

November 2024 Newsletter

SOUTHEASTERN PENNSYLVANIA CHAPTER

sepa.wildones.org Visit us on Instagram and Facebook

Chapter Annual Meeting

The chapter's annual meeting was held via zoom on November 7. Treasurer Denise Everett presented the financial report to date. Any member who would like a copy of the financial report can email us with a request at wildonesofsept@gmail.com

Election Results

Chapter elections were held at the annual meeting. By unanimous agreement, the officers for 2025 are:

President: Rick Smith

Treasurer: Denise Everett

Secretary: Susan Caughlan

Membership Chair: Judy Balock

Members of the Board of Directors for 2025 are:

Judy Balock	Susan Caughlan	
Denise Everett	Jessie Shiffler	
Marilyn Smith*	Rick Smith*	*not related

Grant Report

The chapter approved three grants this year.

Bondsville Mill Historic Park & Gardens, a public park in Downingtown PA, received \$1,000 to purchase native plants to rewild a public trail in the park. Volunteers removed nonnative invasive shrubs from approximately 1/4 acre of ground on either side of the trail and replanted the area with natives shrubs and perennials.

Friends of Carpenter Green Park, a volunteer organization that maintains this urban oasis, located in the Graduate Hospital neighborhood of Philadelphia, re

phia, received \$730 to transform two areas in the park into rain gardens filled with native plants.

Northley Middle School's Environmental Club, in Delaware County, PA, received \$1000 to purchase native plants for a wildflower garden they created in a fenced area on school grounds. Students enthusiastically helped with site preparation and planting. Delaware County Master Gardeners were instrumental in guiding the project.

Building a Small Pond

Adding a source of water on your property will benefit all wild visitors by providing valuable habitat for birds, insects, amphibians, and of course native plants.

The first step is to observe your property to decide where a pond will work. The location should be relatively flat, not prone to flooding, close enough to be able to see it from your usual vantage points (window, patio, back yard), and far enough from large tree roots. Keep future maintenance needs in mind -- you'll need to be able to access the water to remove algae and take photos of all your visitors!

Steps to a DIY Pond

1. Lay a garden hose on the ground to decide the shape of your pond . Sketch out where the deep and shallow areas will be. Different water levels

WO SEPA 2025 SPRING CALENDAR

The spring meeting schedule will be announced early next year. Recordings of past meetings are available on our <u>YouTube channel</u>.

will allow a larger variety of native plants.

2. Gather your materials. You'll need a liner (either flexible or preformed shape), underlayment, border material, planting baskets, and aquatic soil.

3. To start digging, trench most of the way around the edge of the pond, but leave a pathway intact so you can get your wheelbarrow or garden cart close to the growing hole, to remove soil. Designate an area to stockpile all the soil.

4. As you dig, build the various levels or shelves for different types of plants. Use long boards and a level to make sure the lip of the pond stays level the entire way around. Remove any rocks that could poke holes in the liner.

5. Install the underlayment, which can be a layer of sand, carpet remnants, or geotextile. This layer protects the liner from sharp objects. Fold the underlayment to lay smooth and tuck excess into the low spots.

6. Spread the liner over the underlayment, overlapping the edge of the pond by several feet. As you fill the pond with water, smooth out the liner and secure the edges with bricks, pavers, tree stumps, or other sturdy material. Trim the liner to fit under these edging materials.

7. Add plants! Along the edges, plant water-loving natives like buttonbush and lobelia. Marginal plants thrive in shallow water, submergent plants live in deeper water, and floating plants cover the surface and keep the water cool.



Resources

Creating a Naturally Beautiful Water Garden

A Move Toward Quieter Yards

The peaceful sounds of bird songs and rustling leaves in backyards are too often drowned out by the blare of leaf blowers and other fossil fuel-powered lawn equipment. Because high-decibel noise and related pollution is known to be harmful to people, pets, and habitat, the nonprofit <u>Quiet</u> <u>Communities</u> (QC) has been working for over a decade to transition the industry to cleaner, quieter equipment and other sustainable practices.

Through a longtime collaboration with AGZA (<u>American Green Zone Alliance</u>), the QC Quiet Landcare program helps municipalities, public school systems, botanic gardens, hospital campuses, golf courses, and other sites across the country move from noisy, polluting fossil-fuel-powered landscaping equipment to quieter, cleaner electric tools and other sustainable practices.

Baltimore City Council recently voted to ban gaspowered leaf blowers. City contractors must stop using gas-powered leaf blowers by December 15, 2024. Landscape companies and residents may use gas-powered leaf blowers between Oct. 15 and Dec. 15 of 2025 and 2026 before the ordinance becomes effective year-round.

The Baltimore City ban was passed to reduce air and noise pollution. Gas-powered leaf blowers produce up to 100 decibels of low-frequency noise, around the same as a Boeing 737 taking off.

Gas-powered leaf blowers are also an environmental menace and a threat to human health. In one hour, a commercial gas-powered leaf blower emits as much pollution as driving a car 1,100 miles. Toxic emissions include carbon dioxide, nitrogen oxides, volatile organic compounds, formaldehyde, and benzene.

More than 100 American cities are phasing out gaspowered leaf blowers. Washington, D.C., banned gas-powered leaf blowers in 2022, and Montgomery County, MD, banned the sale of them in 2024 and will not allow their use starting next July. The California legislature allocated \$30 million in incentives for individuals and landscaping businesses to switch to zero-emission lawn equipment.

Replacing large lawn areas with native plants and leaving fallen leaves in place for habitat are the quietest and most sustainable practices of all.

Tree of the Month -- A Year of Oaks

Oaks are our most essential native tree, according to University of Delaware Professor of Entomology and Wildlife Ecology Doug Tallamy. The genus *Quercus* provides food for more caterpillar species than any other genus of plants in North America. Because so many native species rely on oaks for their survival, oaks have been dubbed one of the "keystone species" that play a pivotal role in the food chain.

Logging and land clearing for agriculture, homes, and commercial development have contributed to the loss of oaks in eastern forests. Diseases such as sudden oak death syndrome, bacterial leaf scorch, and oak wilt are also culprits in the decline of oaks.

Oaks native to Pennsylvania can be divided into two main groups: the red oaks (ten species), which have bristles at the end of their leaf tips or lobes and acorns that take two years to mature, and the white oaks (six species), which lack bristles on their leaf tips and have acorns that mature in one growing season. Some common red oak species include northern red, black, scarlet, and pin oaks. Common white oaks include white, chestnut, and swamp white oaks.

Different species of oak thrive in habitats ranging from dry soil to swamps. Many can grow to be 80foot giants, but some oaks can also be pruned to stay small and adapt to smaller yards.

Resources

The Nature of Oaks, D. Tallamy *The Little Things That Run the World,* E.O. Wilson

Chestnut Oak, Quercus montana

The chestnut oak is native to a wide area, from southern Maine to western Tennessee, and from the center to the northeast of the United States. In the wild, it grows in dry, rocky, and gravelly upland soils, but it can also be found in well-drained lowland areas.

On fertile soils, chestnut oak can reach 100 feet in height with a broad, open crown. On dry, rocky sites, it grows shorter with more branching, giving a squat, full appearance. The leathery oval leaves are dark yellowish-green and coarsely toothed, with gray-green undersides that are somewhat fuzzy. In fall, the leaves turn golden brown to reddish brown.



Chestnut oak produces some of the largest acorns of any North American oak, but it does so only every 4 to 5 years. Trees can start to bear acorns when they're about 20 years old. Acorns are borne individually or in pairs at the ends of branches. The acorns are an important food source for wildlife, including deer, wild turkey, black bear, squirrel, chipmunks, red fox, and waterfowl.

Chestnut oak is generally considered to be a lowmaintenance, long-lived tree that's suitable for residential landscapes. With little attention, chestnut oak will also grow happily on steep, dry, rocky slopes, making it an important species for woodland restoration.

Chestnut oak saplings are easier to transplant than some other oaks because the taproot of the chestnut oak seedling disintegrates as the tree grows, and the remaining roots form a dense mat about three feet deep.

Quick Facts Chestnut Oak		
Size	60 to 100 feet tall; to 60 feet wide	
Sun	Full to part sun	
Soil	Well-drained loam to dry, rocky soil	
Water	Tolerates occasional drought	
Habita	t Value Butterfly & moth caterpillar host; birds and mammals eat acorns; bird nesting habitat	

Creature Café - Planting for Specialist Insects

Native insects can be divided into two general types based on their food needs -- generalists, which are the majority of the population of most pollinator classes, and specialists, which make up the remainder.

Generalists can sustain themselves on many nonnative plants that we consider weeds -- for example, dandelion and Dutch white clover, both of which have been shown to produce pollen that's lower in nutrients. Population numbers of generalist insects are higher, and often they have numerous or continuous broods.

In contrast, specialist insects, because they depend on a smaller range of plants, have lower population numbers. They are also around for a shorter time, while their plants are blooming, which usually means producing only one brood.

Some specialist insects depend on just one species of plant, and some on two or at most three kinds. The specialists can't thrive on the same diet the generalists can, because the specialists have evolved to access and digest the pollen, nectar, and/or leaves of just a few plants. In exploiting their niche, specialists have become very good at adapting to their particular food source, but they have become dependent on that source.

Their reliance on a few specific plants leaves the specialists more vulnerable to catastrophic events that destroy their food source, whether it's fire, drought, flood, or land development. Fortunately, native gardeners can help by growing the plants that specialists needs, and also by preserving native habitats like fields and woodlands, where a wide variety of native plants can thrive, including many used by specialist insects.

Many specialist bees have evolved to depend on spring ephemerals in our vernal woodlands. Spring beauty (*Claytonia virginica*), with its pink pollen, is needed by the *Andrena erigeniae* bee. Invasive lesser celandine (*Ficaria verna*), which also loves moist woodlands, is taking over in many places, crowding out spring beauty. Specialist bees cannot make the switch to feed on lesser celandine as European bees can. Native bittercress, trout lily, and violets all have their own specialist bees. Trees and shrubs important to specialist bees include willow (*Salix*), redbud, (*Cercis candensis*), dogwoods (*Cornus*), and winterberry holly (*Ilex verticillata*). Forests provide early blooming trees, shrubs, and spring ephemerals that native pollinators depend on.

Native gardeners can plant these less familiar forbs to provide pollen, nectar, and leaves that support specialist insects:

- Cutleaf toothwort, *Cardamine concatenata* (West Virginia white butterfly caterpillar)
- Turtlehead, *Chelone glabra* (checkerspot caterpillar)
- Maryland golden aster, *Chrysopsis mariana* (long-tongued bees)
- Trout lily, *Erythronium americanum* (miner bees)
- Wild geranium, *G. maculatum* (mining bees, leafmining moth, white-marked tussock moth)
- Alumroot, Heuchera americana (specialist bee)
- Rose mallow, *Hibuscus moscheutos* (specialist bee)
- Virginia waterleaf, *Hydrophyllum virginianum* (waterleaf cuckoo bee)
- Wild bergamot, *Monarda fistulosa* (specialist bee)
- Evening primrose, *Oenothera biennis*. (specialist bees)
- Pickerelweed, *Pontederia cordata* (specialist bee)
- Bellwort, Uvularia grandiflora (specialist bee)
- Ironweed, *Vernonia fas- ciculata* (long-horned bees)
- Golden alexander, Zizia aurea (right) & Z. aptera (swallowtail caterpillars)



American Holly

American holly (*llex opaca*) is an important understory tree in the oak-hickory-beech woodlands of southeaster Pennsylvania. Its fruits are consumed by many birds, including cedar waxwing, eastern bluebird, hermit thrush, northern flicker, mourning dove, wild turkey, bobwhite and northern cardinal. American holly is the hardiest native broadleaf evergreen tree, tolerating the heat and humidity of the deep south as well as cold temperatures down to -20°F in the Appalachians.

There are a few thousand varieties of American holly in the trade, but most of them have been developed to emphasize traits seen as desirable for residential landscape use, such as smaller stature, heavier berry production, and glossier leaves. These cultivars, however, can end up being less hardy and adaptable than the straight species.

Holly is spread by seed dispersed by birds, particularly winter migrants like cedar waxwings. Following germination, holly seedlings rapidly develop a taproot and numerous lateral roots. Due to its shade tolerance, American holly will quickly become established, thanks to bird droppings, in the understory of woodlands (below), germinating in the nutrient-rich layer of fallen leaves, provided this layer is left undisturbed.



The straight species of American holly will grow in full sun or partial shade, in soils ranging from moist, well-drained loam to clay, sand, dry gravelly soil, and everything in between, with the exception of flooded soils. Holly is very shade tolerant and can survive in the understory of most forest canopies, but its growth will be slower and less full, and flowering and fruit set are reduced.

Young hollies can be transplanted without much difficulty. Transplanting should be done during the dormant season, usually November through March.

A transplanted holly seedling (right) needs to be watered regularly during its first year, but after that, it requires very little water.

Hollies are dioecious, with male and female flowers produced on separate plants on the current sea-



son's growth. Male and female flowers are similar in appearance, with four to six small waxy, white petals. Male flowers (below) bloom in clusters of 3 to 12 and are distinguished by short, pollen-bearing stamens in an X shape. Female flowers bloom singly or in pairs or threes and have a single green nodule (the future berry) at the center of each flower.



Hollies can start to flower as soon as their third year. Pollination is by insects, including bees, wasps, ants, yellow jackets, and night-flying moths. Red berries ripen from September through December and remain on the tree through most of the winter or until they are consumed by hungry wildlife.

Natives for Fall Color

Our native trees have been especially colorful this fall. Fall color is a combination of leaf pigments and weather conditions, including temperature, moisture, and sunlight. Warm, sunny days and cool nights without freezing temperatures help produce the most vibrant colors. As days grow shorter and nights grow longer and cooler, biochemical processes in the leaves cause them to stop producing chlorophyll, the substance that gives them their green color. Once the chlorophyll is gone, the remaining pigments are revealed. In some trees, those pigments tend toward yellow, orange, and brown. In others, the majority of pigments are reds and purples.

Sourwood (*Oxydendron arboretum*), below left), white dogwood (top right), red maple, sweet gum (*Liquidambar styraciflua*), smoke tree (*Cotinus obovatus*), and sugar maple are known for their striking or-

Native shrubs that turn red include eastern wahoo (*Euonymus atropur*-





pureus) and the sumacs, including smooth sumac (Rhus glabra, below cen-



ter) and winged sumac or shining sumac (*Rhus copallinum*, bottom right).

Shining sumac is a multi-stemmed deciduous shrub that grows 7 to 15 feet tall. It is native to eastern North America and can spread by root suckers to form large colonies in the wild. Its leaves turn flame red in fall.



The shortest sumac, fragrant su-(Rhus aromac matica), tops out at less than 6 feet and turns bright orange, dark red, and purple in fall. The cultivar 'Gro-Low' (left) can spread up to 8 feet across and just 2 feet high.



Virginia creeper (*Parthenocissus quinquefolia*, below left) scrambles up the rough-textured trunks of a river birch. Hidden during the year by the birch's foliage, it pops in fall after the birch's leaves have fallen.

Sassafras (*S. albidum*, top right) glows orange and red at the edge of woods. This tree forms clonal clumps that maximize the dramatic fall color.



Fringe tree (*Chionanthus virginicus*, middle right) is among the native trees that glow butter-yellow to gold in the fall.

Other natives known for their fall gold color include witch alder (*Fothergilla major, F. gardenia*, and the popular cultivar *F. x. intermedia* 'Mount Airy'), spice bush (*Lindera benzoin*), and redbud (*Cercis canadensis*).

Red oak (*Quercus rubra*, bottom right) lives up to its name with glowing orange to rust-red fall color. The leaves of scarlet oak (*Q. coccinea*), which is in the red oak family, turn a vivid red that lasts until the leaves drop in late winter.

Native shrubs with red fall color include highbush blueberry (Vaccinium corymbosum), Virginia sweetspire (Itea virginica), chokeberry (Aronia melanocarpa and A. arbutifolia), viburnums, and oakleaf hydrangea (H. quercifolia).





Invasive Species Alert -- Autumn Olive and Russian Olive

Like many invasive species, autumn olive (*Elaeagnus umbellata*) and Russian olive (*E. angustifolia*) were Introduced in the United States as ornamental plants that were thought to provide habitat and food for wildlife. Like multiflora rose, in the 1950s they were promoted by the soil conservation service as windbreaks and erosion control near roads and on ridges. Why nonnatives were thought to do a better job of providing habitat and erosion control than natives is unknown.

As with so many introduced species, any positive attributes of these plants were quickly outweighed by their rapid and uncontrolled spread in forest edges, roadsides, meadows, and grasslands. Today these shrubs can be identified by the masses of silvery foliage and fragrant off-white spring flowers along many local highways.

Identification

Both species are multi-stem shrubs that can reach 20 to 30 feet in height and breadth. Leaves are alternate, grey-green, and slender, tapering to a point (below). Silvery scales on the bottom (autumn olive) or top and bottom (Russian olive) of the leaves produce a shimmery visual effect.



Bell-shaped cream or yellow flower clusters produce burnt-orange (Russian olive) or bright red (autumn olive, right) berries in fall.



Stems are speckled and can have thorns. Thicker branches have a central core of woody pith. Large plants in a woodland can be identified, especially in early spring and late fall when native shrubs are leafless, by their multi-stem form and striated, long arching branches.

<u>Control</u>

Hand pulling is effective for seedlings. Manually removing larger plants can be effective if enough of the root can be removed to prevent re-sprouting. Each stem must be cut with a saw or heavy loppers below the root crown. Burning is not recommended because the plants re-sprout rapidly from the roots. Grubbing out the entire root system is also not recommended because of the extent of soil disturbance. Control efforts before fruit is formed will prevent the spread of seeds.

If the plant is too large to cut below the root collar, each trunk can be cut 6 inches above the ground and wrapped securely with black plastic or painted with a thick paint that will seal the surface to prevent the entry of water and air. This technique might be most effective in mid-spring, just as the plant is flowering, when it has transferred most of its stored energy from the roots to the top growth.

Persistence is key -- shrubs that have been cut should be checked during the season to remove any re-sprouts quickly, before they re-supply the roots with nutrients.

Impact on Habitat

Eleagnus outcompetes and displaces native plants by shading them out with its rampant growth. It is a ruderal species, germinating quickly and tolerating a wide variety of soil types and sun exposures. The plants also alter the chemistry of the surrounding soil, a process called allelopathy. Their roots host bacteria that convert atmospheric nitrogen into nitrates that are disseminated throughout the soil and become available for plants to absorb through their roots. A large concentration of nitrogen-fixing plants alters the local soil chemistry in favor of plants that require more nitrogen, which most natives do not.

Both species' nitrogen-fixing root nodules allow the plants to grow in even the most unfavorable soils. Once they take root, they are prolific seed producers, creating 200,000 seeds from a single plant each year. Birds eat the fruit and disperse the seeds.

Take Action To Protect Pollinators

In Pennsylvania, state agencies currently lack the authority to protect native insects, including bees and butterflies. These vital pollinators are in decline across the country. This regulatory gap leaves many species vulnerable to extinction and limits the state's ability to prevent population losses.

- Pennsylvania is home to 77 threatened land-dwelling insect species, including the monarch butterfly and American bumble bee two pollinators in severe decline under consideration for federal protection. DCNR is the state agency best-suited to proactively protect imperiled insect species but lacks legislative authority to do so.
- Until a state agency can list insects as state-threatened or endangered species, **Pennsylvania cannot take** advantage of federal funds to protect at-risk insects.

Most states can actively work to recover threatened insect species, but Pennsylvania can't. <u>HB2471</u> can change this.

Ask your state legislators to support HB 2471 to add protection for native insects to Pennsylvania's Wild Resource Conservation Act. You can find contact information for your local representatives <u>here</u>.

Nesting and Overwintering Habitat for Beneficial Insects

The primary habitat features used by pollinators and other insects for shelter include stems and branches of trees, shrubs, and wildflowers; fallen leaves; undisturbed ground; bare ground; dead wood; piles of brush, and rock piles.

Retaining and incorporating as many of these features as possible into your landscape (rather than "clearing" them away) will help attract and support a diversity of bees and other beneficial insects.

More information from the Xerces Society on providing critical overwintering habitat for beneficial insects can be found <u>here</u>.



Events and Educational Opportunities

- Nov. 15 <u>Native Plants, Nativars, Cultivars & Straight Species: What You Want To Know</u>, Brandywine Conservancy webinar, 12:00 p.m.
- Nov. 20 Know Your Natives: Groundcovers. Penn State Extension webinar, 7:00 p.m.
- Nov. 21 <u>Native Plant Allies: A Non-Chemical Approach to Ecological Gardening</u>. Jenkins Arboretum webinar, 7:00 p.m.
- Nov. 21 Landscaping for Resilience. Wild Ones webinar, 7:00 p.m.
- Nov. 23 Late Season Perennials for Wildlife. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 10:00 a.m.
- Nov. 23 <u>Ecology of Mt. Cuba's Meadow</u>. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE , 1:00 p.m.
- Nov. 30 <u>Habitat Advocate: Green Mulch Using Native Plants as Groundcovers</u>. Lancaster Conservancy, 102 Chester St., Lancaster, PA, 9:00 a.m.
- Dec. 5,12,19 <u>Landscaping with Nature: An Intensive Course for Home Gardeners</u>. New Directions in American Landscaping webinar, 6:00 p.m.
- **Dec. 6** <u>Neonics & Advocacy: Protecting Pollinators and Influencing Policy</u>. Wild Ones webinar, 7:00 p.m.
- Dec. 19 Native Evergreens. Jenkins Arboretum webinar, 7:00 p.m.