

# April-May 2025 Newsletter

SOUTHEASTERN PENNSYLVANIA CHAPTER

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# **Key Plant Families for Pollinators**

Certain families of plants are especially beneficial for our native pollinators. The flowers in one family may 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. We'll focus on the aster family this month and the remaining three families in subsequent newsletters.

### Aster Family

Plants in this family include asters (including *Symphyotrichum*, *Eurybia*, *Boltonia*, and *Doellingeria*) sunflowers (including *Helianthus*), and other composites (including *Solidago*, *Echinacea*, *Bidens*, *Eupatorium*, *Rudbeckia*, and *Coreopsis*). These plants generally have flowers in the classic daisy form -- a central disc surrounded by petals.

The aster family attracts a wide range of pollinators, in particular insects, like butterflies, which need a place to land as they sip nectar. Some of these flow-

ers produce seeds that feed the birds. Many asters flower late

Monarch on heath aster (Symphyotrichum ericoides)



in the season, providing an important food source for migrating pollinators. Aster pollen is especially rich in lipids, which are important for energy storage.

Blanket flower (*Gaillardia pulchella* and *G. aristata*) blooms all summer and into early fall, providing a continuous source of pollen and nectar, as well as bright color. Perennial blanket flower (*G. aristata*) is

native west of the Mississippi but is easy to grow in our climate.

The annual, G. pulchella, is also a western native but has become naturalized east of the Mississippi.



Both species thrive in full sun and are droughttolerant. They are easy to propagate from seed and may also self-seed.

### WO SEPA 2025 CALENDAR

April 25 Meet-up, Jenkins Arboretum Garden Shop, 631 Berwyn Baptist Rd, Devon, PA, 9:30 a.m.

- May 3 Garden tour, Perkasie, Bucks County, 11:00 a.m. - 3:00 p.m., members only.
- June \_\_\_\_ TBA
- July \_\_\_\_ Meet-up and tour, Bondsville Mill Park
- Sept. 18 Garden tour in Pottstown, Chester County
- Oct. 16 National Wild Ones webinar TBA

**Nov. 20** Chapter elections; webinar TBA

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

Most of the roughly 150 species of sunflower are native to North America. Sunflowers usually have rough, sandpapery leaves and showy flowers. Most species prefer moist soil in full sun, but woodland sunflower (*H. divericatus*) is a notable exception, thriving in the partial shade of wooded edge habitat.

Sunflowers provide nectar to pollinators from July to first frost and are a larval host plant for the checkerspot butterfly. The seed heads provide valuable winter food for songbirds, so spent stems should be left standing through spring. Many sunflower stems are sturdy enough to provide nesting habitat for solitary bees and wasps. They can be cut back to 1' to 2' high in spring; the new growth will quickly hide them.

Swamp sunflower (*Helianthus angustifolius*) grows up to 8 feet tall and can tolerate occasionally wet soil, making it useful for rain gardens, floodplains, and wet meadows. Unlike other sunflowers, swamp sunflower has a fibrous root system and doesn't usually spread beyond a 3- to 4-foot area. It can reseed, but the seeds are often eaten by birds. Like many in the aster family, this plant starts flowering in late summer.

Rosinweeds (*Silphium*) have larger, broader ray flowers than sunflowers, and a smaller central disk. Cup plant (*S. perfoliatum*, below) is the giant of perennial sunflowers, with thick, square stems up to 10 feet tall.

Cup plant is a pollinator magnet all summer. Rain and dew collect in the cups formed where the large leaves join the stem and provide drinking water for birds and insects.



#### Ox-eye sunflower

(*Heliopsis helianthoides*) is called false sunflower because unlike true sunflowers, both its disk flowers and its ray flowers are capable of producing seed. Although it's a short-lived perennial, it is useful in the pollinator garden because it starts blooming earlier than most sunflowers, in mid-summer.

Coneflowers (Echinacea and Rudbeckia), sneeze-

weeds (*Helenium*), tickseeds (*Coreopsis* and *Bidens*), and crownbeards (*Verbesina*) are all summer-blooming natives in the aster family with conspicuous ray flowers and disk flowers.

Natives you might not think of as asters include springflowering pussytoes (Antennaria), Robin's plantain (Erigeron), and golden groundsel (Packera), and summer-flowering yarrow (Achillea) and thoroughwort (Eupatorium).



Bumblebee feeding on disk

flowers of Echinacea paradoxa

The tiny flowers of goldenrods (Solidago

and Euthamia), Joe Pye (Eutrochium), and ironweed (Vernonia) don't seem like classic asters, but a close

look (right) reveals both ray flowers and disk flowers, but in miniature.

These plants have generous clusters of tiny flowers, which provide perching space as well as multiple



opportunities to collect energy-filled nectar.



Joe Pye

A study by Penn State Extension, called the Bees, Bugs, Bloom Pollinator Trial, counted native plants that were visited most frequently by pollinators over a 3year period. Seven out of the 10 plants with the most visits are in the aster family, along with all of the second group of 10 plants.

## **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

# Crabapple, Malus coronaria

Sweet crabapple or American crabapple is a member of the rose family. It is a small tree, no more than 20 to 30 feet tall at maturity, with a short trunk and a wide, spreading branch structure. A related species, southern crabapple (*M. angustifolia*), is native to the southeastern states and as far north as Pennsylvania.

Native crabapples are host plants for over 280 species of moths and butterflies, including the red-

spotted purple. eastern tiger swallowtail, and viceroy swallowtail butterfly, and the prometheus and cecropia moth. This tree is also valuable to native bees because it blooms early in the season, when these insects, including queen bumblebees, are emerging from their winter shelter and seeking nutritious nectar and pollen. Crabapple thickets provide nesting sites, shelter, and food for large and small birds.

A related but nonnative species, Japanese crabapple (*M. floribunda*), is the source of dozens of crabapple cultivars at conventional nurseries. To be certain you're getting a native crabapple, look for the Latin name on the tree's tag.

#### **Identification**

Crabapple leaves are elliptical or oblong with a blunt tip and wavy saw-toothed margins. Mature leaves can be dull green, yellow, or a medium redpurple. Pink buds open to white or pink, fra-

grant, fivepetaled flowers in April and May.

The fruit looks like tiny yellowgreen apples on long stalks. Crabapple fruit, if not picked to



make jelly or cider, will fall to the ground by October and provide a feast for birds and animals under the trees.

Native habitat for this small tree includes stream banks, open woods, and woodland edges. It grows best in open areas with full sun and consistent soil moisture.

#### Quick Facts -- Sweet Crabapple

Size	20-30 feet tall
Sun	Full to part sup

- **Soil** Prefers loamy soil but tolerates some clay
- Water Consistent moisture

Habitat Value Host plant to over 280 butterflies and moths; nest sites and shelter for birds

# Lights Out for Spring Migration

April and May are peak months for spring migration, when billions of birds (and some insects, notably the monarch butterfly) fly north from their southern wintering grounds. Many are headed to our area, where they will build nests and raise their young. Others are just passing through on their way to their nesting grounds further north.

The majority of migrating birds fly at night, so we don't even see them. Research shows that migrating songbirds in our area fly between 500 and 2500 feet above ground, to take advantage of favorable winds. This is high enough to avoid most tall buildings. So why do so many migrating birds die from collision with buildings?

It's not just the buildings, it's the lights. During migration, birds navigate using a complex combination of information from the night sky, Earth's magnetic field, and their own internal genetic map. Bright artificial lights and sky glow (light pollution caused by a concentration of artificial light from cities and towns) confuse birds. They can fly off course or waste precious energy flying around trying to reorient to the correct direction.

It's like losing your phone signal when you're driving with your GPS. Suddenly you don't know when or which way to turn, and you could use up a lot of gas driving around trying to get your bearings.

Migrating birds don't have spare energy to waste trying to get back on their flight path. If they lose their way over a large urban area, like the Philadelphia suburbs, they face additional threats like predators and lack of food.

Fortunately, everyone can do something to help. Building owners and managers can turn off excess interior and exterior lighting during the months migrating birds are flying overhead. When exterior building lighting needs to be replaced, floodlights should be exchanged for lights that are shielded and directed downward rather than up and outward. Even better, motion detectors can be installed, which saves energy as well as protecting birds.

While the lighting on commercial buildings is a significant contributor to sky glow, every homeowner can help decrease suburban light pollution by doing the same things -- make sure outdoor lights are shielded and directed downward, and use motion sensors for security lighting. Decorative up-lighting of homes and trees should be avoided. With less light pollution, stars and fireflies can provide all the decorative night lighting we need.

Research shows that turning off bright outdoor lights when birds are migrating has an immediate effect -- birds stop flying toward the light and get back on their course.

Audubon's Lights Out program is a national effort to reduce bird fatalities during migration by encouraging building owners and managers to turn off excess lighting during the months when migrating birds are flying overhead. In commercial buildings, interior lighting in window offices, especially on higher stories, can be a significant source of light pollution. Task lighting and window shades can be used in these areas to reduce the amount of light seen from outside.

Spearheaded by the Audubon Society and supported by DarkSky International, the Cornell Lab of Ornithology, and municipalities around the country, Lights Out is a national effort to help birds complete their journeys more safely.

Lights Out programs are springing up in dozens of cities across the country, including Atlanta, Boston, Chicago, Denver, Minneapolis-St. Paul, New York, Philadelphia, St. Louis, San Francisco, and Seattle. In Texas, the Cornell Lab of Ornithology, BirdCast, Texan by Nature, and cities like Houston, Fort Worth, Dallas, Austin, and Galveston are collaboratively coordinating Lights Out Texas.

At a time when so many solutions seem complicated and out of our hands, this one is straightforward. Just turn the lights off.

Here are simple suggestions for homeowners and building managers -- <u>Here's How You Can Turn the Lights Out!</u>

### **Resources**

We Finally Know How Bright Lights Affect Birds Flying at Night

<u>Lights Out</u>

Birds Are Migrating -- Lights Out, Please

# **Spotlight on Sedges**

If you're new to native plants, you might not know much about sedges -- yet. Maybe they just look like clumps of grass. In fact, sedges are an endlessly varied and versatile family of plants. They support pollinators and stabilize the soil, and their wide range of textures and colors makes them invaluable in native gardens.

Whether you spend time designing your native planting areas or just add plants and see what happens, sedges can be the element that knits a planting together by providing continuity of form.

A recent multi-year trial at Mt. Cuba Center in Delaware—one of the country's leading native plant research institutions-highlights the ornamental and ecological value of native sedges. More than 60 species were evaluated for garden performance, habitat value, growth habit, and adaptability across different conditions. This research reinforces what many ecological gardeners already know: sedges indispensable allies in creating are lowmaintenance, biodiverse, and climate-resilient gardens.

The Mt. Cuba trial also emphasized:

- The role of sedges in layered plant communities, working alongside native wildflowers, ferns, and shrubs to mirror natural ecosystems.
- The importance of species selection—sedges aren't interchangeable, and regional species adapted to your site conditions perform best.
- The exceptional value of sedges as turf alternatives, especially in low-input or shaded areas.

In addition to their landscape value, many sedges offer critical early-season cover and habitat for ground-nesting insects and small animals. Turtles, birds, and other ground-feeding wildlife feast on the seeds.

Sedges are excellent fillers and edging plants in any garden design, whether in beds or in a more natural setting. Clump-forming sedges can give a defined edge to a planting. They can drape over a hardscaped edge, whether it's logs or paving stones, or stand alone. Use colony-forming species to fill in the spaces between shrubs or clumps of perennials. Most sedges prefer shade, or least part sun. Growing sedges in full sun requires adequate and consistent moisture.

Eastern woodland sedge (Carex blanda, below) reseeds happily along the edge of a wooded gravel drive under the roots of a mature aspen. This sedge tolerates rocky soil and clay, and with enough soil moisture it will grow in full sun. Its clumping, upright habit makes it a good substitute for nonnative

liriope.



<u>Pennsylvania sedge</u> (*C. pennsylvanica*) is a spreading species that can form large colonies (below left). Its narrow, deep green, semi-evergreen blades are no taller than 1 foot. In early spring, light tan spikelets are held above the leaves (below right). It thrives in partial sun or shade in well-drained to dry acidic woodlands and makes an excellent groundcover or lawn substitute in shady areas.



The leaves of <u>palm sedge</u> (*C muskingumensis*, below) resemble palm fronds. This sedge is a clump former that can grow 2 to 3 feet tall. It often drapes gracefully over the ground, covering a relatively large area. It can handle full sun if the soil remains moist, and it will tolerate partial clay soil.



Photo credit: Jay Sturner CC BY 2.0

A few sedges have blue-tinged leaves, which can contrast effectively with the green of other ground covers. <u>Creeping sedge</u>, *C laxiculmis*, forms semi-evergreen mounds just 1 foot tall. The leaves are a striking bluegreen color. This sedge is native to rich woodlands, moist stream banks, and swamp margins and is a useful groundcover in a shade garden.

<u>Blue wood sedge</u> (*C. flaccosperma*), as its name implies, has bluish foliage when mature. It prefers shade and tolerates everything from poorly drained soils to moderate drought. Below, blue wood sedge nestles at the edge of an emerging clump of wild ginger.



<u>Fox sedge</u> (*Carex vulpinoidea*) is one of the taller species at 2 to 4 feet. It is native to wet habitats throughout much of North America. The graceful dark green foliage can be semi-evergreen and forms a mounded habit, sometimes flopping over in the heat of midsummer. This sedge thrives in wet habitats and is ideal for rain gardens and stream banks in sun to part shade.

<u>Eastern star sedge</u> (*C. radiata*) has fine-textured light-green foliage and tiny star-shaped flowers in mid-spring. After flowering, the plant forms a graceful rounded mound. This sedge prefers moist soil in part shade but will tolerate some drought if its soil is not exposed.

Two sedges with broader leaves are seersucker sedge or plantain sedge (*C. plantaginea*) and white bear sedge (*C. albursina*). Both require moist, well-drained soil and part to full shade. Their broad, textured leaves can provide a striking accent in shade gardens.

<u>Appalachian sedge</u> (*C. appalachica*) is a finetextured sedge that is similar in appearance to Pennsylvania sedge but forms clumps rather than spreading. It grows in dense, arching tufts that generally are no taller than 6 inches. Unlike many sedges, this species requires dry soil and will thrive in dry shade. Its native habitat includes wooded slopes and shaded rock outcrops in hemlock-oak-maple-beech forest. In the garden, it should be protected from hot afternoon sun.

Unlike many sedges, <u>tussock sedge</u> (*C. stricta*) prefers full sun. It can handle everything from standing water to short periods of drought. It grows 1 to 3 feet tall and spreads via rhizomes to form large colonies that may become aggressive in wetter areas Native to water margins and seasonally flooded sites, it can be useful in a rain garden. Like other wetland sedges, it provides food and shelter for a variety of invertebrates, songbirds, and waterfowl.

Sedges generally are not bothered by deer or rabbits, making them a valuable ground cover in areas with heavy deer pressure and possibly a useful guard plant around more susceptible low-growing natives.

#### **Resources**

Carex for the Mid-Atlantic Region

# **Invasive Species -- Butterfly Bush**

Butterfly bush (*Buddleia/Buddleja davidii*) is native to southwestern China and was introduced to North America as an ornamental shrub over 100 years ago. Many cultivars have been developed for shorter stature, silvery leaves, and various colors of blooms. This plant is eye-catching, fragrant, easy to grow, attractive to butterflies (hence the common name), and deer resistant, so what's not to like?

### Effect on Native Habitat

Butterfly bush is a prolific seed producer and is quick to establish from seed. First-year seed-grown plants can flower and produce viable seeds, which are dispersed by the wind. Seed germination rate is as high as 80 percent, and seeds remain viable in the soil for 3 to 5 years. If the shrub is cut to the ground, it re-sprouts vigorously.

With its quick, aggressive growth habit, butterfly bush can form dense, shrubby thickets that displace many native shrubs in a wide range of habitats.

Butterfly bush produces a lot of nectar and pollen, attracting butterflies to feed, but its leaves don't support a single species of native insect larvae. Since pollinators need larval host plants to reproduce, butterfly bush takes up garden space that could be growing native plants that support pollinators in all stages of their growth.

More significant, butterfly bush escapes easily from yards and colonizes sunny, well-drained sites in abandoned fields, roadsides, woods edges, and riverbanks, displacing native shrubs in those habitats. Butterfly bush prefers disturbed sites and riparian areas, so it is quick to colonize areas that are mowed infrequently,.

### **Removal and Control**

Butterfly bush seedlings and young plants are easy

to remove by pulling. Seedlings can be recognized by their lanceshaped, opposite, soft greygreen leaves.



Mature plants (most plants over 2 years old) must be removed by cutting the roots well below the root crown. Heavy loppers or a pruning saw are frequently necessary to cut the thick woody roots. If the plant is cut above the root crown, it will re-grow unless new shoots are kept cut. As with the removal of other aggressive nonnative invasive plants, the site should be inspected every year (late spring through early summer) to remove any seedlings or root shoots.

Stems and roots can be composted. If you compost the seed heads, bury them well to prevent seed dispersal and promptly remove any seedlings that sprout.

What if you have a favorite butterfly bush that you don't want to remove? Keep the spent flower heads cut throughout the season and cut all flowering stems to 8" above the ground as soon as the plant stops blooming in the fall. Don't leave stems standing until spring, as that gives the seeds time to mature.

#### Native Alternatives

Fortunately, many native shrubs and perennials have eye-catching, fragrant flowers and also provide food for the larvae of our native butterflies and other pollinators, which in turn feed native birds.

<u>Bottlebrush buckeye</u> (*Aesculus parviflora*). Full sun to part shade, plumes of white flowers on long stems, 8'-12' high and wide.

<u>Lead plant</u> (*Amorpha canescens*). Full sun, tolerates drought, spikes of dusty purple flowers, 2'-3' tall.

<u>New Jersey tea</u> (*Ceanothus americanus*). Full sun, drought tolerant, plumes of fragrant white flowers, 3'-4' tall.

<u>Button bush</u> (*Cephalanthus occidentalis*). Full sun, moist soil, fragrant round white flower heads and orange to red fruit, 3'-5' tall.

<u>Sweet pepperbush</u> (*Clethra alnifolia*). Sun to part shade, tolerates clay, plumes of fragrant white or pink flowers, 3'-5' tall.

<u>Virginia sweetspire (Itea virginica</u>). Part sun, widely adaptable, spires of fragrant white flowers, 4'-8' tall and wide, colorful fall foliage.

<u>White meadowsweet</u> (*Spirea alba*). Full sun, moist soil, plumes of white to pale pink flowers, 3'-4' tall.

### **Events and Educational Opportunities**

- Apr. 23 The Secret Life of Spring Wildflowers. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE. 1:00 p.m.
- Apr. 25 Plant Sale, Jenkins Arboretum Garden Shop, 631 Berwyn Baptist Road, Devon, PA. 9:00 a.m.
- Apr. 26 Earth Day Phoenixville, Reservoir Park, 601 Franklin Ave, Phoenixville, PA. Noon.
- Apr. 26 Mainline Unitarian Earthday Celebration 816 S Valley Forge Rd, Devon, 1:00 -5:00.
- Apr. 26 Designing Layered Landscapes. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE. 1:00 p.m.
- Apr. 26 EarthFest and Plant Sale, 301 Golf Dr, Lancaster, PA. 8:00 a.m. 1:00 p.m.
- Apr. 27 <u>Philadelphia County Master Gardeners Plant Sale</u>, Fairmount Park Horticulture Center, 100 N. Horticultural Drive, Philadelphia. 10 a.m.
- Apr. 26 & 27, May 3 & 4 Churchville Wildflower Sale. 501 Churchville Lane, Churchville, PA, 10:00 a.m.
- Apr. 27 Lancaster Native Plant & Wildlife Festival. Overlook Park, 2040 Lititz Pike, Lancaster, PA. 8:00 a.m.
- Apr. 29 <u>Native Companion Plantings for Backyard Aquatic Gardens</u>. Brandywine Conservancy webinar, 6:30 p.m.
- May 1, 8, 15 Managing Invasives. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE. 10:00 a.m.
- May 3 <u>Bucks County Master Gardeners Plant Sale</u>. Middletown Grange Fairgrounds, 576 Penns Park Rd, Newtown. 9 a.m.
- May 3 Lancaster County Master Gardeners Plant Sale, Lancaster Farm and Home Center, 1383 Arcadia Road, Lancaster, PA. 8 a.m.
- May 9 & 16 Plant Propagation. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE. 10:00 a.m.
- May 10 & 11 <u>Wildflower, Native Plant, and Seed Sale</u>. Brandywine Conservancy, 1 Hoffman's Mill Rd, Chadds Ford, PA. 9:30 - 4:30
- May 10 Penn State Watershed Master Native Plant Sale. Middletown Grange Fiargrounds, 576 Penns Park Rd, Newtown.
- May 10 Master Gardeners of Delco Spring Plant Sale. Smedley Park, 20 Paper Mill Rd, Springfield, PA. 9 a.m.
- May 10 & 17 Plant Propagation. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE. 10:00 a.m.
- May 10 & 11 <u>Wildflower, Native Plant and Seed Sale</u>, Brandywine Museum of Art, 1 Hoffman's Mill Road, Chadds Ford, PA. 9:30 a.m.
- May 16 Creating Native Plant Communities. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE. 1:00 p.m.
- May 17 <u>Montgomery County Master Gardeners Plant Sale</u>. Montgomery County Fairgrounds, 1015 Bridge Rd, Collegeville PA. 9 a.m.
- May 21, 22, 23 Managing Invasives. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE. 10:00 a.m.
- May 22 <u>Habitat Advocate: Building Biodiversity in Our Community</u>. Lancaster Conservancy, 102 Chester Street Lancaster, PA. 6:00 p.m.
- May 28, June 4, 11, 18, 25, July 2 Native Plants of Summer. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE. 10:00 a.m.
- May 31 <u>Native Garden Design for Stormwater Management</u>. . Lancaster Conservancy, 102 Chester Street Lancaster, PA. 9:00 a.m.
- June 7, 21, 28 Native Plants of Summer. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE. 10:00 a.m.
- June 21 Navigating Non-Chemical Restoration. Mt. Cuba Center, 3120 Barley Mill Rd, Hockessin, DE. 1:00 p.m.