

March 2023 Newsletter

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SOUTHEASTERN PENNSYLVANIA CHAPTER

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March Meeting Highlights

Chapter Business

Membership stands at 138. The chapter has established two grant programs, one to assist homeowners in rewilding areas of their property, and the other to assist organizations like parks and schools to establish native plantings on their sites. Grant applications can be found on our <u>website</u> on the <u>Grant</u> <u>Programs</u> page under the Categories tab.

Program -- Rain Barrels

Presented by Beth Myers, Perkiomen Watershed Conservancy

Why Install a Rain Barrel?

A rain barrel system can collect anywhere from 40 gallons to several hundred gallons of rainwater during a single storm. Rain flows unchecked over impervious surfaces like roofs, patios, walkways, driveways, and roads. This water runs off quickly, collecting everything in its path. Rainwater carries soil, road salt, engine oil, soap from washing cars, fertilizer, pesticides, cigarette butts, pet waste, livestock manure, and plastic trash, and dumps all of it directly into our streams. Even the water from storm drains carries these contaminants, because most stormwater collection systems don't filter the water before discharging it into streams and rivers.

Stormwater pollution can contaminate drinking water supplies, increasing the cost of public water treatment. It also harms insets, fish, amphibians, and reptiles that depend on water to supply them with nutrients. Sediment build-up in streams destroys breeding habitat for aquatic life.

In the past several years, the federal Clean Water

Act has mandated that states clean up their waterways by controlling stormwater discharge. In Pennsylvania, programs require municipalities to improve their stormwater basins and limit the chemicals applied to roads. These actions affect some stormwater, but it's more difficult to control the water that flows from individual properties.

Managing stormwater on residential properties includes educating homeowners to keep grass clippings and trash out of storm drains, stop washing cars on driveways, and pick up after pets on the lawn. Some positive steps include growing more native plants, because natives have deep roots that can help water infiltrate into the ground and filter out contaminants before they get into waterways. Another step is to decrease the size of your lawn. Turf grass is shallow rooted and doesn't function much better than impervious surfaces in terms of controlling stormwater.

Capturing rain in a rain barrel allows homeowners to decrease flooding and erosion on their property while providing a source of water for outdoor uses.

Installing and Using Your Rain Barrel

Here are some tips for installing your rain barrel to control stormwater and collect water for outdoor uses:

- If you make your own rain barrel, be sure you use one that's made of food-grade plastic, to ensure that the water will be safe to use on plants.
- If your rain barrel isn't opaque, paint it a dark color to decrease the growth of algae. Most commercially available rain barrels are thickwalled enough to make this unnecessary.



Install your barrel rain on a raised platform to increase the flow rate if you use it to water with a hose, and to allow a watering can to fit under the spigot.

Photo credit: Perkiomen Watershed Conservancy

- No matter how much capacity your rain barrel has, you'll need to provide for overflow. The overflow outlet should be a few inches from the top of the barrel. Sump pump discharge hose is available in 1" and 1.5" diameters and can be cut to length. The hose is flexible enough to be directed into a nearby planting bed to water the area while keeping overflow away from the house foundation.
- Cover the inlet to your rain barrel with screening to keep out insects and animals.

Rain barrels can be left outside all winter. Some gardeners empty them part way and disconnect the downspout during winter; others leave everything in place all year round.

To attach your rain barrel to a downspout, use a flexible downspout extender (available at home improvement stores) to redirect the downspout into your barrel.



Photo credit: Perkiomen Watershed Conservancy The <u>Perkiomen Watershed Conservancy</u> has information on their website about the <u>benefits of rain</u> <u>barrels</u>, and you can register for a <u>workshop</u> this spring to build your own rain barrel.

Rain barrels can also be used to feed a drip irrigation system. A drip irrigation hose can be attached to the rain barrel spigot, and a hose adapter can be added to the overflow connector to allow a second drip irrigation hose to be connected once the overflow hose reaches the ground.

Since a drip irrigation system will empty the rain barrel much more slowly than a regular hose or a watering can, you'll want to monitor the water level in your rain barrel to make sure it's lowered before a rain storm. With only a garden hose for outflow, the barrel will fill up quickly. If too much water enters the barrel without an adequate overflow mechanism, water will simply gush out over the top, where the downspout enters the rain barrel. If this water might seep through your foundation, you'll want to provide a larger diameter overflow.

Rain barrels can also be connected in a series, using a commercial connector kit or chaining them together using sump pump overflow hose.

How much water can you collect in your rain barrel? Calculate the square footage of the area of roof that drains to your rain barrel, and multiply that number by 0.6. That's the number of gallons produced by 1" of rain. For 300 square feet of roof, that's 180 gallons. A 1/4" rainfall is enough to fill a 50-gallon rain barrel from even a relatively small roof area. That water can be very useful for watering plants -- or livestock -- during a drought. Plus you're helping to prevent downstream flooding and improve water quality.

WO-SEPA 2023 Program & Event Schedule

April 5 Insect-Plant/Flower Interactions
April 12 Special Insect-Plant Relationships
May 7 Native Plant Swap/Invasives Trade-In
May 11 Native Edibles & Companion Planting
June 7 Backyard Nature Preserve Tour
September 14 No More Fall Cleanup
October 11 Native Seed Collection Techniques
November 16 Chapter Native Seed Swap

Recordings of past meetings are on our Youtube channel.

Thought of the Month -- Micro-Rewilding

In this newsletter, we've been highlighting the efforts of homeowners rewilding their properties. Most of the time, rewilding projects take place on large areas of land, sometimes many acres, and so therefore, mostly in suburban or rural areas. But no matter the size of your yard, patio, or balcony, and no matter where you live, we can all contribute to improving habitat for wildlife and for people, even in small ways. As we know, small things add up and can make significant positive change.

Micro-rewilding aims to bring these efforts into our towns and cities. In urban environments, largely due to a lack of access, many people have forgotten how to co-exist with wildlife. Through smaller and more local micro-rewilding efforts, that relationship can be restored.

In 2019, London was declared the first National Park City -- a large urban area that is managed and somewhat protected, to make it greener and healthier for people and wildlife.

In New Delhi, India, a network of six parks, called biodiversity parks, are home to many plants, animals, and microbes across a total of 2,000 acres. In New York City, the High Line, a public park on the west side of Manhattan built on a historic abandoned elevated rail line, hosts hundreds of plant species and attracts birds and insects, as well as people looking for solace, inspiration, and connection.

Gardens of the High Line, by Piet Oudolf and Rick Darke, provides an in-depth view into the planting designs, plant palette, and maintenance of this landmark achievement, offering inspiration and advice to home gardeners looking to create a similar naturalistic style.

Urban residents can create an oasis of native plants on a balcony, patio, or rooftop, and in pots on the front steps. Many native plants grow well in pots. Small shrubs and trees add year-round interest, and the woody branches provide overwintering habitat for small fauna.

<u>Wild Seed Project</u> and <u>Audubon</u> are two sources of information on growing native plants in pots. Both resources include lists of natives for sun and shade in large and small containers. One good way to provide wildlife value in a small space is to add water. This can be as simple as a bee bowl or a bird bath, or even a small pond. Many natural ponds and wetlands have been filled in due to residential and commercial development. Ponds attract an enormous variety of wildlife, from all things that fly to frogs, toads, and salamanders.

We can also plant street trees and hedgerows, grow natives for pollinators in window boxes or pots, grow native vines on walls or on our trees, and if you're really ambitious, plant a living roof.

<u>Pollinator pathways</u> are public and private pesticide -free corridors of native plants that provide nutrition and habitat for pollinating insects and birds. Even the smallest green spaces, like flower boxes and curb strips, can be part of a pathway.

The grass strip between the sidewalk and the street in many towns and cities is a perfect area for native plants. Baked by sun in the summer and covered with snow and road salt during winter, these areas can showcase tough native plants instead of grass and weeds. Imagine how much habitat could be created if just one street converted its hellstrips from turf grass to native plants!



Small areas of lawn between a walkway and driveway, or in front of row homes, can also be planted with natives.

If we each take one small step toward improving our spaces for wildlife, we can make a massive difference! City parks, street trees, hedgerows, pollinator pathways, ponds, and native hellstrips can link up to create a mosaic of habitats that will provide food, cover, nesting areas and safe travel for many different kinds of wildlife.

Tree of the Month -- Amelanchier

This member of the rose family, nicknamed serviceberry, shadbush (for its historical tendency to bloom when American shad swim upriver to spawn), and Juneberry, is native to eastern North America. It is a multi-stem shrub or single-trunk woodland understory tree with a rounded crown.

Amelanchier canadensis grows in the Piedmont and the coastal wetlands along the east coast. It prefers medium-moisture soils and a well-drained site. A true understory tree, this multi-stemmed plant flourishes in the partial shade and rich growing conditions of a forested location.

Amelanchier arborea, known as downy or common serviceberry, is found on steep, rocky slopes and can reach 40 feet in height. It is at its best in full sun, requires good drainage and air circulation, and should be watered during drought.

Amelanchier laevis, or Allegheny serviceberry, prefers soil that is moist, often on the edges of ponds and swamps, but also in high-elevation openings in the Appalachian mountains. This species is said to have especially tasty fruit.

Amelanchier bartramiana, or mountain serviceberry, grows in cooler regions, like New England. It is relatively short and shrubby, preferring moist, sunny edges.

Amelanchier stolonifera, running serviceberry, is a shrub that suckers and forms thickets. It grows only 3 to 6 feet high and is found in woodlands, forest edges, fields, and rocky bluffs. It can grow even in the cracks of bedrock. Due to its thick, clumping habit, this shrub is ideal for creating a barrier hedge, a bonus of which will be armloads of blueberry-like fruits that can be eaten fresh, made into jams, or baked into pies. Use this great native understory plant in woodland garden settings or naturalized areas to attract wildlife.

With the exception of running serviceberry, *Amelanchier* are tall shrubs or small understory trees, ranging from about 15 to 30 feet high. All varieties have white lightly fragrant five-petaled flowers, edible deep red to blue or black fruit, similar in size to a blueberry, and colorful fall foliage. The flowers are very attractive to pollinators, including native bees. *Amelanchier* hosts over one hundred species

of native caterpillars, and the berries attract over 40 species of songbirds.



Flowers on the same plant bloom at the same time, but the fruits will vary in stages of ripening. Both are evolutionary adaptations. Blooming all at once maximizes the odds of attracting pollinators, while a long



ripening season maximizes dispersal of seed via birds.

Whichever species you choose and whatever you choose to call it, *Amelanchier* is a must-have for your native food forest. For ornamental value, it is a wonderful substitute for the highly invasive and short-lived Bradford or Callery pear.

Amelanchier Quick Facts

Height: to 40 ft

Form: single trunk, multi-stem, or stoloniferous

Growth rate: slow to medium

Soil: rich, moist, acidic, well-drained; will not tolerate drought

Light: full to part sun

Leaves: oval to egg-shaped; colorful in fall

Flowers: small, white, 5 petals, fragrant

Fruit: small red to purple berries; edible

Habitat value: host plant for many caterpillars; flowers provide pollen and nectar for pollinators; birds and mammals eat berries

Water, Water Everywhere

Water is an essential component of native habitat, but what's the best way to provide it if there's no natural water source on your property?

Everything helps, starting as small as a bird bath or a butterfly saucer. Self-contained fountains allow gardeners to have water anywhere. Solar-powered models remove the need for electricity.

A pond can deliver more wildlife than any other type of habitat on your property. Having a natural pond without fish will attract all sorts of life — mayflies, water beetles, pond snails, dragonflies, damselflies, caddisflies, newts, frogs, and toads. Our landscape used to have millions of large and small ponds, but the vast majority have been lost to commercial, residential, and agricultural development.

A small in-ground pond can be built using a livestock watering trough. Dig a hole, settle the watering trough level with the top of the hole, backfill with screenings to level and stabilize it, and edge it with rocks for birds and frogs to perch on. Plan to cover at least 1/3 of the surface of the water with native plants, to provide cover and food.



Some ponds are a permanent fixture in the landscape, while others exist only during certain periods of the year. Either way, ponds help tie into the connectivity that's essential for the rewilding process to work. Ponds function for the species they host in the same way islands might for humans at sea. The more islands that are lost, the more precarious it becomes for a seafarer to access the resources they need to survive.

Research suggests that ponds provide wider biodiversity than many larger bodies of water. They've been found to support more plants and animals overall, including many endangered species.

By restoring a pond, you are restoring a natural process. The most important single factor contributing to a pond's health is an abundance of varied native plant cover, both underwater and above, which provides the necessary habitat for insect and animal life.



You can create a birdbath that's as simple as a rock with a shallow natural depression.



Photo: Rick Darke

Butterfly puddlers (below) are shallow-water areas filled with soil or sand, which contain minerals important to the insects' health. These areas are especially beneficial for butterflies during dry weather.



Resources

<u>Why Scientists Are Rallying To Save Ponds</u> <u>Creating a Naturally Beautiful Water Garden</u> <u>How To Make a DIY Butterfly Puddler</u> **Plant This Not That -- Water Garden Plants** Nonnative ornamental plants provide little food for native creatures, and some can escape residential gardens and colonize streams, ponds, and wetlands, displacing and altering native plant communities, and degrading wildlife habitat and water quality.

You can help reverse this degradation by replacing nonnative pond and wetland plants with natives. The leaves, flowers, tubers, and seeds of the natives listed below provide important habitat and food for insects, amphibians, reptiles, and birds.

Instead of These Nonnatives	Plant These Natives
<i>Lysimachia nummularia</i> (creeping jenny or moneywort) Small round leaves on long trailing stems. Grows in wet soil or water up to 1" deep. Aggressive spreader.	<i>Heteranthera dubia</i> (water stargrass) Thin, grass-like branch- ing stems, bright yellow star-shaped flowers in late summer. Can grow up to 6' long and form floating colonies. Valuable habi- tat for microinvertebrates.
 Pistia stratiotes (water lettuce) Thick, almost succulent leaves in a low-growing rosette formation. Aggressive spreader; can form thick floating mats. Crassulla helmsii (New Zealand pygmyweed or 	<i>Hydrocotyl ranunculoides</i> (floating pennywort), <i>H. umbellata</i> (marsh pennywort) Thick mass of scalloped 2" leaves; spreads quickly via rhizomes. Small white flowers in summer. Grows in sun to shade in saturated soil at water's edge.
swamp stonecrop) Bright green succulent leaves form dense mats with tiny white flowers. Can grow semi-submerged or completely under water.	<i>Ludwigia palustris</i> (water purslane or marsh seedbox) Mat- forming plant with green to reddish leaves underwater and to 12" above the surface.
Axorus garmineus (golden Japanese sweetflag) Narrow light green foliage, sometimes variegated. Grows at the water's edge or partially submerged.	Acorus americanus (sweetflag) Aromatic upright green blades resemble iris foliage. Full sun to part shade in wet soil along banks of ponds or streams.
Nymphoides peltata (yellow floating heart) Broad heart-shaped floating leaves, bright yellow flowers with five fringed petals. Forms dense mats and spreads easily.	Orontium aquaticum (golden club) Slender bright yellow flowers above floating narrow leaves in late spring. Grows in shallow water; leaves and roots provide habitat for frogs.
	<i>Calla palustris</i> (water arum) Heart-shaped leaves on upright stalks; showy white flowers, red fruit.
<i>Iris pseudocorus</i> (yellow flag iris) Showy yellow iris that spreads easily in wet soils; thick root mats can choke waterways.	<i>Iris verisicolor</i> (blue flag iris), <i>I. prismatica</i> (slender blue iris) Blue-green sword-like foliage, deep blue-purple flowers in early summer. Grows in wet soil at water's edge or in shallow water.
Nelumbo nucifera (sacred lotus) Large pink flowers stand above waxy leaves up to 2' in diameter. Spreads rapidly; listed as a noxious weed in some states.	Nelumbo lutea (American yellow lotus) Large, pale yellow flowers stand above leaves over 1' in diameter. Spreads rapidly in shallow ponds and on quiet water in rivers.
Pontederia crassipes (water hyacinth) Free- floating aquatic plant with thick oval to elliptical leaves and showy blue-purple flowers on upright spikes. Quickly forms dense floating mats.	Pontederia cordata (pickerelweed) Spikes of blue-purple flowers above arrow-shaped leaves from summer to early fall. Flowers and leaves provide food for many native insects.
<i>Nymphaea spp.</i> (nonnative water lily) Nonnative water lilies may have pink, red, yellow, purple, or white flowers. Fleshy underground rhizome can spread extensively.	Nymphaea odorata (white water lily) Floating aquatic plant found in quiet creeks and ponds. Round floating leaves, green to maroon in color. Fragrant white flower. Spreads quickly via rhi- zomes and tubers.
Cyperus alternifolius (umbrella palm) Stiff stems to 4' topped with strappy leaves arranged like the spokes of an umbrella. Deep-rooted; spreads quick-ly.	Sagittaria latifolia (arrowhead or duck potato) Arrrowhead- shaped leaves 2'-4' tall. Grows submerged in shallow water. Val- uable food source for waterfowl. Spreads rapidly by seed and rhizomes.
	Sagittaria montevidensis (giant arrowhead) Stemless, rhizomatous plant with large, arrowhead-shaped leaves. White flowers with burgundy spots and yellow centers appear in summer.

Spotlight on Plants with "Weed" in the Name -- Virginia Smartweed

Persicaria virginiana, nicknamed Virginia smartweed and jumpseed, is a native woodland plant in the buckwheat family. It is more attractive and less aggressive than most smartweeds. Despite its name, Virginia smartweed is native throughout Pennsylvania, growing in full to partial shade on riverbanks, woods, cliffs, and rocks.

The colorful ovoid medium-green leaves usually display a characteristic red chevron marking, although by summer these markings may disappear.



Virginia smartweed blooms In mid-summer with tiny, teardrop-shaped white or occasionally pink flowers widely spaced on gracefully arching stems. The flowers are followed by small red seed pods that explode when disturbed, scattering the seeds and giving rise to the nickname "jumpseed."



Virginia smartweed's graceful flower stalks are attractive without overwhelming other plants that grow well in the same habitat, including foamflower, columbine, *Iris cristata*, wild ginger, and sedges.

Virginia smartweed is easily distinguished from most other *Persicaria* species by its much larger, more oval-shaped leaves, although a few other species also have large leaves.

The weedier Pennsylvania smartweed (*Persicaria pensylvanicum*) has pink flowers appearing in tight terminal clusters. Its alternative leaves are lanceolate (sword-like) or oblong with a rounded base and pointed tips, and the leaves appear on short stalks. Pennsylvania smartweed is a more aggressive spreader.

P. virginiana grows from a crown-like knot with rhizomes that also contribute to its spread. Many insects feed on the foliage, roots, sap, or other parts of Virginia smartweed, including beetles, true bugs, aphids, grasshoppers, and moth and butterfly caterpillars.

Smartweed's tiny flowers offer nectar to a wide variety of bees, wasps, and ants. Various kinds of bees

and wasps, including leafcutter bees, halictids, bumblebees, threadwaisted wasps, and potter and mason wasps, serve the plant as pollinators.



Virginia Smartweed Quick Facts

Height: 2-3feet

Sun: Part to full shade

Soil: Moderately wet to moderately dry, sandy, loamy, or clay-loam soil

Spreads: Rhizomes and seed

Zone: 3-10

Habitat: Rich, moist soils in upland and lowland woods, bottomland forests, woodland edges

Ecosystem Value: Food source for bees, wasps, ants, beetles, aphids, grasshoppers, and moth and butterfly caterpillars



Native Plant Swap and Invasives Trade-In

When: Sunday, May 7, noon to 4:00 p.m.

Where: John James Audubon Center at Mill Grove, 1201 Pawlings Rd, Audubon, PA 19403, at the Overlook (between the parking lot and the Visitors' Center)

SOUTHEASTERN PENNSYLVANIA CHAPTER

Native Plant Swap Bring plugs or potted plants that are **native** to Pennsylvania, to exchange with other native plant enthusiasts. If you're not sure whether your plants are native, look them up ahead of time.

Invasives Trade-In Bring a photo (not the plant!) showing that you removed a nonnative invasive plant from your property in 2023 <u>without using herbicides</u>, and receive a native plant plug FREE! Find a list of nonnative invasive plants <u>here</u>. A trash bag full of invasive forbs, grasses, aquatic plants, or vines = one invasive tree or shrub.



The Pennsylvania Department of Conservation & Natural Resources has <u>Fact Sheets</u> and information about the <u>impact of invasive plants</u> in Pennsylvania.

Nursery Openings and Plant Sales

Mar. 25 <u>Redbud Native Plant Nursery</u>, 904 N. Providence Rd, Media PA 19063.

Apr. 1 Gino's Nursery, 2237 Second Street Pike, Newtown PA, 18940.

Apr. 7 <u>Hungry Hook Farm</u>, 26 Locust Grove Rd, Bainbridge, PA 17502.

Apr. 15-16 Natural Lands- Stoneleigh Plant Sale. On-line ordering, pickup at Stoneleigh.

Apr. 21 Garden Shop at Jenkins, Jenkins Arboretum, 631 Berwyn Baptist Road, Devon, PA 19333.

Apr. 24-May 5 Perkiomen Watershed Conservancy Plant Sale, on-line pre-ordering.

Educational Opportunities

- Mar. 16 <u>Native Edible & Medicinal Plants in the Wild-Designed Landscape</u>. New Directions in American Landscaping webinar, 2:00 p.m.
- Mar. 20 Pollinator Gardening and Conservation. Xerces Society webinar, 7:00 p.m.
- Mar. 23 <u>The Bower: Native Plant Landscape & Sculpture Park</u>. New Directions in American Landscaping webinar, 2:00 p.m.
- Mar. 25 Native Plants You Need in Your Yard. PennState Extension webinar, noon.
- Mar. 25 Knowing Native Plants: Signs of Spring. Bowman's Hill Wildflower Preserve webinar or in person, 10:00 a.m.
- Mar. 28 Planning Your Pollinator Habitat. Monarch Joint Venture webinar, 2:00 p.m.
- Mar. 28 Apr. 11 Converting Your Lawn to Meadow. PennState Extension webinar series, Tuesdays, 6:30 p.m..
- Mar. 29 Know Your Natives: Container Gardens. PennState Extension webinar, 7:00 p.m.
- Apr. 1 <u>Fundamentals of Garden Layers</u>. PennState Extension webinar, 10:00 a.m.
- Apr. 4 Monarch Waystations. Brandywine Conservancy webinar, 6:30 p.m.
- Apr. 5 Know Your Natives: Flowering Trees. PennState Extension webinar, 7:00 p.m.
- Apr. 10 Landscaping with Native Plants. PennState Extension, in person or webinar, 6:30 p.m.
- Apr. 11 Little Garden, Big Impact: Stunning Native Combinations for Smaller Spaces. Brandywine Conservancy webinar, 7:00 p.m.
- Apr. 12 <u>Native Plants: The Good, Better, and Best</u>. Brandywine Conservancy webinar, 6:30 p.m.
- Apr. 18 <u>Supporting Lepidoptera with Native Plants</u>. Morris Arboretum webinar, 7:00 p.m.
- Apr. 19 <u>Kill Your Lawn</u>. New Directions in American Landscaping webinar, 2:00 p.m.
- Apr. 20 Native Orchid Conservation Efforts at Longwood Gardens. Jenkins Arboretum webinar, 7:00 p.m.