

Habitat Herald

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The Mushroom Chronicles

by William Needham, President, Mycological Association of Washington, D.C.

Biology originally relegated all living things to two kingdoms; Plantae and Animalia. This was always problematic when classifying single-celled organisms like the Euglena, which has the mobility of an animal and the chlorophyll of a plant. Fungi were considered members of the Plant Kingdom (the division Eumycota) even though they reproduced with spores and relied on chlorophyll-producing plants and other hydrocarbon sources of less repute such as manure and decayed logs for nutrition. In that dinosaurs were once considered reptiles, it is not at all surprising that the somewhat arbitrary nature of classification by taxonomy could yield anomalous results. With the increasing use of DNA testing to validate these relationships, the classification scheme originally devised by Carolus Linnaeus in the eighteenth century will no doubt be subject to additional revisions.

In 1969, R. H. Whittaker of Cornell University proposed five principle kingdoms: the original Plantae and Animalia with the addition of Fungi, Protista and Monera. Fungi included mushrooms, molds, mildews, yeasts, brackets and puffballs. Monera were the bacteria. The problem was that the fifth Kingdom, Protista, was for anything else that didn't fit one of the other four categories, such as amoebas, algae and slime molds, containing as many as 200,000 different species. To complicate matters, Carl Woese of the University of Illinois posited three domains: Bacteria, Archaea and Eukarya to take into account the unique genetics of bacteria and Harvard zoologist Ernst Mayr later suggested two empires: Prokaryota for simple bacterial entities and Eukaryota for the more complex organisms. This debate

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Executive Director's Message *by Nicole Sudduth*



Nicole Sudduth

As we head into fall, change is afoot – not only with the changing season but also with Loudoun Wildlife. As many of you know, Loudoun Wildlife Conservancy started as an all-volunteer organization in 1995 and over the years we worked virtually from our homes, met in libraries and other public spaces, set up our tent at fairs and held programs in places across the county in order to meet more people and make learning about wildlife and the natural habitats of Loudoun accessible and fun. This approach remains integral to how we operate but we realized that we also needed a place – a physical place known and recognized as Loudoun Wildlife Conservancy. So with that, we have big news! This past August, we signed a lease with Morven Park to rent the building that they call the Gate House! We are so thankful for our partnership with Morven Park and happy that their Board and staff offered us this wonderful location. Our new home is located along Old Waterford Road and it provides not only office space but also an area where we can teach about nature, have hands on nature displays, and offer our nature books, handouts and gear. Because of the nice habitat around the Gate House and at Morven in general, we envision offering small programs and demos right from that location as well. Once we are settled in, we will host an open house where we can show you the new digs and share our vision. Watch our website for news of our official opening and open hours. It is your membership and support over the years that has made this sort of growth and success in our mission possible. The wildlife of Loudoun need us as their voice well into the future and this physical location is an important milestone in making sure we can do that. Let's continue to make strong strides and fly to higher heights together. Thank you for being a part of Loudoun Wildlife!

See you along the trails, and at the Gate House!

Nicole

cover photos by Allison Gallo (top)

Sharon Plummer (left), Allison Gallo (middle), Jennifer Cardwell (right)

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The Loudoun Wildlife Conservancy Board meets monthly. Board meetings are open to all current members. For more information, or to suggest topics for discussion at upcoming meetings, contact Nicole Sudduth.

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■ *The Mushroom Chronicles continued*



Oyster Mushroom (Pleurotus ostreatus) photo by Allison Gallo

rages on, but the key point is that fungi are not plants in any of these organizations. Fungi are fungi (the preferred pronunciation according to Webster's Dictionary is funj-eye but I have heard fung-eye, funj-ee and fung-ee with almost equal frequency).

Wild mushrooms are highly regarded by most cultures

of the world as an important and delectable food source. Many fungi have the taste and texture of meat, attributable to their conversion of the plant nutrients into chitin, the same material that is used by insects for their exoskeletons. Appellations such as "Chicken of the Woods" and "Beefsteak Fungus" reflect this gastronomic verisimilitude. However, the British make a distinction between the edible field mushroom that is cultivated commercially, and all others which are called toadstools and are considered poisonous. The etymology of this term is curious, as it has nothing to do with the notion that toads may use the mushroom as a perch, as they are so frequently depicted in ceramic caricatures and children's fantasies. Toadstool is a calque of sorts as it is of German origin, the word todesstuhl meaning "death chair". Apparently the British took to the notion of a warty toad using the hated fungus as a throne. Americans have for the most part followed British traditions in their general apprehension of any mushroom not purchased in a proper commercial establishment.

The word mushroom itself is of uncertain etymological origin. It derives from the French word "moisson" which is in turn derived from "mousse", the French word for moss. Perhaps this is due to the dark, dank mossy habitat where mushrooms thrive and moisson became mushroom as a calque, using existing English words as antonyms for the French. Interestingly, the French word for mushroom is "champignon" from champs meaning fields (Paris's Champs Élysées is the Elysian Fields, where fallen warriors live in perpetual bliss in Greek mythology). "Champignon" is also the German word for mushroom, evidently taken directly from the French. And to really confuse things, the Latin word for mushroom is "fungus", which in turn derives from the Greek "spoggos", or sponge. Presumably, the Greeks, well known for sponge diving, thought that there was a resemblance between sponges and fungi, as both are fibrous, compartmentalized, and "spongy."

The mystifying, spontaneous emergence of mushrooms after rain is so notable that the very term "to mushroom" suggests explosive growth (both before and after the advent of the atomic bomb cloud of the same name). To understand why this occurs, it is necessary to delve into the recondite realm of spores, hyphae and mycelia. The evolutionary reason why mushrooms have caps is so that the spores which are located on small club-like structures called basidia attached to the gills under the cap are afforded the necessary humid environment for spore ejection. When the spores are ejected, the wind carries them to new habitats. When a spore lands in an auspicious locale, it will start to grow, sending out an initial filament called a hypha that will branch repeatedly to create a fibrous mass called a mycelium.

The mycelium is the corpus of the fungus (what would we do without Greek?). It is as elusive to the casual naturalist as are the roots of a tree, as the hyphae are interwoven into the soil and detritus of the forest floor and thus virtually impossible to discern. Mycelia can grow to gargantuan proportions, limited only by the extent of a benign ecosystem. It is part of the accepted common folklore that the largest living thing in the world is a fungus that occupies some forty acres in Michigan. As I recall, the Soviets claimed during the Cold War that they had the world's largest fungus. They probably did and still do for all that it now matters.

The mycelium that results from a single spore cannot create a mushroom. It takes two compatible hyphae growing from two compatible spores to do that. In this sense it is like the male and the female genders of most plants and animals. But with fungus, it is much more complicated, as there are a lot more pairing possibilities. There has been limited study in this area due to the difficulty in distinguishing different hyphae based on appearance. Understanding pair-wise behavior is dependent on a large number of tedious empirical observations. What testing has been done has shown more than 20,000 pairing combinations in some mushrooms. Each hypha brings one nucleus to the union, creating a cell with two nuclei, called a dikaryon. In this combined form, the mycelium grows, taking its nourishment from a variety of organic sources.



Mushroom photo by Jennifer Cardwell



■ *The Mushroom Chronicles continued*

Mushrooms form from the dikaryon mycelium by coalescing into a more dense fibrous mass known as a primordium. The structure of the mushroom is established in embryonic form at this point with a distinct cap and stem, poised in the mycelium for the appropriate environmental stimulus, moisture. After a rain, water permeates the ground and the inchoate mushroom absorbs it, expanding rapidly with the preexisting structure now enlarged by the addition of the fluid. This is why mushrooms pop out of the ground overnight after a rain. The moisture trigger is also relevant to the propagation of the species, as the mushroom will open and release its spores when environmental conditions are likely to favor their successful incubation.

Fungi are among the most notable features of any woodland trail. The bright orange glow of Jack-O-Lantern mushrooms huddled at the base of a tree is as striking as the delicate

structure of the Pink Lady's Slipper orchid. Their spontaneous appearance and ephemeral presence are like the wildflowers that enjoy universal adulation for their aesthetic qualities. But in spite of the esthetics of their geometric balance, mushrooms are maligned, subject to all manner of hyperbole about their toxicity and hallucinogenic nature. It is a matter of education, as fungi are of great importance to woodland ecology and to the economics of any agricultural enterprise. And that is the motivation for learning mycology and for transmitting that knowledge to others, the mushroom chronicles.

Resources

Bryce Kendrick, *The Fifth Kingdom* (Focus 2001)

Gary Lincoff, *The National Audubon Society Guide to North American Mushrooms* (Knopf 1981)

William Roody, *Mushrooms of West Virginia and Central Appalachians* (Univ. Press of Ky. 2003).

<http://www.hikersnotebook.net>

Five Familiar Fungi *by William Needham*

Phenology is the study of natural phenomena that recur periodically such as spring daffodils and autumnal apples. Phenology is fundamental to understanding fungi. While we think of mushrooms as fungi, they are in reality only the 'fruiting bodies' of the epigeal (above ground) or underground fungi they seek to reproduce using spores instead of seeds. Like plants, fungi sense the temperature, humidity, and probably daylight duration to trigger mushroom emergence to enhance the chance of successful spore deployment and germination. Mushrooms mysteriously emerge overnight because the underground fungal body called a mycelium was ready to reproduce and invested energy to create an underground 'proto-mushroom' called a primordium to be ready when conditions were right – such as just after a soaking rain. The moral of the story is that if you want to find mushrooms, go out in the fall after a good soaking rain because the season of growing is drawing to a close and moist, cool ground is the best substrate for spores. As a primer, five fungi that are relatively easy to find and identify are described in this article as a means of getting started. A necessary caveat: identifying mushrooms is more art than science and there is no substitute for an experienced human field guide to validate specifics; caveat emptor.



Chanterelle Fungi
photo by William Needham

The **chanterelle** has a distinctive cup-shape and is yellow or golden in color. There are a number of different species but all are characterized by having spore-bearing ridges instead of gills on the underside of the cap. The cap edge or margin is irregular or wavy, i.e., not round like the classic mushroom shape. They grow on the ground and are usually found in extensive patches when the phenology is right. They are about 1 to 6 inches in diameter and 1 to 3 inches high. They can be found from June to September under oaks and conifers. The chanterelle is one of the most popular edible mushrooms in the world but it has a 'doppelganger' that looks very similar but is poisonous.



*Jack-O-Lantern Mushroom
photo by William Needham*

The **Jack-O-Lantern** is yellow to orange in color like the chanterelle and is superficially similar. On closer inspection, the underside of the cap has very distinctive sharp decurrent gills, meaning that the gills descend down the stem. They also grow on wood and are found in clusters (several stems emanating from the same spot), whereas chanterelles grow on the ground and have one single stem. The name Jack-O-Lantern refers to the eerie greenish glow that they emit when taken to a very dark room. They are poisonous and ingestion will result in gastrointestinal distress for up to two days.

The **Destroying Angel** is an apt name for one of the most deadly mushrooms. Consumption of only a small portion of this mushroom can result in liver failure and death. The angelic name also conveys the delicate beauty of the mushroom. It is pristine white throughout, including the cap, stalk and gills; it even produces white spores. One key identification feature is the cup, called a vulva, at the base of the stem, as seen in the photo. This can usually only be seen if the dirt around the base is excavated. The vulva is the bottom part of the mushroom when it was formed as a primordium underground. When the mushroom emerges, vulva and cap break to expose the spore-bearing gills.



*Destroying Angel Mushroom
photo by William Needham*



*Turkey Tail Mushroom
photo by William Needham*

The **Turkey Tail** is easy to identify and remember as its name serves as a mnemonic memory device; it has the concentric rings and colors of a turkey tail. This is an example of a type of fungus called a polypore meaning many pores. While some mushrooms have gills from which the spores emanate, many have round holes called pores instead. These are typically attached on one edge and are frequently called bracket fungi or shelf fungi as a result. Turkey tails are not edible, but they have been used in Asia for general health promoters for centuries. Polysaccharide–Kureha, simplified to PSK, is the predominant fungal compound used for medicinal applications; it is sold commercially as Krestin. Turkey tail grows in small, overlapping, leathery brackets on dead logs. It is quite common and can be found throughout the year.

Puffballs are aptly named according to the method of spore dispersal; rather than gills, a hole forms at the top of the spherical body which ejects spores in 'puffs' when the outer surface is struck by a raindrop. They range in size from the gem-studded puffball, which is about one inch in diameter to the giant puffball, which looks like a white soccer ball. They are mostly found scattered on the ground, although one type forms clusters on wood. Young puffballs that are pure white inside are edible.



*Puffball Fungi
photo by William Needham*

Volunteers in Action at Phillips Farm

Teaming up to plant trees and shrubs, save a stream, and protect pollinators

by Rachel Weinstein, Rachel Milburn, Margaret Good and Joe Coleman

On Wednesday, May 17th, the Loudoun Wildlife Conservancy and the Waterford Foundation continued their conservation efforts at the Phillips Farm with the assistance of a number of volunteers from the Institute for Building Technology Safety (IBTS), using funds raised through the sale of the special Chesapeake Bay license plate "Friend of the Chesapeake." In 2003, this 144-acre property was to be developed and subdivided, but the Waterford Foundation raised \$4 million dollars to purchase the farm. The land is now protected with conservation easements that protect valuable riparian habitat and numerous plants and animals.

Volunteers planted an additional 109 trees and shrubs ranging from Sycamores to Viburnum, continuing to diversify and strengthen the buffer habitat. These plants, combined with past planting efforts beginning in 2008, bring the total trees and shrubs planted on the Phillips Farm to about 1,200. Leading up to the May 17 event, the McIntosh family, which serves on the Phillips Farm Committee, dug holes for the trees and shrubs and delivered mulch to the planting areas. On the morning of the 17th a group of volunteers from IBTS arrived at the mill area with their work gloves, waterproof shoes, bug spray and great tee shirts! Working with volunteers from both Waterford and Loudoun Wildlife, they worked long and hard, seemingly unfazed by the excessive heat and sun. After a relaxing lunch on the mill lawn, where they heard about the beneficial impact of what they were doing for the Monarch butterfly population, they returned to work to finish and clean up before finally calling it a day at 3 p.m.

All of these plantings combine to form a riparian buffer, a combination of trees, shrubs, and other vegetation that protect water quality by trapping pollutants. These buffers also help control flooding and remove excess nutrients from the water. A 100-foot buffer, as required by the Deed of Easement, on either side of the Catoctin Creek as it makes its way across the Phillips Farm, helps protect water quality in Loudoun. This type of buffer is essential to protecting our water for human and animal and wildlife consumption. Proper buffer control also requires keeping livestock out of the buffer and other streams on the farm.

Protecting water quality also protects the organisms found in the creek or stream. Vegetation helps keep the water at a stable, mild temperature and traps excess sediment that can clog the gills of fish. As the quality of a stream declines, populations of fish more tolerant of poor conditions, carp for example, can increase, pushing native fish out of their natural habitats. This is one reason why maintaining riparian buffers

is vital. Not only do the plants improve the conditions for aquatic life, they also provide food and shelter for other wildlife. A wide, diversely-planted buffer has a large impact on the surrounding ecosystem.

Phillips Farm is also a certified Monarch way station, providing necessary resources that Monarch butterflies need during their migration to and from Mexico. Milkweed is the only food source for Monarch larva so they lay their eggs on the Milkweed plants. Monarchs and other pollinators are in danger of becoming extinct due to habitat loss and disease. If Monarchs and pollinators disappeared it would be a disaster for ecosystems worldwide, and humans would be greatly impacted. Pollinators help fertilize plants, as they move pollen from one plant to another plant of the same species. This pollination results in seeds that eventually grow into the next generation of a plant. More than 300,000 plant species require animal pollinators, including three-fourths of our major food crops. Without pollinators, many plant species would cease to exist, and because plants act as the foundation for many terrestrial food chains, other organisms would be threatened as well. This is known as the cascade effect. It's evident that pollinators such as Monarchs have a big impact on the environment, which is why conservation and creation of way stations, such as the one at Phillips Farm, are so important.

Also on May 17th, under the leadership of Ann Garvey, 14 new trees and shrubs and numerous perennials were planted at the Interpretive Pull-Off Area. Julie Borneman of Watermark Woods and Ann donated the perennials to replace the invasive perennials that are trying to take over.



Dedicated volunteers at Phillips Farm
Photo by Karen Graham



Nooks and Crannies - A Place for Families

Written by and for youth and families, this feature shines a light on the exciting perspective of our young nature stewards with an eye for things unseen, residing in the Nooks and Crannies of our environment.



Aidan Coffman

My 4-H Life Lessons *by Aidan Coffman*

This year I accomplished all of my goals, learned new things, gained new skills, and faced some challenges. This year my entomology project included caring for my Blue Death Feigning Beetles, fostering Monarch larvae, and raising mealworms. I also participated in citizen science projects for

dog day cicadas, Monarch butterflies, and other butterflies as part of my 4-H project. Finally, I tried to study genetics with *Drosophila melanogaster* fruit flies.

More than 2 years ago, I got 6 Blue Death-Feigning beetles. To care for them, I have a 5.5-gallon glass terrarium. The terrarium has desert sand, 3 medium-sized rocks, and a small log. There is one temperature gauge and a humidity gauge that help maintain a desert environment. I feed them raw sweet potatoes for carbohydrates, and shed snakeskin for protein.

The first step in fostering Monarch caterpillars is to attract the butterflies to your yard. In 2015, I started a Monarch way station in a sunny place in my backyard and had it certified. The garden is full of milkweed plants, tons of coneflowers, a butterfly bush, and more. This year I added new milkweed plants as host plants for Monarch butterflies. Last year, I noticed many *Aedes albopictus* mosquitos in our backyard, so I added a bat box to the yard this year near the garden because bats eat mosquitoes. The bee box for Orchard Mason bees is still occupied by bees under the cherry tree. We do not use pesticides or herbicides in this pollinator habitat. It is also a certified Wildlife Sanctuary by Audubon at Home and a registered pollinator garden.

In early September 2016, I started to notice Monarch larvae in the way station. I did not know it yet, but I would face two challenges with fostering the Monarchs in 2016. By Saturday, September 3, 2016, I had 23 Monarch caterpillars in my indoor butterfly habitat. They were brought inside from my Monarch way station so that I could foster them. One made a chrysalis. Sunday the 4th, there were several more chrysalises. However, 2 of the Monarchs were killed by tachinid fly larvae as the Monarchs were coming out of their chrysalises. In the whole week, there were a total of 4 chrysalises attacked by tachinid fly larvae. By weeks end, 13 chrysalises were still alive. Woo-hoo! The others were still caterpillars and were eating milkweed in pots in my kitchen. I had to buy more milkweed and pick some leaves, too. Those little creatures were so hungry – and I mean it! Within the next two weeks, all were chrysalises. Unfortunately, most became spotted because they had the OE (*Ophryocystis elktrosirrha*) parasite, which we didn't know they had until the pupal stage. The parasite multiplies rapidly during the pupal stage, and this may be the first time that you can tell the Monarch is infected. Most died during their pupal stage. One adult emerged with very crumpled wings and died that day. I even emailed Nicole Sudduth of the Loudoun Wildlife Conservancy about it. Only one female Monarch survived out of the 23. She did have a little bit of a crumpled wing (caused by the OE parasite), but still flew away.

This summer I am hoping that all of the Monarch larvae I foster survive. On Thursday, July 20, 2017, I found 4 Monarch larvae in my Monarch way station. This year, they really like butterfly weed, a.k.a., red milkweed. We ordered a large butterfly-rearing cage online at the Loudoun Wildlife Conservancy website. We brought the larvae inside because we DO NOT want them to be eaten alive by tachinid flies and their larvae. We have the Monarch larvae and the new potted milkweed in a sunny window right next to our mammoth sunflower. The Monarch larvae are in the third instar stage.

The next part of my project book this year is about raising mealworms. I began my mealworms project on October 13, 2016. I put them in an 11-inch plastic pet habitat with a vented lid. I put cornmeal and blended oatmeal in for food and bedding. First, they burrowed and hid under the cornmeal and then came out. I also put in slices of sweet potato. Dozens went on the sweet potatoes. Yum to them! These mealworms are the larvae of darkling beetles. On October 24, 2016, I noticed 8 pupae. At the end of the day, I saw 12. It was informative to watch the mealworms through their life cycle.

The Urban Buzz is a citizen science project trying to find deformed wings in cicadas. You send the cicadas that you collect to the entomologist at Urban Buzz so that she can find out about cicadas all over the country. The researchers at Urban Buzz wanted to see if abnormalities and asymmetry in cicada wings and legs found in the USA has to do with environmental changes associated with urbanization. I collected dead cicadas around my yard and put them in ziplock bags in my mom's freezer. Then, I labeled the cicadas and sent them to Dr. DeAnna Beasley, a researcher at Urban Buzz. I sent an email to Dr. Beasley inquiring about the results of her research. She said that they are "still in the process of completing the analysis and preparing the results for publication."

For other citizen science projects, I went on the Journey North Monarch Watch website and logged in every Monarch butterfly or larva I saw. On Project Butterfly WINGS, I logged in all different types of cool butterflies I observed.

Well here is my EPIC FAIL part of the story. My mom and I did a fruit fly (*Drosophila melanogaster*) project. I made media for food for the red-eyed and white-eyed fruit flies. In a school science lab, the teacher can use ether to put them to sleep for a short time to transfer them to the breeding test tubes. At home, we had to use the refrigerator to put them to sleep without killing them. It is hard to get that timing right. When my mom tried to help me, she said "Let me transfer them in to the test-tube, honey." Then, almost all of the fruit flies escaped, but it was fun anyway. You can see my Punnett Square in my project book. Hint, hint--never let your mom "help" with your science projects!

In conclusion, I accomplished my goals this year. I learned about cicadas, mealworms, and, unfortunately, things that can go wrong with fostering Monarchs. I also participated in three citizen science projects. As vice president of the entomology club, I learned about leadership and teamwork.

Native Vines for Wildlife

by Anne Owen, Audubon
at Home Ambassador

Mention planting vines for their value to wildlife and the most common reaction is that they are too messy, too big and too aggressive for a small, or even an average yard. This is a shame and very likely comes from bad experiences with those pesky non-natives, so loved by Garden Centers, which certainly can grow out of control.

Our native vines, while vigorous, are generally less aggressive and provide nectar, berries and host services for a wide variety of birds, butterflies and bees. In a small yard, they can be grown in pots to help contain roots and runners. Vines can be trained on a wall, or on a trellis that provides a wildlife habitat that can also be structured as a privacy barrier. Vines can be trimmed back at the end of the growing season, or the tips pinched to encourage a bushy habit. By growing upward rather than outward, they can provide a lot of habitat for only a small amount of real estate...what's not to like?

The humble Virginia Creeper, *Parthenocissus quinquefolia*, is among a wildlife gardener's most versatile plants. It can be used as a climber or as ground cover and provides brilliant Fall color. It is the larval host for several species of Sphinx Moth and its berries are valuable winter food for many of our over-wintering birds, including chickadee, nuthatch and woodpeckers. Virginia Creeper is easy to pull and the little adhesive pads that it uses instead of penetrating rootlets do little damage, so it is easy to control, even in a small space.

Pipevine, *Aristolochia macrophylla*, is native to the southern Appalachian hardwood forest, and has been naturalized further north into Virginia. It has attractive, large, heart-shaped leaves and a unique, pipe-shaped flower. It is attractive to butterflies and is the larval host of the Pipevine Swallowtail.

Fans of Passionflower, *Passiflora*, have two species to consider. Both species provide nectar for butterflies and other insects and both produce fruit that is beneficial to birds and small mammals. Both also host a number of caterpillar species. Maypop, *P. incarnata*, is the larger and showier of the two, with very intricate, 3-inch, lavender flowers. It hosts the Variegated Fritillary caterpillar, *Euptoieta claudia*. Yellow Passionvine, *P. lutea*, is smaller, with greenish-yellow flowers, only about 1 inch across, with purple or black berries. This Loudoun native also has a long flowering period from May to September. Both Passionflowers can spread quickly, so are best grown in a container to keep them in check. Violets (*Viola sp.*) can be added to the pot as an additional Spring-flowering Fritillary host.

Our Native Coral Honeysuckle, *Lonicera sempervirens*, must not be confused with the pale flowers and invasive habits of the introduced Japanese and European species that have little or no wildlife value. Native *L. sempervirens* produces clusters of red, tubular blooms from March to June, providing a welcome early nectar source for Hummingbirds and butterflies. The bright red berries attract Purple Finch, Goldfinch, Hermit Thrush and American Robin. It is semi-evergreen to provide some visual winter interest.

A final gem to consider is American Wisteria, *Wisteria frutescens*. This North American native has become naturalized in our region and is less aggressive and less damaging than the popular, introduced Asian species. It produces lovely, fragrant drooping flower clusters in May to June, attracting butterflies and acting as a larval host to several species of skipper.

So, who can find a spot for one of these glorious native vines?

If you are interested in learning more about how you can provide habitat for wildlife on your own property and about the Audubon at Home Program, please contact Ann Garvey at agarvey@loudounwildlife.org for more information.



Bumblebee on Passionflower
Photo by Allison Gallo



Pipevine trained to grow up the wall
Photo by Ann Garvey



Coral Honeysuckle in container
Photo by Allison Gallo

If You Plant... They Will Come! by Patricia Valas

Last year I tended a small Monarch rearing cage at my local Loudoun County Public Library in Lovettsville. It was my "overflow" cage from home and was part of a display with books and information to promote awareness. This year a small contingent of my library colleagues and I convinced the town council and mayor of Lovettsville to take the National Wildlife Federation's Mayors' Monarch Pledge. By doing so, it made our little town a "Monarch town" just in time for Mayfest when the butterfly was honored as the festival's logo.

We then decided that we needed to increase awareness by creating a demonstration butterfly garden at the library. We identified a small 2 foot by 5 foot plot, requested permission from the county government landscape department and proceeded to plan and plant. We were discouraged from planting common milkweed so we shopped at Watermark Woods and selected three swamp milkweed, two butterfly weed (*Asclepias tuberosa*), two New England asters and a snow flurry aster. The cost of these eight plants, with a Loudoun Wildlife Conservancy discount, was \$54.86.

As of August 23, we had successfully "harvested" for rearing, 41 Monarchs. Some were eggs and others were various sizes/stages of



Tagged Monarch
Photo by Sam Mull



Butterfly garden success
Photo by Sam Mull



Garden instigators: Patricia Valas and Christyna Hunter
Photo by Sam Mull

the caterpillar. One of my colleagues who lives in an apartment nearby planted two plants in a pot outside her building and she has scooped up six eggs/caterpillars just from those two plants in one pot. There is a good chance that our total could be 50 by the end of the season at this amazing rate. We have tagged (using official tags purchased from monarchwatch.org) and released two butterflies so far.

Library patrons young and old are engaged watching the progress of the caterpillars and chrysalises as well as the process involved in rearing the Monarchs. Many questions are asked and answered. So for a relatively short time each year I am not only a page at the library but part of a Monarch ambassador team!

We have proven that even on a very small scale it is possible to attract and assist the egg laying Monarchs of our area. Take away lesson learned – if you plant even a few milkweed plants – the Monarchs will come and have more habitat on which to flourish!



Butterfly Count 2017: Numbers Are Up! by Anne Ellis



Silvery Checkerspot Butterfly
Photo by Bryan Henson

For a human, the cool, almost autumnal weather of Saturday, August 5, was greeted with delight. The fresh wind and pleasant temperatures were a welcome relief from the typical heat and humidity of our summers. However, this did not bode well for the 21st Annual Butterfly Count. These winged beauties don't like to be buffeted about while getting on with the business of survival. And sure enough, as our team assembled and began the count, our first garden yielded a mere handful of cabbage whites, a couple of skippers, and some monarch caterpillars. Up until that day, we had all noted that this was a good year for butterflies, that flight was maximal, with a great variety of species. We prepared for disappointment.

But no! As temperatures climbed and winds calmed a bit, the butterflies took to wing and our counts improved. Forty volunteers in seven teams searched out 2,194 butterflies, identified in 50 species, topping last year's count of 2,145 butterflies and 41 species! Pipevine Swallowtails, missing in the last two counts, are staging a comeback with 23 sighted and at least 9 caterpillars discovered on the host plant, a pipevine (*Aristolochia sp.*), trained over a tall arbor. Clearly one garden has had an impact on this butterfly species' population, an important key, in addition to weather,

to butterfly presence and survival. A couple of unusual skippers—Hobomok Skipper and Hayhust's Scallopwing – were also sighted. For a complete list of this year's results, and previous count data, please visit <https://loudounwildlife.org/2016/08/butterfly-count-data-reports>.

Great thanks to our leaders: Bob Blakney, Joe Coleman, Phil Daley, Cliff Fairweather, Jon Little, Larry Meade, and Eric Raun. And thank you, too, to all our butterfly counters. I am already studying up for our 22nd Annual Butterfly Count, which will be on Saturday, August 4, 2018.



On the Wing with Chimney Swifts *by Donna Quinn*



Chimney Swift
Photo by Nicole Sudduth



Chimney Swift nest
Photo by Nicole Sudduth

In early autumn, large groups of Chimney Swifts (*Chaetura pelagica*) gather and begin their migration to South America. In a magnificent spectacle, as many as 10,000 swifts will create a tornado-like vortex funneling into a roosting chimney to spend the night during their migration. Chimney Swifts are found in open sky over cities, towns, lakes, rivers and meadows. They hunt insects on the wing; prey includes flying insects such as mosquitos, gnats, flies, beetles, termites, wasps, and moths as well as bugs that can be gleaned from leaf tips or the surface of water. A pair of Chimney Swifts feeding young will consume more than 5,000 insects per day.

Chimney Swifts live in their winter home in eastern Peru, then migrate north every spring. They normally return to Loudoun County in mid-April. Their soaring aerial ballet and exuberant

twittering calls seem to celebrate the exuberance of spring and summer. These small dark gray-brown birds, 5.25 inches long and weighing less than 1 ounce, spend most of their lives airborne, landing only to rest at night and to nest. Even when not flying, Chimney Swifts do not perch like other birds; rather, they cling to vertical surfaces. Their "flying cigar" silhouette, rapid bat-like wing beats and distinctive chittering make them easy to identify.

Before the arrival of Europeans in North America, Chimney Swifts nested in caves and hollow trees. However, as human dwellings became available, chimneys and other man-made structures such as sheds became their preferred nesting sites. Unfortunately, now that chimneys are often capped and the widespread use of pesticides has diminished the availability of flying insects, Chimney Swift numbers have declined 72% since 1966 and these beneficial bug eaters are now considered a Near Threatened species.

Shortly after returning to their breeding grounds in spring, a pair performs an aerial dance with both snapping wings into a V-shape and gliding downward together. The mated pair break off twigs as they fly and build a half-saucer shaped nest attached to the interior of a chimney or other structure, glued together with their saliva. This is a labor-intensive process that takes two to three weeks to complete. While only one breeding pair inhabits a nest area, other non-nesting swifts may also be in residence. Incubation of 3-5 white eggs is by both parents for approximately 16-21 days. Both parents feed the young, sometimes assisted by a non-mated helper. Young may climb out of the nest at 14 days and cling to the walls near the nest. Their first flight is at 28-30 days. After the young fledge, parents and young fly together in parades around the nesting site.

What can we do to protect Chimney Swifts? One of the critical issues impacting swift populations is the use of pesticides. It is vitally important these skilled bug catchers have an ample supply of food. Don't spray pesticides in your yard; if you live in an HOA community, make sure your Board knows you do not support pesticide use. Chimney Swifts also need access to chimneys. If you have a stone, firebrick or masonry flue tile chimney with mortared joints, consider uncapping your chimney in the spring to provide nesting sites. Caps can be replaced in the fall to ensure wood fire safety. Metal chimneys are traps for chimney swifts and other animals and should always be capped. Keep your chimney clean – the best time to clean a chimney is early March, before swifts return. If you are lucky enough to have swifts in your chimney, leave the damper closed to keep them safely in the chimney. Chimney Swifts are protected under the Migratory Bird Treaty Act and it is illegal to remove a nest. Read your chimney sweep company's policy as it pertains to Chimney Swifts and report companies who do not protect them.



Chimney Swift

My precious chimney swift
Envy alone
Has named you so mundane
Tethered to the slightest pause
Amid your life upon the wing
Describing you as drab
Cigar shaped
And flying like a bat
While within me
Your beauty burns
And I thank you so for that
For from my human complications
The conditions of my sin
You do so delightfully
Delightfully distract

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Working together to provide nesting sites and an ample food supply, we can be good neighbors to these fascinating, beneficial flying marvels. With a bit of tolerance and our well-deserved admiration, we can help ensure their chatter and aerial displays will remain a cherished natural wonder in our spring, summer and fall skies.

Resources

www.allaboutbirds.org/guide/Chimney_Swift/id
<http://www.chimneyswifts.org/page24.html>

Kaufman, Kenn, *Lives of North American Birds* (Houghton Mifflin 1996).

Zickefoose, Julie, *Baby Birds, An Artist Looks into the Nest* (Houghton Mifflin 2016).

Jumping Spiders, Salticidae by Kerry Bzydk

As I sat down at my computer to begin working on this article, I noticed with some delight that the wallpaper photo on my laptop was indeed a jumping spider, and it has been for years. It's hard to imagine that in spite of a lifelong fear of spiders, I found this creature charming enough to want to see it so often. But there it is!

Love them or not, spiders are incredibly fascinating and diverse creatures. Salticidae is one of the largest families of spiders, with 5,800 different species making up 13% of all spiders. Within the family there is quite a bit of diversity, but also many common traits. Jumping spiders are generally small, ranging in size from 1/8 inch to 5/8 inch. Like all spiders they have eight legs and two body parts: the abdomen and cephalothorax. They are usually hairy and have stout legs. While they do have spinnerets and can produce webs, they do not build webs to catch prey. They will use silk to create shelter or to make a dragline. They have four pairs of eyes in three rows. The largest pair of eyes faces forward on the front of the distinctively square face, giving these spiders a quite "mammal-like" appearance, which may enhance their charm. But the keen eyesight of the jumping spiders serves a bigger purpose. They are predatory hunters who use their uniquely acute vision to find food. The visual acuity of the jumping spider has been extensively studied. They have the best vision among not only spiders, but possibly all arthropods.

Like all spiders, jumping spiders hatch from eggs and look like miniature adults. The female will attend to her eggs until the spiderlings emerge and disperse. The spiderlings overwinter and mature the following spring, molting as they grow. The average lifespan is one year.

Jumping spiders hunt much like cats do, using their excellent vision to spot prey from a distance and then sneaking up and pouncing on it. They have the ability to jump a distance thirty times the length of their body. Ant Mimic Jumping Spiders (*Myrmarachne spp.*) are able to imitate ants so well that they can "infiltrate" an ant colony and feed without being noticed. Mimicry, speed, and superior vision give these agile spiders a distinct predatory advantage.

The jumping spider that we most commonly see is the Daring Jumping Spider (*Phidippus audax*). This is the one we see around our homes, often hunting on windowsills or fences. They are also one of the largest species and can be quite interactive. The next time you encounter one of these little charmers, take a closer look. You may notice them turn around and do the same to you!



Jumping Spider
Photo by Emily Bzydk



Jumping Spider
Photo by Emily Bzydk

Resources

<http://tolweb.org/Salticidae/2677>

<http://www.uky.edu/Ag/CritterFiles/casefile/spiders/jumping/jumping.htm> #dimorphic

Audubon Field Guide to North American Insects and Spiders (Alfred A. Knopf. 1980)



Programs and Field Trips



Space is limited for many of these programs and field trips. For up-to-date information on our programs and to sign up, visit our website at www.loudounwildlife.org. Unless otherwise specified, contact info@loudounwildlife.org with questions.

Loudoun Wildlife Conservancy Board Meeting — The Board typically meets the second Tuesday of every month at 7:00 p.m. All Loudoun Wildlife members are welcome. **Contact Nicole Sudduth at nsudduth@loudounwildlife.org for additional information.**

Algonkian Park's Sanctuary Trail — Sunday, October 1, 8:00 a.m. Join Virginia Master Naturalists Allison Gallo and Bryan Henson on a Loudoun Wildlife Conservancy nature walk to the less-frequented nature preserve part of Algonkian Regional Park. Separated from the main portion of the park by Sugarland Run, the Sanctuary Trail follows the creek, runs along the Potomac River, and winds by several ponds. More than 140 species of birds have been found here, including some surprising visitors like last winter's Sandhill Cranes. We'll look for migrant fall warblers and hopefully see a few of our area's returning winter species. Bring binoculars and wear shoes that can handle moisture and mud, if it has recently rained. Attendance is limited as we will carpool from a meeting location to the trail head. **Registration required: Sign Up Online.**

Coyote Moon — Sunday, October 1, 2:00 p.m., Cascades Library. Families and children of all ages are invited to hear Maria Gianferrari talk about the elusive and beautiful coyote, which has moved in good numbers into our area. Ms. Gianferrari will also read her latest children's book, Coyote Moon. This event is sponsored by the Loudoun Wildlife Conservancy.

Loudoun Water Bird Walk — Monday, October 9, 8:30–10:00 a.m. Join Loudoun Wildlife Conservancy as we look for the resident birds and migrants on the trails running through Loudoun Water's attractive Aquary in Ashburn. Time permitting, we will also make a stop at the nearby Kincora wetlands. This family-friendly walk is suitable for young birders, as well as more experienced folks interested in exploring a new location. Some binoculars will be available for those without. **Note: All youth under age 18 must be accompanied by a legal guardian. Registration required: Sign Up Online.**

Along Came a Spider — Location and Date TBD. Join Loudoun Wildlife Conservancy for a free program exploring the world of spiders. Teta Kain brings us a close-up investigation of these greatly maligned, often feared creatures that live in such close proximity to humans. Details of spiders' lives are caught by Teta's camera as she details their eating, mating and predatory habits. She laces her talk with folklore, scientific facts, myths and mysteries and spices it up with a few funny stories of her frequent encounters with these very misunderstood animals. **Registration required: Sign Up Online.**

Hail to the Trail — Sunday, October 22, 1:00–4:00 p.m., Chapman-DeMary Trail, Purcellville. Purcellville recently took the Mayors' Monarch Pledge, and this family-friendly event will celebrate the town's commitment to creating habitat and educating citizens about how they can make a difference at home for the embattled Monarch butterfly. Loudoun Wildlife Conservancy will be supporting the community in its efforts by sharing tips for gardening for Monarchs and other local wildlife.

Identifying Hawks — Class Thursday, November 2, 7:00 p.m., Location TBD, and all-day field trip Saturday, November 4, to Waggoner's Gap, Pennsylvania. Every autumn, hawks thrill us as they migrate south along the Blue Ridge. Liam McGranaghan, experienced falconer, licensed bander of raptors and educator, will teach an evening class on how to identify hawks and other birds of prey. On Saturday, Liam and Laura McGranaghan will lead a field trip to one of the premier hawk-watching sites in the mid-Atlantic. If the weather cooperates, we should see a wide diversity of birds of prey. There is a fee of \$35 (\$45 for non-members of Loudoun Wildlife Conservancy) for the class. **Registration required: Sign Up Online.**



Birding the Blue Ridge Center

Join us on the monthly bird walk at the **Blue Ridge Center for Environmental Stewardship (BRCES)**, a beautiful 900-acre preserve in northwestern Loudoun County. The property includes diverse wildlife habitats, including meadows, streams, and heavily forested slopes. Meet at the Education Center; bring binoculars if you have them. BRCES is located just north of Neersville at 11661 Harpers Ferry Road (Rte 671); detailed directions at www.brces.org. **Questions: Contact Joe Coleman at 540-554-2542 or jcoleman@loudounwildlife.org.**

Fourth Saturdays: October 28 and November 25 at 8:00 a.m.



Fall Color Walk — Sunday, November 5, 10 a.m. – noon, Willowsford Conservancy. Join Loudoun Wildlife Conservancy for a walk through the beautiful fall foliage of a local trail, led by the Virginia Native Plant Society's Carrie Blair. Observe the brilliant hues of fall and take in the sounds and sights as the forest inhabitants prepare for winter. Check our website for more details. *Registration required: Sign Up Online.*

Gardening with Nature — Wednesday, November 8, 6:30 p.m., Willowsford Conservancy - Sycamore House at 23506 Founders Drive, Ashburn, VA. Do you ever feel like your landscaping efforts are constantly being challenged? Julie Borneman, owner of Watermark Woods native plant nursery, will share some helpful tips for working with nature rather than against it to make your gardening tasks easier and more successful. This event is cosponsored by Loudoun Wildlife Conservancy and the Willowsford Conservancy. *Registration required: Sign Up Online.*

Reading the Land — Saturday, November 18, 10 a.m., Blue Ridge Center for Environmental Stewardship. Have you ever wondered what Loudoun County looked like a hundred years ago? Today the 900-acre Blue Ridge Center comprises mostly meadows in the valley and heavily forested mountain slopes, but it hasn't always looked that way. Join Loudoun Wildlife Conservancy's Emily Southgate on a walk to discover humankind's impact on the land. People have lived and used the land there for centuries and have had a tremendous impact on it. Dr. Southgate, a historical ecologist, will describe how you can use old maps, aerial photographs and plants to study the impact on the land and ecology and how it came to be the way it is today. Directions can be found at www.blueridgecenter.org. *Registration required: Sign Up Online.*

Birding Hot Spots in Loudoun County — Sunday, December 10, 8 a.m. – 4 p.m. Join Joe Coleman and Laura McGranaghan, two of Loudoun County's top birders, on a day-long search for

sparrows, hawks, waterfowl and other seasonal birds at some of the county's richest birding destinations. The group will meet in Leesburg, then move on to several locations before ending the day in the Lucketts area. Possible locations, depending on what species have been recently sighted, include Beaverdam Reservoir, Banshee Reeks, the Blue Ridge Center, and the Dulles Wetlands. All levels of birders are welcome. This Loudoun Wildlife Conservancy event is cosponsored by the Audubon Naturalist Society (ANS). *Registration required: Sign up at <https://anshome.org/adults>. Important note: If you are a Loudoun Wildlife member, please indicate by listing "LWC" in the member ID number field when completing the online form. Members \$36; non-members \$50. Questions: Contact Pam Oves of ANS at 301-652-9188 x16 or pam.oves@anshome.org.*

Central Loudoun Christmas Bird Count — Thursday, December 28. Join Loudoun Wildlife Conservancy as we participate in National Audubon Society's annual Christmas Bird Count. Begun in 1899, these surveys are held all over North America, with the results used to better understand bird populations and dynamics. Our count circle has a 15-mile diameter and covers 177 square miles of Loudoun's countryside: north to Waterford, south to Aldie, east to Ashburn, and west to Purcellville. Everyone is welcome; amateurs are teamed with experienced birders. *If you are interested in participating for just a couple of hours or for the entire day, register at: <https://loudounwildlife.org/citizen-science/bird-counts/christmas-bird-count/> or contact Joe Coleman at jcoleman@loudounwildlife.org or 540-554-2542.*

Owl: a Year in the Lives of North American Owls — Saturday, January 13, 6:00 p.m., Location Ida Lee Recreation Center. Book signing, refreshments and viewing of live owls followed by program at 7:00 p.m. Save the date and join Loudoun Wildlife Conservancy for a celebration of owls to kick off 2018! As the main feature of this celebration, award-winning photographer Paul Bannick will present his new program featuring video, sound and stories from the field as he teaches us about all 19 species of North American owls and the habitats they need to thrive. Paul uses intimate yet dramatic images to follow owls through the course of a year and in their distinct habitats. Audiences will witness the four seasons on territory, as each stage in an owl's life is chronicled through rare images: courtship, mating and nesting in spring; fledging and feeding of young in summer; dispersal and gaining independence in fall; and finally, winter's migration and competition for food. His program shows how owls use the unique resources available to them in each habitat to face those challenges. Paul's book, *Owl*, is a stunning follow-up to his bestselling title, *The Owl and the Woodpecker*, giving bird and nature lovers alike yet another gorgeous photographic tribute, engaging natural history, and a compelling call to preserve the habitats that sustain these most iconic of birds. Watch our website and email announcements for more details on this celebration! *Registration required: Sign Up Online.*

Birding Banshee



Join Loudoun Wildlife Conservancy and the Friends of Banshee Reeks for the monthly bird walk at the **Banshee Reeks Nature Preserve** south of Leesburg. Because of its rich and varied habitat, it is a birding hot spot. Bring binoculars if you have them. *Questions: Contact Joe Coleman at 540-554-2542 or jcoleman@loudounwildlife.org.*

Second Saturdays: October 14, November 11, and December 9 at 8:00 a.m.

For up-to-date information on our programs and to sign up, visit our website at www.loudounwildlife.org.



Meet New Board Member – Bruce Hill



Bruce Hill

A longtime Loudoun County resident, Bruce Hill has lived in Sterling and Ashburn with his wife Jan for the past 30 years. He has always enjoyed exploring the outdoors, and since moving to Loudoun, has developed a passion for birding and bird conservation-related activities. As a member of the Loudoun Wildlife Conservancy, Bruce has led a number of bird walks around Loudoun over the years, and is a member of the Raven Loonatics team during the annual LWC Birdathon. He has also been an active contributor to both Loudoun Wildlife's Loudoun Bird Atlas Project (2010-2014) and the larger Virginia Breeding Bird Atlas.

Bruce is currently a Program Manager and systems analyst working in Alexandria, VA. His work over the last 20 years has centered on sustaining military testing and training grounds from encroaching urbanization and development pressures. One key (and particularly enjoyable) aspect of this work is partnering with other federal agencies, states and conservation organizations on habitat and open space planning and conservation efforts.

Bruce is a University of Virginia alumnus, with an undergraduate degree in Economics and a more recent Masters in Urban and Environmental Planning.

LOUDOUN WILDLIFE CONSERVANCY BEGINS WITH

YOU

When you seek adventure in Loudoun's great outdoors, or want to preserve the landscapes that support wildlife and your explorations of the natural world, where do you turn? If you're like most in our community, you connect with Loudoun Wildlife Conservancy. Why? Because for 22 years and counting, we've been fostering your love of nature through educational programs and field trips, providing hands-on opportunities to preserve and restore local habitats, and advocating for environmentally friendly land-management practices. We exist to serve you and your loved ones, and your support has a direct—and meaningful—impact on the services we provide. Indeed, by renewing your existing membership, or becoming a new member today (donate \$25 or more), you'll not only enjoy benefits such as special members-only discounts at local retailers, you'll be boosting our efforts in two important ways:

We'll know you're with us through the upcoming year (hooray!), as your membership will not expire until December 31, 2018.

Postage, paper, and other charges will be saved! That's no small thing. While membership appeals bring funds that help sustain our nonprofit's work, they also have associated costs. If you renew or join today, we won't have to spend money to reach out to you anew, and

Bonus! You'll enjoy a 2017 income tax deduction, as allowed by law. It's a win-win!

Visit our website today to join, renew, or establish a gift membership for a family member or friend: <https://loudounwildlife.org/donate>. Thank you!



Green Infrastructure Update *by Cheri Conca*

Our connected system of forests, streams, wetlands and meadows is known collectively as green infrastructure. It provides ecosystem services such as water and air filtration, stormwater retention and energy-conserving shade, as well as habitat for our wildlife.

Green infrastructure policy is an important component of Loudoun's comprehensive plan, the document that will guide our land use and growth for the next 20 years and beyond. The current plan is in the process of being rewritten, and Loudoun Wildlife Conservancy is working to ensure it includes policies that address the conservation, preservation and restoration of our natural places, now and in the future.

In June, Loudoun County government held Round 2 of its Envision Loudoun public input workshops, which gave citizens an opportunity to voice their opinions on the new plan's proposed vision, goals and objectives. Citizens were also able to comment online. Results can be viewed at <https://envision-loudoun.org/2017/08/22/envision-loudoun-releases-preliminary-report-of-second-round-public-input>.

Thanks to those of you who participated in the workshops and online. Prior to the June workshops, we emailed our members asking them to request that the following objectives be included in the new comprehensive plan:

- Identify, map, protect and enhance a nonfragmented network of forests, streams, fields, steep slopes and wetlands.
- Provide means such as conservation easements, property development rights, and County land acquisition as tools to preserve environmental resources into perpetuity.
- Implement a monitoring and maintenance program for watersheds, to include the identification and preservation of forests, fields, wetlands and slopes that filter and retain water.
- Improve air quality through tree preservation, native tree planting and landscaping practices. Measure current levels of CO2 emissions and establish goals, time frames and means for reduction.
- Quantify and inventory energy use, and set goals to reduce consumption by implementing updated building codes and providing incentives for energy conserving resources such as window and insulation choices, rooftop solar and effective landscaping.

If you missed the June sessions, you have one more chance to be heard: the final round of workshops will be held in January, 2018. We will keep you posted on when and how you can help advocate for strong green infrastructure policies that will protect our unique, diverse wild places for years to come.

OPEN HOUSE THIS FALL

We have a new place!

We moved to the Gate House at Morven Park!

Watch our website and email announcement for our upcoming open house and join us as we celebrate this important milestone and all the work we do as Loudoun's voice for wildlife and wild habitats!

CHRISTMAS BIRD COUNT

Thursday, December 28

See Programs and Field Trips, page 13, for details.

LANDSCAPE FOR LIFE

Tuesday and Thursday mornings, 9 am to 11:30 am

October 3 through October 19, 2017

Watermark Woods Native Plants, Hamilton, Va.

Cost: \$60

Landscape for Life is a six-session sustainable gardening course developed by the Ladybird Johnson Wildflower Center and the US Botanic Garden. It is offered locally in partnership with the Loudoun Wildlife Conservancy, the Piedmont Environmental Council, Loudoun Soil and Water Conservation District, Watermark Woods Native Plants, and LushLife Landscapes. It teaches us how we can transform our home landscapes and public places into healthy refuges that benefit not only birds, pollinators, and other wildlife, but also the community and the Chesapeake Bay.

For more information, email Nan McCarry at landscapeforlifeclass@gmail.com.



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Living in Harmony*

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WINE, WINGS, AND WILDLIFE AT 50 WEST VINEYARDS *By Sarah Steadman*

Loudoun County's thriving viticultural district is a popular destination for residents and visitors alike, all seeking to enjoy the vino, views, and special atmosphere each vineyard carefully crafts right alongside its wine. Indeed several of our vineyards and wineries aren't only beautiful, but also boast thriving wildlife habitats for both local and migratory species. One such destination is 50 West Vineyards in Middleburg where owners Mike and Diane Canney (who also own Sunset Hills in Purcellville) make species conservation and responsible land practices a priority. A stunningly healthy Monarch Way Station buzzes with pollinators and welcomes the migrating Monarch butterfly, a successful bluebird trail fledged over 19 Eastern Bluebirds along with dozens of other native bird species this year, and large areas of the vineyard lay unmown as essential habitat for all creatures great and small. Being longtime supporters of Loudoun Wildlife, Diane recently hosted us at 50 West for a special family-focused event highlighting native birds, Monarch conservation, native plants, and native wildlife like "Colonel Popcorn," an albino native corn snake who greeted guests and taught them about the benefits of wildlife and the importance of making room for them. A portion of the proceeds from the event were generously donated to Loudoun Wildlife Conservancy. Thank you 50 West, both for your support and for going WILD at your vineyards!

