



THE Valley
DARBY CREEK VALLEY ASSOCIATION

A Note from the Editor

By Kate Doms



Outside Efforts Carry On!

This issue of The Valley is a collection of articles describing the great environmental work going on in the Darby Creek watershed and the surrounding region. Some of the articles describe the work of active, highly effective environmental organizations working in southeastern Pennsylvania. The reader will be tempted to sign up and join the work of all of them.

Other articles describe one or more flagship projects carried out by Environmental Advisory Councils or Committees from municipalities in our watershed. Hopefully these articles will provide ideas and inspiration for EACs and citizens of other municipalities to take on similar projects. Reading these articles and learning about all of the volunteers who are engaged in so many projects, made me wonder why we still have plastic bags billowing down our streets, and tires in Darby Creek. I remembered that in Jean Diehl's article in the Valley last year about the arduous process of converting Tinicum Marsh into the John Heinz National Wildlife Refuge, she described how transforming it was for people to be given the opportunity to take a canoe or kayak ride through the marsh to see its beauty. Volunteers who took citizens on those boat rides helped to convert the visitors into conservationists. It was undoubtedly true then, as it is today, that one must look past the Styrofoam cups and plastic water bottles to see the beauty of our watershed. Nonetheless, it is beautiful, and has the potential to be even more beautiful. The efforts to get folks outdoors for stream cleanups, birdwatching, tree planting, and hiking by all of the organizations that contributed to this issue of The Valley, provide opportunities for more people and new people to come to love Darby Creek. DCVA applauds their work and says, "Carry On!"



A demonstration rain garden at the Newtown Township building gathers stormwater and showcases the power of green infrastructure.

Green Infrastructure Helps Newtown Township Control Stormwater

by Cindy Mehallow
Newtown Township EAC

September, 2023 - Recognizing the power of nature to help mitigate and manage stormwater runoff, Newtown Township has implemented a variety of green infrastructure practices in recent years. These include rain gardens, riparian buffers, tree planting, low-mow zones, mini-meadows and reforestation on Township parks and properties.



Public Works crews help volunteers plant trees by pre-drilling holes with a large auger to break through sod and create a narrow starter hole.

The efforts were often spearheaded by the Newtown Township Environmental Advisory Council, with the enthusiastic and unstinting support of the Board of Supervisors and Department of Public Works. In the spirit of collaboration, other township groups lent support, including the Shade Tree Commission, Parks and Recreation Board and Newtown Square in Bloom, a 501(c)3 nonprofit. A wide range of volunteers included scouts, students, Penn State Extension Master Watershed Stewards and Master Gardeners, corporate groups, and residents assisted with planting, weeding and watering.

To help fund these programs, the Township obtained grants from a variety of sources including the PECO Green Region Open Space Program, Pennsylvania Horticultural Society (PHS) TreeVitalize Watersheds grants, and the PHS Bare Root Tree program.

All of the plantings feature exclusively native plants, exceeding the goals set forth in the Township's 2020 Native Plant Resolution which pledges that all properties owned or controlled by the township use a minimum of 80 percent Native Plants in new and existing plantings, and to move as quickly as possible to achieve that goal. The Township also resolves to "educate and empower residents with the goal of transitioning at least 50 percent of Township private properties to include no less than 20 percent native plants." Here are highlights of a few recent plantings.

77 Trees to Control Stormwater in Brookside Park

In fall 2022, over two dozen community residents and employee volunteers of BlackRock Financial teamed up with Public Works employees and EAC members to plant 77 native trees along Foxes Run in Brookside Park on Bryn Mawr Avenue, the location of two previous tree plantings. This planting supports Newtown Township's goal to plant 1,000 trees to help control stormwater runoff as it works to achieve its Pollution Reduction Plan specified in its MS4 (Municipal Separate Storm Sewer System) goals. Because native trees support pollinators and provide bird-friendly habitat, this planting also supported the Township's re-certification as a Bird Town Pennsylvania for over eight consecutive years and helped the Township achieve Bird Town Gold status in 2023.

The planting included dozens of tree saplings obtained free of charge through the Keystone 10 Million Trees initiative of the Chesapeake Bay Foundation. The Delaware County Conservation District provided free use of its Conservation Planting tool trailer.



Translucent tubes protect tree seedlings in a planting to widen the riparian buffer along Foxes Run in Brookside Park in Newtown Square.

Green Infrastructure Helps Newtown Township Control Stormwater

Demonstration Rain Gardens

October 2023 marks the second anniversary of two lush pollinator rain gardens in Newtown Township. Two years ago, more than 60 community volunteers planted nearly 20 shrubs and trees and more than 3,000 small plugs of perennials and grasses. Today these gardens are bursting with purple and snowy white asters, cheerful Black-Eyed Susans and stately little bluestem grasses, among many other native plants.

The gardens were strategically located by the Township Building entrance and in the heart of the Newtown Edgemont Little League complex, both on Bishop Hollow Road. These prominent locations were selected with two goals: to reach a wide number of residents and to intercept stormwater as it flows downhill toward Hunters Run, a first order stream that flows directly into Springton Reservoir.

Each garden is filled with native grasses, perennial shrubs and small trees arranged in a shallow depression where stormwater is allowed to collect and soak into the ground after rainstorms. The gardens are densely planted with clusters of native species with long roots that take up water. Residents are encouraged to install a rain garden by removing turf grass and reducing the size of their lawn.

Funding was provided through the Township, as well as the Pennsylvania Department of Environmental Protection (DEP) Growing Greener grant program. The gardens were designed by GreenWeaver Landscapes, a local, woman-owned business that specializes in ecological landscape design and installation. GreenWeaver staff coordinated and oversaw the initial planting and assisted with a replanting in the spring of 2023 to fill bare areas. Throughout the growing season, community volunteers and Penn State Master Watershed Stewards assist with mulching, weeding, and watering.



A rain garden strategically placed in the center of the Newtown Edgemont Little League Complex helps educate residents about their beauty and benefits.



Metal stakes, caging and rigid trunk guards were used to protect the 140+ native trees and shrubs planted to manage stormwater at Gable Park.

Reforestation a Riparian Buffer

Because trees are so critical to creating habitat that helps control stormwater, Newtown Township reforested Gable Park, also located on Bishop Hollow Road. This tiny park is strategically located in the riparian buffer of Hunters Run at a point where the stream travels beneath a parking lot and artificial turf field. The low-lying park suffered from soggy areas and washouts of its gravel path. Its tree canopy had been decimated by the Emerald Ash Borer and a derecho that snapped the tops off trees and utility poles.

Inspired by the vision of Public Works Director George Sharretts, the township has transformed this neighborhood park into a mini-arboretum featuring more than 140 native trees and shrubs. Carefully selected and placed to ensure survival, the plants will help make the park more usable by absorbing stormwater as it flows toward Hunters Run. It is also intended to help educate and inspire homeowners by showcasing species that could be used in home plantings.

The public is invited to visit the gardens at any time.

Locations:

Township Building,
209 Bishop Hollow Road
and Newtown Edgemont
Little League Complex,
323 Bishop Hollow Road,
Newtown Square.

Get to Know Bird Town Pennsylvania

by Heidi Shiver,
President, Bird town Pennsylvania



BIRD TOWN PENNSYLVANIA birdtownpa.org

Local birds in decline include Dark-eyed Juncos, White-throated Sparrows, and Red-winged Blackbirds. (<https://www.birds.cornell.edu/home/bring-birds-back/#>)

"There are multiple interacting causes that are likely behind these bird populations declines," according to the American Bird Conservancy. These threats include predation, with over 2.4 billion lost annually to cats, up to a billion lost to window collisions and more lost due to habitat loss and degradation, pesticides, invasive species, plastics, and climate change. Fortunately, there are many impactful actions that can be taken to help birds including keeping cats indoors, avoiding pesticides, shrinking lawns, and adding native plants, eliminating invasives, reducing use of single-use plastics and more!

Bird Town Pennsylvania, a state-wide, grassroots, conservation program, works directly with municipal leaders to help develop bird friendly communities and raise awareness of the important role people can play in supporting bird populations. Working with other conservation partners, including Audubon Chapters, Bird City Network and We Conserve PA, Bird Town Pennsylvania has developed programs that encourage cooperation within and among communities to ensure the long-term well-being of birds by restoring and enhancing their habitats, reducing threats to their survival and other positive impactful environmental initiatives. Running successfully for over 12 years now, 45 different programs have been established in nine counties in Pennsylvania and it continues to grow robustly.



Get to Know Bird Town Pennsylvania

Bird Town Pennsylvania's leaders engage and encourage residents directly by offering educational materials at table events, creating pop-up gardens, supporting, and running community science programs, hosting native plant sales, educating about invasive plants, offering birding walks, and more. These activities model best practices and encourage and support residents to embrace bird friendly actions.

With fall bird migration well underway, our programs are now especially focusing their efforts to educate residents about what they can do to support birds at this critical time, including addressing nighttime lighting and window collisions. With two-thirds of all songbirds migrating at night, often lifting off just after 9 PM, light pollution can be confusing to them. Residents and businesses should consider reducing or turning off all unnecessary lights from 9 PM until 5 AM. If this is not possible, use warm white or yellow colored light bulbs, shield your light bulbs to face downwards and install motion sensors. Birds are moving quickly as they move south and windows, which reflect the surrounding landscape, can be lethal. The National Audubon Society suggests affixing films with dots or strips of translucent tape directly on the outside of windows or hanging up streamers, beads, or rope in front of windows. Please visit our website to learn more about how you can help: <https://birdtownpa.org/bird-window-collisions/> and also for additional articles, go here: <https://birdtownpa.org/nature-articles/>. We also offer a quarterly eNewsletter with timely birdy tips for backyard or patio spaces, and resources and fun ideas to engage families, friends, and neighbors: <https://lp.constantcontactpages.com/su/Rh6gEGx>

Is your municipality a Bird Town? Check here:

<https://birdtownpa.org/bird-towns/>.


What You Can Do?



Turn off unnecessary lights.



Keep indoor light indoors.




Install motion sensors & timers to control light so it's turned off when not needed.



Down shield exterior lights so they don't spill beyond where they are needed.



For more tips: darksky.org/homeighting



INTERNATIONAL DARK-SKY ASSOCIATION



Barbara Beck, Richland Township's Bird Town's Leader sharing information about Bird Town Pennsylvania

The Easttown Township Single Use Plastic Bag Ban

by Cara Rash,
Easttown Environmental Advisory Council

Single use plastic bag bans are sweeping across the state of Pennsylvania! On June 20, 2022 the Easttown Township Board of Supervisors voted unanimously to ban single use plastic carry-out bags in the Township effective on January 1, 2023, adding Easttown Township to the list of municipalities taking action against single use plastics. Easttown joined early adopting neighbors like Narberth, West Goshen, West Chester, Radnor, and Philadelphia in this first step towards reducing plastic from our waste stream.



Plastic carry-out bags like those utilized by grocery, convenience and big box retail stores are one of the leading types of waste found in our waterways today. Much of the ocean's plastic waste is of a single-use variety including bags, straws, Styrofoam cups and bottles/caps. While these single-use products do not decompose, they do degrade into smaller and smaller plastic particles known as micro- and nano-plastics. These microscopic plastics are often mistaken for food by unsuspecting turtles hunting jellyfish, and albatrosses searching out fish eggs. In waterways

closer to home, these degrading plastics have been found in the Delaware River, a very important drinking water source in Southeastern PA. Closer to home, they have also been found in the Darby, Cobbs, and Crum Creeks; aquatic ecosystems that include animal plankton, fish and birds who can mistake microplastics for food.

Beyond the known impacts of single use plastics in our waterways, single use plastic bags are economically problematic because they are derived from fossil fuels, are a source of litter on land, create tangles and jams in recycling and wastewater processing equipment and prove costly to municipalities in terms of time and money to manage. Penn Environment states, "Bags are an economic burden on local governments and taxpayers, with millions of dollars in hidden, externalized costs." For example, the Clean Air Council of PA has estimated the production stream costs (from fracking to being thrown away) of plastic bags to be between \$20-\$30 per year for Philadelphia taxpayers. Removing these bags from a municipality ultimately removes this cost for the tax base.



Having hosted public presentations by Faran Savitz from Penn Environment and Maurice Sampson from Clean Water Action, the Easttown Township EAC was primed to begin researching a single use plastic bag ordinance for the Township. Additionally, the EAC was approached by a community environmental organization, the T/E Green Team, with residential survey data they collected in pre-pandemic 2020 demonstrating the desire of many residents to move away from single use plastic bags. In late 2021, the EAC conducted a survey of Township businesses on the ways they utilize single use plastics and their support for action to limit their use in the community. The business survey data showed more than half of Township businesses were supportive of an ordinance banning single use plastic bags.

1 - Savitz, Faran. Email correspondence re: economic benefits of a bag ban. Google. Mar. 2022

2 -Plastic Bag Ban Information Session #2 for Delaware County, PA. Logan Welde, Clean Air Council, 2/8/2022

The Easttown Township Single Use Plastic Bag Ban

For these reasons the Easttown Township Board of Supervisors took action to remove these items from our waste stream. In short, the ordinance bans the distribution and use of single use plastic carry-out bags from all commercial establishments in the Township including but not limited to drugstores, pharmacies, convenience food stores, food marts and public eating establishments, i.e. restaurants, take-out food establishments or any other business that prepares and sells prepared foods to be eaten on or off its premises. Except for exempted bags (those used to deliver perishable goods to the point-of-sale in the commercial establishment as detailed in Ordinance 450-22) all single use plastic carry-out bags were banned on January 1, 2023.

In lieu of single use plastic carry-out bags businesses may provide or sell customers a reusable tote bag of their choosing or a compliant paper bag for a \$.15 fee per bag. Compliant paper bags are those that are recyclable, contain at least 40% post-consumer material and display "Recyclable" or "Reusable" in a highly visible manner on the outside of the bag and are compostable. Affected businesses keep all bag fees collected for the sale of compliant paper bags. Residents and customers are strongly encouraged to bring their own bags from home. The Easttown Township Environmental Advisory Council (EAC) utilized funds granted by the Chester County Solid Waste Authority to design and purchase reusable tote bags that were distributed at the Township building, library, and events in the fall of 2022. The EAC is considering a second distribution of reusable tote bags in 2024.

The ordinance has been in effect for eight months and is widely seen as a success in the Township. Township businesses are nearly 100% in compliance with the ordinance and Township staff states citizen calls or emails and enforcement actions have been few.

For more information, please review the Township website. Ordinance No. 450-22 is available for review and is accompanied by a FAQ page containing common questions and answers as well as sample signage for store windows.

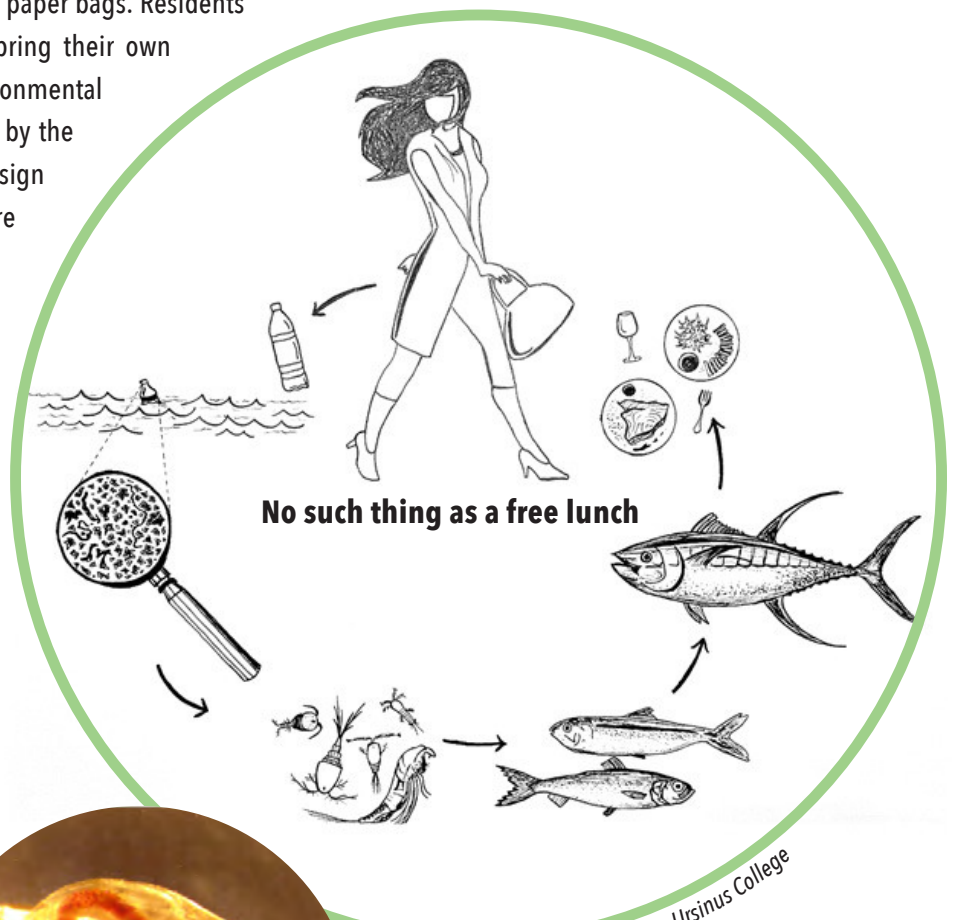


Illustration by Matthew Fontanese, Ursinus College



Daphnia, a common zooplankton, readily consumes red plastic beads in the laboratory, seen here in the gastrointestinal tract.

Photo by Victoria Beardon & Abbey Schwerdt, Ursinus College

Saving and Exchanging Seeds: Much to Learn from the Hardy Plant Society

by Kate Doms,
DCVA Board Member & Valley Editor

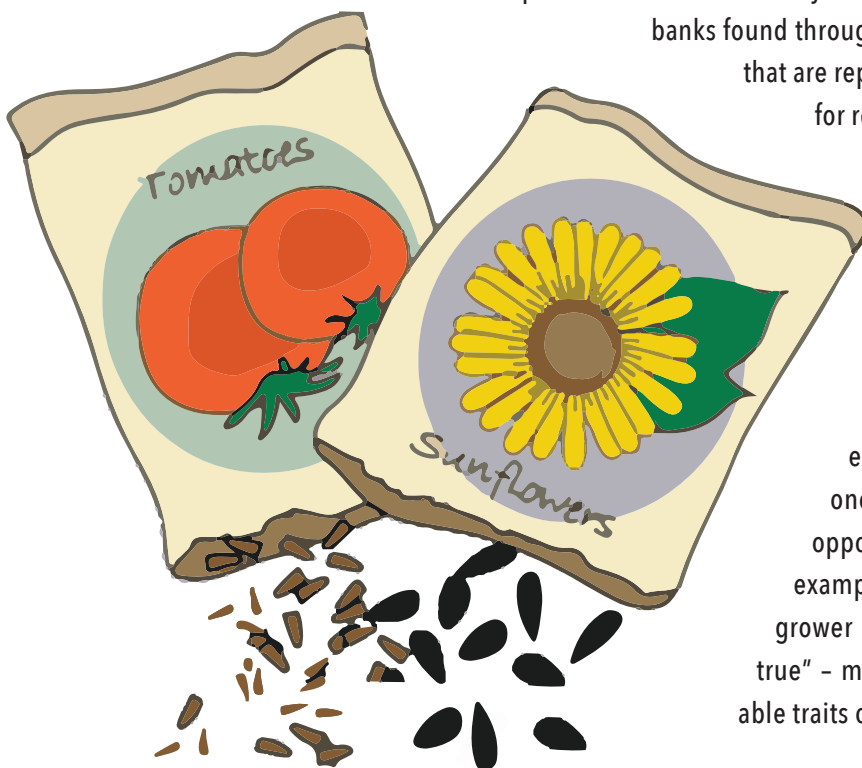
The Hardy Plant Society/Mid-Atlantic Group (HPS/MAG) is a non-profit volunteer organization that provides educational opportunities and other activities for both homeowners and professional gardeners. The HPS/MAG was modeled after the Hardy Plant Society in Great Britain. There are Hardy Plant Societies in other parts of the United States and Canada.

The Hardy Plant Society/Mid-Atlantic, educates gardeners about both hardy and tender plants. Hardy plants are those that survive freezing while tender plants are those killed by freezing temperatures. The group also provides opportunities for gardeners to take trips to exceptional gardens in other states and countries. HPS/MAG also facilitates the exchange of plants and seeds among gardeners. On September 9, 2023, Susan Doblmaier, the HPS/MAG Seed Exchange chairperson, gave a seed saving workshop to an enthusiastic audience at the Easttown Township Library, in partnership with the Easttown Environmental Advisory Council.

The topic of Susan's talk was seed preservation and seed sharing. The Hardy Plant Society/Mid-Atlantic produces a catalog of seeds each year from which society members can order seeds. The cost of membership and the cost of seeds are very reasonable. Citizens are invited to collect and donate seeds from their own plants. HPS/MAG regularly get donations of seeds from Bartram's Garden, Chanticleer Garden, Jenkins Arboretum, and Tyler Arboretum. Susan

explained that there are many seed exchanges from which seeds can be obtained. Seed banks found throughout the world, on the other hand, are seed libraries that are repositories of plant genetic diversity that are accessible for research or emergencies, or plant development.

Why would a gardener want to save seeds rather than purchase them each year? Seeds worth saving would be ones that produce a plant that grows very well, produces beautiful flowers or tasty fruit. Saved seeds are not guaranteed to produce a new generation of plants with the exact traits of the parent. This is a particular concern if one buys seeds that are labeled "F1" or "hybrid", as opposed to heirloom seeds. Heirloom tomatoes, for example, have been grown for many generations and the grower has kept the seeds only from the plants that "breed true" - meaning that ALL the offspring plants have the desirable traits of the parents.



Saving and Exchanging Seeds: Much to Learn from the Hardy Plant Society

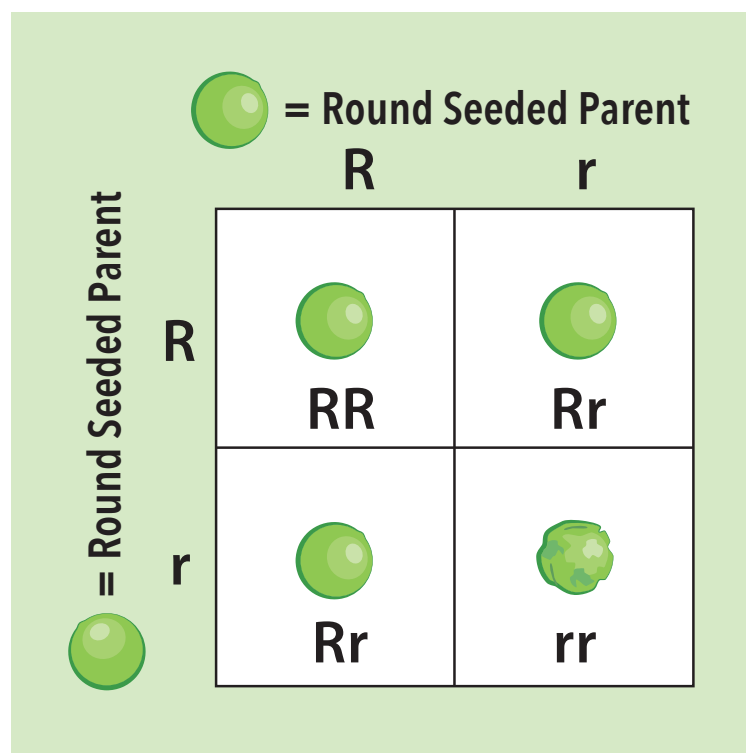
Why don't hybrids "breed true?" For every trait (gene), hybrids have a different allele (version of the trait) from its two parents. For example, for the "shape" trait, peas can be round or wrinkled. The "R" allele makes a protein that makes the pea round. Hybrids carry the R allele and a wrinkled allele "r," their genotype = Rr. For a pea to be wrinkled, it must have two wrinkled, "r," alleles, their genotype = rr. The "r" allele is nonfunctional; a wrinkled pea is missing the "round" protein. An F1 hybrid with the Rr genotype crossed with another Rr plant (as in the illustration below) will have RR, Rr, and rr offspring. Offspring with round peas could have either RR or the Rr genotype, there is no way to tell by looking at them, because having at least one R allele is enough - they make enough protein to make the pea round. Key point: F1 or hybrid seeds will give you the traits that they advertise on the package in the plants that grow from the seeds, but if you want to save seeds for next year, buy heirloom seeds that will breed true. Some seeds, especially agricultural crops like tomatoes, pumpkins, and peppers, that you save for yourself or that you donate must be from plants that are isolated by a specific distance from other plants from which they might hybridize so that hybrids have not been created in your own garden. This is, of course, particularly difficult with wind pollinated plants such as corn.

Susan explained the steps of saving seeds from diverse types of plants including fruits and vegetables. It was interesting to learn that some seed pods should be opened outside - milkweed for example, as each seed has silken threads that can cause the seeds to float all over the room. Rumelia (wild petunia) seed pods explode, and therefore should be kept in a paper bag over the winter. She cautioned it is necessary to wear gloves when handling hellebore seeds because they burn the skin.

It was fascinating to learn from Susan's talk that the number of years for which seeds are viable differs for each type of plant. Of course, proper storage is especially important. Parsley seeds are only viable for 1-3 years, whereas basil seeds are viable for up to 5 years and lettuce seeds are viable for up to 6 years. The germination rate decreases with each year of seed age. Large seed companies are regulated as to the minimum germination rate at which they can sell their seeds.

Saving seeds for the homeowner involves cleaning the seeds before storage. Storage of seeds involves placing them in a labelled paper envelope, coin envelope, or empty prescription bottles. Seed placed in plastic baggies tend to rot due to the ability of the seeds to hold onto moisture. Seeds first placed in envelopes can then be placed in plastic bags, then in the refrigerator or a cool basement for storage until ready to start seeds in the late Winter/early Spring.

Susan brought a variety of seeds which the workshop participants were welcome to take home. Please see the Hardy Plant Society/Mid-Atlantic website at <https://www.hardyplant.org/> to learn about the seed exchange and upcoming trips and events. Patrons are also welcome to visit and donate to the Seed Library located in the lobby of the Easttown Library.



Punnet Square showing a cross of a Heterozygous Round-seeded Pea with a Heterozygous Round-seeded Pea yielding 1/4 Wrinkled-seeded Offspring

Beeing Conservation-minded Takes More Than a Buzz!

by Bonnie Hallam
Chair, Upper Darby EAC

Hidden down a winding tree-lined street in the Clifton Heights section of Upper Darby Township, Gillespie Park, site of a complete conservation makeover, reveals itself!

Hundreds of trees and shrubs create a new riparian buffer along Darby Creek. Thanks to hardworking volunteers, two retention basins are now exploding with native grasses and flowers. Tree Tenders of Upper Darby and community volunteers working with the Upper Darby Township Shade Tree Commission restored the riparian buffer. The Upper Darby Environmental Advisory Committee (UD EAC) spearheaded the creation of the pollinator gardens in both retention basins and along the trail leading to a beautiful new bridge that connects the two sides of the Darby Creek near the historic Swedish Cabin.



Students from Sacred Heart Academy planting pollinator garden at Gillespie Park

The pollinator gardens at Gillespie Park are part of a vision being promoted by the UD EAC to bring native pollinators to the restored natural area, as well as to model river-friendly gardens that are also storm water management tools that residents can strive for on their own properties. The Delaware Riverkeeper Network reports that river-friendly gardens can serve many purposes: protect water quality, reduce run-off, conserve resources, improve human habitat, protect air quality, improve soil, enhance wildlife habitat, and protect native species. (delawareriverkeeper.org)

The idea for the pollinator gardens surfaced from a desire of one of the UD EAC Members, Christen Cooper, to have Upper Darby become a Bee City USA. Encouraged by the enthusiasm of Upper Darby Mayor Barbarann Keffer, the group hopes to, soon, apply for this designation. A prerequisite for becoming a Bee City, USA is that pollinator gardens must already have been developed in the township. Gillespie Park seemed like a perfect place to start. In 2022, students from Sacred Heart Academy, along with Aurora Dizel, from DCVA, joined UD EAC Members in planting native shrubs and wildflowers in the north retention basin area. Further, community volunteers worked with Tree Tenders to plant wildflowers and grasses in the south basin. These planting efforts will be reinforced again this fall as Sacred Heart Academy students and community members return in October of this year.



Upper Darby Resident's River-friendly Garden attracts a variety of pollinators



Pollinator Garden Blooming at Municipal Library

Beeing Conservation-minded Takes More Than a Buzz!

One of the hopes in planting the native pollinator gardens was to attract the rusty patched bumblebee to the gardens. According to the US. Fish and Wildlife Services, “the rusty patched bumble bee is one of about 21 species of bumble bees in eastern United States and was listed as federally endangered in 2017.” PhillyVoice.com (January 2017) adds, “Delaware County, PA, is the only location in either Pennsylvania or New Jersey believed to have a rusty patched bumble bee population.” The UD Environmental Advisory Committee is determined to provide places in Upper Darby where these critters can flourish. This summer, Ms. Cooper, an adept nature photographer, was gratified to be able to photograph the rusty patched bumblebee two blocks away from Gillespie Park.....making the hope that the pollinator gardens would attract them more than a pipedream.



Rusty Patched Bumble Bee Sighting in Clifton Heights



Library Teen Advisory Board Members plant a second Pollinator Garden at the Municipal Library.

Other public institutions in Upper Darby are also hoping to attract the rusty patched bumble bee along with other native pollinators. One of those public areas is the Upper Darby Municipal Library. As part of the Teen Advisory Board service project, local teens worked with Librarian Jean Kosha, to install one pollinator garden in 2021 and another in 2023. The one planted in 2021 bloomed profusely in the summer of 2023 and the hope is with the same care and attention, the newer plot will do the same next summer.

Pollinator gardens are beginning to bloom in neighborhoods throughout Upper Darby as well as in public spaces. Upper Darby homeowner and Delaware Riverkeeper Network Water Watch Director, Faith Zerbe models one at her home and has shared her expertise in developing river-friendly gardens with neighbors. Stonehurst Hills Community Association, a recent winner of a National Fish and Wildlife Delaware Watershed Conservation Fund award to reforest Stonehurst Hills has proposed to install 25 river-friendly gardens in their community by 2026. With the generosity and hard-work of the members of the Upper Darby Rain Gardens group and the Eastern Delaware County Stormwater Collaborative, over 23 rain gardens, a variation on river-friendly gardens and another important storm water management tool, have popped up in Upper Darby in the past 3 years! Models such as these serve to inspire and motivate community members to develop pollinator gardens in their yards and lawns.

The UD EAC hopes to create a buzz around the importance and beauty of pollinator gardens, to encourage residents to install these river-friendly gardens on their properties and to expand natural areas like the ones at Gillespie Park in more public spaces in the Township. Who knows, maybe one day Upper Darby Township will be able to take a little bit of credit for getting the rusty patched bumble bee off the endangered species list!



Pollinator Garden at Gillespie Park

Upper Main Line YMCA Celebrates 25 years of Environmental and STEM Education

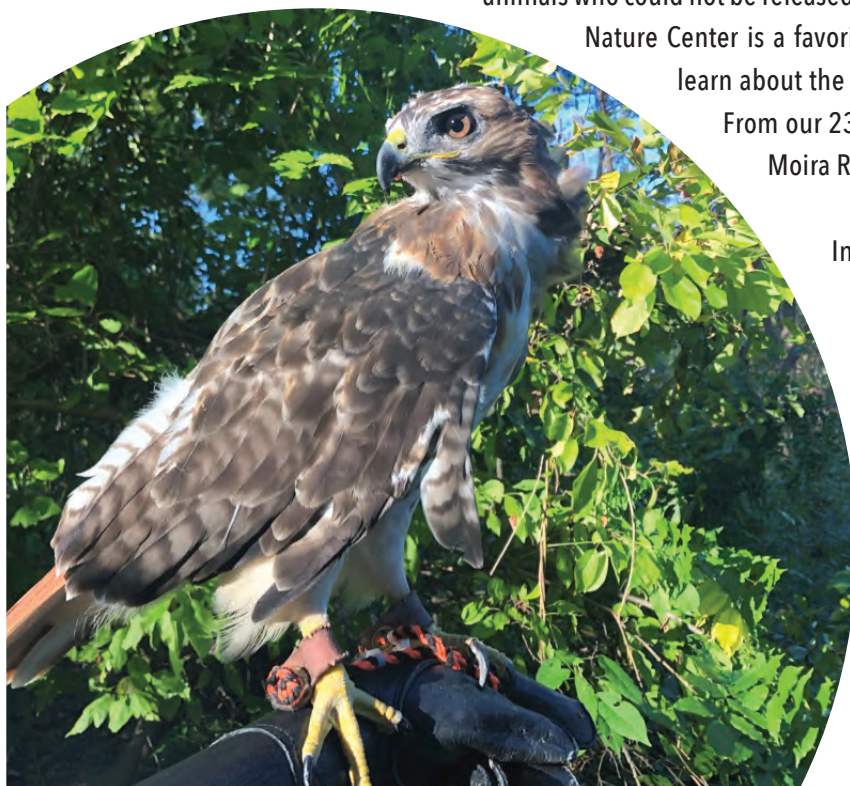
by Michelle Lampley
Environmental and STEM Education
Director, Upper Main Line YMCA

The Upper Main Line YMCA (UMLY) has provided fitness, swimming, tennis and more to fulfill our mission in support of our community for over six decades. Our 54-acre campus, originally the Cassatt Family estate, has provided UMLY a unique opportunity to connect children and families with nature and science, technology, engineering, and math (STEM). UMLY recently celebrated our 25th anniversary of environmental and STEM experiences for the community we serve. Through various grants and challenging work, what started with a card table in the Cassatt family garage has grown into a department with several educational spaces that serves thousands of children and adults each year. We strive to build environmental literacy through top-notch nature and STEM programming for all ages. The Cassatt Preserve, barnyard, nature center, raptor center, stem labs, watershed lab, archery course and our team naturalists and ambassador animals allow us to engage the community on many levels and create lasting connections with the natural world.



Central to those connections is the 20-acre Cassatt Preserve which hosts the headwaters of the Darby Creek, wetlands and woodlands, meadows, the Cassatt Pond and 5 miles of trails. The educational opportunities are limitless. These natural spaces were the inspiration for our program 25 years ago and are priceless resources for the UMLY community today.

Our Nature Center, established in 1998, is in the renovated Cassatt family garage originally built in 1907. It is a home for many native animals who could not be released back into the wild and exotics who needed a home. The Nature Center is a favorite among our visitors and provides an opportunity to learn about the care of each animal and their importance in our world. From our 23-year-old snapping turtle Sparky, to our rescued rabbit Moira Rose, there is someone for everyone to see and love.



In our Watershed Lab, we provide hands-on learning about water systems including water testing, stream erosion, plant life, macroinvertebrates and more. It is a popular destination during camp and for school field trips. We also use this space for "blitz" water testing of Darby Creek with our partners at Willistown Conservation and Darby Creek Valley Association. This program, carried out by citizen scientists, involves collecting water quality data that is useful to compare to other local waterways and will be useful in alerting us to any changes in water quality in the future.

Upper Main Line YMCA Celebrates 25 years of Environmental and STEM Education



Grant funding has empowered us to keep STEM programming central in our education goals. Our STEM Cottage and newly renovated STEM Classroom serves multiple audiences. In these spaces we offer the community a place to experiment, build, hypothesize, learn robotics, and so much more. Afterschool enrichment in partnership with local school districts and our robust array of monthly programs for children ages 2 and up, ignite participant interest in the many opportunities available in the world of STEM.

The UMLY Barnyard and Micro Farm are home to a colorful cast of goats, sheep, and chickens. It is a popular destination for visitors to interact with farm animals right here on the Main Line. Throughout the year, our students and campers learn about the importance of farms and the daily work required to properly care for the animals while enjoying the company of our farm's animal residents.

In our Environmental programming, we spend a great deal of time talking about birds. We are bird enthusiasts here at UMLY, and with over 150 species recorded in the Cassatt Preserve, who could blame us! Through grant funding we were able to build a raptor center to house non-releasable native raptors. Many of our resident birds arrived from wildlife rehabilitation centers with permanent disabilities that make them unable to be released. They work alongside our animal care team as educational ambassadors for their wild counterparts. We work with global organizations to provide the best welfare. We will have some big bird announcements soon so follow us on Facebook at UMLY Environmental Education Complex and stay tuned!

Our Zoo and STEM on Wheels program allows us to reach far into our community and beyond with animal education, environmental education, and STEM. We visit events, schools, senior centers, birthday parties and more.

The Upper Main Line YCMA's incredible spaces enable us to offer expansive programming for all. Our monthlong programs offer flexibility and variety in program choices for people ages 2 and up. From STEM to robotics, animal care and archery, these programs allow families an opportunity to experience everything we have to offer monthly. Many of our monthlong programs start at \$24.99 for members and \$49.99 for guests. Monthly programs give us the ability to connect more families to nature and STEM.



Upper Main Line YMCA Celebrates 25 years of Environmental and STEM Education

One of our longest running programs is Y Earth Service Corp (YESC). This is a national YMCA program for students in grades 4 to 12. YESC is an innovative youth-led program that empowers students to take a hands-on role in creating a healthier environment in their schools, communities and region while nurturing a respect for diversity within the natural world. Young people in Earth Service Corps make invaluable contributions to our community as they collaborate with peers, teachers, and community members to solve pressing environmental issues in their communities. Our YESC program participants have been crucial to the care of Cassatt Preserve by planting trees, creating barriers for stormwater runoff to protect Darby Creek, cutting back invasive plants, maintaining trails, and transitioning a sports field into a beautiful native meadow which now hosts thousands of native grasses, wildflowers, insects, and birds.



In addition to monthlong programs, during the summer months we offer Nature and STEM Camps with many different focuses for ages 4 and up. Each week we serve around 100 campers eager to learn and explore. Campers spend the week building in our wood shop, canoeing, hiking, learning about our ambassador animals and more. We offer STEM, Farm, Animal Care, Woodshop, Outdoor Survival Camps and more.

Coming in spring 2024 is our newest program for adults, "Y Naturalists" Our Y Naturalists participants will learn about invasive plant removal, transitioning back yard spaces to native plants, PA wildlife and Indigenous traditions of land stewardship. We are so excited to work alongside our community to make the most of their public and private residential spaces.

Volunteers are an especially important part of our success from trail maintenance to bird box monitoring, there is something for everyone. If you are interested in joining our Environmental and STEM Education team as a volunteer or would like to join our monthly newsletter list, please contact Michelle Lampley, Environmental and STEM Education Director at mlampley@ymcagbw.org. To enroll in an UMLY program, please go to Nature and Environmental Education Programs at the YMCA (ymcagbw.org)

Jack McClausland Joins DCVA as Outreach Associate



Jack joined the Darby Creek Valley Association in August of this year after previously having worked at the Pinelands Preservation Alliance in the role of Water Outreach Specialist. Jack attended Drexel University and graduated with a major in International Business and a minor in Environmental Studies, having completed a five-year program with 18 months of professional work experience. During that time, Jack discovered a love for the natural world through frequent excursions in Philadelphia's Fairmount Park and decided to pursue a career in protecting the earth's natural resources. Jack is looking forward to planning the 40th Anniversary events for DCVA as well as the annual watershed clean up in the Spring of 2024. When not busy at work, Jack can be found biking, running, or hiking in nature. He is also an avid photographer and traveler. Welcome to Jack!!



JOIN THE DARBY CREEK VALLEY ASSOCIATION TODAY!

The Darby Creek Valley Association (DCVA) is dedicated to the protection and enhancement of all of the watershed's resources, including water, wildlife, historical sites, and the floodplains. The organizations immediate goals are to prevent all forms of pollution in the Darby Creek and its tributaries, to prohibit dumping and construction on the floodplain and to expand our educational programs for all residents within the watershed. It Also seeks to improve water quality and maintain a debris-free stream through clean-ups and public education. DCVA works to preserve historic properties, such as the Swedish Cabin and the Blue Bell Inn. The Association would like to set aside the more than 30 miles of valley for use as a greenway for all residents to enjoy. We need your support. Help us continue to protect the environment for ourselves and our children.

**We invite you to fill in the form below, check member category, and mail form with your check to:
Darby Creek Valley Association, PO Box 732, Drexel Hill, PA 19026 or join at www.dcva.org**

Name: _____ Date: _____

Address: _____ City: _____ State: _____

Phone Number: _____ Email Address: _____

DCVA is a 501(c)(3) Non-Profit Organization – All Donations are tax deductible to the fullest extent of the law.

\$15 Senior/Student Membership

\$25 Friend Membership

\$50 Supporter Membership

\$100 Patron Membership

\$250 Protector Membership

\$500 Steward Membership

***The Valley is the quarterly publication of the Darby Creek Valley Association.
Send your articles to Kathryn Goddard Doms Editor kgoddard@ursinus.edu***

Production management and design by Gerry Krieg and Carol Coster

CALENDAR

DCVA Events

DCVA Board meetings:

Dates for board meeting will be posted on our website.

DCVA Canoe Race Saturday, October 14, 2023 1:00-3:00 PM

• Meet @ Ridley Marina, Eidle Park, PA Register at DCVA.org

See DCVA.org for an up-to-date list of upcoming events



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