September 2022 Newsletter

Wild Ones
NATIVE PLANTS, NATURAL LANDSCAPES
SOUTHEASTERN PENNSYLVANIA CHAPTER

sepa.wildones.org

Visit us on Instagram and Facebook

September Meeting Highlights

Chapter Business

Our chapter will have a table at the Philadelphia Honey Festival this weekend, Friday through Sunday. Check the website for locations and times.

WO-SEPA will have a table at West Nantmeal Township Community Day, September 24, 10 a.m. to 3 p.m. Volunteers to help staff the table are welcome; please contact wildonesofsepa@gmail.com

Native Trees for Your Home Landscape

Presented by Marc Radell, Master Gardener Emeritus, PennState Extension of Montgomery County

Planting a tree is one of the most significant things homeowners do in their yards. The size, longevity, and immobility of trees create a dominant visual presence for generations. Trees are the main influence on the nutrients, light, and moisture available to nearby plants and organisms.

Trees are one part of an interconnected plant and animal community, from treetops to roots. No tree should grow alone -- the plants that surround a tree are a vital part of this network.

Trees support wildlife by providing:

- Food -- Every part of a tree is consumed by multiple species of wildlife, from the leaves, bark, and sap of living trees to the wood of fallen trees.
- Water -- Tree sap provides direct moisture; leaves and bark catch precipitation; roots filter groundwater.
- Shelter -- All parts of a tree provide shelter from the elements and protection from predators for creatures of all sizes.
- Habitat -- Flowers, leaves, bark, and roots provide places to lay eggs, pupate, and feed.

Trees also provide ecosystem services: oxygen production, air filtration, carbon sequestration, noise reduction, erosion control, temperature regulation, soil improvement, and water filtration.

A Short History of Pennsylvania's Native Trees

Approximately 20,000 years ago, during the last Ice Age, boreal forest and tundra covered much of the land that is now Pennsylvania. As the climate warmed, southern species moved northward to form forests that covered 95% of the land.

Forest management by the first inhabitants, Native Americans, favored fire-resistant species such as oak, hickory, and pine. The next inhabitants, European colonists, systematically cleared the forests for farming and harvested trees to use in shipbuilding (white pine) and tanning (hemlock), and for charcoal (oak and chestnut) and railroad lines. During the colonial era, Pennsylvania's forest cover decreased to about 35% of the land.

Today, Pennsylvania's upland forests are a mixed hardwood subtype of the eastern hardwood forest, dominated by red and white oak, chestnut, tulip poplar, red maple, and hickory. In the floodplains, the dominant species are sycamore, silver maple, box elder, elm, black willow, green ash, and red maple. Of these species, pests and disease have destroyed the chestnut and elm trees and impacted many other native species.

Today, second-growth forest covers about 60% of

WO-SEPA 2022 Meeting Schedule

Oct. 13: Cultivars and Genotypes

Nov. 9: Native Shrubs for Four-Season Interest

Dec. 1: Collecting and Saving Native Seeds

View recordings of past meetings on our Youtube channel.

September meeting highlights, continued from page 1

the state. Of this, about half the species are nonnatives.

How To Choose a Tree for Your Home Landscape

When selecting native trees, look for species that are native to your part of the ecoregion and which fit your site conditions and meet your goals. Are you looking for a canopy or an understory tree? A tree with particular wildlife benefits? A tree to shade your house or produce fragrant flowers or spectacular fall color? Choose a tree that meets these criteria without a lot of extra maintenance, to make things easier on you and also on the tree.

Find maps and information about ecoregions here.
View the ecoregions of Pennsylvania here.

It's best to plant two or more of each species, for the best cross-pollination even with self-pollinating species. For dioecious species (those with male and female flowers on separate trees), you will need at least one male and one female of the species in order to get fruit.

Consider planting a diverse species mix if you're creating a woodland, since an area dominated by one species is more susceptible to disease or natural disaster. However, if you end up with an area dominated by one species, e.g. ash or white pine, nature will still take over following the demise of the trees. You can increase the resilience of your woodland by planting understory seedlings in anticipation of losing canopy trees to a known threat, such as emerald ash borer. As the canopy trees fall, the understory trees will be ready to take over as they naturally would do, but they will be ahead of the game since they are already somewhat established.

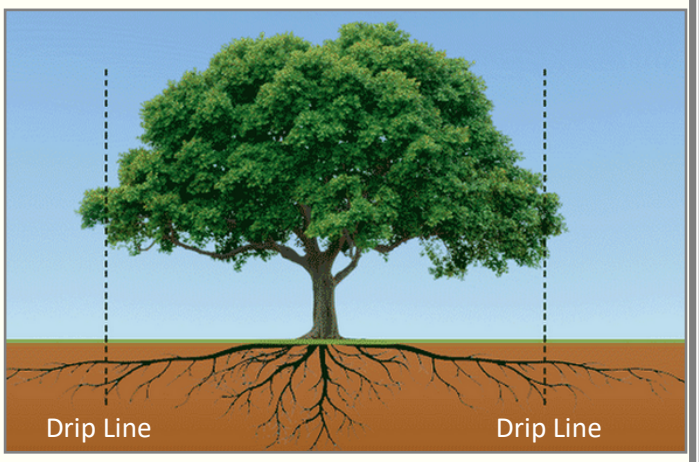
Planting and Maintenance

Make sure your tree is suitable for your site's soil, sun, and available moisture, and that the mature size of the tree fits the site and your landscaping goals. Keep in mind that trees will grow taller more quickly when planted close together, and their crowns will be narrower. Plant canopy trees 16 to 20 feet apart, and fill in between with understory trees and shrubs. The smaller trees and shrubs will continue to provide shade for the ground layer even if a canopy tree should fall.

Plant your tree at the proper depth. Dig the hole no deeper than the root ball, but much wider, to allow the roots to spread. Water the tree consistently until it becomes established, which can be up to 3 years.

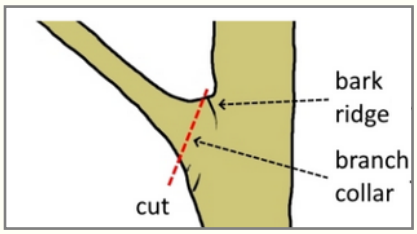
Use the Rule of Three for mulching: 3" deep, 3" away from the trunk, 3' in diameter. Use wood chips rather than commercial bagged or ground mulch, because the larger pieces in wood chips allow more air and moisture to the roots, whereas commercial mulch can pack down into an impervious layer over the soil.

Even better than mulch is an underplanting of shrubs, forbs, and grasses. Creating a "soft landings" area of native plants underneath the tree out to the drip line will provide ideal habitat for insects and other wildlife.



Pruning Trees

Late winter is the best time to prune most trees. Leave the branch collar in place to allow the cut to heal and prevent the entry of disease organisms.



If a tree is diseased , damaged, or dying, don't automatically remove it. Snags (dead trees left standing) provide important habitat for insects, birds, and animals to hide and feed. Woodpeckers, nuthatches, bats, squirrels, lizards, and possums use snags for food and nests.

After the tree falls, insects and microorganisms start the decay process, which provides food for birds and animals. Some animals dig their dens in the shelter provided by fallen tree trunks.

Resources

Lady Bird Johnson Wildflower Center Native Tree Finder

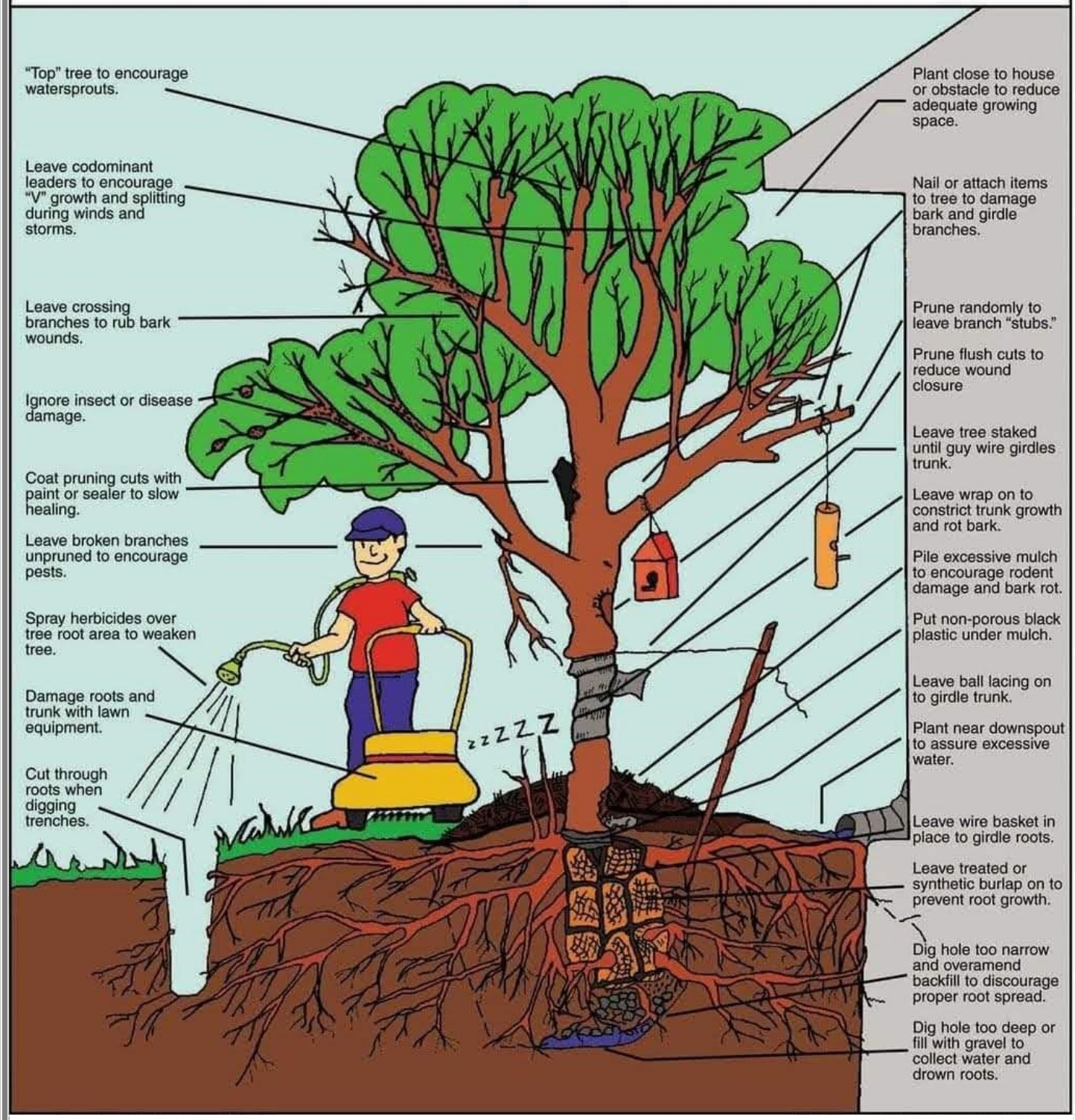
National Audubon Society Plants for Girds

National Wildlife Foundation Native Plant Finder

Trees of Pennsylvania, Rhoads & Block, 2004.

HOW TO KILL A TREE

Few residential trees die of "old age." Mechanical damage and improper tree care kill more trees than any insects or diseases. Avoid making the tree-damaging mistakes shown in the diagram below!



Funds provided by the U.S. Forest Service Urban and Community Forestry Assistance Grants Program. Virginia Department of Forestry © 1996

Thought of the Month

This month we're thinking about what is possible in our neighborhoods and communities. In a neighborhood in the Virginia mountains, a group of dedicated volunteers is doing amazing work with the native plants that grow on the mountain.

False solomon's seal (*Maianthemum racemosum*) (red berries), wood betony (*Pedicularis canadensis*) (front center*),* and hay-scented fern (*Dennstaedtia punctilobula*) (back left)

The group of about 25 volunteers plants and maintains three large native gardens in the community. Below is a community garden at one of the overlooks in the neighborhood. It includes ninebark (*Physocarpus opulifolius*), oxeye sunflower (*Heliopsis helianthoides*), black-eyed Susan (*Rudbeckia hirta*), Joe Pye weed (*Eupatorium* spp.), beebalm (*Monarda* spp.), jewel weed (*Impatiens capensis*), great blue lobelia (*L. siphilitica*), white wood aster (*A. divericatus*), nodding onion (*Allium cernuum*), blackhaw viburnum (*V. prunifolium*), Indian grass, (*Sorghastrum nutans*), pokeweed (*Phytolacca americana*), goldenrods, and various ferns.

They also collect seeds for propagating. Tall thimbleweed (*Anemone virginiana*) is shown below.

Five times a year, the group holds a native plant sale, selling plants they've patiently grown from seeds and cuttings. The quality, quantity, and selection are truly impressive!

Great blue lobelia (L. syphilitica) and white wood aster (A. divercatus)

We are hoping to have one of the organizers present a program at a future chapter meeting. It is our hope that we can look to this group as a model for what is possible in our own neighborhoods and communities.

Tree of the Month -- Sassafras

A deciduous understory tree, sassafras (S. *albidum*) is native to eastern North America, from southern Maine and Ontario west to Iowa, and south to central Florida and eastern Texas. It occurs throughout the eastern deciduous forest habitat type, at altitudes up to 4,900 feet.

Sassafras prefers rich, well-drained sandy loam with a neutral pH but will grow in any loose, moist soil. Seedlings will tolerate shade, but saplings and mature trees require full sunlight for good growth. Sassafras often grows at the edge of woodlands, along with sugar maple, white dogwood, eastern red cedar, and beech.

Sassafras is an early succession tree, one of the first to move into disturbed soil. In woodlands, sassafras typically regenerates in gaps created by downed trees. It's a fast grower and can spread by root sprouts, which can reach 3 feet their first year and 15 feet in 4 years. Root sprouts often result in dense thickets, and a single tree, if allowed to spread unrestrained, will soon be surrounded by a sizable clonal colony. The average height of sassafras is 30 to 50 feet with a spread of 25 to 40 feet.

Sassafras bears clusters of small yellow flowers at the tips of the branches in spring. Bluish-black berries develop on female trees in late summer.

Male and female flowers are borne on separate trees, so a clonal colony will need other sassafras trees nearby in order to set fruit.

Sassafras leaves are alternate and fairly large -- 4” to 6” long and 2” to 4” wide. They come in three distinct shapes -- ghost (three lobes), mitten (two lobes), and oval (single lobe). Fall foliage is spectacular, featuring orange, yellow, scarlet, and red-violet leaves on the same tree. The leaves, twigs, and spring blossoms are highly aromatic, smelling like citrus, cinnamon, or root beer when crushed.

Sassafras is in the same family as laurel and spicebush. The spicebush swallowtail butterfly and promethea silkmoth use sassafras as a host plant, as do more than 35 other species of butterflies and moths. Spicebush swallowtail caterpillars, sometimes called "leaf rollers," spin silk onto a leaf surface. The silk contracts as it dries, and the leaf folds up, creating a shelter for the caterpillar to hide by day. At night, the larvae feed on sassafras leaves.

In North America, sassafras has particular culinary significance, being featured in distinct national foods such as traditional root beer, filé powder, and Louisiana Creole cuisine. Sassafras was used by Native American tribes in cooking and medicine, and as a dye.

Deer will eat sassafras leaves and twigs, and rabbits will browse the bark, so protection of young trees is often required.

Sassafras Quick Facts

Height: 30-50 ft tall, 25=40 ft wide

Form: Rounded canopy with layered branches

Soil: Loamy, sandy, moist, well-drained, neutral to slightly acidic; tolerates clay loam

Sun: Full sun (young trees tolerate part shade)

Growth rate: Fast

Leaves: Large, with single or multiple lobes

Flowers: Small yellow; spring

Fruit: Dark blue drupes (female trees only)

Zone: 4-9

Habitat value: Caterpillar host plant; birds eat flowers and fruit; deer, bear, and small animals browse trigs, leaves, and bark.

Pledge To Rewild -- Plant Trees That Support Local Food Webs

In January, we invited readers to start off 2022 with a pledge to rewild. This initiative by the Wild Seed Project aims to meet the challenge of biodiversity loss head-on by restoring a minimum of 70% of native plant biomass to support healthy populations of butterflies, bees, birds, and insects that are crucial to a functioning ecosystem.

The pledge to rewild includes 10 action steps to help you get started. This month, we're focusing on planting native trees in your landscape to support food webs for wildlife.

Why Plant Native Trees?

Trees create a tremendous amount of habitat simply because of their size and the volume of leaves they produce per square footage of ground. Insects rely on these leaves as a food source, and their larvae in turn provide songbirds with enough protein-rich caterpillars to raise their young.

Native species of oaks, cherries, willows, birches, poplars, and pines -- known as keystone species -- support the widest variety of insect and animal life. According to Professor Doug Tallamy, a professor with the University of Delaware's Department of Entomology and Wildlife Ecology, oak trees support 534 species of lepidoptera (the insect order containing butterflies and moths), and black cherry supports 456 species.

In the fall, decaying leaves provide food for microorganisms, renew the supply of nutrients in the ground, and provide a place for insects to overwinter.

In built areas, tree roots absorb stormwater runoff, intercepting and processing contaminants such as motor oil, fertilizers, and pet waste. By reducing the volume and velocity of stormwater, shade trees help prevent erosion and flooding.

Woodlands create a protective canopy that regulates temperature and moisture, and sustains nutrient cycles. Large canopy trees lower surface, air, and interior building temperatures not only through direct shade but also through the process of transpiration (evaporation of water from leaves). Trees store carbon in their trunks and leaves, capture and recycle rainwater, and shade and protect the ground with their roots and fallen leaves.

When choosing a new tree, select straight native species, not cultivars or named varieties, for the greatest wildlife benefits. Cultivars are usually clones that are selected for certain landscaping and growth characteristics. They are often sterile plants that lack the genetic diversity needed for native tree populations to withstand disease and climate change. Because cultivars typically produce little pollen, they do not support native pollinators as well as straight native species do.

Before choosing a tree for your location, take the time to determine your site conditions and match them to the tree's requirements. To create optimum soil conditions for forest species, add a thick mulch of composted leaves or aged wood chips. This will help re-establish microorganisms in the soil and hold moisture. In the fall, leave fallen leaves in place to provide overwintering habitat for insects and other wildlife.

In general, smaller trees are easier to plant than larger ones. Younger trees establish themselves more quickly and are much less expensive. Within a couple of years, they will usually surpass a larger transplanted specimen. Trees can be planted in spring as soon as the ground thaws — the earlier the better, to take advantage of spring rains and cooler temperatures for root growth.

With a changing climate and continuing tree loss due to suburban and urban development, planting native trees, especially in our local neighborhoods, is a positive step that each of us can take to counteract these negative impacts to our environment. A tree may just be one component of your property, but even a single native tree will attract a large diversity of other creatures and provide year-round interest and beauty.

Pledge To Rewild, continued from page 6

Soft Landings

Once you establish your canopy with one or more trees, start to incorporate understory trees, shrubs, and perennial plants that support local food webs.

The diverse native plantings under a tree provide shelter and habitat for the life cycle stages of moths, butterflies, and beneficial insects, including bumblebees, fireflies, lacewings, and beetles. In addition to native shrubs, forbs, and grasses, this "soft landing" habitat includes fallen leaves and other plant material, as well as the soil underneath it all.

Many of the insects that feed on native trees must complete their life cycle in the plant material or soil beneath their host tree. Trees that are surrounded by lawn or a cone of commercial mulch do not provide the habitat needed by pupating and overwintering insects. Creating soft landings under the driplines of your native trees enables beneficial insects to complete their life cycle in your garden.A soft landing is especially important under keystone trees that support many species of butterfly and moth caterpillars.

Decomposing leaves and other plant material under native trees also builds healthy soil, which supports the native perennials, shrubs, and grasses you plant around your trees. This soft landing layer will attract ground-feeding birds like brown thrashers, eastern towhees, and juncos.

Between weekly lawn mowing and fall leaf "cleanup," today's home landscapes do not provide a place for caterpillars to complete their life cycle. Expanding the soft landing area under your trees is an easy way to shrink your lawn while providing beneficial habitat for native insects and birds.

If you're planting trees in a lawn, prepare a bed around the new tree that extends several feet beyond the ends of the branches. You can plant this area with natives that thrive in sun or part sun, until the tree grows large enough to provide a canopy that produces shade. Gradually transition the plantings under the tree, moving the sun-lovers out (or allowing them to transition naturally) and adding plants that need more shade. This mimics the natural succession that would occur if the tree grew from a seedling in a meadow or open field.

If you're planting new trees in an existing wood-

A soft landing area under keystone trees (birch and oak) is planted with big leaf aster (*Eurybia macrophylla*), *Zizia aurea*, *Packera aurea*, and wild ginger (*Asarum canadense*).

Land or other shaded area, underplant with shrubs and forbs that need shadier conditions. You new habitat will be closer to that of tree seedlings that sprout in a forest.

Spring ephemerals (plants that emerge and bloom before the tree leaves appear) are important early sources of pollen and nectar for insects. These plants thrive even under large canopy trees because their leaves emerge earlier than the tree's leaves. They take advantage of the spring sunlight and water, and their leaves usually die off by summer.

Spring ephemerals like Virginia bluebells (*Mertensia virginiana*), fringed bleeding heart (*Dicentra eximia*), Dutchman's breeches (*Dicentra cucullaria*), bloodroot (*Sanguinaria canadensis*), trout lily (*Erythronium americanum*), and spring beauty (*Claytonia virginiana*) can be interplanted with natives that emerge later, such as blue mist flower (*Conoclinium coelestina*), ferns, wild ginger (*Asarum canadense*), sedges (*Carex* spp.), and shade-loving asters.

More resources:

Creating Canopy: Plant a Native Tree for a Greener Future

Planting Native Shade Trees

Small Native Trees for Limited Spaces

Guide for Tree Selection, Planting, & Care

Plant This Not That -- Small Trees Homeowner with smaller spaces might think they don't have room to plant canopy trees, particularly the keystone tree species that are so important in producing enough food to sustain a critical mass of insect larvae that in turn feed our native birds and small mammals. Although all of these species (oak, poplar, cherry, birch, willow, and pine) can be maintained as shorter trees by pruning, the native understory trees listed here also provide important habitat and can fit into almost any landscape.

Instead of These Nonnatives	Plant These Natives
***Acer palmatum* (Japanese maple)** Cultivars can be upright or weeping, with palmate to fernlike foliage that can range from green to orange, red, purple, and variegated. Insignificant flowers and fruit.	***Cornus alternifolia* (pagoda dogwood)** Elegant tiered horizontal branching pattern showcases clusters of white flowers in spring and dark blue berries in fall. Burgundy-red fall foliage. Excellent specimen plant.
***Malus* spp. (crabapple)** Cultivars can have white, pink, or red flowers and a weeping, rounded, or columnar habit. Most produce small orange, gold, or red fruit in fall.	***Malus coronaria* (sweet crabapple), *M. angustifolia* (southern crabapple)** Native to the upper Midwest or southeastern U.S., this small tree has pale pink to white flowers and produces small green fruits that can be made into cider or jelly.
***Ginkgo biloba* (maidenhair tree)** Unusual fan-shaped leaves turn deep yellow in fall. Often used as a street tree. Dioecious; mature female trees produce messy, unpleasant smelling fruit.	***Acer pennsylvanicum* (striped maple)** Distinctive white-striped bark on stems and young trunks. Clusters of small greenish-yellow bell-shaped flowers in spring. Large, papery leaves turn yellow in fall. Many animals browse the leaves and twigs.
***Cornus kousa* (kousa dogwood)** White flowers appear a few weeks later than those of the native white dogwood. Soft red-purple fruits in fall attract squirrels and can be messy on a patio or walkway.	***Cornus florida* (white dogwood)** Large white flowers in April to May, followed by glossy green foliage turning red to purple in fall. Small bright red berries may persist into winter and are attractive to birds.
***Prunus pendula* (weeping cherry)** Cultivar developed for its weeping habit, pale pink or white flowers in spring, and yellow fall foliage.	***Cercis canadensis* (redbud)** Single-trunk or multi-stem tree with clusters of pink-purple flowers all along branches in early spring, before heart-shaped leaves appear. Purple pea-pod fruit and yellow foliage in fall. Flowers attract migrating orioles.
***Magnolia stellata* (star magnolia)** Showy white flowers in early spring, before the leaves emerge. Buds are sometimes damaged by frost. Seed pods contain large orange seeds.	***Magnolia virginiana* (sweetbay magnolia)** Large white lemon-scented saucer-shaped flowers in late spring. Large, mostly evergreen leaves backed with silver shimmer in the wind. Bright red seeds in cone-shaped pods are attractive to birds.
***Laburnum x. watereri* (golden chain tree)** Dramatic hanging clusters of fragrant yellow pea-like flowers in spring. All parts of the tree are toxic.	***Chionanthus virginicus* (fringe tree)** Airy, drooping clusters of fragrant white flowers in spring, blue-black olive-like fruits on female trees in fall are attractive to birds. Yellow fall foliage.
***Albizia julibrissin* (mimosa or silk tree)** Silky fragrant pink flowers in mid-summer, fern-like leaves. Spreads aggressively and readily colonizes disturbed habitats, such as roadsides. Listed as invasive in some southern states.	***Cotinus obovatus* (smoke tree)** Native to the southern U.S. but thrives in our area as well. Large oval leaves emerge pink and mature to blue-green. Long upright pink to lavender flower panicles in summer resemble plumes of smoke. Orange to red fall leaf color.
***Carpinus betulus* (European hornbeam)** Densely textured foliage and slate-grey smooth or fluted bark. Yellow fall foliage. Used as a specimen tree or in hedges.	***Carpinus caroliniana* (American hornbeam or musclewood)** Leaves emerge reddish-purple, changing to dark green, then yellow to orange-red in fall. Fluted blue-grey bark is attractive in winter.
***Salix babylonica* (weeping willow)** Fast grower, thrives near water. Pendulous, weeping branches break easily. Narrow light-green leaves emerge early in spring.	***Betula nigra* (river birch)** Fast growing single-trunk or multi-stem tree that tolerates wet soil as well as some drought. Mature trees have peeling, silver to cinnamon-colored bark. Catkins are favored by birds. Leaves can turn bright yellow in fall. Larval host plant for mourning cloak butterfly.
***Prunus cerasifera 'Newport'* (Newport plum)** Bronze-purple foliage turning red in fall. Pale pink flowers in early spring, small purple fruit in fall.	***Prunus americana* (American plum)** Short trunk and broad crown, showy large white flowers in spring. Small edible red plums in late summer attract birds. Red to yellow fall foliage.

Diary of a Rewilder

This year, we're focusing on a different step in the rewilding process each month. If you're new to rewilding, you might be thinking -- how does this work in practice? Here we share with you some personal experiences that could help with your own rewilding projects.

This month we're featuring a gardener who decided several years ago to start converting the lawn in her back yard to accommodate more natives. Doug Tallamy's *Bringing Nature Home* was her inspiration.

Shade bed in progress, spring 2018

In the spring of 2018, she mowed the grass low and covered it with contractor paper (heavy paper that comes in 3-foot-wide rolls) and a few inches of compost. She allowed the site to settle for a few weeks while she gathered her plants. Spicebush (*Lindera benzoin*) was on her list and was available at a local nursery, along with Jacob's ladder (*Polemonium reptans*), Ohio spiderwort (*Tradescantia ohioensis*), and Bowman's root (*Porteranthus trifoliata*).

A shade-loving natives package from an on-line nursery included Canada anemone (*A. canadensis*), jack in the pulpit (*Arisaema triphyllum*), wild geranium (*Geranium maculatum*), foamflower (*Tiarella cordifolia*), Culver's root (*Veronicastrum virginicum*), and columbine (*Aquilegia canadensis*). Sedges (*Carex pennsylvanica* and *C. albicans*) were planted along the fence line at the back so the owners could still play horseshoes there.

Several natives were transplanted from other areas of the yard -- ostrich fern (*Matteuccia struthiopteris*), mayapple (*Podophyllum peltatum*), and bloodroot (*Sanguinaria canadensis*).

The back yard in May 2018, after planting

Four years later, the plants have filled in nicely. Columbine and Canada anemone form a green groundcover. Cutleaf coneflower (*Rudbeckia laciniata*) and common milkweed (*Asclepias syriaca*) have moved in from an adjacent planting and need to be controlled to keep them from taking over the bed. To add more color, the owner plans to plant brown-eyed Susan and black-eyed Susan (*Rudbeckia triloba* and *R. hirta*) for summer blooms.

Next, the owner removed the large forsythia that was growing underneath the conifer in front of the fence (look for it in the photo in the left column) and planted a blueberry (*Vaccinium corymbosum*) in its place (photo below). A red maple (*Acer rubrum*) was added in anticipation of the need for a canopy tree when the spruce dies or is removed.

Diary of a Rewilder, continued from page 9

In the spring of 2019, the same smothering method was used to convert more lawn, this time in a sunny location.

Sunny meadow in spring 2019 after planting

Three years later, this sunny meadow is full of colorful natives, including milkweed (*Asclepias tuberosa*), cutleaf coneflower (*Rudbeckia laciniata*), little bluestem (*Schizachyrium scoparium*), New Jersey tea (*Ceanothus americanus*), wild strawberry (*Fragaria virginiana*), and Maryland golden aster (*Chrysopsis mariana*).

This gardener's take-away from her lawn conversion projects: "Now the yard is much more interesting, with all the different colors and textures changing with the seasons. The beds are full of movement -- bobbing heads of 10-foot-tall volunteer ironweed (*Vernonia* spp.), and wasps, butterflies, and dragonflies zipping all around."

Events in the Community and Beyond

Sept. 17 Mennonite Central Committee BioBlitz & Nature Fest. 21 S. 12th St, Akron PA. 9 a.m. - noon.

Sept. 17 Fall Native Plant Sale. Hawk Mountain, 1700 Hawk Mountain Rd, Kempton PA, 10:00 a.m. - 3:00 p.m.

Sept. 17 Greenixville 11th Annual Green Earth Festival. 200 Mill St, Phoenixville PA, 9:00 a.m. - 1:00 p.m.

Sept. 18. Using Native Plants in the Landscape. Pennsylvania Native Plant Society, Manheim Train Station, 210 S. Charlotte St, Manheim PA, 2 to 5 p.m.

Sept. 24-25, York County 18th Annual Pawpaw Festival. Horn Farm Center, 4945 Horn Rd, York, PA, 10 a.m. - 3 p.m. $5

Oct. 15 Pennsylvania Native Plant Society Annual Meeting**.** Speakers, nature walk, plant sale. Shaver's Creek Environmental Center, 3400 Discovery Road, Petersburg PA, 9:00 a.m. - noon.

Educational Opportunities

Sept. 15 Native Grasses for Your Garden. Jenkins Arboretum, 7:00-8:30 p.m., zoom.

Sept. 24 Knowing Native Plants: The Amazing Aster Family and Their Colorful Companions. Bowman's Hill Wildflower Preserve, 10:00 a.m. - 1:00 p.m., zoom, $25.

Sept. 24 Bringing the Wild Home: A Nature-Inspired Garden. Kellys Run Nature Preserve, 9:00 a.m. - 1:00 p.m.

Oct. 8 Knowing Native Plants: Trees of the Preserve. Bowman's Hill Wildflower Preserve, 1:00 - 4:00 p.m., zoom, $25.

Oct. 18 Homegrown National Park with Doug Tallamy. Blue Ridge PRISM, 11:30 a.m. - 1:00 p.m., zoom.