

Habitat Herald

A Publication of the Loudoun Wildlife Conservancy

Volume VIII, Issue 1

Winter 2003

Loudoun's Changing Wildlife Habitat and the Special Places That Preserve It

by Tom Bjorkman

Due to its fortuitous location as Virginia's northernmost county and its varied topography, Loudoun County can be proud of its rich and varied wildlife habitat and the great diversity of wildlife species within its 330,880 acres (517 square miles). No public or private entity has systematically mapped Loudoun's varied habitat, but several organizations collect data that allow us to put together a partial picture. George Washington University's Loudoun Environmental

Indicators Project (LEIP) and Virginia's Agricultural Statistics Service publish research results that can be used to track broad trends in the County's habitat over the last several decades.

Loudoun's habitat has been changing rapidly over the last 40 years as agriculture has declined

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Articles in the Habitat Herald are published for the information of Loudoun Wildlife Conservancy members.

Newsletter Karen Coleman
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Printed by: MR. PRINT, Purcellville, VA 338-5900

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Special Supplement In This Issue:

The Loudoun Wildlife Conservancy participates in Loudoun Watershed Watch — a countywide umbrella organization of agencies, environmental and civic groups, and individuals focused on protecting Loudoun's watersheds. LWC's active involvement includes the contribution of funds and the Stream Team's time.

Enclosed with this issue is a map brochure that Loudoun Watershed Watch created and distributed as a teaching tool for all Loudoun County public school children. It is the first and only watershed map of the county designed for children. In future issues of *Habitat Herald*, look for information on other Loudoun Watershed Watch initiatives, information on the state of Loudoun's streams, and ways to participate in protecting our valuable water resources.

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 members. For more information, or to suggest topics for discussion at upcoming meetings, contact Bruce McGranahan.

You can also visit us at:

www.loudounwildlife.org

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A Word from the President

by Bruce McGranahan

I want to bring an important document to everyone's attention. Loudoun Watershed Watch has published State of Loudoun Streams: 2002, An Ecological Assessment of Loudoun County Streams. We owe special recognition to Darrell Schwalm for his tireless efforts in pulling this document together. The Loudoun Wildlife Conservancy is a major partner in Loudoun Watershed Watch, and it was really the efforts of several LWC members that launched this collaboration. The State of Loudoun Streams is the first of its kind in the county. This marks a major step toward documenting the current condition of Loudoun's streams and bringing into focus the need for comprehensive watershed planning to protect our water quality. The report finds that most monitoring sites yield a good diversity of aquatic life, including many pollution intolerant species of insects (the good news). However, the report does show that major human impacts are evident on all of Loudoun's streams, with several recognized as "impaired". The Virginia Department of Environmental Quality (DEQ) and the Department of Conservation and Recreation (DCR) are in the initial stages of preparing TMDL (Total Maximum Daily Load) implementation plans for Goose and Catoclin Creeks here in Loudoun. The political reality of this may be that rather than bite the bullet and put corrective measures into place, the state may choose the easier path of reducing the standards so that "impaired" streams could be deemed acceptable.

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On a lighter note, winter is one of my favorite times of the year to walk my land. I am very fortunate to own acreage in western Loudoun. Like many abandoned farms, much of my forest land is thick with brambles, and invasive shrubs and vines that make navigation through the woodland somewhat unpleasant, if not unbearable, during the height of the growing season. The winter die-back of some of this undergrowth makes the winter months a great time to take stock of my property. My cold-weather ventures always lead to discoveries of new plants, rock piles, animal burrows, nests and other treasures. These jaunts always seem to give me a fresh perspective and better understanding of my land.

The LWC constituency has a lot of “birders”. I have not yet succumbed to the lure of birding. It’s not that I’m disinterested; it is more a fear that I will become completely obsessed with it. My wife complains about how many field guides and plant ID books I own. And to be honest, I cannot pass a bookstore without carrying home a new field guide of some sort. If (or when) I finally give into a love of birds, I am sure it will consume me as other outdoor pastimes currently do.



Being an extreme novice, I’m fascinated with some of the more recognizable birds. My favorite local forest dweller is *Strix varia*, the Barred Owl. A pair (male and female) frequents the floodplain forest in and adjacent to my property. Their calls have become a reminder of two old friends. The two owls have a slightly different pitch and cadence in their announcements. The deeper call, performed at a slower, more deliberate cadence, ends with a long trill. The mate’s call is slightly higher in pitch, quicker in delivery, and truncates at the end before the trill. Others who know more about these things than I do have suggested that the stronger call is the female’s. The male’s weaker call answers hers usually within seconds. Aside from the echoing “who cooks for you... who cooks for you?” the owl pair often engages in “monkey calls”, sometimes outside my bedroom window with such a ruckus it raises me from a sound sleep. Although usually elusive, the barred owls can be observed in the forest canopy during the day. No matter how many times I see them, it’s always exciting and inspiring. I started this story talking about “my” land. Seeing the owls makes me remember that it’s really our land — a place that I have the privilege of sharing with so many wonderful creatures. Until next time, here’s to great days afield!

Courtland Farms Rural Village — An Update

On November 4, 2002, the Loudoun County Board of Supervisors (BOS) passed two different motions related to the Courtland Farms Rural Village. In their first motion, the BOS approved the new design the developer submitted in response to the many criticisms of the original 1994 design. While the new design addressed some of the issues that were raised, it still included the construction of 277 houses on 200 acres in an environmentally-rich rural area. In November, the Friends of Banshee Reeks Nature Preserve published its first bird list, documenting 227 species in this part of Loudoun County. Because the new development will destroy hundreds of acres of natural habitat and severely fragment the remaining wildlife habitat, there is little doubt that the proposed development will threaten many of these species. Furthermore, the rural village will be easily seen from Oatlands Plantation, forever changing its landscape and viewshed.

The impact of the development on Goose Creek is still a major concern. Under the new design it will be necessary to tunnel under the Goose Creek, lay a sewer line for the to-be-built sewer plant's treated tertiary water in the Goose Creek's flood plain, and spray that water near Route 15 on the large conservancy lots that are on the south side of the Goose Creek.

Fortunately, in its second motion, the BOS voted enthusiastically to endorse the efforts of a coalition to buy the property or its development rights and for Loudoun County to provide in-kind support such as legal counsel, grant-writing, mapping and other assistance. The possibility of some kind of future financial assistance for this endeavor was not ruled out.

The coalition currently includes the Trust for Public Lands, the Virginia Chapter of the Nature Conservancy, the Friends of Banshee Reeks, the Jamestown Compact Land Trust and several affiliate organizations. The Trust for Public Land (TPL) has taken the lead in negotiations with the developer. Because these negotiations are private and ongoing, we can only confirm that TPL has already met with the developer. If TPL is successful, the coalition will need to raise a substantial amount of funds. Several of us are designing the local component of this campaign and will begin work on raising the seed money that such a campaign will require.

In case we do not succeed in purchasing the Courtland Farms Rural Village, we are also continuing our efforts to minimize the impact of the development on the area's habitat. A primary focus at this time is the potential damage of the tunnel under the Goose Creek and the extensive sewer line that will be required. In addition to the damage to the natural environment which will occur during the construction of the tunnel and the sewer line through the Goose Creek's flood plain, we are also concerned that the pipe line could crack and leak effluent into the Goose Creek without anyone discovering it for some time. Since such cracks are not an uncommon occurrence, it could seriously harm the Goose Creek, the source of much of eastern Loudoun's drinking water.

As this update is being written, a public hearing on the developer's request for a permit to tunnel under the Goose Creek is being scheduled in Newport News for December 17 before the Virginia Marine Resources Commission. We do not think that sufficient attention has been given to identifying alternatives to tunneling under the Goose. If you would like to express your concerns on this issue, please contact Mark Eversole at the Virginia Marine Resources Commission (MEversole@mrc.state.va.us or 757-247-8063).

If you want to help us in our campaign to purchase the Courtland Farms Rural Village or a substantial portion of its development rights so that the sewer line and tunnel become unnecessary, contact me at jandkcoleman@erols.com or 540-554-2542.

by Joe Coleman, President, Friends of Banshee Reeks Nature Preserve

LOUDOUN STREAM MONITORING PROJECT

Classes and Programs

The water quality of Loudoun County's streams is integral to the well-being of local wildlife and is an indicator of overall ecosystem health. Most of Loudoun County's streams support diverse communities of aquatic life, but in the nation's third-fastest growing county, these irreplaceable resources are under daily threat of destruction and need constant vigilance. Streams and shoreline habitats provide food, shelter, and travel corridors for animals and many of the migratory bird species that make their seasonal journeys across our landscape.

Stream Monitoring classes are taught by Cliff Fairweather of Audubon Naturalist Society (ANS) and others. As our volunteer base grows, the LWC, in partnership with ANS, Loudoun Soil and Water Conservation District and the North Fork Goose Creek Committee, plans to establish stream monitoring teams for every watershed in Loudoun County. These programs are made possible, in part, by grants from the Virginia Chesapeake Bay Restoration Fund, the Virginia Department of Environmental Quality and various other foundations.

Please join us for one of our sessions.

They are educational, good for the environment, and fun for the entire family.

Classes are held at the Rust Sanctuary in Leesburg, VA — *Sign up is required.*

To register for any of the classes, contact Cliff Fairweather at (703) 803-8400 or cliff@audubonnaturalist.org or visit www.audubonnaturalist.org to register online.

MACRO-INVERTEBRATE IDENTIFICATION I: ORDER LEVEL

Sunday, February 9 (1:00 p.m. - 3:30 p.m.) — classroom

Sunday, March 23 (1:00 p.m. - 3:30 p.m.) — field

Thursday, March 27 (7:00 p.m. - 9:30 p.m.) — classroom

Benthic macro-invertebrates, boneless creatures that live under flowing water are important indicators of aquatic ecosystem health. Learn how to identify the major groups of these organisms, including aquatic insects and crustaceans, to the taxonomic level of Order (e.g., *Ephemera* or Mayflies).

MACRO-INVERTEBRATE ID REVIEW & QUIZ

Tuesday, April 1 (7:00 p.m. - 9:30 p.m.)

Sunday, April 6 (1:00 p.m. - 3:30 p.m.)

Friday, April 11 (7:00 p.m. - 9:30 p.m.)

INSERT DESCRIPTION

PROTOCOL PRACTICUM

Saturday, April 26 (10:00 a.m. - 2:00 p.m.)

Using the data collection protocol developed for the ANS Water Quality Monitoring Project, participants will learn how to gather abiotic data (temperature, pH, and several habitat assessments) and use a D-frame net to collect stream organisms. The Habitat Assessment portion of this class will focus on measuring physical data and evaluating key habitat features that help identify healthy stream habitat and warning signs of declining stream quality and will be useful for completing the stream evaluation forms used throughout our monitoring season. *We will carpool to a nearby stream. Please bring boots or sneakers for wading.*

PROTECTING LOUDOUN'S STREAMS AND WATERWAYS

If you are interested in becoming a stream monitor, please fill in the following form and mail it to:

Stream Monitoring Project
c/o Audubon Naturalist Society
802 Children's Center Rd, SW
Leesburg, VA 20175
FAX: (703) 669-1234

Name: _____

Street: _____

City, State, Zip: _____

Phone: (H) _____ (W) _____

List the Classes and Dates you are interested in:

Class	1st Choice	2nd Choice

List the Stream you are interested in monitoring:

1st Choice	2nd Choice

If neither of those streams is available, are you willing to help monitor a site designated by the Project?

☐ Yes ☐ No

Are you interested in being one of our Team Leaders?

☐ Yes ☐ No

Would you be interested in helping us with some of our administrative functions (typing, maintaining our database, or record-keeping)?

☐ Yes ☐ No

For more information on any of the programs please contact:

Audubon Naturalist Society — Cliff Fairweather (703) 803-8400

LWC PROGRAMS AND FIELD TRIPS

Space is limited for many of these programs.

Please call the designated program contact for further information and to reserve your spot.

BIRDING BANSHEE - Saturday, January 11, 8:00 a.m. Join the Loudoun Wildlife Conservancy at the Banshee Reeks Nature Preserve for the monthly bird walk. Because of its rich and varied habitat, this part of the County is a birding hot spot. Please bring binoculars. *Questions - Contact Joe Coleman at 540-554-2542 or jandkcoleman@erols.com.*

BIRDS OF PREY - This ten-week course (cost: \$229) will be taught on Wednesday evenings beginning on January 15, at the Audubon Naturalist Society's Rust Wildlife Sanctuary in Leesburg and includes three Saturday field trips. The two-credit course, taught by Liam McGranaghan, is sponsored by the USDA Graduate School and the Audubon Naturalist Society. Liam, whose specialty is birds of prey, is a well-known local wildlife biologist and teacher. *For more information or to register contact www.grad.usda.gov or 202-314-3320.*



WINTER'S WONDERS: WOODS AND FIELDS IN THE COLDEST MONTH

- Saturday, January 18, 10:00 a.m. Join Phil Daley as he explores the Blue Ridge Center for Environmental Stewardship during winter. While many people stay indoors during the cold months, others enjoy the beauty of a season when the sky is so clear you can see forever and the sun casts the longest shadows. During this winter hike, watch for the many birds and mammals that winter over here and examine some of the plants to see how they adapt to temperatures that dip below freezing. The Blue Ridge Center comprises 900 acres on the west side of Harpers Ferry in northwestern Loudoun County. *Contact Joe Coleman at 540-554-2542 or jandkcoleman@erols.com to register or to get further information.*

HEDGEROWS & MEADOWS: BRINGING NATURE BACK HOME TO OUR PERSONAL LANDSCAPES and GARDENS -

Tuesday, January 21, 7:30 p.m., at the Rust Library in Leesburg. Jocelyn Sladen, co-President of the Piedmont Chapter of the Virginia Native Plant Society, will explain how a more natural landscape can provide important habitat for wildlife and native plants and will suggest ways you can preserve and enhance these wonderful areas in your own yard.



WINTER BOTANY - Thursday, February 6, 7:00 to 9:00 p.m. and Saturday, February 8,



9:30 a.m. to 3:30 p.m. Sponsored by the Audubon Naturalist Society. The winter forest may appear bleak to the untrained eye, but to the careful observer it holds many discoveries. Join Dr. Stan Shetler, Curator of Botany Emeritus at the Smithsonian's Museum of Natural History, for an exploration of winter botany. On Thursday night: there will be an indoor presentation at the ANS Rust Wildlife Sanctuary, and on Saturday participants will visit a nearby park for field study. Discussions will include winter ecology of plant communities, identification of evergreen trees and herbs, and wildlife uses of plants in winter. Members: \$24; Nonmembers: \$34.

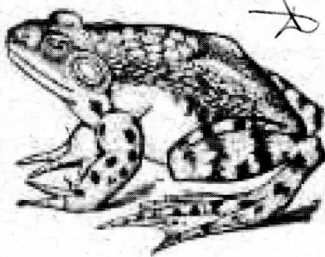
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BIRDING BANSHEE - Saturday, February 8, 8:00 a.m. See the January 11 listing for details.

LOUDOUN'S STREAMS: PROTECTING ONE OF OUR MOST IMPORTANT NATURAL RESOURCES - Tuesday, February 18, 7:30 p.m., at the Rust Library in Leesburg. Cliff Fairweather, Naturalist and Manager of the Audubon Naturalist Society's Webb Sanctuary, will describe how important healthy water is to all of us and how our daily activities affect streams and rivers. He will also explain what we can do to protect this precious resource.

SEARCHING FOR BIRDS OF PREY - Saturday, February 22, 2:00 p.m. Join us on this winter raptor search sponsored by the Loudoun Wildlife Conservancy and the Audubon Naturalist Society. After meeting at the Audubon Naturalist Society's Rust Wildlife Sanctuary in Leesburg, 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 winter over here. *Contact Joe Coleman at 540-554-2542 or jandkcoleman@erols.com to register or to get further information.*



LOUDOUN'S FASCINATING AMPHIBIANS & DISAPPEARING WETLANDS - Thursday, March 6, 7:30 p.m., Location to be determined. Join Michael Hayslett, Virginia's leading expert on vernal pools and their inhabitants, and some of the amphibians one is likely to find in Loudoun's pools at this free program sponsored by the Loudoun Wildlife Conservancy and the Audubon Naturalist Society. The program will include a discussion of amphibians and wetlands and threats to their future.

*** VANISHING VERNAL POOLS & THEIR AMPHIBIAN INHABITANTS - Saturday, March 8, 9:00 a.m. to 1:00 p.m.** As the hours of daylight lengthen and temperatures begin to rise, animals that have spent the winter in hibernation begin to stir. Some of the earliest to become active are certain frogs and salamanders that use vernal or temporary pools for breeding. Unfortunately, these pools – and their inhabitants – are facing many threats. This foray will meet at the Audubon Naturalist Society's Rust Wildlife Sanctuary in Leesburg and will include an indoor session on vernal pool ecology, followed by an outdoor exploration of vernal pools at Rust and other nearby locations. This program is co-sponsored by the Loudoun Wildlife Conservancy and the Audubon Naturalist Society. **COST:** Members: \$18; Nonmembers: \$24 – *Contact Joe Coleman at 540-554-2542 or jandkcoleman@erols.com to register or to get further information.*



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BIRDING BANSHEE - Saturday, March 8, 8:00 a.m. See the January 11 listing for details.

SPRING WILDFLOWERS - Tuesday, March 18, 7:30 p.m. Location to be determined. Join John DeMary, well-known local naturalist and teacher, as he describes the beautiful world of wildflowers that will brighten our natural landscapes in spring.

EXPLORING BANSHEE REEKS - Saturday, March 22, 9:00 a.m. Join Phil Daley on the first weekend in spring for a leisurely stroll around Loudoun County's only nature preserve, Banshee Reeks. Phil, a well-known local naturalist and past president of the Loudoun Wildlife Conservancy, will show us the early signs of spring, including wildflowers and some early migrating birds.

WILDFLOWER WALK - Saturday, April 5, 10:00 a.m. to 1:00 p.m. at Ball's Bluff. John DeMary, well-known local naturalist and teacher, will lead a wildflower walk at Ball's Bluff which includes the nation's smallest national cemetery and is a Northern Virginia Regional Park. Because of its special soils and its bluffs overlooking the Potomac River, Ball's Bluff, is a great spot for seeing many different wildflowers, some of which are highly unusual.

BIRDING BANSHEE - Saturday, April 12, 8:00 a.m. See the January 11 listing for details.

 **BATTY ABOUT BATS - Tuesday, April 15, 7:30 p.m.** Location to be determined. We are repeating this popular program by Tammy Schwab, the naturalist at the Audubon Naturalist Society's Rust Sanctuary. Tammy will describe the fascinating world of nature's only flying mammal and its important role in our ecosystem. Virginia is home to 16 different species of bats, some of which are common and some rare. This free program is sponsored by the Loudoun Wildlife Conservancy.

CELEBRATING SPECIAL PLACES: BIRDING LOUDOUN COUNTY - Saturday, May 10, 8:00 a.m. During spring, thousands of migratory birds move through North America to their nesting territories. Some will actually stay and nest in our area, while others will spend only a few days here replenishing their energy before continuing a journey that may be thousands of miles long. In celebration of International Migratory Bird Day and the importance of healthy wildlife habitat, the Loudoun Wildlife Conservancy is sponsoring several bird walks throughout Loudoun County. Some of the sites the different groups will visit are Horsepen Preserve in eastern Loudoun, Morven Park in Leesburg, the Banshee Reeks Nature Preserve in central Loudoun, and the Blue Ridge Center for Environmental Stewardship in far northwestern Loudoun County. Please bring binoculars. *Contact Joe Coleman at 540-554-2542 or jandkcoleman@erols.com to participate and choose a site.*

Questions about the above programs?
Contact Joe Coleman at jandkcoleman@erols.com or
540-554-2542.

For up-to-date information on our programs visit our web site at
www.loudounwildlife.org

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and development has accelerated. In a 1999 snapshot, LEIP estimated that 60 percent of Loudoun's land remained in agricultural use, 24 percent was residential, 6 percent commercial, and 10 percent was some variety of public land.

Agricultural Habitat: The 1999 snapshot represented significant change from as recently as the 1970s, to say nothing of earlier in the 20th century. Virginia's agricultural statistics indicate that total farm land declined from 92 percent of Loudoun's area in the 1920s to 67 percent in 1974, and to 56 percent by 1997. The nature of habitat within Loudoun's farms was also changing rapidly. The area sown to cash crops such as corn and grain declined precipitously. Woodlands and pasture on Loudoun's farms also declined. Although historical data is lacking, the amount of land devoted to hay remained relatively robust, probably a reflection of Loudoun's extensive equine industry.

Forest: LEIP studies based on satellite imagery suggest that 60 percent of Loudoun's land was forested in 1992. A 1999 LEIP study calculated that Loudoun gained almost 8000 acres of forest between 1973 and 1999, with losses to development offset by reforestation elsewhere. Later LEIP studies suggested that this trend may have been reversed by rapid development, with a 2001 annual report showing that total forest had declined from 105,338 acres in October 2000 to 102,978 acres a year later. Other studies suggest that Loudoun's forest cover is increasingly fragmented, a process which also affects wildlife populations.

Wetlands and Waterways: A comprehensive study of the state of Loudoun's streams published this year indicates that conditions for aquatic life remain good in 70 percent of Loudoun's streams, while 22 percent have been "moderately to severely" affected by accelerated storm water runoff and other consequences of the increased amount of impervious surface created by development. LEIP's 2001 report estimated that the amount of impervious surface in Loudoun was growing by 18 acres a day or 6570 acres a year. Unfortunately, there are no reliable studies of the inventory or the state of Loudoun's wetland habitats. Some studies suggest that the Chesapeake Bay watershed as a whole is losing approximately 8 acres of wetlands a day.

The Impact on Wildlife

On the basis of currently available data, it is impossible to measure precisely the impact of this dramatic and continuing habitat destruction on Loudoun's wildlife. The Central Loudoun Christmas Bird Count, established in the late 1990s, covers the heart of the County and over time should provide valuable data about trends in bird life.

While we can't measure the impact with precision, studies of habitat change elsewhere indicate that the effect on Loudoun's wildlife is bound to be significant. LEIP researchers show that the pattern of development in Loudoun is encouraging fragmentation of forest and other habitat, which they and other experts report is an enemy of species diversity. LEIP's 1999 report concluded that the increasing amount of "edge" habitat is conducive to increasing numbers of "deer, parasitic birds, and weedy species." Some expert bird observers in the County believe that there has been a significant decline in some species, such as grassland birds and summer residents that prefer extensive deciduous woods.

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Growing Support for Habitat Protection

Development pressures that have rapidly changed and reduced Loudoun's wildlife habitat have also spurred growing support in government and the private sector for protecting and effectively managing the habitat that remains. County government is passing new zoning ordinances which will — through reduced development and through new regulations that require developers to protect significant natural resources — substantially reduce the number of new residential units that can be built in the County and will result in thousands of acres of new publicly accessible green space. At least in theory, the County government has positioned preservation of natural resources as one of its priority goals. The new Comprehensive Plan recognizes the County's natural resources as "fragile and irreplaceable" and promises to protect those resources in perpetuity "to the extent that such protection and preservation is consistent with" other parts of the Plan.

Loudoun County's Parks department is placing a new priority on managing its properties to encourage wildlife habitat and biological diversity. The County is in the process of developing resource management plans for its parks and hopes to purchase additional parkland in the future, some of which will be managed as natural areas with limited public use.

The Northern Virginia Regional Park Authority (NVRPA), which also manages significant parkland in the County, says it is headed in the same direction as Loudoun in its management of park resources. NVRPA intends to manage its parks — many of which are weighted toward recreational use — to increase the amount of wildlife habitat. They have already begun to operate some golf courses according to Audubon Society guidelines in order to protect wildlife habitat and to especially encourage meadow habitat. Unfortunately, due to lack of funds, NVRPA has no current plans to purchase additional parkland in the County.

Preserving Loudoun's Wildlife Habitat: A Snapshot of Some Public and Private Efforts

Data for this table are drawn from the LEIP project and information from the NVRPA, the Loudoun PRCS, the Potomac Appalachian Trail Club, and the Piedmont Environmental Council.

National Park Service Appalachian Trail Corridor	802 acres
Northern Virginia Regional Park Authority	estimated—2,300 acres
Loudoun County Parks, Rec. & Community Services	2,224 acres
Private Properties Under Conservation Easement	25,247 acres
Dulles Wetlands Mitigation Project	175 acres

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Loudoun's Special Natural Places

An array of public and private lands protected in perpetuity from development contributes to the preservation of wildlife habitat and biological diversity in the County. Several of these protected places stand out from the others due to their size, diversity, or accessibility to Loudoun's citizens. Some of the most significant are:

- *Banshee Reeks Nature Preserve*, managed by the county's Department of Parks, Recreation, and Community Services, encompasses 695 acres south of Leesburg and is contiguous with other natural areas that are under conservation easement. Its diverse habitat includes river bottom, successional fields and forests, ponds, meadows, and wetlands. This area is a stopover point for many neotropical birds during spring and fall migration, and it hosts several birds on the federal government watch list during breeding season.
- *Claude Moore Park* covers 357 acres in the eastern part of the County and is also managed by the PRCS. Part of the park is devoted to a sports complex, but it also has significant areas of wetlands and successional forests. Home to significant remnants of Loudoun's history, the property includes a house on the National Registry of Historic Places, the Loudoun Heritage Farm Museum, and the last pristine section of Vestal's Gap Road, which was the main road west from Alexandria through Loudoun County, until Leesburg Pike opened in 1825.
- *Blue Ridge Center For Environmental Stewardship*, located on Loudoun's western border next to the Appalachian Trail, is a property of the Robert and Dee Leggett Foundation. Its diverse habitats include farms, streams, wetlands, and forests of various ages. The area serves as a buffer to the Appalachian Trail, and the center has established as its "keystone" mission the preservation of a large area of contiguous forest on the property.
- *Algonkian Regional Park* is managed by the NVRPA. Although a large portion of the park is devoted to a golf course and other recreational uses, over 400 acres along the Potomac River remain an undeveloped and relatively undisturbed home for wildlife.

Other special places in the County, measured by their unusual variety of wildlife, include the *Goose Creek*, the *Dulles Greenway Wetlands Mitigation Project*, and the *Appalachian Trail* corridor along Loudoun's western border. In future issues, the *Habitat Herald* will look at some of these special places, their biological diversity, and the challenges they face in a rapidly developing County.

Resources:

- 1) *Loudoun County Environmental Indicators Project*: Annual reports for 1991, 2000, and 2001 (The George Washington University: web site <http://leip.geog.gwu.edu:8080/website/>)
- 2) *State of Loudoun's Streams: 2002* (Loudoun Watershed Watch, October 2002)
- 3) *Virginia Agricultural Statistics Bulletin and Resource Directory, Number 75* (Virginia Department of Agriculture and Consumer Services, September 2001) and earlier publications in this annual series
- 4) www.loudoun.gov/prcs/parks/index.htm
- 5) www.nvrpa.org

ANS Environmental Education Programs

*The following classes are given by the Audubon Naturalist Society at the Rust Sanctuary in Leesburg, VA.
Please contact Tammy Schwab at tschwab@audubonnaturalist.org or (703) 669-0000
for more information or to register.*

Programs for All Ages

Beginner Bird Walks

Saturday, January 18th (8:00 a.m.)

These one hour walks are for bird watching beginners and are lead by an experienced birder. Learn about what to look and listen for and tips on identification. Bring your binoculars and field guide if you've got them if not we've got some to loan. Free!!

Winter Birds

Saturday, January 25 (9:30-11:00 a.m.)

Birds are incredible creatures who perform amazing feats on a regular basis and are good examples of how adaptations, behavioral and physical are important to the study of any animal. We will look for birds in their natural habitats and learn some amazing facts about migration, bird nests, and bird songs. Come out to Rust and learn about the local birds that stay through the winter. We will go looking for them around the grounds as well as talking about winter bird feeding and watching. \$5.00 ANS members and \$8.00 Non-members

Nature in Winter

Saturday, January 25 (1:00-2:00 p.m.)

Just because nature seems to be sleeping doesn't mean there is nothing going on! Come and explore nature with a new perspective and find out what happens to the critters in winter and look for some signs of their activity. \$5.00 ANS members and \$8.00 Non-members

Adult Programs

Careers in Wildlife and Nature

Saturday, January 11 (10:00-11:30 a.m.)

What do you want to do when you grow up or what do you want to do next. Come and learn about the exciting careers available in the environmental field. We will discuss the kinds of positions that are out there and how to prepare yourself to get one. \$5.00 ANS members and \$7.00 Non-members

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ANS Programs...*continued from page 13*

**Nature Interpretation 102:
Microscopes and Magnifying Glasses**

Saturday, January 18 (10:00a.m.-12:00 p.m.)

In this extension we will explore how microscopes and magnifying glasses and aides of different types can enhance nature study for you personally as well as be excellent tools for teaching others. \$5.00 ANS members and \$7.00 Non-members

Backyard Habitat Workshop

Saturday, February 1 (2:00-4:00 p.m.)

Has mowing that lawn all summer gotten you down? Winter is the time to plan your spring garden plantings so you can grow instead of mow. Have you ever wanted to attract certain birds or butterflies to your yard? How about trying wildlife gardening? This program will introduce you to backyard habitats and how to create one in your yard. \$5.00 ANS members and \$7.00 Non-members

**Animal Behavior
(Amateur Naturalist Series)**

Thursday, February 13 (7:00 p.m.-9:00 p.m.)

In this slide lecture we will explore the age old question "why do they do that?" We will learn some basic types of behaviors that occur throughout the animal kingdom and learn why these behaviors are important to an organism's survival. From a simple flinch to elaborate courtship, it all has value. \$5.00 ANS members and \$7.00 Non-members

Woodpeckers: Walk and Talk

Saturday, February 22 (10:00-11:30 a.m.)

This program will examine the biology and ecology of these natural wonders. Woodpeckers are keystone species. Their work provides nesting places for many different animals. We will learn about the woodpeckers commonly found in this region and go on a hike to examine their handy work. Winter is a great time to see them because they have no leaves to hide in. \$5.00 ANS members and \$7.00 Non-members

Nature Education Training Opportunities

These classes designed for and originally offered to Loudoun County teachers (credit is available) are now open for registration to the public. These classes will cover basic natural history knowledge for each topic and will cover ways these topics can be interpreted to children through activities and projects. This class is ideal not only for teachers for but also for home schools, scout leaders, summer camp leaders, and those wishing to become naturalists. All workshops will be held at the Rust Sanctuary cost \$15 per registrant (including materials and fees). These programs will include both classroom and field work. The fieldwork will go in light to moderate rain, so dress for the weather. Please register early as space is limited to 15 participants.

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ANS Programs...continued from page 14

Workshop Title:**"Mammals: The Science Behind The Fur"****Instructor:****Tammy Schwab, Audubon Naturalist Society****Date & Time:****Saturday February 8th 9:30a.m.—2:00 p.m.**

Description: Mammals are great example animals for teaching about life processes. Their diversity is great and they are inherently attractive to young people. This class will include subtopics such as classification of mammals, mammals of VA, bats, endangered species, and mammals as examples for teaching about habitat, adaptations, food webs, and ecological interactions like predation and competition. Participants will receive a resource guide and activity ideas. The topics covered in this workshop will help teachers with VA SOL's.

Workshop Title:**"Birds :Beautiful Examples"****Instructor:****Tammy Schwab, Audubon Naturalist Society****Date & Time:****Sunday February 16th 9:30a.m.—2:00 p.m.**

Description: Birds are great example animals for teaching about life processes, and are easily observed in their natural habitat. This workshop will cover topics such as attracting birds to your schoolyard, birds of VA, identifying common birds, migration, evolutionary topics, endangered species, conservation issues, and birds as examples for teaching about adaptations, food webs, and ecological interactions like competition. Participants will receive a resource guide and activity ideas. The topics covered in this workshop will help teachers meet VA SOL's.

Workshop Title:**"Using Your Schoolyard for Science
Enrichment: A Real Cheap Field Trip"****Instructor:****Tammy Schwab, Audubon Naturalist Society****Date & Time:****Saturday, March 10 10:00 a.m.—3:00 p.m.**

Description: This workshop will be a basic introduction to the skills of environmental education. Participants will hone their skills in nature observation and use of field guides. Explore books, the WWW, and other resources that will help you quickly build a working knowledge base of natural history. Learn about developing and leading nature programs and field trips that meet specific SOL's. Try out the tips and tricks that make a nature program successful. This class is great for teachers who are looking to integrate nature study into their classrooms. This class will include subtopics such as using nature as an integrating piece in all subjects, using your existing schoolyard as a mini laboratory for science experiments, creating habitat in your schoolyard, and resources and tips for overcoming the barriers of taking students outside. Participants will take home a nature study and interpretation resource packet.

The Colorful Cardinal

By Leslie McCasker

Part of the joy of backyard bird feeding is the chance to get close to and observe bird behavior. The cardinal, with its wide territory range and ease in which you can lure it with the right feed, is likely to become a welcome year-round guest.

It is difficult to find a more melodious and beautiful bird anywhere. Once known as the Virginia Nightingale, in recognition of its beautiful song, the common name today is the Northern Cardinal. The new name compares the cardinal's beautiful bright red color to the flowing red robes worn by Roman Catholic Cardinals.

Once much more rare, and prized as cage birds, the cardinal has adapted well to the growth of human population and habitat destruction in this country. Its steady migration from the south has been noted since colonial times, so that today it ranges from Guatemala through parts of Mexico and into Southern Canada. It has also been introduced onto the Hawaiian Islands and Bermuda.

The reason for its expansion is that the cardinal likes to live in cleared areas, which humans have been good at providing. Before European settlement, its habitat was mostly confined to naturally occurring areas such as bushy swamps and the forests near the water's edge — such as along streams and lakes.

So, chances are that your yard is a perfect place to attract cardinals. They are not too finicky eaters, taking a broader variety of feed than many birds. Although, they prefer sunflower seeds — especially the cracked or stripped varieties. A partial list of other foods they will eat are: cracked corn, suet, millet, peanut hearts, and nut meals. They supplement the foods from the bird feeders with other foods they can gather such as berries, pine seeds, and insects. Many of the most destructive garden and farm insects are eaten by cardinals, which is one way the cardinal repays his debt to humankind.

Another way the cardinal earns his keep is by bringing a nature show to your backyard. It is a bird of fascinating habits and is doubtless one of the reasons why bird watching has been called "America's largest spectator sport."

Part of the fun is that the cardinal who comes to your feeder may be unique in certain respects: if you were to compare the cardinal's song and habits with a friend's observations from another state, you are likely to find some differences. These differences can range from timidity, or comfort with humans, flocking instincts; nest building techniques, acceptance and coexistence with other bird species, food preferences, length of breeding season, and number of broods a pair of cardinals will raise. Watch the birds around your feeder for distinct behaviors.

The more universal habits of cardinals make it an endearing bird. For instance, it is a wonderful joy to observe the relationship between a pair of birds.

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Colorful Cardinals...*continued from page 16*

Cardinals are monogamous. When the female is not nesting, you will see them come to your feeder in pairs. During the breeding season, which begins in the spring, the male appears to be particularly loving toward his mate. He will bring her food offerings. As she crouches with open beak — and rapidly twitching wings — he will hop by her side, tilt his head just so, and place the food directly into her bill.

You are just as likely to be entertained by a cardinal's music as by its behavior. In keeping with their namesake, a pair of birds will sing their preferred duets (these vary by location and a bird may switch songs during the year). Much like the early monks who sang antiphonally, the male may start a song and the female answer it. Because of their song varieties, and the nearness of sound to other birds, the best way to recognize whether a cardinal is in the vicinity is by its one

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Recognition: 7 1/2 — 8 1/2 inches long. **Male:** An all-red bird with a pointed crest, and a black patch at the base of its thick triangular red bill. **Female:** Buff-brown, with some red on the wings and tail. The crest, dark face and thick red bill are distinctive.

Habitat: Brushy woodlands and woodland edges, thickets, suburban garden shrubbery, towns, and parks.

Nesting: The nest is a deep cup of stems, fine twigs, and bark strips, 2 — 12 feet above ground in dense thicket or tangle of vines. Two to five eggs, buff or pale greenish, speckled with brownish-red. Incubation about 13 days, by female. Young leave nest about 11 days after hatching. Up to 4 broods per season.

Food: Fruits, seeds, and insects.

Similar Species: The male Summer Tanager, the other all-red bird of the southern and central states, has no crest.



Colorful Cardinals...continued from page 17

note call — which can be described as a metallic chip. Learn to recognize the cardinal call by paying close attention to the bird sounds surrounding your feeders in the early morning and at sunset, which are the preferred feeding times for cardinals.

The male will also sing his song to mark his territory and ward-off rivals. These songs may be sung responsively between males if two are within hearing range of one another. This cooperation will end if the two males get too close. Cardinals are so territorial during the breeding season that they will charge their own reflections on shiny chrome or glass surfaces. The benefit of this behavior is that it helps assure the successful pairing of cardinals.

At the beginning of the breeding season, the couple will scout out a building site. The female approves the site and collects materials to begin building her nest. The male may contribute some materials, but nest-building is the female's responsibility. The nest will be a deep cup shape into

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Winter Wildlife Events



Birds:

The southern United States is a balmy winter home to many of the birds that northeasterners call "theirs." Some birds remain up north, however, adding color (cardinals), sound (woodpeckers), and vivaciousness (chickadees) to snow-muffled forests. When food supplies in Canada fail, rare "irruptions" of boreal species such as the great grey owl make for exciting birding.



Mammals:

Deep snow sends deer and moose to wind-shielded evergreen swamps, where they tromp down a network of trails for easy travel. Other mammals are curled tail-to-nose in their dens, breathing and metabolizing at a fraction of their normal rates. Look for plumes of water vapor rising like smoke signals from the chimneys of muskrat and beaver lodges. Under the snow, chambers open as the frozen crystals give up their water and begin to shrink. In this subterranean world, moles and shrews scurry along runways, feeding on seeds and paralyzed insects. On the surface, lynx chase snowshoe hares, both running on "snowshoes" of extra fur that grow on their paws.

Amphibians and Reptiles:



Frogs are waiting out winter beneath the ground, breathing through their skin. Those at the bottom of ponds breathe a sort of muddy oxygen. Snakes are hibernating, sometimes in large groups of many kinds of species. Turtles under the ice breathe through their skin and through an all-purpose opening called the cloaca. A lining of sensitive tissues acts like a gill, filtering oxygen out of the muddy water and into their blood.

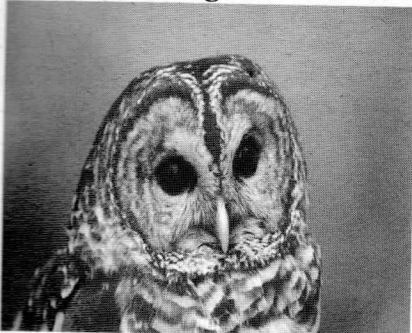
Source: *The Field Guide to Wildlife Habitats of the Eastern United States,*
Janine M. Benyus



WANTED: Barn Owl Information

Have you heard barn owls on your property? Do you participate in raptor banding in the Commonwealth of Virginia? If so, perhaps you can be of assistance to the Virginia Department of Game and Inland Fisheries (VDGIF).

The Nongame and Endangered Wildlife Program of VDGIF's Wildlife Diversity Division conducts and sponsors research, survey, and management projects focusing on Virginia's wildlife species that are not harvested by hunters, anglers, or trappers. The barn owl, *Tyto alba*, is one of these species, and its numbers are believed to be declining due in part to loss of suitable nesting or foraging habitats (e.g., farm structures tree cavities, and open lands). Although a comprehensive population study was performed during the late 1980's and early 1990's, an accurate measure of barn owl activity in Virginia is not currently available.



If you would like to participate in VDGIF's Barn Owl Program, or have information concerning barn owl nesting or roosting locations, please contact Jeffrey L. Cooper, Wildlife Diversity Biologist at:

VDGIF, Wildlife Diversity Division
1320 Belman Road
Fredricksburg, VA 22401
(540) 899-4169

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| <input type="checkbox"/> Additional Donation \$ _____ | | |

**For new members only — please do not use to renew membership.*

Colorful Cardinals...*continued from page 18*

which she will lay from two to five pale green eggs spotted with a brownish-red coloring. While the female is nesting the male goes into high-gear. Initially collecting food for his mate, and then for all who sit atop the nest once the hatchlings come along. His day can last for sixteen or seventeen hours. When the fledglings leave the nest, it is the male who looks after them to keep them safe — and teach them to fend for themselves.

Depending on the climate, cardinals may raise up to four broods a season. So the male may be attending to one brood as he continues to provide food and care for his mate and the new brood as well.

Fall is a welcome relief for the male — he takes a vacation to attend to his own needs. He doesn't stray too far from his mate. But allows some distance. His interests now center more on feeding himself.

Anyone who consistently stocks their feeder in winter may be surprised to find a yard full of cardinals. Feeding during the winter months is helpful to their survival since they do not have the ability to dig down for food during a snowfall. It's not unusual to have six or more bright red males, along with several females, feeding daily in your yard.

So, pick up your binoculars, pull up a chair, and sit back to enjoy the colorful show and melodic tunes that the cardinals provide during the bleak days of winter.

Loudoun Wildlife Conservancy
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