, orienteering, wildlife watching and much more! Conserve Wildlife Foundation of New Jersey has partnered with the NJ Department of Environmental Protection’s Divisions of Fish and Wildlife and Parks and Forestry to host this event to offer a unique blend of conservation information, education and hands-on opportunities to learn outdoor skills and activities.*

# Species on the Edge Art & Essay Contest

The *Species on the Edge Art & Essay Contest* is a celebration of children and the rare wildlife that share our great state. Open to all 5th graders throughout the state, the contest encourages students to learn about the wildlife living right here in NJ and it challenges them to come up with creative ways to help protect the wildlife that shares our forests, fields, wetlands, and waters with us.

In January, thousands of entries flooded the CWF offices in Trenton from students hopeful that their artwork and essay, depicting an endangered species living in NJ, would be chosen as a winner from their county. Judges were invited to view the artwork and read the essays. It is a tough job but after a day of hard work and discussion, they emerge with the best artwork and essays from across the state. These children and their winning pieces help us to tell the stories of our rarest wildlife residents and better engage everyone in keeping New Jersey's wildlife in our future. Here are some excerpts from some of the winning essays and some of the winning artwork.

To see the winning artwork and read the essays please visit

[www.conservewildlifenj.org/education/edge](http://www.conservewildlifenj.org/education/edge)

*"...I have met many lovely snakes with good personalities. I sadly have also passed dead bodies of fellow timber rattlesnakes that have been run over. If more people could go around snakes basking in the sun, instead of through, it would make a huge difference. Please help save timber rattlesnakes."*

– Gloucester County winner Brianna Groch speaking as a timber rattlesnake

*"Peep-lo! I'm down here! I know it's hard to see me; I blend in with the sand very well. I'm a piping plover and I am an endangered species in New Jersey. I am mostly grayish white with some brown and tan feathers and I have a black ring around my neck and across my head, as you can see. Perfect camouflage for the beach!"*

– Hunterdon County winner Jack Wetherall speaking as a piping plover

## Species On The Edge

**Essex County Winner**  
**Bryan Naranjo**  
**Watsessing School**  
**Peregrine Falcon**



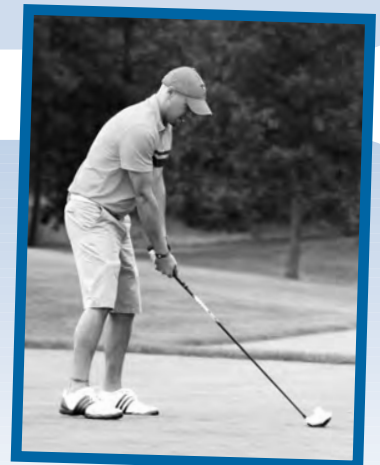
**Union County Winner**  
**Jessica Moran**  
**Thomas P. Hughes School**  
**Piping Plover**



**Burlington County**  
**William Feng**  
**Bobby's Run School**  
**Blue-spotted Salamander**



**Passaic County**  
**Emily Wang**  
**Randall Carter School**  
**Red-headed Woodpecker**



**Ryan Lowery tees off for the Robertet Fragrances foursome.**

## Play A Round for Wildlife: 2012 Golf Classic September 20th at Trump National Golf Club in Bedminster

Join Conserve Wildlife Foundation of New Jersey for a spectacular day of golf to benefit one of New Jersey's greatest resources – its rare and wonderful wildlife. Play the world-renowned Old Course with input from your Trump Caddie, enjoy unparalleled cuisine at the awards dinner held in the Grand Ballroom, and bid on extraordinary trips and field experiences in our silent auction. Reserve your foursome before space runs out. Customized sponsorship packages are still available. Contact Liz Silvermail at 609-292-3707 to discuss how you can show your support for New Jersey's environment. 🦅

## Proud to Promote Our New Book

*Life Along the Delaware Bay* is the title of a wonderful new book written by Larry Niles, Amanda Dey and Dr. Joanna Burger. It is lavishly illustrated with high quality photographs from renowned shorebird photographer Jan van de Kam.

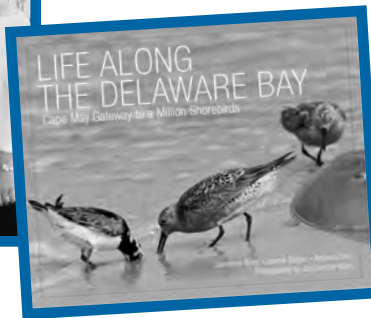
*Life Along the Delaware Bay* focuses on the area as an ecosystem with the horseshoe crab as a keystone species supporting the migrating shorebirds that depend on the bay for survival. The book seeks to show how important Delaware Bay is to the global population of shorebirds and to New Jersey's natural heritage.

The book starts with an introduction to the Delaware Bay, explaining how its past prosperity was shaped by the ecosystem while its current reputation as a magnet for birders during spring and fall migration depends still on this ecosystem and its continued health. Chapters are dedicated to the horseshoe crab, red knot, ruddy turnstone,

sanderling, gulls and a class of birds called mud birds, for their inclination to use the salt marshes and flats beyond the Delaware Bay beaches. These chapters are preceded by an eloquent description of Delaware Bay as the most important stopover of the western hemisphere and followed by a lamentation on the threats to the bay with a description of the conservation efforts addressing these threats.

But, it is the wonderful photographs that transform this project from a book about the Delaware Bay into a nature documentary where the reader enjoys intimate shots of shorebirds, panoramic landscapes of the bay and photo essays that narrate bird behaviors like territorial battles and feeding and foraging habits. For anyone who knows and loves the Delaware Bay, this book will be a validation and for anyone who yearns to learn more about this little known region of the Garden State, this book will be a most pleasant surprise.

Available at [www.conservewildlifenj.org/store](http://www.conservewildlifenj.org/store). Proceeds of books bought from Conserve Wildlife Foundation support efforts to protect rare and imperiled species. 🐦



**Left: Book authors and sponsors – Left to Right, Margaret O’Gorman (CWF), Amanda Dey, Joanna Burger and Larry Miles, Tom Geisel (Sun National bank) and Lillian Armstrong (Citizens United to Protect the Maurice River)**

**Right: Book cover**

## Bat Season Begins

The days grow longer, warmer, bluer, greener, more lively. Songbirds are busy building nests, turtles bask; tadpoles sprout little legs. We the people have a little more pep in our step, too. Sunshine! Sandals! Indifferent to all of this sunshiny commotion - but in synch with it still - are the dark knights of summer: Bats. By mid-May, bats have settled into their summer ranges and routines (sleeping, bug-eating, repeat), and late May brings the birthing of pups.

We’re ready for bat season with a few new plans this year. First, we’ve honed in on the best, most bat-dense and well-distributed acoustic driving routes from last year’s pilot project and are using trained volunteers to monitor these routes 2-3 times over the summer. Each route covers 15-30 road miles through forests and wetlands. The drivers keep a 15 mph pace (tougher than you’d think!), while their rooftop bat detector records the echolocation calls of bats flying overhead. The data we get back will provide a snapshot of the bat population in various parts of NJ and help us understand where our 9 bat species are...or are not.

In another joint venture with the ENSP, we’re using these same AnaBat acoustic detectors to search for small-footed bats. Small-footed bats (*Myotis leibii*) are uncommon and elusive, choosing to roost in the rock crevices of talus slopes, boulder fields, and

outcrops. There has never been a concerted effort to locate the species’ summer roosts in NJ. But since it will soon be considered for an Endangered listing (along with 3 other cave-hibernating bats impacted by white-nose Syndrome), we’re trying to get some presence/absence info - quick. An acoustic detector is mounted in suitable small-footed bat habitat for several days at a time – after which we move it to another location and review the call files for positive hits. Sure hope our DIY weatherproofing holds up!

We’ve also had the good fortune to link up with a few Eagle Scouts who chose to earn their ranks by helping bats. Each of their unique projects has added to our "reserve" of bat houses, at no cost to CWF. We can now pass along the free bat houses to people who are willing to expand an existing summer colony, or to provide an alternative home for bats as they are evicted from buildings (not everyone is cool with bats in the belfry). Thank you to Josh Kravitz, Matt Williams, and Mitchell Fechter for their hard work!

And of course, the annual Summer Bat Count continues as usual - with some added P.R. efforts by Dr. Brooke Maslo of Rutgers University. Do you know of a bat roost? Please contact MacKenzie Hall at [mackenzie.hall@conservewildlifenj.org](mailto:mackenzie.hall@conservewildlifenj.org) and we’ll add it to our statewide monitoring program. 🐦



## BEHIND THE SCENES – Stephanie Egger

### What is the best thing you get to do?

During the nesting season I am able to go out, at least once a week, and directly contribute to the management (i.e. fencing, monitoring) of the birds in the field. Seeing how fragile life is in their world really puts things into perspective for me and graciously reminds me of why I do what I do.

### What is the one tool that makes your job easier?

I would have to say GIS tools make my job easier especially when scoping out potential bird habitats that need to be surveyed. It's really cool to get a bird's eye view of the land and then plan out my field work from that. Plus it's even more exciting when the habitat looks good on the computer and then actually translates to good bird habitat in the field.

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

I would open my own vegan café. I am a major foodie and I love trying new food or food combinations. I would probably need an assistant though because I would be too wrapped up in drinking my organic fair-trade coffee and having conversations with my customers.

### What is the best thing anyone ever taught you?

Never ever forget what you're working for. At the end of the day, it's not your boss or

your organization, but it's the resource that you "fight" for.

### Why did you decide to become a biologist?

I never had to think twice about what I was going to do with my life. I just knew. My earliest conservation work was in grade school. I remember very clearly setting up a campaign to get plastics #1 and #2 recycled at my elementary school. Even then I had the ability to comprehend the impact our actions were having on our environment.

### What were you doing before you answered these questions?

Before I answered these questions I was reading my 3 year old daughter her bedtime stories. It always has to be at least 4 books, followed by her looking at the pictures of one book for several minutes before she agrees to go to sleep. ✈



Stephanie Egger, Wildlife Biologist

**Want to learn more about bats? Check our online calendar of events for bat walks, talks, and other batty happenings near you!**

**A fresh crop of bat houses get the finishing touches. This workshop was led by Eagle Scout candidate Josh Kravitz of Moorestown, who donated more than a dozen of the bat houses to the Conserve Wildlife Foundation.**



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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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# TRACKS TRACKS

CONSERVE WILDLIFE FOUNDATION OF NEW JERSEY • VOL. 05 NO. 02



## PHENOLOGY FUN

*Phenology is the study of the timing of natural events. The word comes from a Greek word that means "coming into view." 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.*

### July

*First week:* Blue-spotted salamander larvae begin leaving vernal ponds and disperse to their terrestrial locations in mature hardwood forests.

*Fourth week:* The timber rattlesnake breeding season begins. Breeding will continue throughout August and into early September.

The last of the least tern eggs will begin to hatch. Least tern chicks are present on New Jersey beaches from mid-June to mid-August. Least tern chicks will fledge about three weeks after hatching.

### August

*Second week:* Wood turtles begin to hatch. Hatching will last through the last week of August. If the young turtles survive, they may live 20 to 30 years.

*Third week:* Songbirds begin to arrive and pass through the Cape May peninsula on their southbound migration.

*Fourth week:* Timber rattlesnake females who bred the previous year, begin giving birth to live young. Timber rattlesnakes have soft egg casings that form inside the female. When the young are ready to be

born, the egg casings break open and the female gives birth to live young. Hatching will continue through early September.

Bog turtle eggs begin to hatch after an incubation period of 48 to 58 days.

### September

*Second week:* Bats begin returning to their hibernaculum and ready themselves for mating and hibernation.

*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 and Colombia to Brazil's Amazon River basin.