

January 2025 Newsletter

SOUTHEASTERN PENNSYLVANIA CHAPTER

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Native Plants, Nativars, Cultivars, and Straight Species -- What You Want To Know

Presented by Mark Gormel and Renee Kemmerer, Brandywine Conservancy

Native species are plant species that have inhabited a particular region for many thousands of years. Plants living in eastern North America since the end of the last Ice Age, over 11,000 years ago, have been evolving since that time, with the goal of coexisting with the other living things in their environment. These plants are the result of the best adaptations to local climate and competition.

<u>Cultivars</u>

Cultivars are plants selected and propagated by humans in a way that retains all the all of the plant's unique and specific characteristics. Most cultivars are genetically identical to the parent plants, i.e. clones. Cultivars have been produced for as long as humans have been interacting with plants.

The many varieties of apples and peaches that are available are all cultivars. Pink flowers on white dogwood (*Cornus florida*) are a normal genetic variation of white dogwood which occurs naturally. Redbud flowers that are redder or more lavender are natural variations of the more common neon pink flowers, as are redbuds with reddish leaves.

Beebalm (*Monarda didyma*) shows relatively a lot of genetic variation and is usually offered in the trade as a cultivar that has been selected for resistance to powdery mildew as well as for color. Great blue lobelia (*L. syphlitica*) has a natural white variation. Wild columbine (*Aquilegia canadensis*) has a yellow cultivar ('Corbett') that comes true from seed,

which most cultivars do not.

Summersweet (*Clethra alnifolia*) has several cultivars, including pink-flowered and shorter-stature plants. American holly (*Ilex verticillata*) has cultivars with yellow berries.

The flowers of garden phlox (*P. paniculata*) show a wide variety of color, from white to dark pink, flowers with a lighter or darker eye, flowers with lighter edges, as well as plants that flower later in the season. *P. paniculata* 'Jeana' is widely reputed to attract more pollinators than other varieties of garden phlox. Natural cultivars of this plant don't come true from seed.

Moss phlox (*P. subulata*) shows a tremendous variation in flower size, shape, and color in the wild, all of which are natural cultivars.

<u>Nativars</u>

The term "nativar" was coined to describe a culti-

WO SEPA 2025 CALENDAR

Feb. 12 Meadow Installation Insights, webinar presented by Emma Schad, Habitat and Volunteer Manager at Riverbend Environmental Education Center, 7 p.m.

Mar. ____ TBA

- Apr. ___ Webinar TBA
- May 3 Garden tour in Telford, Bucks County
- June ___ Webinar TBA
- July ____ Tour of Bondsville Mill Park
- Sept. 18 Garden tour in Pottstown, Chester County
- Oct. 16 Webinar TBA

Nov. 20 Chapter elections; webinar TBA

var of a native species, as opposed to a cultivar of a nonnative plant. All nativars are cultivars, but not all cultivars are natives.

Straight Species

The term "straight species" refers to all the plants in the genetic pool which have npt been selected for commercial production due to a distinguishing feature. These plants reflect the full genetic potential of their species, including all variations of color, form, and size of which the species is capable.

Nativars, cultivars, and straight species aren't inherently good or bad. Research is ongoing to study how our choices in our own gardens affect pollinators.

Ecosystem Impact

Native plants reproduce primarily through open pollination, meaning the flowers are pollinated by insects, wind, or other natural forces. Open pollination produces offspring that are genetically diverse, so there can be a lot of variation in the plants and fruits. This genetic diversity helps the species survive adverse conditions like extreme weather, insect and animal predation, and fire.

Cultivars are naturally occurring genetic variants that are selected and propagated by humans using cloning methods that include grafting, root division, layering, or tissue culture. Cultivars are genetically identical to their parent, like a photocopy of a document.

Native plants grown from seed perpetuate the genetic diversity of their native gene pool. Each successive generation of plants reproducing in this manner continues to maintain a rich heritage.

In contrast, many cultivars are sterile (incapable of producing viable seed). Others can produce seed, but the resulting plants don't usually reflect the variation that makes the cultivar unique. In other words, cultivars usually don't come true from seed the way open-pollinated plants do. A red-leaved cultivar of *Penstemon digitalis* might set viable seed, but that seed won't reliably produce red-leaved offspring.

Cultivars by themselves don't harm the ecosystem, but they do affect it. If gardeners plant lots of cultivars and fewer straight species, the resulting genetic pool will be narrower because fewer variations of a plant will exist. Over the entire range of plant species, this loss of genetic diversity could cause native plants to be less competitive against invasives or less able to survive climate upsets. Straight species open-pollinated plants and the genetic diversity they contain are the building blocks of future horticultural selections as well as the key to ecological preservation.

"It is a bad idea to load the landscape with plants that have no genetic variability." Professor Doug Tallamy

Ecosystem Services

A related concern is whether native cultivars provide the same ecosystem services as their straightspecies relatives. Research is ongoing on the differences between nativars and straight species with regard to their usefulness to pollinators and their ability to provide nutritious food for insects.

Nativars that vary significantly in color, size, or shape from the straight species can end up providing fewer ecological services to foraging insects. For example, double flowers might be selected because the increased petal count provides more color or fullness of bloom. However, the extra petals can block an insect's path to the flower's pollen. This is a physical effect of cultivar selection.

Cultivars can also have more subtle chemical effects, such as changes in the composition of nectar and pollen. These traits might be genetically tied to the desired double-petal trait, so that they inadvertently make the double-petal selection a less desirable food source for insects. Every time this double-petal cultivar is planted instead of the straight species, this garden provides less food for native insects.

This sounds dramatic, but the fact is, we don't know all the effects of cultivars that change the shape of flowers or the color of leaves. . Research suggests that cultivars with darker foliage discourage insect feeding, whereas selection for enhanced fruiting or shorter habit have no adverse effect on insect feeding.lf your garden includes cultivars, you can conduct your own informal observations.

Resources

Do Cultivars of Native Plants Support Insect Herbivores? Do Leaf-Eating Insects Eat Nativars? Echinacea for the Mid-Atlantic Region Native, or Not So Much?

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

Black Cherry, Prunus serotina

The genus *Prunus* supports over 430 species of butterflies and moths in southeastern Pennsylvania. Trees in this genus which are native to our area include chokecherry (*P. virginiana* var. *virginiana*), pin cherry (*P. pennsylvanica*), and black cherry (*P. serotina*).

Black cherry is a frequent volunteer at the edges of woods and fields. Found primarily in early-successional woodlands and edge habitats, this is a

fast-growing pioneer species. Its seeds are mainly distributed by birds, which rely on its prolific berries for fall sustenance.

The ovate leaves are opposite with a pointed tip and a shiny upper surface. Fragrant white flowers in drooping racemes attract many species of native insects. Small dark red fruit changes to black from August through October. The crushed foliage and bark have a distinctive cherry-like odor and a bitter taste, owing to cyanide compounds. The leaves, twigs, and stems are all poisonous to mammals.

Black cherry trees are easily recognized by the horizontally striated bark of younger trunks (below left) and the plated, gray bark of older trunks (below center).



Quick Facts -- Black Cherry

Size	50-80 ft tall
Sun	Full to part sun
Soil	Well-drained; tolerates clay loam
Water	Moist to dry well-drained soil

Habitat Value Flowers especially valuable to native bees. Larval host for over 430 species of butterflies and moths. Fruit consumed by 33 species of birds and many mammals.

Planning for Spring

Winter is the perfect time to plan for spring planting. You can research your plant wish list on line and make a dent in your to-do list as the weather allows.

Site considerations

Whether you're filling in existing beds or creating new ones (or both!), take time to consider the light, moisture, and soil characteristics of your sites so you can choose plants accordingly. "Light" means not just the direction of the sun, but its intensity as well. Plants growing in the shade of deciduous trees and shrubs will receive less light when those trees and shrubs are in leaf.

If you're planting spring ephemerals, full sun means something different than it does for summerblooming perennials. We think of spring ephemerals as shade dwellers, but when they're emerging and flowering in early spring, they are in almost full sun, even growing in the woods, until deciduous trees leaf out. That early-season sunlight allows them to emerge, flower, and store energy quickly. The shade provided by the canopy of deciduous trees and shrubs helps to keep the soil from drying out during summer, and in autumn, a new crop of fallen leaves insulates their roots over the winter.

Soil moisture and light are also site-specific. In a single-species hedgerow where some of the trees are shorter than others, study the smaller specimens, and you might find that they are growing within the root zone of another tree that's sharing (or hogging) the soil moisture. If the neighboring tree is taller or on the sunward side of the hedgerow, its shade might also be a factor for slower growth.

The ability of the soil to retain moisture can be improved with native plants that improve the soil structure and capture rainwater instead of letting it run off too quickly to infiltrate. This provides better growing habitat than bare ground or turf grass.

Design considerations

When the leaves are down and snow has flattened many perennials, you can more easily see the structural foundation of your garden and decide where changes might be needed. If an area has become too shady for the understory plants, it might be time to trim some tree branches. Redbuds are a great example of a structural element that can get out of hand. They're beautiful small trees that can accommodate both shadeloving companion plants near the trunk and sunlovers closer to the drip line, until they grow taller than about 15 feet. At that point, the dense, layered branches can cast so much shade that the sunlovers are relegated to the edges of the bed, destroying the integrated companion planting.

The solution is easy -- remove one or more of the largest or tallest trunks, opening up the middle of the canopy to reduce the size and intensity of the tree's shadow. Redbuds can also be rejuvenated by cutting all trunks down to 1 foot, if you prefer more sun. This technique works with other fast-growing multiple-trunk trees, including box elder, viburnum, and shrubby dogwoods.

Of course, you can also decide to allow nature to take its course, and move your sun-loving plants to another spot. What a great reason to create a new garden bed by converting a sunny lawn area!

Turning Lawn into Native Garden

One of the simplest strategies for reducing your lawn is to expand existing native planting areas that border the lawn. Traditionally, flower beds were narrow borders along a larger area of lawn. Native gardeners can flip this construct and use lawn as a narrow border between native planting areas.

There are several strategies for expanding native plantings into your lawn. The easiest is to pick up your border material -- bricks, logs, etc. -- and move it out onto the lawn by 1 foot. Dig out the band of grass inside the relocated border using a hand trowel or shovel. Shake the soil off the grass roots into the new planting area and cover it with a light layer of wood chips to hold the soil in place. Planting the area is probably best left until spring.



Bed created in September 2022 (top) and widened in December 2024 (bottom)

Planning for Spring (cont'd)

To convert larger areas of lawn, sheet mulching is much easier than digging out turf grass. Start by moving your border material out to the new edge of the bed. Mow the grass as short as possible, and follow up by weed-whacking the grass down to the soil. The more grass you kill now, the less will resprout through the cardboard. Rake off the grass and smooth out any hills or holes in the soil.



Spread cardboard to cover the exposed soil. Overlap the cardboard to cover all the gaps. Secure the cardboard under your border material to prevent grass from sprouting there. Cover the cardboard with a layer of wood chips. Wood chips are preferable to commercial mulch because they are not as fine, so they don't prevent water and air from reaching the plants' roots.



Although the photos show this project being done in late summer, it works just as well in winter. When you start to plant the bed in the spring, cut holes in the cardboard with a planting knife if necessary. Fold the cardboard as close as possible to the root crowns of the plants to prevent grass from resprouting there.

Winter Reading List

If it's just too cold to work outside, Wild Ones National is ready with a reading list to expand your understanding of native plants. The books range from novels and historical accounts to scientific studies and personal reflections. They delve into the importance of native plants, the intricacies of ecological systems, the benefits of nature to human health, and the philosophical and spiritual connections between humans and the natural world.

The lists of storybooks about pollinators, nature reads for young explorers. and back-to-school reads on botanical pioneers will appeal to young naturalists and those who read with them.

Reviews of some of the selections can be found

Certified Native Plant Habitat Program

Wild Ones' certified native plant habitat program honors the dedication and hard work of members who actively participate in this transformative journey of native gardeners growing healthier landscapes. The program recognizing their efforts as crucial contributions to environmental restoration and sustainability.

Join Wild Ones in spreading the message and inspiring others, showcasing your habitat as a beacon of environmental stewardship.

Find out more about **CERTIFIED** certifying NATIVE native habitat here. HABITAT Native plants and natural landscapes thriving in every community

vour

Neonicotinoids -- How Can We Protect Pollinators?

From a webinar sponsored by Wild Ones National and presented by Lucas Rhodes, senior attorney with Natural Resources Defense Council's Pesticides & Pollinators Team

Observations indicate that wild bee populations have been declining over their native range since the 1990s. Honeybees, which are not native to North America, cannot replace the pollinator services provided by native bees, because native bees, due to their different sizes and abilities, pollinate a much larger range of plants than honeybees. The populations of other pollinating insects -- butterflies, moths, beetles, ants -- has also plummeted over the last several decades.

A significant cause of this decline is the widespread use of neonicotinoid-containing insecticides, called neonics. The main concerns are:

- Neonices are extraordinarily toxic compared to other insecticides.
- Neonics are designed to be systemic. They travel throughout a plant's systems and make all parts of the plant -- leaves, roots, stems, flowers, pollen, and fruit -- toxic to insects.
- Neonics are highly water-soluble and long-lasting in the environment.
- Neonics are very widely used, including in agriculture, lawns, home gardens, and commercial landscapes.

Neonic-treated crop seeds (mostly corn and soybeans) are the number one source of neonic contamination across the country.

Widespread use of neonics in agriculture has led to a significant negative impact on all insects. The dramatic rise in the use of neonic-treated crop seeds co-incides with the first large episode of honeybee colony collapse.

Neonics are now found in over half the samples of surface water in the country. In agricultural areas, the percentage is much higher. Many of these waters are sources of drinking water for nearby communities. Conventional drinking water treatment does not remove neonics from the water.

Research shows that the presence of neonics is a

leading cause of pollinator decline. Neonics are toxic to wild bees in tiny amounts and also impact monarch butterflies.

A steep decline in wild bird populations over the past 30 years is also linked to the rising use of neonics, for two reasons. First, neonics are directly toxic to birds when treated seeds are eaten. Second, these chemicals have decimated the population of insects that are the primary food source for most songbirds during certain stages of their lives.

Strategies To Protect Habitat

Lawn and garden use of neonic-containing pesticides can create toxic hotspots in highly populated areas. Since neonics are water soluble and travel through the environment, pesticide use on neighboring properties can affect your property, too.

Environmental contamination by neonic pesticides is a leading cause of pollinator decline, harms birds and aquatic ecosystems, and poses threats to human health. Neonic residues are found in 86 percent of U.S. honey, and they show up in popular produce like apples, cherries, and strawberries. Because neonics are actually in the fruit and vegetables themselves, they can't be washed or peeled off.

Treated seeds and lawn and garden use of neonic -containing pesticides cause the most contamination, but are largely unnecessary. <u>California</u>, <u>Colorado</u>, <u>Connecticut</u>, <u>Maine</u>, <u>Maryland</u>, <u>Massachusetts</u>, <u>Minnesota</u>, <u>Nevada</u>, <u>New Jersey</u>, <u>New York</u>, <u>Vermont</u>, and <u>Washington</u> have passed laws to ban the use of neonic pesticides on lawns and residential gardens. Canada has gone further and require farmers to obtain a verification of need before they can purchase neonic-treated seeds. The result -- neonic uses plummeted, but yields remained the same.

Resources

Neonicotinoid pesticide exposure impairs crop pollination services provided by bumblebees

How Neonicotinoids Can Kill Bees

Neonicotinoids 101: The Effects on Humans and Bees

Native Evergreens

Evergreens -- broadleaf or needled plants that keep their foliage all year -- are often overlooked by gardeners but shouldn't be. In addition to providing visual interest in the depths of winter, evergreens are important elements of wildlife habitat, providing shelter year-round, nesting sites, fall berries, and larval food for many insects.

Unlike deciduous plants, evergreens do not lose all their foliage at one time. The life of any one leaf can range from 1 to 6 years. Among evergreens that drop 1-year-old foliage are laurel, holly, white pine, and arborvitae. Trees that retain green foliage for 3 years or more include spruce, fir, hemlock, and yew. Most needle-bearing evergreens drop their old foliage in the fall. Hollies shed old leaves in the spring, as new foliage begins to appear.

Evergreens can appear to be immune to moisture loss because their leaves or needles have a protective waxy outer layer that prevents them from wilting, but in fact they can succumb to drought or be injured when planted in excessively windy locations. Since these plants retain their foliage all winter, they can dry out even when the soil is frozen. On warm days, when the leaves thaw, the plant will lose moisture through its leaves. If the site is windy, moisture loss can be extensive, especially when the supply of moisture in the soil is frozen and cannot move up into the plant.

Unless the soil moisture is replenished by winter rains, you might need to water native evergreens in a dry year to avoid losing plants. Water when the daytime temperature is above freezing.

Needle Evergreens

<u>Eastern white pine</u> (*Pinus strobus*) is easily recognized by its long, thin, bluish-green needles growing in bundles near the ends of each twig. Long, heavy, almost horizontal branches grow in a circular pattern around the straight trunk. This tree needs a lot of space and can grow to 200 feet in height. Young trees are susceptible to damage caused by browsing deer.

White pine is tolerant of a wide variety of growing conditions, from sun to shade and moist soil to dry. It provides protective cover for many creatures year round and is of high value to song and game birds. Its strong, horizontal branch structure (above right) provides a platform for the substantial nests of large hawks and eagles.

Eastern red cedar (Juniperus virginiana) is a fastgrowing tree found in successional fields, hedgerows, and the edges of woods. It colonizes disturbed areas quickly and usually grows 30 to 40 feet tall.



Fragrant, scale-like foliage can be coarse or fine-cut and varies widely in color, from gray-green to bluegreen to light or dark green. The pale blue fruits are devoured by cedar waxwings (below) and other songbirds.

Cedar is resistant to extremes of drought, heat, and cold. It tolerates a variety of soils and growing conditions, from swamps to dry, rocky ground, and is the most drought-resistant native conifer in our area. It is quite salt-tolerant and can be used near roads, driveways, and sidewalks. This tree is easy to transplant, but young trees are susceptible to deer damage during the winter when food is scarce, and the trunks of mature trees can be damaged by bucks. Eastern red cedar is an alternate host for cedar apple rust, a fungus that also afflicts apple trees.



<u>Eastern hemlock</u> (*Tsuga canadensis*), Pennsylvania's state tree, is a canopy tree of coniferous and mixed hardwood forests, growing up to 100 feet tall. Despite their ultimate size, hemlocks should be planted with other canopy trees, similar to the way they grow in the forest, because their shallow root system makes them susceptible to wind damage. Hemlock is also intolerant of drought, heat, wet soil, and salt.



Hemlock provides excellent nesting habitat for songbirds. Young trees should be protected from browsing deer in winter. Eastern hemlock is increasingly under threat from the Asian hemlock woolly adelgid, a tiny white sucking insect that can defoliate a tree in just a few years. However, some hemlocks can tolerate an infestation for years if they are not under environmental stress.

<u>Arborvitae</u> (*Thuja occidentalis*) will adapt to clay soil and wet conditions but does not tolerate drought or exposed, windy sites. Its elegant, bright green fanlike foliage can turn dark bronze in winter. Arborvitae provides shelter and nesting habitat for many native bird species, which also feed on the seeds in the small tan cones. Rabbits and deer will browse the fragrant foliage and can completely defoliate a tree's lower branches.

Broadleaf Evergreen Trees

<u>American holly</u> (*llex opaca*) is an understory tree or shrub in moist, deciduous forests in our area. In the forest, trees will be shorter and sparse, but in full sun they can reach 60 feet in height and 20 feet in width. With its full, conical shape and branches all the way to the ground, American holly is a beautiful and effective screening tree. Holly does not tolerate alkaline soil, and its thick, spiny leaves can turn yellow when it cannot absorb soil nutrients. Holly is dioecious (plants are either male or female), with red or occasionally orange berries on female plants.

The shorter holly sold as a foundation plant is usually a hybrid of English and Asian hollies and is characterized by glossy, thick, often spineless bluegreen leaves. American holly can be maintained as a shrub, but it will require consistent pruning.

<u>Southern magnolia</u> (*M. grandiflora*) is a dramatic native evergreen that requires full sun and a lot of space as it matures. It can grow as tall as 100 feet, and its branches can sweep the ground in a circle 30 feet in diameter. This magnolia requires a consistent source of soil moisture, and in the northern part of its range it should be planted in a sheltered location. It can lose branches in a storm, but the tree will recover and even send up root shoots to replace a lost trunk on a multi-trunk specimen.



Magnolia flowers can perfume an entire garden for several weeks in early summer. The hand-size white flowers are followed by equally dramatic brown cones filled with plump red seeds that are eaten by turkey, possum, and quail.

<u>Sweet bay magnolia</u> (*M. virginiana*) is a smaller magnolia but can still grow to 35 feet tall and almost as wide. Its fragrant white flowers and seed cones are smaller than those of southern magnolia. In the northern portion of its range, sweet bay magnolia can lose its leaves in winter.

Next month's newsletter will feature several native evergreen shrubs.

Invasive Species -- Multiflora Rose

Multiflora rose (*R. multiflora*) was introduced to the eastern United States as early as the 1700s as rootstock for ornamental roses. Beginning in the 1930s, the U.S. Soil Conservation Service promoted it for erosion control and as a "living fence" to confine livestock. State conservation agencies recommended multiflora rose as cover for wildlife. It has been planted in highway median strips to serve as crash barriers and to reduce automobile headlight glare.

Identification

Multiflora rose is a multi-stemmed shrub that can reach 10 feet in height and form dense thickets. Its long, arching canes can climb into nearby trees in search of light. Young canes are red (below) or

green and can be identified by their sharp, curved thorns.

The leaves are divided into five to eleven sharply toothed leaflets, with small, fringed wing-like structures at the base of each leaf stalk.

Small fragrant white to pinkish flowers appear in clusters in spring. The bright red fruits develop during summer and can re-



main on the plant into the winter. An average plant produces an estimated one million seeds per year, which can remain viable in the soil up to 20 years.

Multiflora rose spreads by seed and root shoots, and also by forming new plants at the tips of arching canes that touch the ground.

Native Look-Alikes

Our three native rose species don't really resemble multiflora. Pasture rose (*R. carolina*) grows to only 4 feet in height, and Virginia rose (*R. virginiana*) and swamp rose (*R. palustris*) to 6 feet. The bright pink flowers of all three natives occur singly and are over twice the size of multiflora's small white flowers. Only multiflora rose has both long, upright, arching

canes and fringed leaf stems.

Effect on Native Habitat

Multiflora rose grows aggressively and produces large numbers of fruits that are eaten and dispersed by a variety of birds. Dense thickets of multiflora rose exclude most native shrubs and forbs from establishing and may be detrimental to nesting of native birds. Multiflora rose is designated as a noxious weed in Pennsylvania and New Jersey.

Because multiflora rose tolerates a wide range of soil, moisture and light conditions, it is able to invade fields, forests, prairies, some wetlands, and many other habitats.

<u>Control</u>

At least 25 years ago, a rose disease called witches' broom arrived in southeastern Pennsylvania. Spread by mites, the disease hit multiflora rose especially hard, although many varieties of ornamental rose were also affected. Witches' broom is characterized by clusters of long, thin, reddish shoots forming at the ends of canes. The disease kills the entire plant in 1 to 2 years.

In the past 10 years, witches' broom has effectively wiped out many local populations of multiflora rose, giving land managers an unexpected opportunity to combat this invasive plant. Owing to its resilient seed bank, multiflora rose can be seen resprouting in fields and woodland edges. If gardeners and land managers identify and remove these resprouts while they're young, we can avoid the repopulation of multiflora in our wild areas.

Newly sprouted plants can be removed by cutting below the root crown with pruning shears. Even at this small size, hand pulling is not effective due to the tenacious roots. Larger plants can be removed by cutting through each root below the soil level, using pruning shears, loppers, or a pruning saw.

In areas with a large infestation, repeated cutting or mowing three to six times per growing season, for 2 to 4 years, has been shown to be very effective. Because of the long-lived seed bank in the soil, followup will be necessary, but the relatively clean sweep of the witches' broom virus has given gardeners a unique, temporary advantage in combatting this pervasive noxious weed.

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 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>.

WO SEPA 2025 Grant Program

The application form for the chapter's 2025 grant program is available on our <u>website</u> under the <u>Grants</u> tab.

- Applications will be accepted on a rolling basis.
- Please allow at least 60 days for the review process. Submit completed applications to wildonesof-sepa@gmail.com.
- Applicants must be a nonprofit charitable organization or a government entity (e.g., school district, municipal parks department)

Events and Educational Opportunities

- Jan. 19 <u>Tiny Forests</u>. Bowman's Hill Wildflower Preserve webinar. 2:00 p.m.
- Jan. 22 Introduction to Birding. Brandywine Conservancy webinar. 6:30 p.m.
- Jan. 22 <u>Who Are the Native Bees in Your Backyard</u>. Northeast Ohio Pollinator Society webinar, 7 p.m.

Jan. 25 <u>Native Seed Propagation: Deer-Resistant Plants</u>. Jenkins Arboretum, 631 Berwyn Baptist Rd, Devon PA 10:00 a.m.

Jan. 25 Community Seed Swap, Berks Nature, 575 St. Bernardine St, Reading, PA. 9:30 a.m.

Jan. 28 <u>Fireflies: Conserving the Light of the Night</u> Hardy Plant Society Mid-Atlantic Group webinar, 10:00 a.m.

Jan. 29 Designing Meadows and Naturalized Landscapes, Native Plant Trust webinar. 5:30 p.m.

Feb. 2 <u>From Wasteland to Wonder – Easy Ways We Can Help Heal Earth in the Sub/Urban Landscape</u>. Bowman's Hill Wildflower Preserve webinar. 2:00 p.m.

Feb. 5 <u>Creation and Maintenance of Native Meadow Habitat</u>. Northeast Ohio Pollinator Society webinar, 7 p.m.

Feb. 8 <u>Pennsylvania Game Commission's Cavity Nester Program</u>. Brandywine Conservancy webinar. 6:30 p.m.

Feb. 9 Lower Makefield Township's Native Plant Ordinance. Bowman's Hill Wildflower Preserve webinar. 2:00 p.m.

Feb. 11 <u>Reversing the Decline of Grassland Birds</u>. Brandywine Conservancy webinar. 6:30 p.m.

Feb. 12 So You Want Less Lawn, Native Plant Trust webinar, 5:00 p.m.

Feb. 16 <u>Restoring Nature to Restore Ourselves</u>, Bowman's Hill Wildflower Preserve webinar. 2:00 p.m.

Feb. 19 Matrix Design for Biodiverse Gardens. Northeast Ohio Pollinator Society webinar, 7 p.m.