

## September 2025 Newsletter

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## SOUTHEASTERN PENNSYLVANIA CHAPTER

#### **Garden Rooms**

We're used to thinking of our gardens in terms of beds that we design and plant for a certain purpose, or to accommodate the area's soil and light conditions. What if we designed larger areas -- entire rooms -- that way?

Welcome to Jessie's Garden, an approximately 1-acre property in Chester County where, for the past 8 years, Jessie and her family have been transforming the yard from suburban lawn to a diverse habitat for local wildlife. With extensive research and careful design, Jessie has created vibrant plant communities that support birds, bees, and other creatures, while drastically reducing her turf grass lawn.

The eclectic front yard is a mix of trees, shrubs, and perennials.



Behind the house, meandering mowed paths lead

to "rooms" of edible fruits and nuts.

A latticed trellis covered with American groundnut (Apios americana), right, is a dramatic entrance feature.



A cleared circle that can accommodate a fire pit is framed by persimmon (*Diospyros virginiana*), paw paw (*Asimina triloba*), spicebush (*Lindera benzoin*) and highbush blueberry (*Vaccinium corymbosum*).

The sitting area below is shaded by hazelnut (Corylus *americana*), winged sumac (*Rhus copallinium*), and aromatic sumac (*R. aromatica*).



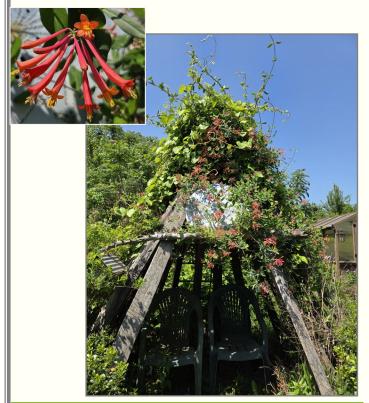
The "hammock room" (right) is surrounded by northern catalpa (*C. speciosa*) and pagoda dogwood (*Cornus alternifolia*).



A frog pond supports aquatic and amphibian life.



A dramatic feature is this teepee (below) covered with coral honeysuckle (*Lonicera sempervirens*), whose tubular red flowers (inset) are a favorite of the ruby-throated hummingbird.



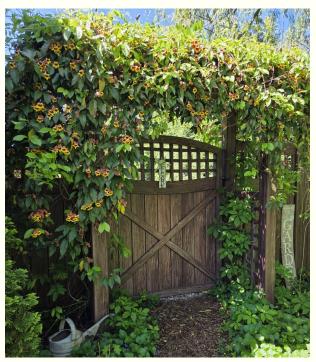
# Call for Nominations for Chapter Board and Officers

Chapter members will elect the Board of Directors and officers at our **November 20 meeting**. If you are interested in serving as a member of the Board or an officer, please notify the board's Secretary at wildonesofsepa@gmail.com before October 10.

The trellis above the entrance gate to the back yard is draped with American wisteria (*W. fruitescens*). Volunteer Virginia creeper (*Parthenocissus quinquefolia*) climbs the left side of the trellis.



Below, the other side of the trellis features cross vine (*Bignonia capreolata*).



### **WO SEPA 2025 CALENDAR**

Oct. 16 Next Steps for Nature, Doug Tallamy, National Wild Ones webinar, 7:00 p.m.

**Nov. 20** Living in the Liberated Landscape, Larry Weaner, National Wild Ones webinar, 7:00 p.m.; Chapter elections.

Watch recordings of past programs on our <u>YouTube</u> <u>channel</u>.

## **Keystone Tree of the Month**

A few genera (family groups) of native trees and shrubs have been shown to support a very high number of species of native insects by providing food and habitat. These keystone species form the backbone of a local ecosystem and are critical to maintaining the diversity and stability of that ecosystem.

Keystone plants are not always the most abundant species in the ecosystem, but their existence has a big impact on the local food web. One <u>study</u> found that 90 percent of all caterpillar diversity is centered around just 14 percent of plant species.

Trees are major components of the list of keystone plants, in part simply because a tree has more leaves and flowers than herbaceous plants or grasses occupying the same ground. Another contribution is the amount of pollen and new leaves a tree provides early in the season, when native insects are emerging.

One native oak tree can support the caterpillars over 500 species of butterflies and moths. Those caterpillars are a critical food source for over 96 percent of our native songbirds. For example, a pair of Carolina chickadees needs 6,000 to 9,000 caterpillars to successfully raise just one brood of young.

By planting just one keystone tree, you can help restore native biodiversity.

#### Resources

National Wildlife Federation Native Plant Finder
Keystone Trees & Shrubs

The Little Things That Run the World, E.O. Wilson

## Eastern White Pine, Pinus strobus

Before the arrival of European colonists, stands of eastern white pine covered large areas of North America from Canada to the mid-Atlantic and west to the Great Lakes. By the late 1800s, most of those stands had been cut for ship masts and construction lumber.

White pine is a majestic canopy tree, and because of its relatively narrow profile, it can fit into smaller yards where a mature oak or maple might not.

White pine grows best in well-drained sandy soil and can be found as a pioneer species on old fields and pastures. It does not grow well in heavy clay. It prefers a low-pH (acidic) soil, as indicated by the understory vegetation found in native stands, which can include blueberry (Vaccinium spp.), dwarf bush honeysuckle (Diervilla lonicera), sweetfern (Comptonia peregrina), clubmoss (Lycopodium spp.), and dogwood (Cornus spp.). On moist sites, understory vegetation can include partridgeberry (Mitchella repens), jack-in-the-pulpit (Arisaema spp.), and hav-scented fern (Dennstaedtia punctilobula).

White pine is a long-lived tree, commonly reaching 200 years if undisturbed. However, initial seedling growth is slow, and seedlings can be out-competed by more aggressive species. Once at the sapling stage, white pine can grow several feet each year.

#### Identification

White pine is characterized by tiers of almost horizontal branches circling the straight trunk. Tufts of light-green to bluish-green needles occur in feathery clusters of five at the ends of the twigs. The cones are 6 to 8 inches long.



#### Habitat value

Because of its rapid growth rate, white pine is an excellent tree for reforestation projects. Cones develop on young trees, providing food for migrating and overwintering birds.

#### **Quick Facts -- Eastern White Pine**

Size 75-150 feet tall, 20-40 feet wide

**Sun** Full to part sun

**Soil** Well-drained sand to loam; does not tolerate

compacted or soggy soil

Water Fairly drought tolerant once established

**Habitat Value** Seeds are favored by many mammals and birds. White pines provide nesting sites for many birds, including woodpeckers, mourning doves, chickadees, and nuthatches. Raptors will build huge stick nests in the top tiers of the sturdy branches.

## **Key Plant Families for Pollinators**

Certain families of plants are especially beneficial for native pollinators. The flowers in one family might be especially attractive to bees, for example, while another family attracts butterflies. The plant characteristics that contribute to family groupings can provide important information about the pollinators attracted to these plants.

Four plant families that are especially important for native pollinators are asters, mints, umbels, and legumes. A pollinator garden featuring a variety of plants from each of these families will ensure an abundant supply of nectar and pollen for a wide range of pollinators. The April-May newsletter showcased the aster family, and the summer newsletter focused on the mint family. This month, we're looking at plants in the pea family.

## Family Fabiaceae (legumes)

We don't always think of these plants as key food sources for pollinators. However, native legumes offer pollen that's rich in protein, which insects need for reproduction and larval development. The nutritious pollen is favored by a diversity of pollinators, including bees, wasps, butterflies, moths, beetles and flies.

These densely flowered plants provide a lot of food in one place. Clovers are considered to be a good source of nectar for honeybees. Buckwheat, a common cover crop in fields and vegetable gardens, produces especially flavorful honey. Native legumes include locust, lupine, redbud, senna, prairie clover, leadplant, partridge pea, wisteria, and wild indigo.

Legume flowers might be packed with nutritious nectar, but they are often elaborate and difficult to access. The flowers have a distinctive shape -- a large, two-lobed petal at the back, a petal on either side of it, and a central keel, made up of two fused petals, which contains the pollen and nectar. On some species, such as clovers, dozens of tiny flowers make up each flower head.

In contrast to the aster family, a legume's pollen is not readily accessible. Pollinators must push on certain petals to open the keel in order to access pollen and nectar. In some species, the upper petals are also fused, requiring pollinators to push their way into the flower and ensuring that they will be covered with pollen in the process.

Legumes have specialized root nodules that, in association with rhizobia bacteria, can fix nitrogen from the atmosphere, transforming it into a form plants can use. This means they can grow in poor soil, but when planted in fertile, loamy soil these plants can be aggressive growers.

<u>Eastern redbud</u> (*Cercis canadensis*) is covered with small pink to mauve flowers for several weeks in mid-April in our area. The redbud's bloom coincides with the return of migratory orioles, which lose no time feeding on the nutritious flowers.



Redbud is an understory tree, growing at the edges of woods or in association with canopy trees. It will also thrive as a specimen tree if provided with afternoon shade.

Redbud can grow to 30 feet but is easy to keep shorter by cutting out the taller trunks on multi-trunk trees or simply cutting a too-tall tree to a 1-foot stump, which will quickly re-sprout.

<u>Black locust</u> (*Robinia pseudoacacia*) is known as an important honey plant in the eastern United States. In mid-spring, fragrant white, pea-like blossoms hang in pendulous clusters. Locusts spread rapidly via root sprouts and prolific seeds. Their dense, shallow root system is effective at controlling surface soil erosion.

American senna (S. hebecarpa) can grow to 5 feet and features spikes of bright yellow flowers in late July to early August. Senna can form large clumps in the landscape (below). The dark, drooping pods

that follow the flowers remain decorative throughout the winter.



Senna is a host plant for many species of sulfur butterfly, shown (right) nectaring on Verbena bonariensis.



<u>Wild or false indigo</u> (*Baptisia* spp.) is an attractive, low-maintenance plant that is substantial enough to be used as a shrub. *Baptisia* will grow to its full height each year after its first or second season, and the clump will grow steadily in width and bulk. It is an unusually long-lived perennial and can continue to grow and bloom in the same location for decades. As a group, these perennials are deer resistant, heat and humidity tolerant, and drought tolerant once established. However, they are difficult to transplant due to their deep, brittle root systems.

Most *Baptisias* grow best in full sun and deep, rich, moist, well-drained soil. The flowers are held in impressive upright racemes (flower spikes with a short stem attaching each flower to the main stalk) of blue, white, cream, or yellow. Flower spikes can be 12 to 24 inches tall. Large, mature plants may hold as many as a hundred spikes in full bloom.

Baptisias are host plants for the larvae of several butterfly species, including orange sulfur, clouded sulfur, frosted elfin, eastern tailed blue (right), hoary edge, and wild indigo duskywing.



<u>Wild lupine</u> (*Lupinus perennis*) is a striking plant whose flower spikes somewhat resemble those of wild blue indigo (*Baptisia australis*). Unlike *Baptisia*, lupine is very choosy about its habitat and will thrive only in dry sandy or gravelly upland soils. It demands good drainage and is susceptible to deer browsing. *Wild lupine* is an important host plant for the Karner blue and frosted elfin butterflies.

American wisteria (W. frutescens) is a vigorous climbing vine (up to 30 feet) but is not as aggressive as the more commonly seen nonnative Asian wisteria. The plant can be grown in sandy, medium, or clay soil, provided drainage is good. American wisteria is mostly deer-resistant, and in any event it will soon climb out of reach if it is trained on a trellis, arbor, or fence, or even a swing set (above right).



## Partridge pea (Chamaecrista fasciculata)

This fragile groundcover grows to 2 feet' in height and is tolerant of foot traffic and compacted soils. Its yellow flowers bloom most of the summer.

The delicate, fern-like leaves are the larval host for several species of sulfur butterflies. This annual legume typically is a pioneer species that shows up on disturbed sites, where it can form dense stands

(right) for several years, until perennial species become established.

Partridge pea reseeds readily in medium to dry soils but is not particularly deer resistant.



## **Create a Soft Landing Garden**

Declining wildlife populations are everywhere. Since 1970, birds in North America have decreased by 30%. Butterflies have declined by over 30% in just 20 years. Over 25% of North American bumble bees are threatened with extinction. Bees pollinate 80% of the world's flowers plants.

Factors contributing to these declines include disease, climate change, and the widespread use of insecticides, but the overwhelming cause is habitat loss — the disappearance of native plant communities that wildlife depends on for survival. Habitat loss in the United States is due primarily to agricultural expansion and urban and suburban sprawl. Development carves up once-intact woodlands and prairies into much smaller areas. The wildlife that lives in these areas is more susceptible to external threats and stressors.

One of best places to restore native habitat is at the base of trees. The wildlife value provided by trees is due in part to scale. A tree that's 30 feet tall and 15 feet in diameter provides much more nectar, pollen, leaves, and berries to feed wildlife than a 15x30-foot flower bed. Mature trees can have a branch spread of 40 to 80 feet. That's a lot of leaf cover and flowers!

Many native trees are insect-pollinated. When these trees bloom, they produce a tremendous amount of pollen and nectar. Most native trees blossom in early to mid-spring, when native insects are emerging and breeding. In the fall, these trees provide fruits, nuts, and seeds that fortify native birds and insects to sustain them over the winter.

Native trees are also an important food source for a large number of caterpillars, which in turn feed native birds. One species of tree can support hundreds of species of caterpillars. As Professor Doug Tallamy has noted many times, over 90 percent of terrestrial bird species rely on native caterpillars as the main food source to raise their young.

Caterpillars that successfully avoid becoming birds food continue to develop, and ultimately they drop to the ground below the tree to form their cocoon. Some caterpillars burrow into the ground to pupate, and others pupate in the fallen leaves under the tree. The luna moth caterpillar uses fallen leaves to form the exterior of its cocoon. Virginia creeper, which happily climbs into native trees,

as well as covering the ground in shaded area, hosts the caterpillar of the pandora sphinx moth.

If the area under a tree is mowed lawn, the caterpillars' life cycles will be interrupted because they will not be able to burrow into the compacted soil to pupate, there won't be any fallen leaves to shelter the cocoons, and mowers and leaf blowers will make short work of any cocoons that survive.

A soft landing garden is an area of native plants under a tree that enables the caterpillars' life cycle to be completed. This area can also be planted with native flowers and grasses that will sustain these insects when they mature.

The shade and water competition from a mature tree can create challenging conditions. Here are some natives that thrive under mature trees:

<u>Golden ragwort</u> (*Packera aurea*) — Less than 2 feet tall, spreads to form a semi-evergreen understory carpet (below, just finishing early spring bloom). Resistant to deer browsing. In drier conditions, substitute *P. obovata*.



<u>Bottlebrush grass</u> (*Elymus hystrix*) — One of the few shade-tolerant grasses, not too tall at less than 3 feet. Interesting flower heads develop early in summer.



Jacob's ladder (Polemonium reptans) — Light blue flowers attract bumblebees as well as shorttongued pollinators. Mounds of delicate but sturdy foliage emerge in early spring and persist through frost. Deer can nibble but seldom damage this plant. It reseeds where happy.

<u>White wood aster</u> (*Eurybia divericata*) — Long bloom season from early to late fall; forms colonies in shade; attractive to bumblebees, not very deer tolerant.

<u>Blue-stem goldenrod</u> (*Solidago caesia*) — Gradually forms colonies in shade; graceful spires of golden flowers support many pollinators (below).



<u>Sedges</u> — Carex amphibola, C. blanda, C. flaccosperma. C. pennsylvanica, C. radiata, C. rosea.

Fine-bladed *C.*appalachica (right)

can be interplanted

with *Penstemon*digitalis under a

mature tree, which

provides the necessary partial shade.



Low-growing shrubs that prefer shade can also be part of a soft landing garden. Below, coralberry (*Symphoricarpus orbiculatus*), *Penstemon*, and sedges grow at the base of a red oak.

Understory shrubs like spicebush (Lindera benzoin) and sweet pepperbush (Clethra alnifolia) also work and can be pruned to stay shorter if desired.



At the sunny edges of soft landing gardens, plant perennials

like purple coneflower (*Echinacea*), bee balm (*Monarda*), sunflower (*Helianthus*), and mountain mint (*Pycnanthemum*) to feed pollinators.

To create a soft landing garden under a mature tree, smother the grass with cardboard topped with wood chips or composted leaves, and cut holes to plant plugs. Plant plugs at intervals of 1 square foot to achieve quick coverage. Plant flowering plants in clusters to maximize visibility for pollinators. Include some pieces of decaying logs to provide nest sites for native pollinators. Add a border of bricks, stones, or logs to define the bed and keep the grass from encroaching.



<u>Above</u> -- Carex rosea, C. blanda (lower right), Packera aurea, and the occasional Penstemon digitalis are planted under clump-forming silky dogwood.

## **Invasive Species -- English Ivy**

A hallmark of ancient buildings across the pond, English ivy (*Hedera helix*) is an evergreen perennial vine that has been used in traditional landscaping as a groundcover because it takes over the base layer of a planting, allowing nothing to get through. When allowed to climb, it smothers surfaces and trees alike. Although its evergreen leaves are attractive, English ivy is the plant equivalent of a bull in the china shop of your native plantings.

#### <u>Identification</u>

It's not difficult to recognize ivy's dark green, leathery, triangular leaves with contrasting light veins (right). Some



ivy leaves are prominently three-lobed, while others on the same plant have minimal or no lobes.

As ivy matures, the leaves elongate and the veins becomes less noticeable (below). In summer, clusters of small greenish-yellow flowers appear, followed by small berries that turn black when mature.

The berries are eaten by birds, and the seeds sprout in fertile, moist soil in sun to part shade. Woodland edges, forest openings, abandoned fields, and disturbed areas are all susceptible habitats for invasion by ivy.



#### **Effect on Native Habitat**

English ivy is an aggressive invader that threatens all vegetation levels, smothering plants at ground level as well as in the canopy. Vines climb tree trunks and spread out to envelop the branches, blocking sunlight from the host tree's leaves and preventing photosynthesis.

An ivy-infested tree can decline for years before it dies. As ivy climbs higher in a tree, branch dieback advances from lower to higher branches. The added weight of the vines makes limbs and trees susceptible to coming down during storms.

English ivy has been confirmed as a reservoir for bacterial leaf scorch, a harmful plant pathogen that affects a wide variety of native trees, including elms, oaks, and maples.

#### **Removal and Control**

Vines on the ground can be pulled by hand; the root system is shallow. To avoid soil disturbance, lift the vine and clip the roots as you pull. Wear gloves; ivy stems contain sap that can irritate skin. Allow plant debris to dry out completely before composting. Ivy on the ground can also be smothered. Because cut stems and fragments can resprout, make sure smothering covers the entire affected area. Inspect the area annually to remove any resprouts.

To kill vines climbing into trees, make two cuts in the vine stem, one as close as possible to the ground and the other several inches higher. Cut the vine all the way around the trunk or branch, just deep enough to contact the host tree bark. Pry away the vine between the two cuts to prevent regrowth. The vine above the top cut will die back and gradually fall away. Don't pull the vine out of the tree, as this can damage branches. Keep cutting or pulling off new growth that sprouts from the base of the vine, to starve the roots of the plant.

#### **Native Alternatives**

Virginia creeper (*Parthenocissus quinquefolia*) is a vigorous native vine that can cover the ground and climb walls, fences, and trees. Unlike English ivy, Virginia creeper is easy to pull up (or off walls) if it's overgrowing its welcome. Although not evergreen, its leaves turn bright orange in fall, and its black fruits feed the birds. It will spread in sun or shade as long as the soil is not too dry. Deer leave it alone.

Wild ginger (Asarum canadense) is a less aggressive native groundcover with large, attractive green leaves and dark red flowers that hide beneath the leaves. The plant spreads slowly in moist, shady environments with the aid of ants, which carry the seeds to their nests. Deer don't favor it. In a dry year, the leaves may disappear until rain returns.

#### **Events and Educational Opportunities**

- Oct. 2 The Secret Lives of Bumblebees: Nesting and Overwintering. Xerces Society webinar, 1:00 p.m.
- Oct. 4 Gardening for Ecological Resilience Tour. Mt Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 10:30 a.m.
- Oct. 4 Managing Fall Weeds. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 1:00 p.m.
- Oct. 4 <u>Transform Your Garden with Native Plants</u>. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 1:00 p.m.
- Oct. 9 Creating Backyard Wildlife Habitats. Bowman's Hill Wildlife Preserve webinar, 7:00 p.m.
- Oct. 11 <u>Designing Stunning Spaces with Native Plants</u>. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 10:00 a.m.
- Oct. 15 Gardening with Deer Resistant Plants. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 1:00 p.m.
- Oct. 15 Restoring Soils for Native Plants. Mt. Cuba Center webinar, 6:00 p.m.
- Oct. 16 Weatherwood Ridge Reserve: From Suburb to Ecological Oasis. Jenkins Arboretum webinar, 7 p.m.
- Oct. 16 Next Steps for Nature with Doug Tallamy WildOnes, webinar, 7:00 p.m.
- **Oct. 18** Knowing Native Plants: Trees of the Preserve. Bowman's Hill Wildlife Preserve, in person or webinar, 1:00 p.m.
- Oct. 18 Designing with Native Grasses. Mt Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 1:00 p.m.
- Oct. 18 <u>Transform Your Garden with Native Plants</u>. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 1:00 p.m.
- Oct. 23 Grow Your Garden for Less with Seed Collecting. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 10:00 a.m.
- Oct. 24 Replacing Mulch with Autumn Groundcovers. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 10:00 a.m.
- Oct. 24 Designing with Native Evergreens. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 1:00 p.m.
- Oct. 25 Managing Invasives in Your Home Garden. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 10:00 a.m.
- Oct. 25 Healthy Soils for Healthy Plants. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 10:00 a.m.
- Oct. 25 <u>Beyond Perennials: Discovering Native Annuals</u>. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE, 3:00 p.m.
- Oct. 29 Know Your Natives: Vines. PennState Extension webinar, 7:00 p.m.
- Oct. 23 A New Way to Meadow. Bowman's Hill Wildlife Preserve webinar, 7:00 p.m.