



# Habitat Herald

A Publication of the Loudoun Wildlife Conservancy

Volume XV, Issue 3

Fall 2010



## Bats at Oatlands: Lessons for Human-Wildlife Interaction

by Erin Snook

Loudoun County is home to seven spectacular species of bats, and they have been the focus of various *Habitat Herald* articles over the years. Several parks and nature preserves throughout the county recognize the importance of these flying mammals by hosting bat houses on their property. Sometimes, however, bats unwittingly become players in complex human-wildlife conflicts. In May of this year, LWC was presented with a challenging situation in an urgent call from Oatlands Plantation. Oatlands, located south of Leesburg on Rte 15, was overwhelmed by bats, bat guano, and swooping bats.

### Background on Bats

While bats are most well-known for living in caves, you may spot them throughout our region living in trees, rock crevices, under bridges, in bat houses and attics. Decreasing natural habitat has caused many to make their homes in a variety



Little Brown Bat  
Photo by Nicole Hamilton

of shelters, including buildings. Often loyal to their birthplace and hibernacula (hibernation sites), bats will roost at a temporary site in the summer and then return to their caves or other hibernacula in colder months.

Bats of temperate regions generally mate in the fall before hibernating for the winter. Fertilization occurs in the spring at which point pregnant females move from hibernacula to

warmer roosts or nursery colonies. A month or two later, the mother bears one or two young. Baby bats nurse from their mothers until they are developed enough to fly and catch their own insects, at about nine weeks for Big Brown Bats.

All bats in the United States are insectivorous and are, in fact, one of the most important natural pest controllers. Little Brown Myotis, one of the most common species in Loudoun County, can eat up to 1,200 insects in an hour. A 150-bat colony of Big Brown Bats, another common species, can consume enough adult cucumber beetles to prevent egg-laying that would produce 33 million larvae.

### White Nose Syndrome

Bats are in great danger due to White Nose Syndrome (WNS), a fungus that grows on bats' noses, waking them from winter hibernation. The extra energy they have to expend from being woken forces them to exit hibernacula and search for food, which is extremely scarce in the freezing months. As a result, many bats die – not directly from WNS, but from starvation.

According to Bat Conservation International (BCI), this condition has led to "the most precipitous wildlife decline in the past century in North America." Hibernating bat populations in New York and Vermont have almost completely disappeared in the last 4 years, and more than 50% of American bats are in decline, many of them because of WNS.

WNS has been confirmed or is suspected in nine counties in Virginia. While Loudoun is not yet one of them, three of the affected species – Big Brown Bat, Little Brown Myotis, and Indiana Bat – are known to occur in Loudoun County.

Fortunately there have been some efforts to curb the spread of WNS. Many caves along the East Coast have been closed due to the fear that spelunkers (recreational cave-goers) may be transporting the fungus from one cave to another. Some

■ Continued on page 3

### In This Issue:

A Word from the President	2	In Memory of Barbara Holland	8
2010 CBC Bird Count	4	Programs and Field Trips	9
Pawpaw	5	Janet Locklear	10
LWC Nature Book Club	6	Zoom and Compass	11
Protecting Our Streams	7	The Snickers Gap Hawkwatch	12
Butterfly Count 2010	8		



# A Word from the President: Finding Solutions

by Joe Coleman

Our organization prides itself on finding friendly solutions to difficult problems, specifically the preservation of wildlife and the habitat they need to thrive. To do this, we work with a wide variety of individuals, organizations, and businesses and

partner with a number of like-minded groups. Sometimes this turns out well; sometimes, in spite of our efforts, it does not.

Over the last few months, we were thrilled to work with Oatlands Plantation to find a mutually beneficial solution for a problem with bats. At the same time, we were deeply disappointed with how the Trump National Golf Course on Lowes Island dealt with their already small and inadequate forested, riparian buffer along the Potomac River.

LWC has worked with Oatlands and its neighbors for many years to protect and preserve the property and the area around it — one of the county's richest historical and natural areas. When David Boyce, the Executive Director at Oatlands, contacted me back in June to get LWC's advice on a problem with bats at Oatlands, I immediately asked one of our summer interns, Erin Snook, to research this issue and advise us on how to proceed. Erin, working with David Boyce and others, found a solution which will protect and preserve both the bats and Oatlands. To find out what happened, read this month's lead article in the *Habitat Herald*.

Unfortunately, during this same time period, we found out that the Trump National Golf Course had destroyed the forested riparian buffer that separates the course from the Potomac River. This was especially disappointing as last year LWC worked with staff at Trump National on a number of environmental issues including preserving wetlands and enhancing the riparian buffer. While we were pleased with the compromise that we worked out on the wetlands, which minimized their loss, it was hard to comprehend in this day and age what happened to the forested riparian buffer. In our meetings with the Trump National staff we pointed out on several occasions that the forested riparian buffer along the Potomac River was too narrow. In order for it to be fully effective, it needed to be widened and enhanced by the planting of understory trees and shrubs. To our amazement and disappointment this was not done but instead most of the mature trees and shrubs that were in the buffer were removed. While grassy riparian buffers do an adequate job of controlling sediment and erosion, they do not effectively control nutrient runoff. And, the grasses and sedges that now comprise the buffer will be even more ineffective since there are plans to mow it every year after September.

The actions at Trump National point out the necessity for strong, unambiguous laws that fully protect and encourage forested riparian buffers. Voluntary actions that encourage landowners to protect and plant forested riparian buffers but do not legally require them are not satisfactory and do not work.

Articles in the *Habitat Herald* are published for the 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: Joe Coleman  
Editors: Karen Coleman, Mary Ann Good  
Design: Lorrie Bennett

Printed by: Mr. Print, Purcellville, VA

© 2010 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.

The Loudoun Wildlife Conservancy is a non-profit 501(c)(3) group of volunteers who share a common goal of protecting and perpetuating natural habitats for the benefit of both people and wildlife. Contributions are tax-deductible to the extent allowed by the law.

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.

<b>President</b>	Joe Coleman	540-554-2542	jcoleman@loudounwildlife.org
<b>Past President</b>	Nicole Hamilton	540-882-9638	nhamilton@loudounwildlife.org
<b>Vice President</b>	Nicole Hamilton	540-882-9638	nhamilton@loudounwildlife.org
<b>Secretary</b>	Rockie Fera	703-777-2905	rrfera@verizon.net
<b>Treasurer</b>	Linda Sieh	703-929-9765	lsieh@loudounwildlife.org
<b>Finance</b>	Vacant		
<b>Programs and</b>			
<b>Field Trips Chair</b>	Laura Weidner	540-229-2816	lweidner@loudounwildlife.org
<b>Habitat Restoration</b>	Joe Coleman	540-554-2542	jcoleman@loudounwildlife.org
<b>Membership</b>	Helen Van Ryzin	540-882-4187	hvanryzin@loudounwildlife.org
<b>Fundraising</b>	Vacant		
<b>Environmental Education</b>	Paul Miller	540-882-3112	pmiller@loudounwildlife.org
<b>Public Relations Chair</b>	Shelia Ferguson	540-822-5857	sferguson@loudounwildlife.org
<b>Volunteer Coordinator</b>	Linda Millington	540-592-3498	lmillington@loudounwildlife.org
<b>Conservation Advocacy</b>	Andrea Soccio	703-407-0946	asoccio@loudounwildlife.org
<b>Habitat Herald</b>	Donna Quinn	703-217-3544	dquinn@loudounwildlife.org
<b>Community Outreach</b>	Robert Daugherty	571-527-9162	rdaugherty@loudounwildlife.org
<b>Stream Monitoring</b>	Vacant		
<b>Bird Population Surveys</b>	Joe Coleman	540-554-2542	jcoleman@loudounwildlife.org
<b>Bluebird Monitoring</b>	Janet Locklear		jlocklear@loudounwildlife.org??
<b>Special Projects Ops</b>	Phil Daley	540-338-6528	pdaley@loudounwildlife.org
<b>Special Projects Admin</b>	Karen Strick	703-283-2149	kstrick@loudounwildlife.org
<b>Amphibian Monitoring</b>	Nicole Hamilton	540-882-9638	nhamilton@loudounwildlife.org

**Bats, continued from pg. 1**

states and federal agencies are funding research, but solutions to WNS remain to be found.

While WNS is perhaps the most serious and misunderstood problem affecting bat populations, it is not the only one. Nearly all bat populations in Loudoun and across the country are suffering dramatic declines due to habitat destruction, as woodlands and farms are developed, and to loss of food sources, as insect populations decline due to pollution. Outdoor cats and humans also kill thousands of bats outright, the former for food and the latter often because of misinformation.

**Bats at Oatlands**

Oatlands Plantation, a National Trust Historic Site and National Historic Landmark, represents 200 years of American history. Its historic buildings, gardens, and grounds host tours, educational programs, weddings, afternoon teas, and other events. In previous summers, the staff at Oatlands had noticed bats flying over the lawns at dusk, but became concerned this year when the guano on the mansion's front porch tipped them off that bats were roosting in the tops of the 200-year-old Corinthian colonnades. The bats were also creating a lot of consternation flying around bridal parties, according to Executive Director David Boyce. "The columns," says Finance Director Carole Greetham, "are the icon of Oatlands."

The staff at Oatlands was divided. Some thought that extermination would be the quickest and easiest solution to the problem, while others, who recognized that bats keep the bug population at bay, wanted to keep the bats around—just not in the buildings. They considered putting wiring around the top of the colonnades to keep the bats out, but were concerned that this might trap and kill many of the bats.

Boyce called several exterminators for estimates, but sensing that there may be a more humane solution, he contacted LWC for advice before moving forward. With White Nose Syndrome and rapidly decreasing bat populations in mind, LWC quickly researched local bats. We spoke with bat rehabber Leslie Sturges from Bat World NOVA. Leslie recommended floating

foil balloons near the roosting area as a quick solution, which may interfere with a bat's echolocation abilities and dissuade them from roosting in that location. In our research we came across a few other solutions, some of them less humane than we would like and most of them seemingly insufficient to deal with large numbers of bats. However, we soon discovered that experts (BCI, Humane Society US, & other wildlife removal experts) agree that bat exclusion is the only effective way to permanently remove bats from a building.

It was obvious from Oatlands' complex historical architecture that a professional would be needed to conquer the exclusion. Fortunately, BCI has an easily accessible listing of certified bat exclusion experts across the country. We contacted John Griffin, Director and certified bat expert at the Humane Society's Wildlife Conflict Resolution Service office in Gaithersburg. Next, we communicated all of our research and discussed the various options with Boyce at Oatlands. We also informed him of the enormity of the bug control service that bats perform and related the severity of WNS to bat populations. He agreed that large-scale bat exclusion seemed to be the best solution and invited Griffin to the plantation to assess the situation.

Having inspected the mansion, Griffin concluded that there was a maternal colony of 50- 100 Little Brown Myotis and possibly some Big Brown Bats roosting in four or five of the columns. The presence of several pups meant that to ensure the survival of the entire colony, Griffin would have to wait until the fall when the pups are fully grown to perform the exclusion. In September, he will install one-way check-valves by covering open areas in the columns with mesh cones at night after all the bats have left their roost. After a week he will install a permanent hidden custom exclusion which blocks re-entrance into the Corinthian colonnades. Griffin will also erect bat houses on the property in the Carter barn area where there are plenty of bugs to be eaten. While it can sometimes take years for bats to find, accept, and move into a bat house, staff are hopeful that their bats will return to Oatlands next spring and use the bat houses.

Boyce and Oatlands plantation staff are thrilled with the opportunity they were handed to learn about bats, the information they were provided through the work of LWC, and the comprehensive solution offered by the Humane Society. When asked about the future of their bats, Boyce affirms, "Oatlands needs to protect and promote the welfare of our bat population."

**Lessons to Learn**

Human-wildlife conflicts, like the one at Oatlands, are complex yet not uncommon predicaments that wildlife unwittingly become part of. Without research, we do not fully understand the complexity of the ecosystems in our own backyards, and this lack of knowledge can lead to hasty, unwise decisions. White Nose Syndrome is devastating bat populations nationwide, and exterminating a colony could mean killing off one



Oatland Plantation  
Photo by Erin Snook

■ Continued on page 4



■ *Bats, continued from pg. 3*

of the few healthy communities remaining. Like bats, many animals find themselves regarded as pests, when they really are not and, in fact, provide many valuable services for us. Perhaps if we knew more about them and reconsidered the way we perceive intrusions into our world, we could avoid future degradations to our ecosystems.

**Sources**

1. Bats in Buildings: A Guide to Safe and Humane Exclusions – BCI [www.batcon.org/pdfs/education/fof\\_ug.pdf](http://www.batcon.org/pdfs/education/fof_ug.pdf)
2. Solving Problems with Bats – Humane Society [www.humanesociety.org/animals/bats/tips/solving\\_problems\\_bats.html#Bat\\_colonies\\_roosting\\_in\\_attics\\_chimneys](http://www.humanesociety.org/animals/bats/tips/solving_problems_bats.html#Bat_colonies_roosting_in_attics_chimneys)

3. Center for Human-Wildlife Conflict Resolution: Bats [www.humanwildlife.org/species/bats.htm](http://www.humanwildlife.org/species/bats.htm)

4. BatWorld NOVA – Leslie Sturges [http://www.batworld.org/batworld\\_centers/novaabout.html](http://www.batworld.org/batworld_centers/novaabout.html)

5. White Nose Disease in Bats, by Leslie Sturges, *Habitat Herald*, vol. XIV, issue 3, Fall 2009. [www.loudounwildlife.org/HHWhite\\_Nose\\_Disease\\_Bats.htm](http://www.loudounwildlife.org/HHWhite_Nose_Disease_Bats.htm)

6. Bats of Loudoun, Our Night Flyers, Parts I & II, by Nicole Hamilton, *Habitat Herald*, vol. XII, issues 1, Spring 2007, & 2, Summer 2007. [www.loudounwildlife.org/HHBats\\_of\\_Loudoun1.htm](http://www.loudounwildlife.org/HHBats_of_Loudoun1.htm) [www.loudounwildlife.org/HHBats\\_of\\_Loudoun2.htm](http://www.loudounwildlife.org/HHBats_of_Loudoun2.htm)

## 2010 Central Loudoun Christmas Bird Count

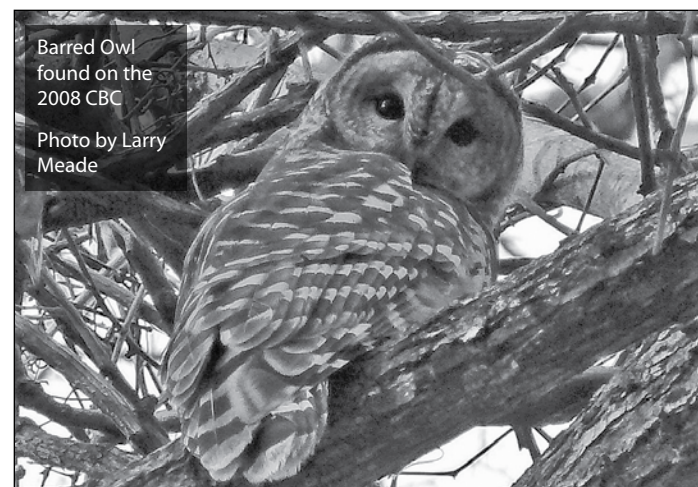
by Joe Coleman

For over a century, thousands of people have spread out all over North America during the Christmas season to count every wild bird they can find. The information from these bird counts is sent to the National Audubon Society (NAS), which works with the Cornell University School of Ornithology to create a database of the sightings. This data has been collected since 1899, making the counts not only invaluable in monitoring bird populations, but the largest and longest example of citizen science in the world. But these bird counts are not only science, they are also fun. People explore the country's natural and not-so-natural areas. Counters share their wonder of the wild beauty of feathered creatures with like-minded people, and sometimes find truly rare birds.

Join us for the **Fourteenth Annual Central Loudoun Christmas Bird Count on Wednesday, December 29** as we participate in this annual event. Our count-circle has a 15-mile diameter and covers 177 square miles of Loudoun's countryside: north to Waterford, south to Aldie, east to Ashburn, and west to Purcellville. The circle includes a number of very special natural areas such as the Banshee Reeks Nature Preserve, the Dulles Greenway Wetlands Mitigation Project, Beaverdam Reservoir, Morven Park, Ball's Bluff, several private large estates, about five miles of the C&O Canal and Potomac River in the vicinity of White's Ferry, and much of still-rural western Loudoun County. Everyone is welcome — beginners are teamed up with experienced birders, and every eye helps! *If you are interested in participating for the whole day or just a portion, contact Joe Coleman at 540-554-2542 or [jcoleman@loudounwildlife.org](mailto:jcoleman@loudounwildlife.org).*

There is a \$5 fee for adult bird count participants (over 18) which the Loudoun Wildlife Conservancy pays for its members. This fee helps offset the cost of the database and the publication of the CBC issue of *American Birds*.

**Calmes Neck Christmas Bird Count – Sunday, January 2, 2011.** There are other Christmas Bird Counts in Loudoun County besides the Central Loudoun CBC which you can find out about by visiting [www.audubon.org/bird/cbc/](http://www.audubon.org/bird/cbc/). The Calmes Neck CBC includes much of far-western Loudoun County. Its count area includes a wide variety of habitats ranging from mountain forests to rural subdivisions to old farm fields and meadows, with the Shenandoah River running through it. If you want to help with the Calmes Neck CBC, contact Margaret Wester at 540-837-2799 or [margaretwester@hotmail.com](mailto:margaretwester@hotmail.com). Also, Joe Coleman (540-554-2542 or [jcoleman@loudounwildlife.org](mailto:jcoleman@loudounwildlife.org)) and Phil Daley (540-338-6528 or [pedaley@verizon.net](mailto:pedaley@verizon.net)) are sector leaders for the Calmes Neck CBC. Phil's area includes Round Hill and north, and Joe's area includes Bluemont south to Bloomfield. If you are interested in joining either of them, please contact them directly.



Barred Owl  
found on the  
2008 CBC

Photo by Larry  
Meade

To see what has been found on previous Central Loudoun counts visit [www.loudounwildlife.org/PDF\\_Files/CBC\\_Summary\\_Years.pdf](http://www.loudounwildlife.org/PDF_Files/CBC_Summary_Years.pdf); to find out about other counts or compare the Central Loudoun to other counts, visit [www.audubon.org/bird/cbc/](http://www.audubon.org/bird/cbc/).



Pawpaw  
Photo by Nicole Hamilton

## Pawpaw (*Asimina triloba*)

by Emily Cook

When many of us hear the word pawpaw, we begin to hum “The Bare Necessities” from *Jungle Book* and can almost picture Baloo the Bear waxing poetic about picking “a pear of the big pawpaw.” From the lyrics, it is pretty clear he’s singing about a favored fruit, but few people really know much about the fascinating pawpaw tree or the delicious fruit it produces.

The pawpaw (*Asimina triloba*) can be found in most eastern states, and it is believed that much of the credit for this lies with the American Indian who spread the seeds from the Great Lakes in the north to the inland areas ad-

jacent to the Gulf of Mexico in the south. In order to thrive, the pawpaw requires a minimum of 400 hours of winter chill and at least 160 frost-free days. The pawpaw prefers a humid continental climate and is sensitive to areas of low humidity with dry winds or cool maritime summers. As a result, the pawpaw is rarely found near the Atlantic or Gulf coasts.

The pawpaw can be described as an understory deciduous tree or bush which typically ranges in height from 12 to 20 feet. Pawpaw trees frequently produce root suckers a few feet from the trunk which, when permitted to grow, can result in a pawpaw patch arising from a single individual. The pawpaw enjoys well-drained soil and does best when planted in filtered sun or shade when young. A mature pawpaw thrives in full sun and makes a striking landscape specimen. Though not commonly practiced, the pawpaw can be grown in a container. However, the container must be very large and deep in order to properly accommodate the root system, and the plant requires routine pruning in order to maintain a smaller size.

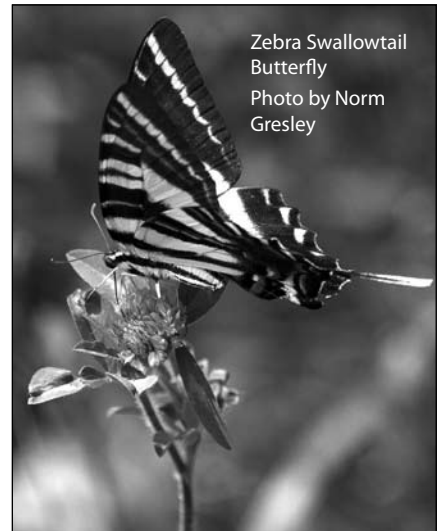
The pawpaw’s foliage is dark green with drooping, oblong leaves that can reach a length of up to 12 inches. The result is a tree that can appear almost tropical. The foliage turns a rich, warm yellow in the fall, just prior to dropping off.

Velvety, dormant flower buds develop in the axils of the previous years’ leaves. The flowers of the pawpaw bloom along the tree’s branches prior to the emergence of the foliage and can grow either singly or in clusters. The upside-down, two-inch blooms can vary in color from white to purple, or even a reddish-brown.

The fruit of the pawpaw is the largest edible fruit of any North American plant and can weigh up to one pound and grow to a length of six inches. Pawpaw fruit grows in clusters with as many as nine individuals growing together. The flesh of the fruit has a soft, buttery texture and a flavor similar to that of pineapple, banana and papaya. The skin of the fruit starts off a light, pale green that blackens as it ripens. The seeds are large and resemble lima beans.

The pawpaw goes by many names, including the prairie banana, poor man’s banana, Indiana banana, and West Virginia banana, just to name a very few. A member of the Annonaceae family, or custard-apple family, the pawpaw is a relative of the cherimoya, sweetsop, ylang-ylang and soursop; however, the pawpaw is the only member not confined to the tropics.

Aside from the pawpaw’s unique tropical beauty and delectable fruit, this remarkable tree also serves as the only host (food) plant for the Zebra Swallowtail butterfly caterpillar. Perhaps you will have the good fortune of spotting a pawpaw on your next hike or butterfly walk and can fully appreciate what Baloo was making such a fuss about.



Zebra Swallowtail  
Butterfly  
Photo by Norm  
Gresley

Pawpaw is the host (food) plant for Zebra Swallowtail caterpillars.

### Sources:

[www.arhomeandgarden.org/plantoftheweek/articles/pawpaw\\_10-28-05.htm](http://www.arhomeandgarden.org/plantoftheweek/articles/pawpaw_10-28-05.htm)  
[www.crfg.org/pubs/ff/pawpaw.html](http://www.crfg.org/pubs/ff/pawpaw.html)  
[www.gardenguides.com/taxonomy/pawpaw-asimina-triloba/](http://www.gardenguides.com/taxonomy/pawpaw-asimina-triloba/)

# Chirps from the LWC Nature Book Club

by Donna Quinn

The LWC Nature Book Club has been on summer break but will resume meetings in the fall. We'll discuss *On the Wing: To the Edge of the Earth with the Peregrine Falcon* by Alan Tennant at our next meeting, TBD. *On the Wing* is the fascinating true story of Tennant's madcap adventures as he tracks the migration of a Peregrine Falcon called Amelia in a rattletrap Cessna from the flats of Texas, north to Alaska, and south to the Caribbean. We become intimately familiar with the habits of Amelia during the days and nights he records her activities and travels. Peregrines have captured our imagination since antiquity and they still mesmerize us with their incredible speed, agility, hunting skills, and far-roaming travels. Peregrines were virtually exterminated in the mid-20th century but have made a remarkable recovery since the ban of DDT in the 1970s. Today they can be found in just about every habitat throughout the world, even nesting on the ledges of city skyscrapers. Join us on Alan and Amelia's extraordinary journey.

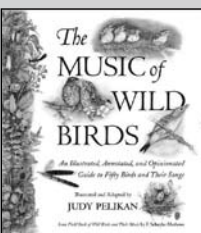
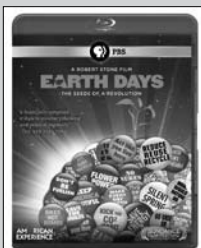
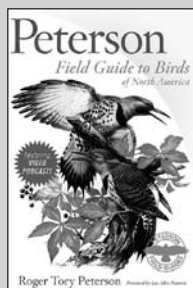
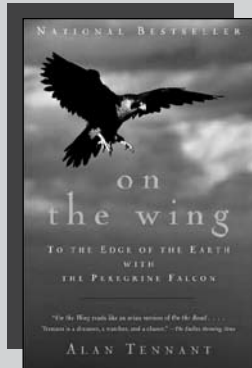
## Chirps recommends...

*Peterson Field Guide to Birds of North America* by Roger Tory Peterson – The latest edition of the classic Peterson guide covers all of North America including Canada, with updated range maps and taxonomy, as well as digitally enhanced drawings. Every birder will want this most recent and affordable version of the field guide that set the bar in 1922 for all future bird field guides. Overheard user comments: "To see the sketches that taught me as a child how to identify birds even larger is a great pleasure" and "It's quite a bit heavier than the previous edition and you will notice it in the field". Even if you don't want to carry this guide with you on walks, it's a welcome addition to the bird guide library.

"Earth Days" DVD, from PBS – "Director Robert Stone ('Oswald's Ghost,' 'Guerrilla: The Taking of Patty Hearst'), drawing heavily on eyewitness testimony and a wealth of never before seen archival footage, examines the revolutionary achievements — and missed opportunities — of a decade of groundbreaking activism. The result is both a poetic meditation on man's complex relationship with nature and a probing analysis of past responses to environmental crisis" ([www.shoppbs.org](http://www.shoppbs.org)). Stunning and awe inspiring, "Earth Days" highlights the pioneers in the environmental movement, beginning with Rachel Carson. An excellent overview of the environmental movement, this insightful documentary renews faith in the power of individuals to transform and change, and compels us to do our part today.

*A New Green History of the World* by Clive Ponting – Explores the relationship between humans and the environment. Ponting studies the past and reveals how non-sustainable practices played key roles in the collapse of all great civilizations — a sobering lesson for all of us. This important work demonstrates the impact of over-extension and exhaustion of natural resources on a culture, reminds us that human beings are part of an intricately connected ecosystem of life forms, and heeds us to take lessons from the past to prevent future catastrophe.

*The Music of Wild Birds* by F. Schuyler Mathews – First published in 1904, republished in 2004, with illustrations by Judy Pelikan. Delightful and charming, this book will steal your heart. Mathews was a naturalist who set out to record the "music" of wild birds before the days of recording instruments. Each species is described with heartfelt appreciation, and its song is translated into musical notes. Even if you are not a musician, you will enjoy Mathews' descriptions which capture the spirit of the species. Mathews' Bobolink song description: "...he begins bravely enough with a number of well-sustained notes, but presently he accelerates his time, loses track of his motive, and goes to pieces in a burst of musical scintillations. It is a mad, reckless outbreak of pent-up irrepressible glee." Original or new edition, this is a treasure for anyone who enjoys nature, birds, or music.



# Protecting Our Streams

by Natalie Pien

**S**treams in Loudoun County need protection. A 2009 study of 200 stream sites throughout Loudoun, funded in part by the Environmental Protection Agency (EPA), found that 78% of the stream miles were stressed or severely stressed due to poor water quality. The Loudoun County Water Resources report published findings that bacteria in 63% to 83% of streams sampled between 2005 and 2009 exceeded the Virginia Department of Environmental Quality (DEQ) limits for recreation/swimming. In 2007, DEQ posted Health Advisories along Broad Run and Goose Creek warning against eating fish due to the presence of PCBs in fish tissue.

Water pollution occurs when land use changes from natural forests and meadows to any one of a variety of uses, such as agricultural, residential, commercial, or industrial. Pollution from these different land uses can be classified as either Point Source pollution or Non-Point Source pollution. Factories or sewage treatment plants are examples of Point Source pollution because the pollutants discharge from a pipe at a specific point/location on a stream. Point Source pollution is regulated by EPA's National Pollutant Discharge Elimination System.

Non-Point Source pollution refers to pollutants that enter a stream not at a specific point through a single pipe, but at multiple points wherever rainwater runoff flows overland and enters a stream. The type of pollutant that enters a stream depends on the particular type of land use. For example, in residential areas, fertilizers, herbicides, and pesticides improperly applied to lawns and gardens can be washed off the land and carried to streams by rainwater runoff. Agriculture can result in similar types of pollutants, and livestock can introduce bacteria and sediment to streams. Oil, de-icing chemicals, and particles deposited on paved surfaces can end up in streams through runoff. Unlike Point Source pollution, Non-Point Source pollution is difficult to quantify and regulate and while not regulated now, it may be in the near future.

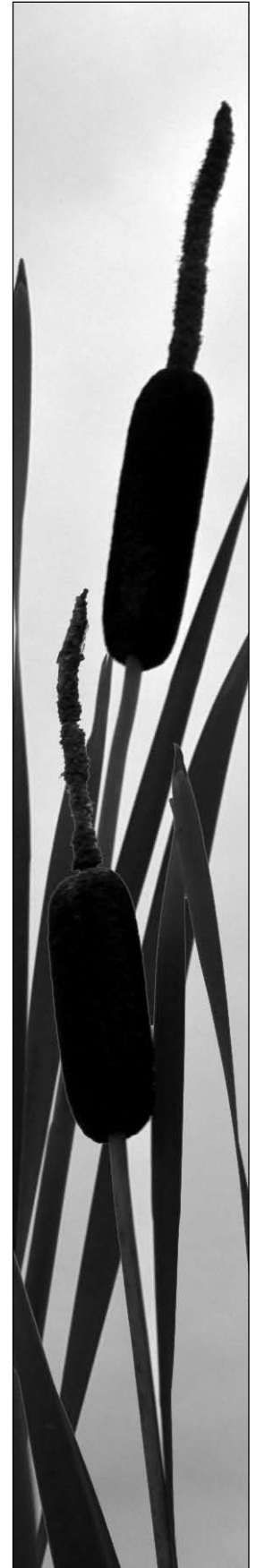
As land use changes from natural conditions, impervious surfaces such as rooftops and pavement prevent rainwater from soaking into the ground. Instead, the amount of rainwater runoff increases, resulting in stream water velocity increasing to erosive speeds.

Pollution from Non-Point Sources can be effectively reduced by "Mother Nature's filters," otherwise known as riparian buffers. Riparian buffers are areas of land adjacent to streams that are protected so that trees and other vegetation can grow. Riparian buffers have many benefits, including:

- 70% reduction of sediment pollution that can smother aquatic organisms
- 40% reduction of nitrogen and phosphorus fertilizers that cause algae blooms and subsequent oxygen depletion
- Decreased rainwater runoff velocity, reducing erosion of stream banks
- Decreased volume of rainwater runoff by allowing it to soak into the ground
- Habitat and corridors for wildlife
- Organic matter input to streams by leaf litter
- Shade to keep stream water temperature lower and able to hold more oxygen for aquatic life

*(For a thorough and excellent description of riparian buffers, see the Fall 2007 issue of the Habitat Herald, Volume XII, Issue 3.)*

Currently, riparian buffers are not protected in Loudoun County. Witness the destruction of over 400 trees along the Potomac River on the Trump National Golf Course (*Washington Post*, August 13, 2010). Riparian buffers need to be protected to help maintain clean and healthy streams. We all need clean water to drink, bathe, and grow and prepare our food. The Chesapeake Bay Protection Ordinance (CBPO) would protect riparian buffers in all parts of Loudoun County, agricultural and residential alike. On September 21, the Board of Supervisors is scheduled to consider the CBPO and will, hopefully, adopt the ordinance. Visit the Loudoun Clean Streams Coalition website at [www.loudounstreams.org](http://www.loudounstreams.org) to learn more about the ordinance and see how you can help maintain healthy streams.



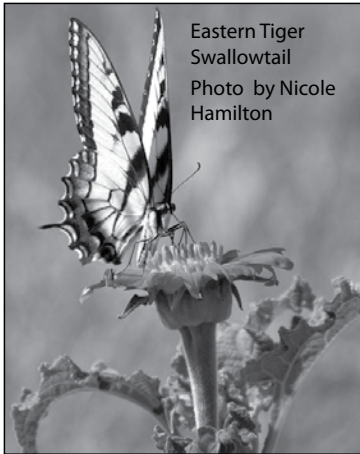


# Butterfly Count 2010

by Nicole Hamilton

On Saturday, August 7th, over sixty volunteers gathered into eight teams to count butterflies. This was our fourteenth annual butterfly count, and we were all geared up to watch for fluttering wings and flashes of color on a sunny day. The butterfly count protocol is based on the same methodology used for the Christmas Bird Count, with a count circle that is used consistently year after year in order to be able to compare data across the years and look for trends. Now having 14 years of data to look back on, a robust data set is being developed to monitor butterfly populations.

Our teams met up in locations from Leesburg to Purcellville to Neersville and worked throughout the day, from 9am to about 4pm, counting and identifying all the butterflies they could find. In all, we identified 4,296 individual butterflies across 53 different species. This was a good year for butterflies overall. In past years, we have seen plummeting numbers for some of our more common butterflies. However, this year's populations were up to more consistent levels, and we had increased numbers in many of the lesser-seen species. Just the right mix of sun and rain must have occurred to make the host and nectar plants grow.



Eastern Tiger Swallowtail  
Photo by Nicole Hamilton

The species that were higher than normal this year included:

**Black Swallowtail:** 58 — compared to only about 10-15 in past years

**Variegated Fritillary:** 95 — the second highest counted in 14 years

**Pearl Crescent:** 258 — in 2005 numbers peaked at 932 but plummeted the next year, slowly making a comeback

**Common Buckeye:** 172 — prior to this year, the most seen on a count was 39

**Red-Spotted Purple** and **Northern Pearly-eye:** 71 of each — their numbers took a nose-dive in 2004, and they were almost absent on our count for a few years

**Hackberry Emperor:** 65 — as compared to an average of only 4-7 over the past 5 years

**Common Checkered Skipper** and **Crossline Skipper:** 75 and 103 respectively — were prominent this year with the highest numbers recorded for our count for these species.

One species we were on the lookout for was the Monarch Butterfly. This past January and February, the Monarch sanctuaries in Mexico, where the butterflies overwinter, were hit by unusual storms. Their population was already at the lowest number ever recorded, and then the storms killed at least 50% of that already small number. As spring started, there was good rainfall in Texas and the milkweed bloomed on schedule, but the question remained if that would be enough to give lift to the population. As Monarch generations proceeded northward, butterfly watchers across Virginia sent emails through listserves asking if anyone was seeing Monarchs, but the response was no. We were very worried and kept our eyes peeled for them. Across our teams, we spotted 82. This number is half as many Monarchs as we had last year, which is consistent with the population drop, but it is not our lowest count. The robust milkweed from the early spring and summer played its role in helping the population climb back up, and that is great news!

## In Memory of Barbara Holland

by Joe Coleman

Many of us were sorry to learn of the death of Barbara Holland on September 7. While Barbara is well known as a best-selling author of many titles, including *Bingo Night at the Fire Hall*, *Endangered Pleasures*, and *When All the World was Young: A Memoir*, she also loved Loudoun County's natural places and was an active member of LWC. Barbara, along with Karin Scott, was the editor of our inaugural *Habitat Herald*. First with Karin, and later with Leslie McCasker, she worked on the *Habitat Herald* through 2002 and served on LWC's board for several of those years as well.

Beginning in 1993, she lived by herself on the side of the Blue Ridge Mountains near Snickers Gap. She was always thrilled for us to bird around her property and welcomed us for both International Migratory Bird Day and the Christmas Bird Count.

Those of us who worked with her on the board remember her incisive wit, her passion for wildlife and green spaces, and her talented editing abilities. Her contributions to the development of our newsletter helped make it the successful publication it is today. We will remember her for this and as a good friend and fellow wildlife supporter.

At Barbara's request, there will be no funeral services, but she asked that donations in her memory be made to local cat shelters, SPCAs, or wildlife preservation groups.





## 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.*



### Birding Banshee



**J**oin LWC 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@loudounwildlife.org](mailto:jcoleman@loudounwildlife.org).

**Saturday, October 9**  
**Saturday, November 13**  
**Saturday, December 11**  
**Saturday, January 8**

**Walks begin  
at 8:00 a.m.**

**Board Meetings** — LWC's board normally meets the first Tuesday of every month at 7:00 p.m. All LWC members are welcome. Contact Joe Coleman at 540-554-2542 or [jcoleman@loudounwildlife.org](mailto:jcoleman@loudounwildlife.org) for additional information.

**Mid-week Bird Walk at Bles Park in Eastern Loudoun — Wednesday, October 13 8:00 a.m. – 10:30 a.m.** Join LWC on a mid-week bird walk at Bles Park. A mostly level gravel path makes it easy to explore Bles Park, which not only contains wetlands but also is bordered by the Potomac River and Broad Run. Please bring binoculars. We will meet in the parking lot on Riverside Parkway. Directions can be found at [www.loudoun.gov/Default.aspx?tabid=924](http://www.loudoun.gov/Default.aspx?tabid=924). Admission to the park is free, there is ample parking, and comfort stations are available. Questions: contact Bill Brown at 703-437-6277 or [billbr50@msn.com](mailto:billbr50@msn.com).

**Exploring Wetlands — Saturday, October 16, 9:00 a.m. – noon (location TBD) Registration Required.** Join Jeff Wolinski, a Consulting Ecologist and wetlands expert, on a visit to one of our local wetlands. As we explore the wetlands, Jeff will describe the plants, soils, and other characteristics

that blend together to create one of nature's most fascinating and important natural habitats. **Register online** at [www.loudounwildlife.org](http://www.loudounwildlife.org) or contact Joe Coleman at [jcoleman@loudounwildlife.org](mailto:jcoleman@loudounwildlife.org) or 540-554-2542.

**Family Stream Day — Saturday, October 16, (time TBD) at Claude Moore Park.** The 9th annual "From Your Backyards to the Chesapeake Bay." Come and experience the many ways you can help keep Loudoun's streams clean by smart landscaping, stormwater and erosion control, water conservation, stream assessment and monitoring, and more. Rain or shine. Location: Claude Moore Park is located at 21544 Vestal's Gap Rd. in Sterling Va. Questions: contact Gem Bingol at 703-431-6941 or [gbingol@pecva.org](mailto:gbingol@pecva.org).

### Birding the Blue Ridge Center



**O**n the fourth Saturday of each month (except December), LWC leads a free bird walk at the Blue Ridge Center for Environmental Stewardship. This beautiful 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 visitor center. The Blue Ridge Center is located just north of Neersville, at 11611 Harpers Ferry Road, Rte 671. Detailed directions can be found on the website, [www.brce.org](http://www.brce.org). Questions: contact Joe Coleman at 540-554-2542 or [jcoleman@loudounwildlife.org](mailto:jcoleman@loudounwildlife.org).

**Saturday, Oct. 23**  
**Saturday, Nov. 27**  
**Saturday, Jan. 22**

**Walks begin at  
8:00 a.m.**





## SUNDAY IN THE PRESERVE

**J**oin a naturalist from the Friends of Banshee Reeks and LWC 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.

**Sunday, Oct. 17    Sunday, Nov. 21    Sunday, Dec. 19**  
**at 1:00 p.m.**

**“Sharing Your Enthusiasm for Nature:” A Class and Field Session — Sunday, November 7, 1:00 p.m. – 2:30 p.m. at the Blue Ridge Center for Environmental Stewardship.** **Registration Required.** Join Naturalist Phil Daley as he teaches a class on how to lead or co-lead a walk and then takes us out into the field for a demonstration walk. Phil will provide some insights, ideas, and guidance for potential walk leaders. To register contact Phil Daley at 540-338-6528 or [pdaley@loudounwildlife.org](mailto:pdaley@loudounwildlife.org).

**Exploring Fall — Sunday, November 7, 2:30 p.m.** **Registration Required.** Join Phil Daley on this free, family walk as he explores the Blue Ridge Center for Environmental Stewardship, looking at how plants and animals prepare for winter. Enjoy the fall foliage in this heavily forested preserve. The Blue Ridge Center comprises 900 acres of fields, forests, and wetlands on the west side of Harpers Ferry Road in northwestern Loudoun County. Meet at the visitor center, which is located just north of Neersville, at 11611 Harpers Ferry Road, Rte 671. Detailed directions can be found on the website, [www.brce.org](http://www.brce.org). To register contact Phil Daley at 540-338-6528 or [pdaley@loudounwildlife.org](mailto:pdaley@loudounwildlife.org).

**Birding Algonkian Park in Eastern Loudoun — Saturday, November 20 8:00 a.m.** Join LWC on a bird walk at Algonkian Park, which borders the Potomac River and has a variety of habitats, including rich bottomland forests and numerous wetlands. Admission to the park is free and ample parking and comfort stations are available. Meet at the parking lot by the pool (see map at [www.nvrpa.org/documents/file/algonkianmap.gif](http://www.nvrpa.org/documents/file/algonkianmap.gif), and see the park website for directions at [www.nvrpa.org/parks/algonkian/](http://www.nvrpa.org/parks/algonkian/)). Bring binoculars. *Questions: contact Andy Rabin at [stylurus@gmail.com](mailto:stylurus@gmail.com), or 703-723-6926.*

**Birding the Shenandoah Valley — December 5, 9 a.m. – 4:00 p.m. Registration Required.** Clarke County, in Virginia's Shenandoah Valley, has excellent birding areas. Join Joe Coleman and Laura McGranaghan on a daylong search for hawks, sparrows, waterfowl, and other seasonal birds in the northeastern section of the valley. Meet at Snicker's Gap in the Blue Ridge Mountains on the Loudoun/Clarke County border, then explore roads along the Shenandoah River and visit the Virginia State Arboretum at Bland Farm. The day will end with a return to the Snicker's Gap Hawkwatch. All levels of birders are welcome. This program is co-sponsored by LWC and the Audubon Naturalist Society. *Pre-registration required: Members (ANS & LWC): \$30; Nonmembers: \$42. To register contact ANS at 301-652-9188 x16.*

**Tree Identification in Winter — Saturday, January 15.** Watch our website for details.

**Searching For Birds Of Prey — Sunday, January 23, 1:00 p.m. Registration Required.** Join Liam McGranaghan on a winter raptor search. After meeting at a location TBD, we will drive the back roads of Loudoun County with frequent stops to find and identify the many hawks, and an owl or two, who over winter here. **Registration Required: Sign up on-line or contact Laura McGranaghan at [lmcgranaghan@loudounwildlife.org](mailto:lmcgranaghan@loudounwildlife.org).**

**Questions about the programs?** Contact Laura McGranaghan at [lmcgranaghan@loudounwildlife.org](mailto:lmcgranaghan@loudounwildlife.org). For up-to-date information on our programs check our web site at [www.loudounwildlife.org](http://www.loudounwildlife.org)

## Janet Locklear — LWC'S New Bluebird Trail Coordinator and Board Member

**L**WC is happy to introduce Janet Locklear as our newest board member and Bluebird Trail Coordinator. Janet comes to LWC via the Virginia Bluebird Society where she has been an active member for many years and recently served a term on their board as secretary. She has been monitoring bluebird trails for the past 13 years, starting with a trail at the Pohick Bay golf course in Lorton. Since moving to Loudoun County from Fairfax County in 2005, she has been monitoring a trail at the Brambleton Regional Park's golf course as well as bluebird boxes on her own property.

Janet lives in an old farmhouse south of Purcellville with her husband Colonel and son Cody. Colonel is retired, enjoys farming and has become very active in the local beekeeper

community. Cody is starting tenth grade at Loudoun Valley High School and keeps busy with soccer and violin. Janet works for DHL in their IT department.

With 23 public trails and several home trails, Janet is going to have her hands full with LWC's bluebird program. This program was started by Nicole Hamilton and ably coordinated by Elizabeth Evans until September 25, 2010, when LWC's bluebird monitors met to celebrate another successful year and began planning for 2011.



## Adventures of Zoom & Compass

# "Ugh! A Skunk!"

by Senia Hamwi



"My friends said they saw a skunk by my house last night," cried Maysi. "And now they won't come over!"

"You don't think they really saw a skunk?" asked Compass.

"No," she replied. "There was no stink at all last night."

"Skunks don't always stink," Zoom interjected. "Only when threatened, and even then it does everything it can to warn off its predator first. Since a skunk is only able to spray five or six times consecutively, it will save the sticky, oily musk for when it's truly needed. After all, it'll take several days to produce more musk and fill the glands located beneath the tail."

"First, the skunk stamps its front feet," Compass began to explain, "and raises its tail as a warning. It'll even hiss, screech, whistle or growl to scare off the intruder. Often, that's enough to chase away whatever is, and the skunk can save the spray for another time. As I like to say-- no spray, no stink."

"OK, I get it. A skunk isn't always stinky," said Maysi. "But I still don't think that's what it was—I mean, a skunk? Here? My dog Snuggles is small and black and white so maybe they confused her with a skunk."

"I have an idea," said Zoom. "Why don't you take some flour and spread it out on the grass where your friends think they saw a skunk. You could leave a little treat out to tempt it onto the flour—a piece of bread or peanut butter should work. In the morning, look for animal tracks in the flour to see if there is really a skunk."

"But how can I tell?" asked Maysi.

"The skunk has a flat foot, with its claws extended," said Compass. "You can clearly see the track, with its five toes."

Maysi did as the nature detectives suggested and giggled as she imagined her friends' expressions of relief if there really wasn't a skunk. "Snuggles," she called. She wanted to compare her tracks to whatever else may amble through. When Snuggles didn't come, she began to worry. It was beginning to get dark and she could be out in the woods alone. Quickly, Maysi called her friends who put aside their fear and came to help search for Snuggles.

Just as they arrived, there was a crackling of branches followed by a sudden and indisputable smell of a skunk. "Ugh! A skunk!" they all shouted, pinching their noses closed. A small black and white animal raced toward them. They screamed, thinking it was the skunk. But it was Snuggles!

"You're safe!" cried Maysi as she scooped Snuggles up into her arms. "And it wasn't you that was sprayed," she sighed with relief as she pet her soft fur and nuzzled her nose. "Poor creature that was, though," Maysi added, looking back into the woods.

They all laughed as they tried to describe the smell... "Rotten eggs, geraniums, garlic, burning rubber, coffee..."

Maysi told her friends all that she'd learned about skunks from the detectives. "Skunks won't spray each other in a fight and they won't spray inside their dens—even they can't stand the smell," she said. "Thank goodness,

Snuggles wasn't sprayed—a skunk has really good aim and the musk isn't just smelly, it stings, too. That could really have hurt her eyes."

"Hmm... there's just one more question," said Maysi as she tapped her chin. She picked up the phone and called the nature detectives.

"What if Snuggles was sprayed?" she asked. "Would tomato juice really take away the stink?"

"It could, but there's something much better," said Compass. "It was even tested on the television show, *Mythbusters*—"

"It's a mixture of hydrogen peroxide, baking soda and liquid soap," said Zoom, completing his sentence. "And it works like a charm."

"Good to know," Maysi replied. "And my well-educated friends are no longer afraid of skunks—now that they know how to recognize warnings and get away in time!"

"Mission accomplished!" said the nature detectives.

The next morning, Maysi went to look for animal tracks in the flour and smiled when she looked down. "Like I needed any more confirmation," she said with a giggle.



Baby skunk





*People and Wildlife  
living in Harmony*

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

*Address Service Requested*

NONPROFIT ORG  
US POSTAGE PAID  
PURCELLVILLE, VA  
PERMIT NO. 6

Please check your mailing label  
carefully and report any errors or  
changes to Helen Van Ryzin at  
hvanryzin@loudounwildlife.org

*Printed on 100% Recycled Paper*



## The Snickers Gap Hawkwatch Needs Your Help

Every fall thousands of hawks migrate south, with many of them following the Blue Ridge Mountains on their journey. There are several official hawkwatches in Virginia which count these hawks and monitor their numbers from year to year. The closest one is the Snickers Gap Hawkwatch, on the border of Loudoun and Clarke counties, and is manned solely by volunteers. It is affiliated with the Hawk Migration Association of North America, which compiles the migration data of over 200 such sites in the United States, Canada, and Mexico.

Typically, about 12,000 raptors are counted at Snickers Gap each season. The highest seasonal count was over 23,000 in 1998. The birds are generally observed traveling in a southwesterly direction either directly over the ridge line or just off to either side, at varying heights and distances depending on weather conditions. Many can be seen with the naked eye, but binoculars and a spotting scope are musts for identification and, when possible, age and sex determination.

The Snickers Gap Hawkwatch season has officially begun and will continue until December 1. Counters are needed as the watch still has many days not currently covered by volunteers. Both volunteers with experience and those willing to learn are welcome. The Hawkwatch is also a great place to observe hawks and learn how to identify them, especially on weekends.

If you are interested, contact Joan Boudreau and Bob Abrams at 703-734-1238 or icepeep@aol.com or just come on up. (If no one is watching when you arrive, start counting!) The Hawkwatch is about 10 minutes west of Purcellville where Route 7 crosses the Loudoun-Clarke County line and the Appalachian Trail (AT) near Bluemont (formerly Snickersville). The watch is adjacent to the highway (take a left at the top of the ridge on Rte 601 and an immediate right into the parking lot) and is conducted from the parking lot serving both commuters and AT hikers.

**For more information on the Hawkwatch, visit:** <http://mysite.verizon.net/rest39yt/virginiaareahawkwatchsites/index.html>.



Golden Eagle  
Photo by Liam McGranaghan