

Habitat Herald

A Publication of the Loudoun Wildlife Conservancy

Volume V, Issue 4

Fall 2000

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What is Habitat?

Habitat is what plants and animals call *home* – where it finds what it needs to survive. Suitable habitat for a particular plant or animal consists of various elements. These elements may be tied to temperature, water, soil, sunlight, sources of food, refuge from predators, places to reproduce, and other living and non-living factors. Good habitat offers a tolerable climate, varied terrain, space to roam, a dependable supply of food and water, and places to play, hide and rest, and raise young. In short, habitat is everything that an animal needs everyday.

An animal's needs may change throughout it's life, from season-to-season, or even within the course of a day. An animal may need more than one habitat to fulfill all of its needs, just as you may live in one place, work in another town, and shop in still another.

Animals are driven by their desire to eat, avoid being eaten, and pass on their genes. Through millions of years of evolution, animals have developed traits that help them survive and become efficient in their quests. Some of the physical and behavioral characteristics (*adaptations*) that connect animals with their habitat, allow them to make the most of their environment. Animals naturally gravitate toward places where their adaptations provide them with the greatest benefits. In these preferred habitats, they have a distinct advantage over the animals that are not "designed" to compete there.

You might be able to guess where an animal lives based on its physical characteristics – their fur/feather consistency, body size and colors, eyes, ears, mouth/beak design, and even the kind of feet and toes they have. For example, bullfrogs, ducks and beavers have toes connected by webbing designed for life in the water; squirrels, woodpeckers and raccoons have sharp, gripping claws for climbing trees; and the hooves of deer are blunt for pounding the ground.

Each species develops and perfects these special adaptations through the process of natural selection, commonly known as "survival-of-the-fittest." Better-adapted individuals of a species tend to live longer and produce more young than poorly adapted ones. As their genes are passed from one generation to another, and the species as a whole begins to reflect its affinity for the habitat.

For some species, this affinity is so strong that a single habitat fulfills all of its needs – it never needs to wander to another habitat. In many cases, it may be so specialized that it

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

Editors: Barbara Holland
Leslie McCasker

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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.

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 Phil Daley.

Comments and suggestions concerning the Habitat Herald should be sent to Leslie McCasker.

You can visit LWC at:
www.loudounwildlife.org

A WORD FROM THE PRESIDENT:

First and most important, I want to extend a heartfelt thank you to Joe Coleman, and I'm sure you all join me. Since the initial concept and earliest days of the Loudoun Wildlife Conservancy, Joe has been a visionary, a doer, and a compelling leader. He has almost single handedly put LWC in the vanguard of those organizations that really make things happen.

Over the past four years as president and program chair, Joe has led us in making LWC active and responsive to the needs of wildlife and the education of Loudoun residents and officials on meeting and preserving those needs. Under his guidance, we have become one of the top forces in promoting habitat preservation and educating the public, including our children, on the links between habitat and wildlife and our own quality of life. He has enabled us to join with many organizations and influence public policies on the preservation and improvement of stream corridors and other significant habitats.

I hope I speak for all members in saying how pressed I have been by his devotion and leadership. I know I can rely on him to continue his support, which will make LWC better and my job a lot easier. Thanks again, Joe.

We will continue to offer strong programs like our successful water monitoring education and field work, our evening lectures and weekend field trips, our youth programs and outdoor education at county elementary schools. There's something for everyone. If you haven't participated lately, please try to join us soon — we'd like to see more of our membership benefit from our efforts. And if you have an idea for a program or project, please contact me or Joe Coleman about it.

As impressed as I am with our programs, I'm less impressed by attendance at some — we see too few new faces. So if we're not appealing to your interests and concerns, let us know. We have over 150 current paid members and almost 400 on our mailing list, but

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A Word... from page 2

only 10 to 20 on our field trips and 35 to 40 at most of our evening programs. I think we can do better. (This is the pot calling the kettle black, as I missed our annual meeting in June. See what happens when you don't show up — you get elected to something.)

I would like to get more of us involved, and to see more active, dues-paying members. Membership status can generally be checked by looking at the address label on your Habitat Herald. You can see when you last paid dues, and dues are what pays for the "Herald" and our programs.

Please give me your comments, both pro and con, on LWC activities. With your help we will continue our efforts on behalf of all creatures and habitat in Loudoun.

— Phil Daley

Each generation has its own rendezvous with the land, for despite fee titles and claims of ownership, we are all brief tenants on this planet. By choice, or by default, we will carve out a land legacy for our heirs. We can misuse the land and diminish the usefulness of resources, or we can create a world in which physical affluence and affluence of the spirit go hand in hand. History tells us that earlier civilizations have declined because they did not learn to live in harmony with the land.

— Stewart Lee Udall, *THE QUIET CRISIS*

John Trott Dies — Nature Loses A Friend

The Loudoun Wildlife Conservancy lost a friend and supporter when John Trott, educator, naturalist, writer and photographer, died unexpectedly on September 6, 2000. John presented programs for LWC and gave the organization a great deal of advice and support during its first years.

John taught for many years at Burgundy Farm Country Day School in Alexandria, and also directed the Burgundy Wildlife Camp in Capon Bridge, West Virginia. He later taught at the Madeira School in Great Falls, Virginia, where he led nature walks and took many of the wonderful photographs for which he is so well known.

John mentored and taught countless naturalists. Scores of his ex-students and colleagues returned for his memorial service to pay tribute to his teaching abilities and his enthusiasm for the natural world. One of the most moving parts of the memorial service was the playing of the song of the wood thrush - one of John's favorite birds.

John's wife and life-long partner, Lee, survives him.

Mark Garland described my own feelings when he wrote in the October issue of the *Audubon Naturalist* on his anticipation of first meeting John: "It's as if he just assumed that another naturalist would become his friend; he always seemed to look for the best in people, and usually he found just that. It was a special blessing to get to know this great man."

— Joe Coleman



Land-Use Impact on Habitat and Biodiversity

The following article is a transcript of testimony given by Stanwyn G. Shetler on August 2, 2000 at a hearing of the Loudoun County Planning Commission on Revising the Comprehensive Land-Use Plans

Ladies and gentlemen, thanks for the opportunity to say a few words in support of establishing mechanisms for saving natural greenspace. I am a longtime resident of eastern Loudoun County and a retired botanist and former Deputy Director of the Smithsonian Institution= National Museum of Natural History. Currently, I= Botany Chair of the Virginia Native Plant Society. I= here to speak for the concept of the AGreen Infrastructure@ set forth in the proposed Land-Use Plan, because I see it as a means of preserving what is left of our habitat and rich heritage of fauna and flora in Loudoun County. People everywhere are desperate to save natural habitat as development consumes our open space. In just the past two days, for example, I have been asked by local citizens in three communities in nearby Maryland to evaluate habitats botanically that they are frantically trying to save.

Land-Use Affects Biodiversity and Habitat

It is critical in this enlightened day to consider the impact of land-use decisions on habitats and their ecology and biodiversity. The present natural greenspace in Loudoun County is but a remnant of what once was here, especially in the eastern part of the county, even as recently as 1973, when my family moved here. In terms of natural habitat, Loudoun is now a piece of Swiss cheese, and the habitat that remains is the last hurrah of an environment that was once far more viable for plants and animals.

Absolute minimums, not averages, govern what survives. An ecosystem does not crash all at once but habitat by habitat and species by species. There is no single threshold. Every species has its own. Every reduction of habitat will cross the threshold of several to many species. Fragmentation of habitat is the great enemy of species. Research has shown, for example, that five 10-acre parcels of forest are not equivalent to one 50-acre parcel of forest. Many species will only survive as long as there are large, unbroken patches of habitat.

Riparian Buffers

Riparian buffers are essential but not just to filter out pollution and control storm water. They constitute islands and corridors of survival and passage (migration and other movements) for plants and animals. There are no safe averages or minimums for riparian habitats. Every foot sliced away is bound to have repercussions for the ecology and species diversity of the buffer. In our land-use planning, we should be as liberal as possible with these corridors, not as stingy as possible.

The Green Infrastructure

The Green Infrastructure defined in the proposed revision of the Land-Use Plan represents the skeletal remains of a once vast matrix of natural landscapes in our county. Surely, we must set absolute limits to the destruction of this life-giving matrix. We should guarantee that development will be set in a matrix of natural environment--not natural environment in a matrix of development.

Greenspace should not be managed space that becomes merely another part of the Abuilt environment.@ The token greenspace that developers tend to leave in the interstices of their developments in actuality represents amenity landscaping having little to do with the original natural space. Amenity landscapes are wild landscapes that have been manicured, sanitized, and homogenized into sterility, until only the whitetail deer, gray squirrels, Canada geese, starlings, English ivy, and other tough survivors are left to battle it out with our pets and pesticides. Such an artificial ecosystem is an ecosystem in deep ecological trouble.

The Green Infrastructure is an essential, if desperate, last effort to save some of Loudoun=s beautiful landscape and biodiversity. It must be sacrosanct, meaning no golf courses and ballfields in the bottomlands. At present, the wild plants and animals of Loudoun County face double jeopardy. The uplands can be turned into housing, industrial parks, and malls, and the stream bottoms can be destroyed for golf courses

It is our task in our time and in our generation to hand down undiminished to those who come after us, as was handed down to us by those who went before, the natural wealth and beauty which is ours.

President John F. Kennedy

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 Dave Harrelson of the Loudoun Wildlife Conservancy (LWC) and the U.S. Fish & Wildlife Service; and Cliff Fairweather of Audubon Naturalist Society (ANS). As our volunteer base grows, the LWC, in partnership with ANS, Loudoun Soil and Water Conservation District and the North Fork Goose Creek and Catoclin Watershed Committees, plans to establish stream monitoring teams for every watershed in Loudoun County. These program are made possible, in part, by grants from the Virginia Chesapeake Bay Restoration Fund and the Virginia Department of Environmental Quality.

Please join us for one of our sessions.

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

MACRO-INVERTEBRATE IDENTIFICATION I: ORDER LEVEL

Thursday, November 9 (7:30 p.m. - 9:30 p.m.) Rust Sanctuary (class) *Sign up required.*

Saturday, November 19 (10:00 a.m. - 12:30 p.m.) Sycolin Creek—meet in front of the Smithsonian Naturalist Center (field) *Sign up required.*

Saturday, January 27, 2001 (10:00 a.m. - 1:30 p.m.) Rust Sanctuary & nearby streams (class & field) *Sign up required.*

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). **Note:** Experienced stream monitors are encouraged to attend ID classes at least once a year as a refresher.

MACRO-INVERTEBRATE IDENTIFICATION II: FAMILY LEVEL

All classes will be held on Sunday afternoons (1:00 p.m. - 3:00 p.m.) Location TBD. *Sign up required.*

Stoneflies & Megaloptera — January 7, 2001

Mayflies — January 28, 2001

Beetles & True Flies — February 4, 2001

Caddisflies — February 18, 2001

Identification to the family level gives our monitoring data much more power to assess stream health. These classes are recommended for monitors with at least one year of monitoring experience and a good grasp of order-level identification.

STREAM MONITORING PROTOCOL PRACTICUM

Saturday, November 11 (9:30 a.m. - 11:30 a.m.) Sycolin Creek—meet in front of the Smithsonian Naturalist Center. *Sign up required.*

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.

HABITAT ASSESSMENT

Sunday, February 25, 2001 (1:00 p.m. - 4:00 p.m.) Location TBD. *Sign up required.*

Using the protocol developed by the Audubon Naturalist Society for Piedmont streams, this session will focus on measuring physical data and evaluating key habitat features that help identify healthy stream habitat and warning signs of declining stream quality. This training will be useful for completing the stream evaluation forms used throughout our monitoring season.

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 Loudoun Soil and Water Conservation District
 30-H Catoctin Circle, SE
 Leesburg, VA 20175

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 are available are you willing to help monitor a site designated by the Project?

q Yes q No

Are you interested in being one of our Team Leaders?

q Yes q No

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

q Yes q No

For more information on any of the programs please contact:

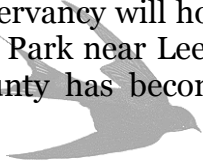
Loudoun Soil & Water Conservation District (703) 777-2075
 Stream Monitoring Project (LWC) — Fred Fox (540) 554-4844
 Audubon Naturalist Society — Cliff Fairweather (703) 803-8400

MARK YOUR CALENDAR

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, November 11, 8:00 a.m. This is the first of regular monthly bird walks that the Loudoun Wildlife Conservancy will hold on the second Saturday of every month at the Banshee Reeks Nature Preserve and Park near Leesburg at 8:00 a.m. Because of its rich and varied habitat, this part of Loudoun County has become a birding hot spot and is well worth checking out. Please bring binoculars.



CONTACT: Joe Coleman (540) 554-2542 or jandkcoleman@erols.com

LIVING WITH OUR WILD NEIGHBORS; Tuesday, November 28, 2000, 7:30 p.m. at the Rust Library. Many of the people who move into Loudoun County enjoy observing the wildlife that surrounds us. Occasionally, the proximity of our wild neighbors leads to conflict. John Hadidian, Director of Urban Wildlife Programs for the Human Society of the United State (HSUS), will explain what you can do avoid the more common problems that occur when we move into our wild neighbor's homes and they do not move out. He will also describe what we can do so we can continue to live with and appreciate the animals who share our neighborhoods.



Prior to his current position, John was an urban wildlife specialist for the National Park Service's National Capital Region and the National Biological Service's Patuxent Environmental Science Center. He is a graduate of Pennsylvania State University with a Ph.D. in Primatology. His research includes studies of raccoon, fox, deer and gray squirrel. His work with HSUS has also given him the opportunity to observe the different ways communities deal with the increasing numbers of beaver and Canada geese in their neighborhoods.

This program is co-sponsored by the Rust Library.

BIRDING BANSHEE, Saturday, December 9, 8:00 a.m. This is the second regular monthly bird walk that the Loudoun Wildlife Conservancy will hold on the second Saturday of every month at the Banshee Reeks Nature Preserve and Park near Leesburg. Because of its rich and varied habitat, this part of the County has become a birding hot spot and is well worth checking out. Please bring binoculars.

CONTACT: Joe Coleman (540) 554-2542 or jandkcoleman@erols.com



Check our website for the latest information about current and future programs:

www.loudounwildlife.org

Young Naturalist's Page



Ladybug, Ladybug, fly away home!



During a sunny afternoon last fall, I glanced out my window to see hundreds of tiny specs floating through the air. Curious to see what it was, I stepped out into the back yard and was thrilled to find LADYBUGS by the hundreds floating through the gentle sunlight. They were clustered together on the side of my house, gathering up in huge numbers on the deck railing, and even landing on me! I smiled and stood outside marveling at these tiny wonders.

Did you know that in the early to middle of fall, ladybugs gather together by *the thousands* to find suitable spots to spend the winter together? It's true! During the winter months, ladybugs, like many insects, enter a state like hibernation, where their bodies slow down and almost stop working completely. This is a lot like hibernation, which is what woodchucks and chipmunks do! In insects, it's called *estivation* or *overwintering*. It can be really amazing! Imagine looking into a hollow log and finding a big ball made up of thousands of these critters. They look for spots that are well protected such as hollow logs, holes in the ground, or even crevices in houses! In the early spring, as the weather warms, they awaken and venture back out into the world.

— Patty Selly

Upcoming Programs

TURKEY IN THE CORN November 4 Saturday 2-4 PM

Ages: 7 and up, children must be accompanied by an adult.

Fall is upon us! Let's take a hike around the Blue Ridge Center for Environmental Stewardship near Hillsboro in search of wild turkeys and other native wildlife. We'll also explore other seasonal changes such as leaf color, hibernation and migration, and weather phenomena. Play some nature games and learn how Turtle flew south for the Winter.

NATURE IS ALIVE IN WINTER December 9, 2:30-4 PM

Ages: 7 and up, children must be accompanied by an adult.

What do animals do in the winter? Some hibernate, some migrate, and some are active all winter long. Join an LWC naturalist for a hike at Banshee Reeks Park south of Leesburg. You'll explore several habitats and learn about the animals that live there. Look for animal sign such as tracks, scat, and other clues.

Parents should call Patty Selly at (540) 668-6026 to register.

Inviting Wildlife To Your Garden

This is the third in a series of articles about gardening for wildlife.

A Sheltered Space

During the cooler and sometimes stormy nights of autumn and winter, birds and small mammals will naturally seek out places to “hunker down.” In the wild, the birds would head toward thick tangles of honeysuckle and greenbrier, or they’d find cavities in dead trees. Rodents like mice and gray and flying squirrels would look for tree cavities, abandoned nests, empty bird houses, and wood piles near homes. Rabbits will look for thick brushy areas and holes in wood. Snakes will seek out natural rock piles, mulch piles, or hollow logs to hibernate in. You can provide shelter in the form of roosting boxes or platforms, or even simple brush shelters and rock piles.

For purchase, there are elaborately decorated pre-made wooden roosting boxes for birds, ladybugs, butterflies, and bats. From what I have heard, success with these is somewhat limited. I lean toward the natural (read: cheap and easy!) when providing shelter for wildlife. Rather than buying structures and putting them up at my house, I use what’s available: my yard is full of brush and sticks, and rocks of all sizes.

Any time I clear a portion of land or do some tree-trimming, I gather the sticks and brush and stack it all loosely near the edge of my yard. I try to leave larger holes at the bottom, and gradually add smaller pieces to the pile, making sure to leave holes of various sizes at different levels and places throughout. Small mammals and birds will use the brush shelter. If properly done, it will offer hiding places and a sheltered spot to take cover during inclement weather. During the spring it makes a fine nesting site, as well.

Anyone who has dug a garden bed or planted a tree in Loudoun County probably has a stockpile of rocks collected from the ground. Try stacking and arranging the pile so it is sturdy and offers lots of entry and exit spaces. Snakes may use your rock pile as a place to hibernate, so if you do construct a rock shelter, please do not disturb it until spring. In the spring, the rock pile stays nice and cool, and is usually a good place to find salamanders and even a toad or two, if you’re lucky.

Place any shelter well away from your home, as even the nicest brush shelter pales in comparison to a warm, food-filled house in the winter! If there is any entry point into your home, be assured the critters will find it!



There are a few things wildlife simply can not exist without: food, water, shelter, and space. Providing food, water, and shelter, can be easy to do. As for space... contact your local district supervisor on that one.

— Patty Selly

What is Habitat?... from page 1

can't survive anywhere else. Many of our endangered species fall into this specialized group. Their *very existence* depends on the health of one particular kind of habitat. Yet for other species, habitat flexibility is their key to survival. The ability to adapt to new and different habitats allows many species to thrive and develop large populations.

How does an animal know whether a particular area would be a good place to live, raise a family or find food? For some, it's as simple as returning to where they were raised. While others must rely on instinct to guide them. They must evaluate the features of the area when choosing a habitat. Are the plants the right size and shape for nesting, feeding, resting, and singing? How many vertical layers are there? Is the mid-story open enough to catch prey? Are the under-story and ground layers sparse or dense?

How the vegetation grows may be more important than the actual type of plant. Each type of vegetation represents a vertical forest layer: upper canopy, lower canopy, under-story, trunk, shrub, herb and below-ground. Each layer provides places for nesting, hiding and feeding that differs from the layer above or below it. Different layers of the forest canopy have different temperatures, humidity levels, insect populations, and food sources. There are also different horizontal layers that entice animals to live in a particular habitat. For example, a river contains riffles, deep pools, and slow stretches that all have different combinations of food, space and cover, and cater to different species. The more layers there are in a habitat, the more opportunities there are for a species. Putting it in simple terms – a more dense and tangled forest has a greater role in the ecosystem than does a simple, manicured lawn.

In addition to the habitat layers, there are different types of habitat zones/ecosystems. There are three major types of ecosystems: saltwater, freshwater, and terrestrial. Within each of these ecosystems are more specialized habitats including: sandy beach and dune; salt marsh; mangrove forest; lake and pond; river and stream; marshland; everglades; meadow; swamp; bog; floodplain; field; and forest. Each of these specialized habitats supports a variety of wildlife and plant life.

There are transition areas between different habitat zones, often referred to as edges. This edge between the two areas is one of the most heavily trafficked places and one of the best places for watching wildlife – you are likely to see residents of both forest and field, as well as those who live in the in-between area. On the edge, wildlife can conveniently commute from one habitat to another to satisfy their needs.

The edge is also a stopover place when moving from the dense cover of forest to the sparse cover of the field. Cautious wildlife pause here to get the lay-of-the-land before they expose themselves. In turn, field dwellers often resort to the thickets for cover when predators threaten them. If you combine the visitors from both the field and the forest to the residents of the edge, you can see why edges have a greater variety than other communities.

Once animals have settled into suitable habitat, what happens when it changes? Natural communities are in a constant state of flux, changing and transforming in a process called *succession*. In succession, communities succeed one another, each one better adapted to the conditions of the site.

Imagine the succession from bare ground to dark forest. Annual weeds grow from seeds and make the soil fertile enough for grasses and perennial plants to get started. These stabilize and enrich the soil so that shrubs can break through. The shrubs shade the grasses and make room for tree seedlings, which finally shade out the shrubs. Even these sun-loving trees are not fated to remain for long. As they mature, an under-story of shade-tolerant trees rises and eventually overtops the pioneers. Although this “ultimate” community is more stable than most, it is far from static. One lightning strike can start the process all over again. Each plant community has animal communities that thrive and decline along with it. Any ousted species survive by moving to another habitat that meets its needs – if there is one.

When humans alter habitats, it doesn't signal the beginning of a natural change. By pouring concrete, dumping wastes, introducing exotic pests, draining wetlands, or spaying chemicals, we often trigger an irreversible change—a possible journey toward extinction. If the change affects a large area, there may be nowhere for sensitive species to move. Other habitats may already be occupied or may lack the elements critical for survival. Crowding animals into less-than-ideal habitats diminishes their populations, until, on a local level at a minimum, they may become extinct.

When we lose a species, we also lose the free service that it performs in the ecosystem. Perhaps the lost species was a soil burrower, creating tunnels that rodents, toads, or insects use for shelter. Or perhaps by burying its food, it inadvertently “planted” acorns that grew into large oaks. If it was a predator, its prey may suddenly explode in number, stripping large swathes of food plants from the area, and forcing other species to seek new habitats.

(Continued on page 11)

What is Habitat? ... from page 10

It should come as no surprise to anyone that virtually every corner of America has experienced some decline in wildlife. While the plights of such key species as the elephant, bald eagle, and whale receive the lion's share of media attention (and correspondent conservation dollars), everyday insects, birds, reptiles, amphibians, and small mammals dwindle in number in relative obscurity. Native songbirds, bats, butterflies, turtles, frogs, raccoons, and snakes are only a few of the species that are making fewer appearances in our backyards.

When extinction occurs on a worldwide scale, the loss is profound. Species are the unique result of millions of years of evolution. Once this genetically improved species is lost, it can never be recreated. On a purely selfish level, we humans have much to lose when a species fades into extinction. Nearly half of our medicines come from plants and animals, yet only 2 percent of all species have been tested for their usefulness. If extinction rates continue as they have, more than one-fifth of the species on earth today will be gone by the end of the century.

The real threat is the tear in the intricate fabric of the worldwide ecosystem. A tear that starts out small tends to enlarge, and soon the fabric no longer covers or insulates as well as it once did. By weakening the ecosystem, we sabotage its power to heal, nurture, support, and replenish all life, including ours.

It is very important that we distinguish between natural extinction, which has been occurring for millions of years, and the relatively recent phenomena of human-caused extinctions. In the past, as one species succumbed to the slowly changing environment, a better-evolved species takes its place. This changing of the guard took place gradually, and for the most part, there were more new species coming in to replace those that were going extinct. The result was a slowly growing pool of organisms.

Today, as we exploit organisms and whittle away at their habitats, we are actually allowing species to go extinct more rapidly. At the same time, we are interfering with nature's ability to produce new species. In the early 1990's conservative estimates said that we were losing one species a day, and that the rate may increase to one an hour by the year 2000. If those estimates are correct, new species cannot possibly evolve fast enough to keep the ecosystem in balance.

— Leslie McCasker

Sources:

The Field Guide to Wildlife Habitats of the Eastern United States
Janine M. Benyus
Simon & Schuster, 1989, 336pp

In the Forest
Ann Cooper
Denver Museum of Natural History, 1996, 50pp

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Would You Like to Continue Receiving This Newsletter?

If you are not already a member of LWC, you can join now by completing and returning the following form with your payment to:

Loudoun Wildlife Conservancy
PO Box 2088
Purcellville, VA 20134-2088

Name: _____

Street: _____

City, ST, Zip: _____

Phone: (H) _____ (W) _____ **E-mail:** _____

- Membership Fees: (*membership runs from January 1- December 31)
- | | | |
|--------------------------------|-------------------|-----------------------------|
| q \$10 Student* | q \$30 Family* | q \$200 Individual Lifetime |
| q \$20 Individual* | q \$75 Corporate* | q \$300 Family Lifetime |
| q Additional Donation \$ _____ | | |

The Loudoun Wildlife Conservancy is an IRS 501(c)(3) organization. Donations are tax deductible as allowed by law.

Give Wildlife a Brake:

Be especially watchful for wildlife at dawn, dusk, and in the first few hours after darkness falls. Many wild animals are particularly active at these times.

Edges of roads that are bordered by natural habitat or agricultural fields are places to be especially watchful for wildlife.

Assume that animals you encounter do not know to get out of your way. Young animals, in particular, don't recognize that cars are a threat.

Look for the reflection of your headlights in the eyes of animals near the road as an early warning that you may need to brake for an animal crossing. Lowering your dash lights slightly will increase the likelihood that you'll see this reflection.

Each mid- to late-fall, be especially watchful for deer. This is not only their breeding season, but the start of hunting season; both make them more active.

Remember to watch for other animals following the first one you see; there may be a male in pursuit of a mate or young animals following their mother.

Try to slow down, especially when driving after dark. Many animals become victims of cars driven too fast.

Fall is a prime time to drive with deer in mind...

White-tailed deer are one of the largest and now most familiar wild animals encountered in our communities, attracted by the veritable "salad bars" in our gardens and yards. Even on the trail of a tasty azalea, most deer are careful crossing roads – but not in the fall. With the onset of the "rut" or mating season, bucks chase does or other bucks, paying *no* attention to where they are going; hunting season also opens, and guns fire, causing deer to panic and run; and young adult deer disperse to find new territories. Keep these facts in mind as you "Steer Clear of Deer!"

Source: The Humane Society of the United States

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