WATCHING OVER OUR WATERS

Even more fortunate are the people who have discovered the joys of studying insects while monitoring the water quality of streams in Loudoun County. Stream-monitoring programs, new in Loudoun this year, are part of a rapidly growing watershed protection effort sweeping the nation. The programs are usually spearheaded by conservation groups and supported by hundreds of volunteers. Loudoun’s program is coordinated by the Loudoun Wildlife Conservancy, the Audubon Naturalist Society, the Loudoun Soil and Water Conservation District, and the North Fork Goose Creek Watershed Project. The volunteers contribute their concern for the environment and their enthusiasm for spending time shin-deep in water collecting and identifying bugs. But not just any bugs. Benthic macroinvertebrates - boneless creatures that live under flowing waters. These insects, snails, clams, worms and crayfish are sensitive in varying degrees to pollution and are valuable indicators of water quality and overall ecosystem health, the underwater version of the miners’ canaries.

When the call for volunteers went out earlier this year in Loudoun, bug-watchers, wildflower enthusiasts, teachers, fishermen, backyard birders, and curious naturalists from all over the county flocked to stream-monitoring workshops held at county libraries and the Smithsonian Naturalist Center in Leesburg. In just two workshops, Cliff Fairweather of the Audubon Naturalist Center trained more than forty volunteers - men, women, students and children, including many pairs of husbands and wives, mothers and sons, and grandmothers and granddaughters. By July Cliff had trained enough volunteers to monitor streams in 8 of the county’s 14 watersheds.

In the next few years, the program organizers hope to see several monitoring sites on all our watersheds. To train enough volunteers to reach this goal, workshops will be offered three or four times each year. There is no age minimum or maximum and no scientific background is needed.

Workshops feature two, two-hour classes focusing on macroinvertebrate identification. With an overhead projector, anatomical drawings, taxonomy charts, microscopes, preserved specimens, and an easy-going lecture style, Cliff leads students through a spineless world of caddis flies, stoneflies, crayfish and beetles. Soon volunteers find themselves chatting comfortably about antennae, hooked legs, abdominal gills, thoracic plates and bushy appendages. Cliff also takes volunteers to a stream for a few hours to practice the actual monitoring and collecting techniques and protocol. Graduates are organized into teams of five, then choose or are assigned a stream.

The work the volunteers are doing is not always leisurely, says Cliff. “It can be hard at times, and it is important. I could have all the monitoring equipment in the world, but nothing would happen without the volunteers. They are the program.”

Catherine Bartoldus and her 11-year-old granddaughter, Emily Bzdyl, attended the first workshop together last spring. Says Catherine, “The training was a bit tough at first, but I figured I’d keep going until I catch on. I love learning how to figure out..."
WILDLIFE ENCOUNTERS
Forestalling Unwanted Winter Guests

One of the pastimes my husband and I enjoy with autumn approaching is listening to football games. However, this doesn’t necessarily apply to the squirrel version, which includes late-night rowdy soccer in our attic. Although my tolerance level is much higher than many folks’, I am blessed with a home surrounded by woods, including many storm-caused snags that we graciously leave for housing our wild friends. They may not include central heating, but that’s why nature has given them living fur coats.

The time to button up your home and think about encouraging your chimney and attic residents to leave is early fall, when most of their child-rearing duties are over and the food and shelter options are high. Although there may be some over-fertile stragglers, especially tree squirrels and raccoons, who have late litters, the majority of wild creatures are old enough to engage in what we call the “fall shuffle,” when the young leave the nest and begin lives on their own.

One of the first things you should have is a chimney cap. This is not to be confused with the terminology used by chimney builders, as I found out the hard way after being assured by our builder that he had installed a cap. This is a device that fastens to the top of your chimney, made of wire mesh with a raised “roof,” which will keep out unwanted guests. A good chimney-cleaning service will not only check your chimney for residents but also sell and install the device. You may also buy one at a hardware store and install it yourself, if you like climbing around on roofs, which I do not. This is an essential piece of household equipment, regardless of where you live, and will give you peace of mind come spring, when wildlife house-hunters get into full swing.

In older houses, and even some new ones, there are often numerous ways to enter the attic from outside, but before you start plugging, make sure no animals are already living there. Pieces of hardware cloth, screening, and a good staple gun are the best tools for excluding nocturnal creatures like bats. You must give them a way to exit in the evening, and then no way to get back in. This entails tacking on a one-way door, or check-valve, made of screen or netting that drapes over and below the main entrance. The idea is that bats will crawl down and out, but be unable to find their way back in. To find the hole, look for a discolored area from their body oils as they enter and exit, but remember there is generally more than one cavity that they will use.

Keep this in place for several days, and perhaps move it to other locations not yet secured with hardware cloth. Before you do the final sealing, do a flashlight check of your attic to check for holdouts; look for fecal stains on the walls or floor below the roost. Also check the one-way doors every morning to make sure no creatures are tangled in it. Screen the inside of your attic vent louvers. I’m not well versed on insects, but would think this prevention would also apply to wasps and hornets. For more information on bats, contact Bat Conservation International (BCI) at P.O. Box 162603, Austin, TX 78716; (512) 327-9721.

Screen off the dryer vents with hardware cloth to discourage starling nests. Clean accumulated lint as necessary to avoid problems.

Raccoons are fun-loving creatures, especially if the fun is at the expense of your garbage, compost piles, or pet food. First, don’t leave pet food outside; this invites any number of creatures to sample your buffet. You can’t blame raccoons, foxes, skunks or opossums for taking advantage of a free meal. Feed your pets inside or bring the food in at night. Most animals scavenging a compost pile are after meat products; don’t put any in there. Garbage cans can be secured with strong bungee cords; I prefer the black rubber kind.

Visitors can come in pet doors, so these should be secured at night. If you surprise an unauthorized party going on in your kitchen (assuming the pet door is there), don’t panic, but move very slowly to close

(Continued on page 5)
"Please thank your friend for the legacy she’s leaving for the future.” That statement was made by David W. Johnston, compiler of the new “Birder’s Guide to Virginia,” on learning that one of our members, Leslie Metzger, had encouraged a pair of Loggerhead Shrikes to nest on her property. Because she had preserved the natural habitat around a pond, the birds, a threatened species in Virginia, found both shelter and food and raised a family.

With these and similar actions, all of us are making a difference. While it is important to save a large natural area like Banshee Reeks, this is not enough. To truly make a difference, providing food and shelter and corridors so our wild things can not only survive but thrive, all of us need to do our part.

Many young grassland birds, such as Grassshopper Sparrows, Meadow Larks and Bobwhite Quail are killed every year by mowing. Studies show that by delaying the mowing of meadows and fields until mid-July, immature birds will be able to grow enough to escape the blades. If a farmer cannot afford to wait that long, waiting as long as possible will help. Almost all birds nesting in grasslands have had their numbers decrease, sometimes drastically, as with the Bobwhite. Mowing is not the only reason for these declines, but cutting a little later and less often gives them a better chance.

Butterfly numbers have also decreased substantially in the last few decades, mainly due to loss of habitat and indiscriminate use of pesticides. However, with most people using pesticides more selectively and many gardening specifically for butterflies, several long-time observers have noticed a slight increase in Lepidoptera. Butterflies thrive in that richest of habitats, the edge. Wherever two types of habitat meet, as with the edge between forest and field, food sources and shelter are plentiful and all kinds of wildlife thrive.

The richest habitat can be found in the edge between forest and pond, or along a marsh. We see this every year when Karin and Bob MacDowell invite Loudoun Wildlife Conservancy members to explore their property and observe the wild flora and fauna thriving in the wet meadow that borders the Catoctin Creek on one side and an upland forest on the other.

If you are fortunate enough to own a rich habitat, please preserve it.

Each of us can make a difference. A well-manicured lawn, by itself, is a biological wasteland. However, it can be turned into rich edge habitat by landscaping with native plants and shrubs.

Watching the Loggerhead Shrikes court, build a nest, raise their young and teach them to hunt has been one of this summer’s real pleasures. This would not have been possible without Leslie’s commitment to wildlife habitat. She and her sister, Donna Arnold, deserve our thanks, as do all who help make wildlife welcome.

Joe Coleman, President

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Yes, I would like to join the Loudoun Wildlife Conservancy, a 501(c)(3) organization, and help my neighbors keep the county a place where people and animals can live in harmony.

NAME

STREET

TOWN

PHONE (H) (W)

MEMBERSHIP FEES:
$20 single $200 single lifetime
$30 family $300 family lifetime $75 corporate
which bugs are which. Emily’s really good at it.”

“Ever since I was little,” Emily reflects, “I remember going out onto the sidewalk to watch ants.” Her bug-watching skills have led her to a science project on stream monitoring at Round Hill Elementary School last year and to honors science classes this fall at Blue Ridge Middle School. “She would do this forever,” says Emily’s mother Kerry. “Whenever I ask her what she wants to do, she says, “Go to a stream.”

Streams are monitored once each spring, summer, and fall, with an optional winter survey. No special clothing or equipment is needed. Most team members wear clothes they don’t mind getting wet and dirty and rubber-soled sneakers or knee-high boots. All the equipment is supplied by the Audubon Naturalist Society and brought to the site by the team leader.

The monitoring site is a section of shallow stream, its banks, and streamside vegetation. Teams spend the first hour assessing the site’s habitat with air and water temperature, pH analysis, the composition of the stream bed, bank erosion and weather conditions.

When Cemile (“Gem”) Bingol leads her team at Tuscarora Creek in Leesburg, she makes sure everyone voices an opinion. When the team begins assessing how much of the stream bottom is covered with sediment, for example, Gem sounds like a novice auctioneer: “Less than 25 percent? What do you think, Dave? Bob, do you think 25 percent is too low? How about 50 percent? Anyone think 50 percent?” No data is recorded until a consensus is reached.

Next the team collects insects by scrubbing and massaging rocks just upstream from a large canvas and mesh net. Bugs clinging to rocks are swept into the nets, which are then rinsed into large white buckets. Volunteers hover over the buckets with eye-droppers, tweezers and spoons to sort the often fast-moving and elusive macroinvertebrates into icecube trays. Aided by hand lenses, field microscopes and identification charts, team members begin the work of identifying the macroinvertebrates until they reach a tally of 100.

The job is not as daunting as it may seem, since volunteers need only identify to the order level: knowing that a specimen is a member of the order Odonata (damselflies and dragonflies) is sufficient for data collection. But rare is the volunteer who doesn’t learn a few new species each time. The procedure takes about three hours, depending on the weather and the interests of the team members. Few amateur naturalists can help sharing their observations about the richness of the earth, and sessions evolve into team-taught classes.

“There’s a kingfisher!”
“Careful of this nettle, it really stings.”
“Is that a flycatcher?”
“This beaver dam looks new.”

Jacob Puleo, 14, of Purcellville got lured into monitoring by a neighbor who knew he loved the outdoors. Though he didn’t attend the training workshop (recommended but not mandatory) he knew a lot about streams from playing in the creek near his home. He joined the team on North Fork Crooked Run near Lincoln in July, where he was taught on the spot by team leader Phil Daley. Jacob proved indispensable as he offered to wade waste-deep into the pool to net organisms.

“I love seeing children get involved,” says Kassie Kingsley, whose property provides access to the stream. “They may not be stream monitors all their lives, but you can bet they won’t dump anything in the streams. And, of course, they’ll influence their children.” Kingsley has lived in Loudoun all her life and has seen a great many changes in the landscape. “I go down to the stream here regularly,” she says. “It’s amazing how responsive it is to weather, area run-off, and development upstream. I’m interested in the health of everything around here. I know water quality is of great concern to people here in Loudoun.”

“Loudoun County is fortunate enough to have streams that are all pretty good to excellent in water quality,” notes Cliff Fairweather. “But changes occur quickly. Loudoun has the luxury of doing some pro-active planning. Stream protection is still a viable option. If you want to see the alternative, go over to Fairfax County, were stream restoration is the only option.”

In Montgomery County, where the program is in its sixth year, a cadre of 140 volunteers monitors some 30 stream sites. Their data has been used in stream quality reports presented to the county’s board of supervisors and is being used in a county-wide watershed protection plan.

In Loudoun, organizers are very encouraged by the turnout of volunteers and the support for the program so far. Individuals, neighbors, families, and civic, school and church groups can become involved and make a real contribution to the health and quality of their environment.

Maria Ruth
off access to the rest of the house. If the critters haven’t left yet, try to open the kitchen door from the outside. If this doesn’t work, call Animal Control, and don’t be a hero. An animal that feels trapped or threatened will behave unpredictably and often violently.

Beavers can be frustrated by various devices, depending on what you are trying to protect. A wire cylinder, preferably heavy 2x2 inch welded mesh, can encircle most trees (leave space to grow) with mulch between the wire and the tree to discourage weeds. Use smaller mesh if your problem is mice and similar rodents. For small trees, corrugated plastic drain pipes with slits for growth will serve. To regulate water level in ponds, several types of “beaver bafflers” will allow water to flow and discourage beavers from plugging them. For details, write Beaver, Wetlands & Wildlife, PO Box 591, Little Falls, NY 13365.

A book recently published by the Humane Society of the United States (HSUS) has many more resources and explanations of wildlife encounters. The book is called “Wild Neighbors” and is available through Fulcrum Publishing, (800) 992-2908. I highly recommend it.

I haven’t covered all possible situations, but I hope you can utilize some information here that will make you happy to see your wild neighbors and give you a night’s sleep without listening to fussball in your attic.

Anne Hocker, Vice President

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**NUMBERS AT A GLANCE**

**Joe Coleman, President**  
(540) 554-2542

**Anne Hocker, Vice-President, Animal Rehabilitator**  
(540) 668-6414

**Leslie Metzger, Membership Information**  
(540) 554-2403

**Diane Gilliam, Public Policy**  
(540) 554-2228

**Loudoun Soil & Water Conservation Stream Monitoring Program**  
(703) 777-2075

**Leslie McCasker, Wildlife Hotline Training Information**  
(540) 338-2133

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**ADVERTISE HERE**

At the last board meeting, it was suggested that Wildlife Conservancy members with appropriate goods or services be given space in the newsletter for a 3-5 line advertisement. Please submit your ads by mail to:

Loudoun Wildlife Conservancy  
19410 Ebenezer Church Road  
Round Hill, VA 20141-2044

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**LOUDOUN IN PRINT**

Conservancy board member Barbara Holland has a new book out this month, “Bingo Night at the Fire Hall” (Harcourt Brace; $22), reflections on life (human and otherwise) in Loudoun over the past few years - and centuries. Russell Baker has called it “a passionately sad elegy for one of the most beautiful counties in America” and “a lovely book.” It is available from book stores.
UPCOMING EVENTS

Sunday, Sept. 21, 8 a.m., A Bird Walk Along the W&OD Near Leesburg. John Chambless will help us look for some of the many fall migrants that move through our area. We hope to be rewarded with sightings of warblers in their fall plumage as well as a hawk or two. To register call Joe Coleman.

Tuesday, Sept. 23, 7:30 p.m., Bugs 101. At the Smithsonian Naturalist Center, entomologist Nate Erwin will explain bugs and insects and how to distinguish them from related arthropods.

Tuesday, Oct. 14, 7:30 p.m., Loudoun’s Streams and You. Join Cliff Fairweather of the Audubon Naturalist Society at South Riding Town Hall as he describes with slides and an exhibit, the creatures you can find in a healthy stream and we discuss what you can do to protect our county waterways. (See insert for additional stream-monitoring classes and programs.)

Tuesday, Oct. 21, 7:30 p.m., Hawks: Hunters on the Wing. At the Rust Library (co-sponsor) in Leesburg. Liam McGranaghan, accompanied by a live red-tailed hawk, will discuss the many hawks that live in or migrate through Loudoun County, an especially rich location, as hawks follow the air currents along the Blue Ridge in the fall and many make the county their winter home in mild weather.

Sunday, Nov. 2, 1 p.m., Watershed Walk at Banshee Reeks. A future Loudoun County Park, includes two miles of frontage along scenic Goose Creek. (See insert)

Tuesday, Nov. 18, 7:30 p.m., Loudoun’s Forests. (Location to be announced.) Dana Malone, VA Dept. of Forestry, will discuss the many trees that comprise our rich habitat for many different species and the careful management they require now and in the future.

FOR DETAILS, CALL JOE COLEMAN, (540) 554-2542

DESIGN OUR LOGO

Send us your design for a logo for the Loudoun Wildlife Conservancy. It should be simple and suitable for use with our name and, of course, original; no clip art, please! The winner will receive a tee-shirt, a year’s free membership, and undying fame. Submit designs to Joe Coleman, President, Loudoun Wildlife Conservancy, 19499 Yellow Schoolhouse Road, Round Hill, VA 20141.
LOUDOUN WILDLIFE CONSERVANCY

Stream Monitoring Classes and Programs

The Loudoun Wildlife Conservancy, in partnership with the Audubon Naturalist Society, the Loudoun Soil and Water Conservation District and the North Fork Goose Creek/Catoctin Watershed Projects, offers the following classes and programs.

Call the Loudoun Soil and Water Conservation District office at (703) 777-2075 to register and receive specific directions to the classes.

INTRODUCTION TO STREAM MONITORING, Saturday, October 11, 12:30 p.m. to 5:00 p.m. at the Eastern Loudoun Library. Learn about stream ecology and the health of Loudoun County’s watersheds... and how you can get involved with efforts to preserve, protect and improve these precious resources. After meeting at the Library we will visit a stream site where we will actually see what one can find in one of our local streams and what it means. For more information call 777-2075. Sign up required.

LOUDOUN'S STREAMS and YOU, Tuesday, October 14, 1997, 7:30 p.m. at South Riding's Town Hall. Loudoun County is blessed with healthy streams. Join Cliff Fairweather of the Audubon Naturalist Society as he describes with slides and an exhibit, the kinds of animals you can find in a healthy stream. We will also discuss what you can do to protect our streams.

MACROINVERTEBRATE IDENTIFICATION I, Class and Field Sessions
Section 1: Sat., October 18 (10:00 a.m.-1:00 p.m.) Claude Moore Park
Section 2: Sat., Nov. 8 (10:00 a.m.-1:00 p.m.) Location To Be Announced

Benthic macroinvertebrates, those boneless creatures that live under flowing water, are important indicators of the health of a stream system. Learn how to identify the major groups of these organisms, including aquatic insects and crustaceans, to the taxonomic level of order (e.g. Plecoptera or stoneflies).

Both sections combine both classroom and field instruction, weather permitting. When registering, specify the session you are interested in and an alternate, if possible.

PROTECTING LOUDOUN'S STREAMS AND WATERWAYS

The water quality of Loudoun County's streams is integral to the well-being of local wildlife and can serve as an accurate indicator of overall ecosystem health. Most of Loudoun County's streams support diverse communities of aquatic life. Streams and their associated shoreline habitats provide shelter, forage, and movement corridors for local animals, and are also used by many of the migratory species that make their seasonal journeys across our landscape.

As our volunteer base grows, the Loudoun Wildlife Conservancy in partnership with the Audubon Naturalist Society (ANS), the Loudoun Soil and Water Conservation District and the North Fork Goose Creek Watershed Project, plans to establish stream monitoring teams for every watershed in Loudoun County. This program is made possible, in part, by a grant to ANS from the Chesapeake Bay Restoration Fund, financed through sale of Chesapeake Bay license plates.

If you are interested in becoming a stream monitor, please fill in the following form on the other side.
AN INTRODUCTION TO HABITAT ASSESSMENT, Sunday, October 26, 1:00 - 4:00 p.m., Location To Be Announced

Careful observations of a number of conditions contribute to an assessment of the habitat value of streams, including channel flow, canopy cover, erosion and channel alteration, and the stream bottom scouring and deposition of silt. Learn the habitat parameters which are used in our monitoring protocol at different stream sites in Loudoun County.

WATERSHED WALK AT BANSHEE REEKS: Sunday, November 2, 1997, 1:00 - 4:00 p.m. Banshee Reeks, a future Loudoun County Park, includes two miles of frontage along Goose Creek, one of Loudoun County's two Virginia Scenic Waterways. This walk will stress the conditions that have helped keep Goose Creek healthy while we observe the rich wildlife habitat that surrounds the creek.

WATERSHED WALK ON THE NORTH FORK OF THE GOOSE CREEK: Saturday, November 22, 1997, 10:00 a.m. - 1:00 p.m. The North Fork of the Goose Creek flows through miles of healthy riparian habitat in rural western Loudoun. We will observe the conditions that contribute to this stream's health and what all of us can do to keep it that way.

Call the Loudoun Soil and Water Conservation District office at (703)777-2075 to register and receive specific directions to the classes.

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 the Stream Monitoring Project, c/o Loudoun Soil and Water Conservation District Office, 30-H Catoctin Circle, SE, Leesburg, VA 20175 or call (703)777-2075.

LIST CLASSES AND DATES YOU ARE ____________________________ interested in:

Stream You're Interested In Monitoring: ____________________________

Second choice if that stream isn't available: _________________________

If neither of those streams are available are you willing to help monitor a site designated by the Project (please circle): YES NO

Name: __________________________________________________________
Street: __________________________________________________________
Town: __________________________ Zip _____________________________
Telephone-Home __________________________ Work __________________

Are you interested in being one of our Team Leaders? _____________

We also need help with some of our administrative functions, such as typing, correspondence, maintaining our database, or keeping our records up-to-date. Would you be interested in helping us with these kinds of functions? (please circle) YES NO