

# Habitat Herald

A Publication of the Loudoun Wildlife Conservancy

Volume XVII, Issue 2 Summer 2012

## The Beautiful, Majestic Saturniid Moths

by Karen Coleman

y love affair with the Great Saturniid Moths, or Giant Silkmoths, began 15 years ago when I discovered my first live Luna Moth. Weak and hardly moving but still whole and beautiful, the Luna had just been discovered by a group of ants. Realizing that it probably only had a few hours left in its very short life, I carried the moth inside and laid it among some flowers I had arranged on my kitchen table. I would like to think that it spent its last hours in relative comfort, while at the same time giving me a chance to sketch it and paint its Elysian colors.

Several years later, my passion for this family of moths really took off when I discovered John Cody's book, *Wings of Paradise: The Great Saturniid Moths*, which includes 72 of his watercolors along with commentary on the moths' life cycles, habitats and geographical range. Known as the "Audubon of moths," John Cody is world renowned for his exquisite and detailed portraits of the Great Saturniid Moths

mate with her, and the female's only goal is to find an appropriate host plant on which to lay her

and their associated plants. In 2007 and again in 2008, I was fortunate to take painting classes with Dr. Cody, who inspired me not only to capture these gorgeous creatures in artworks but also to learn more about these endangered giants.

The Saturniids are the largest and most spectacular of our moths. Adults are brightly colored with beautiful markings, many with prominent eyespots, and the largest can have a wingspan up to 6 inches. They are soft and furry with a velvety appearance, with wings like colorful woven carpets, tufted legs attached to soft furry bodies, and feathery antennae. Some admirers call them the teddy bears of the insect world. Sadly, the adults only live for a few days, no longer than a week. Having no mouths and no functioning digestive systems, they do not eat or drink and survive only on energy stored when they were caterpillars. After emergence from their cocoons, the male's only goal is to find a female and

"La Luna," colored pencil and pastel dust by Karen Coleman

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### A Word from the President: **Spraying for Ticks — A Very Bad Decision!**

by Joe Coleman

This is my last column as President of the Loudoun Wildlife Conservancy. I leave with confidence, knowing the organization will continue to prosper and grow under Nicole Hamilton's leadership. I had planned to reminisce about how great it has been to watch this wonderful all-volunteer organization thrive during the past four years, and thank the hundreds of volunteers who have made this success possible.

Rather than a nostalgic look back, an issue which has dire consequences in the future has arisen and must be addressed. There is no doubt tick-borne diseases are a threat, especially to those of us who spend a lot of time outdoors. However, using broad-spectrum pesticides to control ticks involves very serious risks. Communities that took the time to research this issue decided to not apply broadspectrum pesticides because of these risks. Unfortunately, our Board of Supervisors did not take the time to thoroughly study what is effective and what is not. Without adequate research, the Board approved spraying several county parks with highly poisonous Talstar and recommended Home Owners' Associations do the same.

Whenever I watch our stunning birds of prey, such as a majestic Bald Eagle, or listen to the lovely song of the Wood Thrush, I am reminded how close we came to losing these birds forever because of our misplaced desire to eradicate insects. Today most people believe large animals such as eagles or whales are worth preserving. However, many people do not feel the same about smaller creatures which are an integral part of the incredibly complex web of life. Until Rachel Carson warned of the dangers of pesticide use in Silent Spring, most people did not realize the DDT sprayed for insects could ultimately cause the destruction of many other species and even threaten humankind. While DDT is now banned, it has been replaced by other pesticides which are rapidly decimating many animal populations which are not pests, and on which our very lives depend. Edward Wilson, a Harvard biology professor and winner of the

So important are insects and other land-dwelling arthropods that if all were to disappear, humanity probably could not last more than a few months. Most of the amphibians, reptiles, birds, and mammals would crash to extinction about the same time. Next would go the bulk of the flowering plants and with them the physical structure of most forests and other terrestrial habitats of the world. The land surface would literally rot. As dead vegetation piled up and dried out, closing the channels of the nutrient cycle, other complex forms would die off, and with them all but a few remnants of the land vertebrates.

It needs to be acknowledged that the spraying of Talstar, Permethrin, and many other pesticides kill numerous beneficial insects and animals, including bees and fish. There are several actions we can take to minimize the threat from ticks and they can be found in Loudoun Wildlife Conservancy literature, including this issue, and on our website. Spraying broad-spectrum pesticides is not one of them! Ask your representative on the Board of Supervisors to stop spraying poisons and focus on effective actions that do not harm the environment.

This year we are celebrating the 50th anniversary of the publishing of Silent Spring; sadly, Rachel Carson's warning is relevant again today.

Pulitzer Prize, writes in The Diversity of Life:

information of Loudoun Wildlife Conservancy members. You are welcome to reprint these articles as long as you credit the Loudoun Wildlife Conservancy or other sources noted in the articles. Copyright remains with Loudoun Wildlife Conservancy. Coordinator: Donna Quinn **Editors:** Mary Ann Good **Lorrie Bennett** Printed by: Mr. Print, Purcellville, VA © 2012 Loudoun Wildlife Conservancy. To reprint any or all of the Habitat Herald, please contact Joe Coleman. Permission will generally be granted if appropriate credit is given.

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The Loudoun Wildlife Conservancy Board meets the first Tuesday of each month. Board meetings are open to all current members. For more information, or to suggest topics for discussion at upcoming meetings, contact Joe Coleman.

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#### Saturniid Moths, continued

eggs. Finding host plants is critical, as these must provide appropriate nutrition for the caterpillars to survive. The female makes the selection by smell, flying from plant to plant and laying eggs, usually in clusters, only on suitable host plants. Depending on the species and temperatures, the eggs normally hatch in a week or two. Both parents die several days before the eggs hatch, so the tiny, orphan caterpillars are on their own.

The larvae chew their way out of the eggshells, and their only mission is to eat and grow. Most Saturniid caterpillars feed on the leaves of trees and shrubs. None bore into the plants' stems, wood or fruits, and almost none feed on grasses or herbs. Having an external skeleton, they must stop feeding periodically to molt. Molting usually happens four to six times before a caterpillar is full-grown. The diversity of color and ornamentation of the Saturniid caterpillars is amazing. Some are smooth and green, some mimic seedpods or dead leaves, and others are brightly colored and covered from head to tail with spines. Each species' appearance has a purpose: some use mimicry and camouflage to conceal themselves, while others are adorned in gaudy colors to warn predators away because they are poisonous.

"Cecropia Moth," colored pencil by Karen Coleman

\*The commercial Silkworm Moth, *Bombyx mori*, is not native to North America and belongs to another family (*Bombycidae*).

Most of the Saturniidae in eastern North America spend the winter in the pupal stage in thick, silken cocoons.\* These are often attached to a twig, woven among leaves, or affixed flat against a tree trunk or rock, although some winter on the ground among dead leaves. The subfamily Citheroniinae, or Royal Moths, are unique in that they pupate in a cell buried in the soil. The emergence of the moths from the pupae or cocoons is triggered by external stimuli — longer days or warmer temperatures in spring, or shorter days and cooler temperatures in autumn. When the adult moth emerges, it hangs stationary until its soft shriveled wings can be expanded to full size. Then a hardening agent is released, and the wings become frozen into their final shape. Immediately the search for a mate begins. Males search for females solely by scent and may come from miles away. Many males may approach a female, but she will mate with just one. After mating, a male will seek other females, but the fertilized female will search only for a host plant for her eggs. And so, the cycle begins again...

To me the most gorgeous and spectacular of the adult Saturniidae found in Loudoun County are members of the subfamily Saturniinae, especially the Polyphemus, Luna, Promethea, and Cecropia Moths. Because these moths are mainly nocturnal, many people do not have the opportunity to see them alive. However, if you are lucky, you may see one during the day at rest on a plant in your garden or even on your screen door. If you can get close enough, take a big sniff. Like all members of their genus, the moths smell like fresh peanut butter.

The Polyphemus Moth (Antheraea polyphemus) is our most widespread silkmoth, and to many, the most beautiful of America's moths. It has a wingspan of 4 to 6 inches. The incredible range of colors on its wings — from dusty taupes, to deep earth tones, to almost a golden hue, through many shades of red — presents a glorious sight. The hind-wing eyespots are always jet black

and clear blue. If startled, the moth will spread its forewings, flashing the big eyespots on its hindwings to scare an attacker. This may be why it was named after the one-eyed giant Cyclops Polyphemus in Homer's Odyssey. Common host plants include a variety of trees and shrubs, with members of the birch, rose and willow families especially favored.

The spectacular **Luna Moth** (*Actias luna*) has a lovely dreamy quality, which is probably why its image is frequently used in ads for sleeping aids. A creature so ethereal — transparent wings of pale green to blue-green gossamer with tinges of yellow, a body covered in luxurious ermine, forewings edged in pinkish brown to maroon velvet, and hindwings with long, sweeping tails — it is hard to believe it's real! Its wingspan measures 3 to 4½ inches, and all four wings have eyespots. Two of these are almost as clear as tiny windows. The moth's use of camouflage is very effective as it rests with its tails lying side-by-side, giving it the appearance of a stemmed leaf. The larvae feed on trees, including alder, beech, cherry, sweet gum, and willow. In winter, the cocoon is concealed among leaf litter on the ground and is difficult to find.

The rapid-flying **Promethea Moth** (*Callosamia promethea*) is dramatically dimorphic. Though the sexes have many of the same

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#### Saturniid Moths, continued



Luna Moth antennae Photo by Liam McGranaghan

markings, the male is nearly black, while the female is much more colorful in reddish brown with well-developed kidney-shaped spots on the forewings. Named after the Greek Titan who stole fire from the gods and gave it to mankind, the Promethea is an easily excited moth, with seemingly inexhaustible energy. It flies in sunlight during the heat of the day, with egg-laying occurring at night. The moth's wingspan is from 3 to almost 4 inches. The larvae feed on a variety of trees and shrubs, but local populations often favor one host plant.

One of my particular favorites, the **Cecropia Moth** (*Hyalophora cecropia*), is a stunning sight with beautifully patterned wings appearing as an intricately woven tapestry of rich browns, reds, oranges and ochre, with tinges of lilac on forewings. Its wingspan is 4 to 6 inches, and each wing has a distinct kidney-shaped spot shaded with reddish orange along the edges, plus the forewings have two black eyespots. Its furry body has a white collar and is red with bands of white and ochre along its abdomen; legs are bright red. What ancient Chinese emperor could have been more richly dressed? Larvae feed on many woody plants, with favorites being apple, ash, box elder, cherry, lilac, poplar, sassafras and willow.

All of these moths were once abundant in our area but have become rare. Tragically, this is happening with the big moths on a global scale, especially in the tropics where most moths fly. The reasons for the decline are unknown, but it is suspected that light pollution, parasitoids,

environmental degradation, deforestation and pesticides may be the causes. In the U.S., many native species suffer from parasitism by a tachinid fly that was introduced to control the Gypsy Moth. Cecropia caterpillars seem to be particularly hit hard by this invasive predator. What a terrible loss it would be to have these magnificent creatures with their unique beauty disappear from our landscape. In our area, we can help by gardening with native plants, not using pesticides, leaving natural areas unmowed, and turning off outdoor lights at night. As John Cody writes in his *Wings of Paradise*:

The question of what moths are good for is a frequent one. Perhaps one should ask what flowers are good for. The two questions are comparable. The adult moth is the efflorescence of the species' life cycle. Their maximum span of life is a week. During that time they fulfill nature's purpose to perpetuate itself. That's what they are good for... Along with all the other oppressed and crowded-out examples of nature's craftsmanship, the Saturniid, by its beauty, has the capacity to bring joy to members of all future human generations... Therefore, to the question "Who needs it?" I respond for those yet-to-be-born children and adults. I answer, pleadingly, "We need it."

#### Sources:

Cody, John. *Wings of Paradise: The Great Saturniid Moths*. The University of North Carolina Press, 1996.

Covell, Jr., Charles V. *Peterson Field Guides: Eastern Moths*. Houghton Mifflin Company, 1984.

Eaton, Eric R. and Kaufman, Kenn. Kaufman Field Guide to Insects of North America. Houghton Mifflin Company, 2007.

Heinrich, Bernd. Summer World: A Season of Bounty. HarperCollins, 2009.

List, Ilka. Moths and Butterflies of North America. Franklin Watts, 2002.

Wagner, David L. *Caterpillars of Eastern North America*. Princeton University Press, 2005.

## For the dying Luna Moth found on the trail

Ethereal delight: Your brief mouthless, shimmering life is nearing end.

In precious bronzed orbs immortality wiggles as new life begins.

Haiku and photo by Donna Quinn





## Making a Big Difference! Dulles Greenway's 2012 Drive for Charity



oudoun Wildlife Conservancy thanks Dulles Greenway for its dedication supporting local charities and impacting lives of county residents for the better.

The Dulles Greenway's 7th annual Drive for Charity set a new record for donations collected on Thursday, May 17, 2012: The total amount collected for local charities was \$261,652!

Loudoun Wildlife Conservancy received \$36,700 and every penny will be put to use in our habitat restoration, environmental education and community outreach programs!

## Dulles Greenway's historical contributions to local charities total \$1,528,462!

This fantastic event benefits so many worthwhile programs. Thank you, Dulles Greenway and Dulles Greenway drivers, for your support.

## Virginia Master Naturalist Program

he Banshee Reeks Chapter of the Virginia Master Naturalist Program is accepting applications for its annual Saturday training program that begins in September 2012. The program supports a statewide corps of volunteers providing education, outreach and service dedicated to the management of natural resources and natural areas within communities. A nine-month course is offered for anyone interested in obtaining certification as a Virginia Master Naturalist. The training covers topics in biogeography, botany, ecology, geology, mammalogy, herpetology, ornithology, dendrology, forest and wetlands ecology, zoology, management and conservation of ecological systems. For the State Program, visit www.virginiamasternaturalist.org.

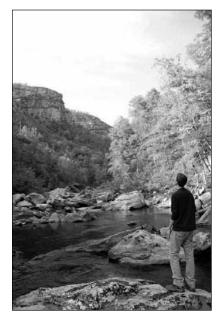
Banshee Reeks Nature Preserve, located at 21085 The Woods Road, Leesburg, VA, provides the perfect setting for the course with its education center and over 700 acres of forests, fields, ponds and streams in which to conduct field studies, advanced training and volunteer service projects. The course is open to anyone 18 years or older. The total cost is \$200, which includes all class materials. The deadline for applications is September 1, 2012. Class size is limited to 20 students. For course schedule and application, visit www. vmnbansheereeks.org.

### **Meet the Intern - Jared Garland**

Trecently graduated from Virginia Tech with a BS in Environmental Education (K-6), with a minor in Forestry. While initially planning to get directly involved in elementary school teaching, various experiences during my time at Tech opened my eyes to the many different possibilities in the Environmental Education field. Most notably, I have gained a greater appreciation for environmental interpretation and how it is possible to really engage and inspire a wide variety of audiences.

One class, Environmental Education Service Learning, had a great impact on me, as I was able to become directly involved in the education process. We spent ten weeks working with 4th and 5th graders at a local elementary school. Our main goal was to inspire positive behavior modification when it came to environmental stewardship. Essentially, we hoped to inspire a greater appreciation for the environment while making sure everyone had as much fun as possible!

I am incredibly excited to be working with the Loudoun Wildlife Conservancy as it gives me the opportunity to help protect and preserve the local environment I grew up in. Loudoun County has always been my home, and I have become increasingly concerned about the seemingly uncontrolled development that is taking place. I want future generations to be able to enjoy the beauty and diversity that my little section of the state has provided since I was young. I know of no better way to do that than by getting involved with the organization promoting just such a philosophy. The summer camp aspect of the internship will provide me with a better understanding of how to work with kids when I eventually become a teacher in the environmental education field. Most of all, protecting and restoring the natural habitats of the creatures we displace on a regular basis is something I am eager to do and to inspire in future generations.



Jared Garland

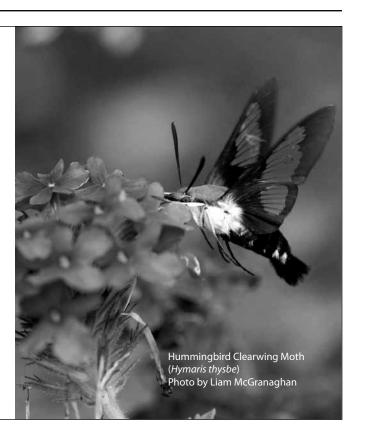


# We're busy as bees this summer!

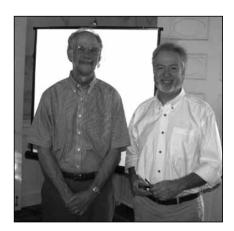
pollinators such as bees, butterflies and moths allow nearly 70 percent of all flowering plants to reproduce and account for over 30 percent of the food and beverages humans consume. Fruits and seeds from insect pollination provide approximately 25 percent of food for birds and mammals. (www.xerces.org/bees/)

Loudoun Wildlife Conservancy protects habitat needed for our busy bees and pollinators. Please join or renew today to support our hard-working pollinators.

Join Renew Donate online: www.loudounwildlife.org/Join.htm



# Loudoun Wildlife Conservancy's 17th Annual Meeting



Joe Coleman and George Fenwick Photo by Mike Bowen

unday, June 3rd, marked Loudoun Wildlife Conservancy's 17th Annual Meeting and it was once again a full house. After enjoying good food and catching up with each other and bidding on some amazing silent auction items, we launched into the business part of the meeting.

Linda Sieh, our Treasurer gave the latest Treasurer's report and Joe Coleman gave a brief talk on the State of the Organization, and indeed it was another great year! As you know, volunteers are what make Loudoun Wildlife Conservancy so effective and this year we recognized Donna Quinn as our Volunteer of the Year. Paul Miller presented Loudoun Wildlife Conservancy's Science Fair Awards. We also recognized six young naturalists with the Roger Tory Peterson Young Naturalist Awards. Joe Coleman was presented with the prestigious Chandler Robbins award by American Birding Association's Director Mike Bowen. We will write more about this exceptional tribute to Joe, a man who has done so much for bird conservation in Loudoun County, in our next issue.

Wrapping up the business part of the meeting was the election of Loudoun Wildlife Conservancy's officers. The new slate of Officers was presented to the membership and voted upon. Our new officers are: President: Nicole Hamilton, Vice President: Janet Locklear, Treasurer: Linda Sieh, Secretary: Lynn Webster.

Following the election, we turned the meeting over to George Fenwick, President of the American Birding Conservancy who engaged us all with great stories of birds and bird conservation efforts going on here in the U.S. and across South America. Now we all have ideas of great travel adventures to take in support of birding conservation!

Many thanks to all our members for being a part of Loudoun Wildlife Conservancy, volunteering when you can, and joining us at events, and helping promote the preservation and proliferation of healthy wildlife habitat throughout the county!



## The Impact of Pesticides on Bee Populations

by Emily B. Cook

Bee populations have been taking a nosedive in recent years. While many believe that a number of factors including habitat destruction, parasites, and disease have contributed to what is commonly referred to as Colony Collapse Disorder, there is new research that increasingly points to the use of pesticides known as neonicotinoids as the main culprit in the deterioration of bee populations worldwide.

All bees are pollinators, meaning they are part of a group of insects and animals responsible for ensuring the fertilization and reproduction of over 75% of our flowering plants and 75% of our crops. What many people don't realize is that without a healthy, resilient bee population, not only are we at risk of losing \$15 billion in crop value, "much of that from specialty crops such as almonds and other nuts, berries, fruits, and vegetables," according to the USDA, but that "about

one mouthful in three in the diet directly or indirectly benefits from honey bee pollination." Bees are a critical component of our food chain because they pollinate crops intended for human consumption. Without bees, the entire food chain is at risk of collapse.

Bees also pollinate crops used to feed the nation's livestock as well as corn grown for the production of the biofuel ethanol. This agricultural area has come under fire recently due to the heavy use of pesticides, and neonicotinoids in particular, in order to prevent crop loss. While the government has established what they consider "safe" levels of the pesticides for application to the seeds used for planting, these levels still pose a serious risk to bees. The concentration of the pesticide may not be high enough to cause immediate death, but the toxins are absorbed into the seed and



Bumblebee Photo by Lorrie Bennett

cause issues for the bee through contact with the plant's pollen. It is now believed that this exposure may compromise the bee's immune system, causing behavioral problems and increased susceptibility to disease and parasites.

According to the EPA website, several European countries have banned the use of neonicotinoid pesticides. An immediate increase in the bee population was reported throughout Italy after the ban was imposed, resulting in an extension of the ban indefinitely. Now, several other countries are following suit. With these remarkable reports, it's hard to believe the United States has yet to take action and impose a ban here at home.

Until the U.S. takes steps to prohibit the use of neonicotinoids, there are things we can do as consumers and homeowners to reduce their impact on our own local bee population. When purchasing products available at garden centers for use on your garden or lawn, consider the following statistics as reported by The Xerces Society for Invertebrate Conservation:

 Several of these insecticides are highly toxic to honey bees and bumblebees.

- Neonicotinoids can persist in soil for months or years after a single application. Measurable amounts of residues were found in woody plants up to six years after application.
- Neonicotinoid residues are found in pollen and nectar consumed by pollinators such as bees and butterflies. The residues can reach lethal concentrations in some situations.
- Untreated plants may absorb chemical residues left over in the soil from the previous year.
- Products approved for homeowners to use in flower gardens, lawns, and on ornamental trees have manufacturer-recommended application rates up to 120 times higher than rates approved for agricultural crops.
- There is no direct link demonstrated between neonicotinoids and Colony Collapse Disorder (CCD). However, recent research suggests that neonicotinoids may make honey

bees more susceptible to parasites and pathogens, including the intestinal parasite Nosema, which has been implicated as one causative factor in CCD.

• Many neonicotinoid pesticides that are sold to homeowners for use on lawns and gardens do not have any mention of the risks of these products to bees, and the label guidance for products used in agriculture is not always clear or consistent.

We can also take steps to provide a beneficial environment for the bees in our area. The most important factor in a bee-friendly yard is eliminating, or at least severely limiting, the amount of chemicals you apply. Also, check labels to ensure you are not applying chemicals that fall into the Nicotinyl pesticide

family, specifically those containing clothianidin, thiametoxam, and imidacloprid. Bees also require shelter in the form of bushes, trees, and flowering plants where they can seek protective cover. Lastly, in order to provide opportunities for bees and butterflies to have access to pollen throughout the spring and summer seasons, plant a variety of native, flowering plants. Your local nursery can help you find a wide selection to choose from.

The full report from the Xerces Society of Invertebrate Conservation can be found on the Loudoun Wildlife Conservancy website at www. loudounwildlife.org/blog/tag/bees/.

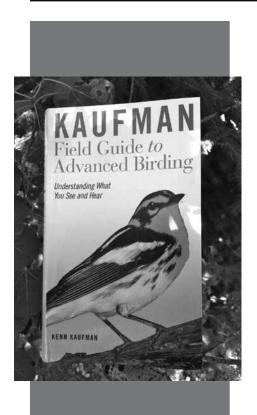
#### Sources:

Pollination Statistics: www.fws.gov/pollinators/
European Countries Currently Banning Pesticide Use:
www.epa.gov/pesticides/about/intheworks/ccd-european-ban.html
General Neonicotinoid Information:

thesunbreak.com/2012/04/09/bee-lieve-the-growing-buzz-about-harm-from-neonicotinoids/

The Xerces Society for Invertebrate Conservation Report: www.xerces.org/wp-content/uploads/2012/03/Are-Neonicotinoids-Killing-Bees\_Xerces-Society1.pdf





# Chirps - Summer 2012

#### *Field Guide to Advanced Birding* by Kenn Kaufman (2011)

Reviewed by Gerco Hoogeweg

In Kenn Kaufman's first edition of *A Field Guide to Advanced Birding* (1990), the focus was on identification of 34 confusing species pairs or groups. After all, the subtitle was "Birding Challenges and How to Approach Them." Much of that detailed information was not readily available to birders at the time. However, with the growth of bird watching, the amount of specific identification detail out there has increased nearly to the point of information overload. Two decades later Kaufman has once again published his Field Guide to Advanced Birding, but the focus has shifted from identifying specific birds to understanding what we see and hear. The result is, as expected, an outstanding book that will help people advance, improve, and refine their birding skills.

In the second edition Kaufman dedicates 135 pages to the principles, rather than the details, of bird identification. In contrast, the first edition had just 19 pages dealing with "how to ID birds". In a highly readable narrative, nearly two dozen principles and pitfalls of field identification are laid out, followed by sections explaining how a better understanding of bird topology, plumage/molt, song, and behavior will greatly assist in bird identification. These first sections contain a wealth of information and useful pointers you can readily apply to become an advanced birder.

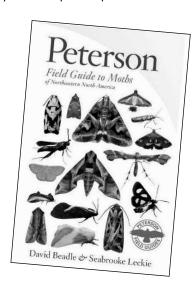
Following the introductory material, a series of chapters describe the identification of various tricky groups of bird species such as waterfowl, accipiters, sandpipers, gulls, the always difficult Empidonax flycatchers, sparrows, and many more. Each section is well-written and provides a wealth of information on how to separate the species. As expected from Kaufman, this second edition is richly illustrated with over 550 color photographs showing the birds and detailed body areas (e.g., a wing, a bill, a tail). In addition, illustrations are provided to emphasize bird topography, molt stages, sonograms, and general shapes of the bird species and families.

It would be hard to over-emphasize how much knowledge Kaufman, one of the birding "greats," has put into this book. For instance, over 40 pages and 60 photos are dedicated to the identification and comparison of the Empidonax flycatchers, 22 pages are filled with information on getting to know warblers, and 7 pages deal with the Spizella complex of sparrows.

In short, Kaufman's *Field Guide to Advanced Birding* is a great addition to any birder's library that will have you making field identifications with greater confidence and accuracy.

#### **Chirps Recommends:**

Peterson Field Guide to Moths of Northeastern North America (Peterson Field Guides) [Paperback] by David Beadle and Seabrooke Leckie: Hot off the presses, for anyone who wants to know anything and everything about moths!



## **Eastern Screech Owl**

by Elizabeth Dennison, Raptor Conservancy of Virginia

If you're very lucky as you watch the moths dance around your porch light one summer evening, you might see a larger shape glide silently into view, snatch one with surprising agility and quickly vanish into the dark. A Screech Owl (*Megascops osio*) has just found a snack for herself or a tidbit for her young.

Eastern Screech Owls are small, adaptable, woodland owls that can be found year round throughout the United States, east of the Rocky Mountains. The average male is 8.2 inches tall, weighs 7.0 ounces and has a 21 inch wingspan. The slightly larger female averages 9.2 inches tall and weighs 7.3 ounces with a 22 inch wingspan. There are two color morphs, red and gray, which are not related to age or gender. Both can be found throughout the range, although one morph will often predominate in an area. The Screech Owl's plumage closely mimics the bark of a tree, camouflaging the birds so well they can hide in plain sight. When threatened they stand perfectly still, close their large yellow eyes, and compress their feathers to blend almost seamlessly into the background. It follows that habitats with gray barked trees would better protect gray screech owls while those with reddish barked trees or foliage would offer more protection to red ones. Red Screech Owls also have a higher metabolic rate than gray owls so are less likely to survive in areas with heavy winter snows when food is scarce. Screech Owls are sometimes called "horned owls" because of their feather tufts that resemble horns. The purpose of these tufts is unknown but they may play a role in camouflage or work in conjunction with the owl's facial disk to direct sound to their ears. Screech Owls are strictly nocturnal hunters, active from dusk to dawn, when their superior night vision and spectacular hearing give them a decided advantage over prey, and darkness protects them from diurnal predators. Like the moths they often hunt, these tiny owls are buoyant, sometimes erratic fliers, with soft edged feathers on their broad wings that allow them to move soundlessly through the air in search of a meal. Despite their diminutive size and wide eyed, innocent appearance, Screech Owls are fierce predators, taking an unusually wide variety of prey. They will hunt rodents as large as squirrels, bats, small snakes, lizards, birds larger than themselves, and just about anything else they can grasp in their small, but surprisingly strong, feet and very sharp talons. They are even known to fish along the edges of streams and ponds.

Screech Owls nest and roost in natural tree cavities, usually 6 to 20 feet above the ground, but will readily use nest boxes. They raise one brood of four to six young each year from March in the southern regions through July further north. Screech Owls habituate easily to people, and as a result they are often found in suburban and urban areas. Yet because of their cryptic plumage and nocturnal activity, they are rarely seen. You will know they're around, however, by their gentle call that contradicts their name. A Screech Owl's primary call is a gentle haunting trill, more song than screech, which has given them common names like "ghost owl" or "shivering owl." A second song sounds remarkably like the whinny of a tiny horse. So whether it's a warm summer evening or snowy winter night, if you listen carefully you may hear the poignant sound of a Screech Owl singing.





# Programs and Field Trips

Space is limited for many of these programs and field trips. Please call the designated program contact for further information and to reserve your spot.

**LWC Board Meeting** — The Board normally meets the first Tuesday of every month at 7:00 p.m. All LWC members are welcome. Contact Nicole Hamilton at 540-882-4839 or nhamilton@loudounwildlife. org for additional information.

Butterfly Rearing Workshop — Sunday, July 15, 1:30 p.m., Location TBD. Raising and releasing butterflies can be a great way to not only learn about the life cycle of this interesting insect but also see a direct relationship between plants and animals. Join Nicole Hamilton as she talks about the interrelationships between specific butterflies and their host plants as well as the importance of different nectar plants through the summer and fall. She'll share tips for planting a butterfly garden and successfully raising and releasing butterflies through the summer. Information on rearing cages and butterfly rearing do's and don'ts will be discussed. *Registration required:* Sign up online or contact Nicole at nhamilton@loudoun-wildlife.org.

Dragonflies and Damselflies of Loudoun Field Trip — Sunday, July 29, 9:30 a.m. – 4:00 p.m. (rain date Sunday, August 5). Join Andy Rabin and Kevin Munroe for the second of two informative days of "dragon-hunting" in some of the best dragonfly and damselfly habitats in the county. Learn how to catch, handle, identify and release these insects. Bring an insect net if you have one (some extra nets will be provided), a hat, sunscreen, snacks, water and binoculars. We may be walking off-trail through tall vegetation so wear appropriate protection and be prepared for muddy conditions. Adults and interested children are welcome; come for part or all day. We will stop at a restaurant for lunch, but you may bring your own lunch and snacks if you prefer. Meet at Bles Park in Ashburn (for directions www.loudoun.gov/Default.aspx?tabid=924). Registration required; limit 12 participants. To register and with questions, e-mail Andy Rabin at stylurus@gmail.com.

**Let's Count Butterflies!** — **Saturday, August 4, 9:00 a.m.** Join Loudoun Wildlife Conservancy for its annual Butterfly Count. Teams will cover Loudoun County, looking for butterflies as they flutter through fields, woodlands and gardens. This is a great activity for all skill levels. Whether you know your butterflies or are just getting interested, this is a wonderful chance to see a wide variety of species in one day. Teams are led by experienced people who share identification tips and other interesting butterfly facts. Join us for part or all day. More information and signup at our website: www. loudounwildlife.org/Butterfly\_Count.htm, or contact Nicole Hamilton at nhamilton@loudounwildlife.org.

An Evening Walk at Horsepen Preserve — Saturday, August 11, 7:00 p.m. Join Cliff Fairweather for an evening nature walk as nature's nightshift begins to stir. Horsepen Preserve is a large, natural area that borders the Potomac River, immediately to the west of Algonkian Park. Registration required: Sign up online.

Nature Walk at Dulles Greenway Wetlands — Saturday, August 18, 8:00 a.m. Join Mary Ann Good and Jim McWalters on a nature walk and explore the privately owned Dulles Greenway Wetlands Mitigation Project near Oatlands Plantation for birds, butterflies and late-summer blooming wildflowers. Waterproof footgear, long pants and insect repellent advised. *Registration required*: *Sign up online*.

**Lucketts Fair** — **August 18 & 19.** Come visit our booth at the Lucketts Fair! We'll have a variety of handouts and information on Loudoun's wildlife. We're happy to answer any questions you have about our programs or opportunities. If you'd like to help staff the booth for a few hours on either day, please let us know.

## Birding the Blue Ridge Center

Saturdays at 8 a.m.: July 28, August 25 and September 22



n the fourth Saturday of each month (except December), LWC leads a free bird walk at the Blue Ridge Center for Environmental Stewardship (BRCES), a 900-acre preserve is located on Harpers Ferry Road, Rte 671, in northwestern Loudoun County. Only a few miles south of Harpers Ferry and the confluence of the Potomac and Shenandoah rivers, the property includes meadows in the valley and heavily forested slopes on the Blue Ridge. Meet at the education center. BRCES is located just north of Neersville, at 11661 Harpers Ferry Road, Rte 671. Detailed directions can be found on the website, www.brces. org. Questions: contact Joe Coleman at

540-554-2542 or jcoleman@loudounwildlife.org.



#### ■ Programs & Field Trips, continued



oin a naturalist from the Friends of Banshee Reeks and Loudoun Wildlife Conservancy for a free informal, family walk around the preserve. Search for the many natural wonders that make this such a special place. For information call the Banshee Reeks Nature Preserve at 703-669-0316.

Spiders of Virginia: Their Lives and Times — Sunday, August 19, 2:00 p.m., Location TBD. Teta Kain, who has been presenting nature shows around the state for many years, explores the world of the spider with a close-up investigation of this greatly maligned, often feared creature that lives in such close proximity to humans. Details of spiders' lives are caught by Teta's camera as she details their eating, mating, and predatory habits. Her talk is interlaced with folklore, scientific facts, myths and mysteries of the spider along with a few funny stories of her frequent encounters with this very misunderstood animal. After the program we'll join Teta on a walk to explore the world of spiders.

A Swift Night Out — Saturday, September 8 (rain date Sept. 9), 6:45 – 8:30 p.m. Chimney Swifts congregate in communal roosts prior to their migration in the fall. Some roosts may consist of an extended family group of a dozen birds, but the larger sites can host hundreds or even thousands of swifts. One such roost in the Lincoln area has had more than 600 birds that roost in a single chimney! We'll sit on a lawn near the chimneys where the birds gather and watch their spectacular aerial flights. Bring a chair, and we will provide snacks. Registration required: Sign up online or contact Phil Daley at 540-338-6528 or pdaley@loudounwildlife.org.

Birding the Appalachian Trail and Hawk Watch — Saturday, September 15, 8:30 a.m. – 2:00 p.m. Join us as we hike and search for migrants in the morning along a section of the Appalachian Trail that leads to a beautiful waterfall. Then, around 11:00, return to the Snickers Gap Hawk Watch for a few hours of hawk watching and hopefully see a major push of Broad-winged Hawks. Bring lunch and a chair. Meet at the Snickers Gap Hawk Watch to car pool to the close-by hiking location or join us at the hawkwatch at 11:00. Questions: Contact Mary Ann Good at magood1@verizon.net.

**Bluemont Fair** — **September 15 & 16.** With the changing seasons and the cool fresh air, the Bluemont Fair is a wonderful way to spend the afternoon. We'll have our booth set up with a variety of handouts and information available so please stop by and say hello! If you'd like to help staff the booth for a few hours on either day, please let us know.

**Birding Bles Park** — **Monday, October 8, 8:00 a.m.** Join Loudoun Wildlife Conservancy at Bles Park for a bird walk led by Joe Coleman. This small park bordering the Potomac River in eastern Loudoun is a birding hot spot and is especially good during migration because of its rich and varied habitat. **Registration required:** Sign up online.

# **Birding Banshee**

oin Loudoun Wildlife Conservancy and the Friends of Banshee Reeks at the Banshee Reeks Nature Preserve for the monthly bird walk. Because of its rich and varied habitat, it is a birding hot spot. Please bring binoculars.

Questions: Contact Joe Coleman at 540-554-2542 or jcoleman@

Saturdays, July 14, August 11, September 8 and October 13 at 8:00 a.m.



#### **Ouestions?**

Contact Jim McWalters at jmcwalters@loudounwildlife.org. For up-to-date information on our programs, check our web site at www.loudounwildlife.org.





## The Facts About Spraying for Ticks

yme disease is a bacterial illness transmitted when people are bitten by blacklegged ticks, more commonly known as deer ticks. It has become a major health concern in the Northeast and Mid-Atlantic, where a burgeoning population of deer has helped spread the disease beyond forests into suburbia. The number of reported cases has increased in Loudoun County 15% since 2010.

The Loudoun County Board of Supervisors (BOS) declared 2012 the "Lyme Disease Awareness Year" and produced a 10-point action plan to mitigate Lyme disease in Loudoun County. Some of these action items are beneficial and Loudoun Wildlife Conservancy (LWC) supports raising awareness of the disease and efforts to protect citizens from Lyme disease.

As part of the 10-point plan, the BOS authorized spraying the pesticide Talstar on 196 acres in nine local parks in April and May. It is a fact this pesticide is dangerous to both wildlife and humans. Talstar contains the active ingredient, bifenthrin, which is highly toxic to fish, small aquatic organisms, and bees, and slightly toxic to birds. There are additional potential risks for birds and mammals that eat aquatic organisms because bifenthrin can last for a substantial period of time in the water and thus accumulate in the aquatic food chain. (npic.orst.edu/factsheets/bifgen.html)

#### Can bifenthrin harm humans and their pets?

- This chemical is classified by the EPA as a Class C carcinogen. The manufacturer of Talstar states, "Potential human health effects from overexposure may result from either swallowing, inhaling or coming into contact with the skin or eyes."
- Symptoms of overexposure include bleeding from the nose, tremors and convulsions. Contact with bifenthrin may occasionally produce skin sensations such as rashes, numbing, burning or tingling. These skin sensations are reversible and usually subside within 12 hours. (msds.fmc.com/msds/100000014552-MSDS\_US-E.pdf)
- Exposed pets may experience single-episode vomiting or diarrhea, reduced activity, twitching of the ear, paw flicking and increased drooling. Other signs can include hyperactivity followed by incoordination with diarrhea, depression, and dilated pupils. Some veterinarians have reported additional signs such as chewing, head bobbing, partial paralysis, and tremors. (npic.orst.edu/factsheets/bifgen.html)
- Children are particularly sensitive to toxins and because of this, many states, including Connecticut, regulate, restrict or ban the use of pesticides in school buildings or on school grounds.

Loudoun Wildlife Conservancy (LWC) shares concerns about Lyme disease and supports efforts to educate citizens on the most effective and safe way



to protect against ticks. As wildlife advocates for the county as well as concerned citizens, we are 100% against the broad based spraying of toxic chemicals because it incurs mortality in other beneficial life forms and is hazardous to humans.

The BOS has also advised Home Owners' Associations to spray neighborhoods. Spraying in mowed areas is not only dangerous for the reasons stated above, it is also ineffective and unnecessary as neither ticks nor their hosts infest mowed areas. (extension. umd.edu/publications/pdfs/fs595.pdf)

Health agencies of Connecticut produced one of the most comprehensive tick and Lyme documents titled, **The Tick Management Handbook** (www.ct.gov/caes/lib/caes/documents/publications/bulletins/b1010.pdf). One of the key conclusions in the handbook is: "Checking for ticks and prompt removal of attached ticks is probably the most important and effective method of preventing infection."

Loudoun Wildlife Conservancy advises concerned citizens the best defense against Lyme disease is personal diligence in spraying yourself with repellant and checking your body for ticks after being in likely tick areas. Prompt removal of ticks prevents Lyme disease.

LWC is extremely concerned HOAs throughout the county might make a quick decision to begin spraying pesticides in our neighborhoods, as suggested by the Board of Supervisors.

Please contact your own HOA and vote against spraying your neighborhood! Also, contact your supervisor and let them know you oppose spraying for ticks.

Continued on page 14



# Birdathon Team Finds An Unbelievable 118 Species!

by Joe Coleman

magine migrating thousands of miles to your favorite nesting spot or stopover location for food and shelter and finding instead a shopping center and parking lot — if you were a bird your chances of surviving and producing young would drop substantially. To emphasize the importance of preserving healthy wildlife habitat for both migrating and nesting birds, Loudoun Wildlife Conservancy sponsors several International Migratory Bird Day (IMBD) walks and a Birdathon to raise money for bird conservation between May 5 and May 13. Between these walks and the Birdathon, more than 140 species were found and \$8,000 raised. On May 5 both the Raven Loonatics (Donna Quinn, Bruce Hill, Gerco Hoogeweg, and Larry Meade) and Shrike Force (Joe Coleman, Mary Ann Good, Gerry Hawkins, and Laura McGranaghan) completed their Birdathon. The Raven Loonatics found an incredible 118 species while Shrike Force tied their previous high record of 113 species for a combined total of 132 species! While both teams were blessed with good weather and migration in full swing, scouting earlier in the week, good birding skills, and familiarity with Loudoun County's birding hot spots made the difference. For many of the team members it was their most productive U.S. birding day ever. While both teams birded throughout the county, the majority of the Raven Loonatics' species were in eastern Loudoun while most of Shrike Force's species were in the west.

Our walks included Algonkian Regional Park, the privately-owned Horsepen Preserve, Camp Highroad, a Methodist Camp, and the 900-acre Blue Ridge Center for Environmental Stewardship (BRCES). This year we also included the Broadlands Wetlands off Exit 6 on the Greenway Toll Road. It is hard to believe one can find so much diversity in a wetlands bordered by the Greenway on one side and a shopping center on the other. This little bird hotspot was also visited by some of the birdathon teams and they were rewarded with some excellent looks at a Pectoral Sandpiper as well as other shorebirds. Walkers at Camp Highroad and BRCES were treated to an Ovenbird's distraction display – an interesting way to confirm breeding for our on-going Atlas project.

It's hard to pick out a single highlight from the 143 species that were found during the week. The most unusual sighting was a dark-morph Broad-winged Hawk, which is a rare subspecies in the eastern U.S., spotted by the Raven Loonatics as it flew over the Cascades Parkway. The highlight of the day for Shrike Force wasn't even a bird, but the state-threatened Wood Turtle. For the Ligi Nestlings, comprised of Addison (two years old), McKenzie (five years old), and their mom and LWC Atlas Coordinator, Spring Ligi, the highlight was McKenzie identifying a Carolina Wren by song without any help. They also greatly enjoyed a five-foot long snake skin they found. As often happens to them, the Grumpy Old Men had to bird under less than desirable conditions. However, in spite of the hard rain and strong wind they found 88 species including a beautiful light blue parakeet. Between all the walks and Birdathon team efforts, 26 warbler species, 9 sparrow species, Horned Larks, Dickcissels, Whip-poor-wills, Bald Eagles with young, Glossy Ibis, and both Hooded & Common Mergansers were found – it was an incredible and wonderful birdy week.

There were a total of eight different IMBD walks in a number of Loudoun County birding hotspots and seven Birdathon Teams: Grumpy Old Men, the Lark-o-Links, the Ligi Nestlings, the Raucous Robbins, the Raven Loonatics, Shrike Force, and the Tweeters. And I'll bet every one of us thinks next year will be even better!



The Tweeters
Photo by Karen Strick



Shrike Force and Raven Loonatics unite at the end of the day Photo by Mary Ann Good



Shrikes spot a state-threatened Wood turtle Photo by Laura McGranaghan

The Loudoun Wildlife
Conservancy would like to
thank the following people for
either leading one of our great
walks or participating on one
of the Birdathon teams:

Joanne Bradbury Sally Brenton **Bill Brown** Joe Coleman Phil Daley Cathey Daugherty Robert Daugherty Rockie Fera Mike Friedman Mary Ann Good Jay Hadlock **Gerry Hawkins Bruce Hill** Gerco Hoogeweg **Bruce Johnson Sharon Kearns** Addison Ligi McKenzie Ligi Spring Ligi Steve Makranczy Laura McGranaghan Larry Meade Laureen Megan Paul Miller Linda Millington **Christine Perdue** Donna Quinn **Andy Rabin** Dori Rhodes **Del Sargent** Linda Sieh **Emily Southgate** 



Cutest birdathon team, the Ligi Nestlings



#### ■ Facts about Spraying for Ticks, continued

At Loudoun Wildlife Conservancy, we spend a great deal of time outdoors and understand by being in certain habitats we expose ourselves to ticks. Dress appropriately. Wear a full brimmed hat, light colored clothes (to help spot ticks), long pants, and a long sleeved shirt. Consider buying clothing that has been treated with Permethrin, available at local outdoor stores such as Eastern Mountain Sports, REI, and Dick's Sporting Goods. Several of us treat our clothes with Permethrin, commonly available at local gardening stores and online; please read and follow the application instructions.



Avoid tall grass. Ticks wait in long grass, jumping on animals and humans after sensing our heat and movement.



Some of us who like an additional layer of protection use an insect repellent that contains DEET. Please read and follow all instructions and precautions.



Thoroughly check yourself for ticks after you have been outside. Take a shower and wash and dry your clothes. It is very difficult to drown a tick but you can easily kill them with the high heat of a clothes dryer.

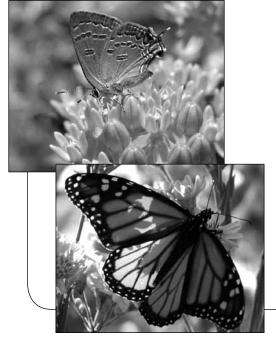


If you are a pet owner the best thing to do to prevent ticks is to follow your veterinarians' instructions, keep your cats indoors, and keep your dogs out of the tall grass while on walks.



If you find a tick on you after being outdoors don't panic. Prompt removal of a tick prevents Lyme disease. The best way to remove a tick is to pull it off gently, leaving the tick and its mouth parts intact. Here is an overview on how to remove a tick: firstaid.webmd.com/tc/how-to-remove-a-tick-overview.





## Let's Count Butterflies!

ur 16th annual Butterfly Count takes place on Saturday, August 4. Teams will cover Loudoun County, looking for butterflies as they flutter through fields, woodlands, and gardens. This is a great activity for all skill levels. Whether you know your butterflies or are just getting interested, this is a great chance to see a wide variety of species all in one day. Teams are led by experienced people who share identification tips and other interesting butterfly facts. Join us for just part or all of the day — your choice. For more information and to sign up, visit our website: www.loudounwildlife.org/Butterfly\_Count.htm or contact Nicole Hamilton at nhamilton@loudounwildlife.org.

Top to bottom: Eastern Tiger Swallowtail, Great Spangled Fritillary, Monarch



## **Nooks and Crannies – a place for families**

It's time to go on a butterfly safari! How many of these butterflies can you find? Share your sightings with us on Facebook or email them to nhamilton@loudounwildlife.org.



American Lady Photo by Nicole Hamilton



Monarch Photo by Nicole Hamilton



Silvery Checkerspot Photo by Nicole Hamilton



Black Swallowtail Photo by Nicole Hamilton



Northern Pearly-eye Photo by Liam McGranaghan



Tiger Swallowtail Photo by Liam McGranaghan



Common Buckeye Photo by Nicole Hamilton



Question Mark Anglewing Photo by Liam McGranaghan



Viceroy (a bit smaller than Monarchs and with a black line across hind wings) Photo by Laura McGranaghan



Juniper Hairstreak Photo by Liam McGranaghan



Red-spotted Purple Photo by Liam McGranaghan



Zebra Swallowtail Photo by Laura McGranaghan

# The Butterfly Life Cycle:

Butterflies start life as an egg, often laid on the underside of a leaf. A tiny caterpillar (also known as larva) hatches from the egg and begins eating the leaves and flowers of its host plant. The caterpillar grows quickly. It increases several thousand times in size, losing its old skin many times. When the caterpillar reaches exactly the right size, it turns into a pupa, or chrysalis. Inside the chrysalis, a magical transformation is taking place and on exactly the right day, a beautiful butterfly emerges!

Butterflies and caterpillars need native plants to reproduce. Help keep butterfly populations healthy by planting butterfly attracting plants such as milkweed and other asclepias, aster, coneflower, goldenrod, and parsley. Growing trees like oak, elm and Black Walnut and Black Locust, eliminating the use of chemicals, and leaving areas unmowed are also important ways to help butterflies.

www.enchanted learning.com/subjects/butterfly/allabout/



Monarch caterpiller and chrysalis. Photo by Oakley



Loudoun Wildlife Conservancy P.O. Box 2088 Purcellville, VA 20134-2088

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