



NATIVE PLANTS, NATURAL LANDSCAPES

SOUTHEASTERN PENNSYLVANIA CHAPTER

October 2023 Newsletter

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October Meeting Highlights

Chapter Business

Our chapter has gained 5 new members for a current total of 125.

Chapter elections will take place at the November 16 meeting (held via zoom) and also via email between November 1 and November 15. The slate of officers and board members will be emailed to members along with instructions for voting. Members, please be sure to vote via email or by attending the November zoom meeting.

Program -- Seven Steps Toward Successful (and Ethical) Seed Collection

Presented by Mark R. Gormel, Horticultural Coordinator at Brandywine Conservancy

Step 1. Basic Seed Collection Guidelines

Before collecting seeds, research the species to see if it's rare, threatened, endangered, or common, and whether it's native to your area. On state or federal land, collecting any part of vegetation is a crime. If collecting on private land, ask permission from the landowner before collecting.

Use common sense in deciding the amount of seed to collect. In general, collect no more than 1/3 of the seeds of one plant or a small population of plants, whether in your garden or in the wild. Be especially conscious when dealing with rare, threatened, or endangered species.

Before you collect, find out which propagation method is used for the species. Some seeds need specific handling in order to survive the collection and storage process.

Step 2. Record Locations & Flowering/ Fruiting Dates

Annual weather variations affect flowering and fruiting times. With records of past flowering and fruiting dates, you can make a note to check your source plants at the right time for collection.

Step 3. Observe Critically; Timing Is Critical

Seed ripeness is almost always indicated by a visual change in appearance of the seed or the fruit encasing the seed, e.g. *Lindera benzoin* (right). Possumhaw viburnum



(*V. nudum*) seeds are ripe when the berries change color from pink to blue. Seed capsules of wild columbine (*Aquilegia canadensis*) become dry and brown when the seeds are ripe, and the seeds rattle loosely.

Seed usually separates from the plant with ease when it's ripe. Some species ripen and disperse suddenly, even explosively, while others will ripen slowly, a few seeds or pods at a time over days or weeks. The seeds of wild geranium (*G. maculatum*)

Sources

[Growing and Propagating Wildflowers](#), William Cullina.

[Growing and Propagating Wild Flowers](#), Harry R. Phillips.

[Seed Germination Theory and Practice](#), 2nd Ed., Norman C. Deno.

[Brandywine Conservancy Seed Catalog](#)

ripen quickly and are expelled by the plant. These seeds need to be collected just before they're expelled.

Step 4. Collecting Equipment & Technique

The "how to" of collection and post-collection is largely the realm of creative ingenuity and can often be achieved with common, everyday materials modified to suit the need. Many species can be collected by hand picking alone. Others need pruners or sharp knives for removing individual seed pods or sections of stems with fruit clusters. Also needed are containers for convenient transport, such as coffee cans, paper or cloth bags, or buckets. Avoid using plastic bags as they do not allow water vapor to pass through and can rapidly promote fungal and/or bacterial growth.

Step 5. Post-Collection Handling

When harvested, most seeds contain relatively large amounts of water and must be dried to avoid potentially lethal bacterial or fungal growth, which can sweep through a collection rapidly. Drying also facilitates easier cleaning, makes the seed more resistant to pathogens, and drives physiological changes in the seed that prepare it for dormancy.

Some seeds require drying prior to germination because drying deactivates certain germination inhibitors. This should be accomplished promptly following collection. In a dry area with good air circulation, spread seeds thinly on a canvas cloth or over a platform of supported window screen that is left open below. Shallow cardboard trays, such as those that soda or beer cans are shipped in, also work well. A room fan can keep positive airflow moving through the collection. One week of air-drying is a reasonable period of time.

Seeds encased in fleshy fruit are best not air-dried before the flesh is removed. Species that should not dry out need to be cleaned and sown as soon as possible (e.g., seeds with an aril, such as wild ginger (*Asarum*), wood poppy (*Stylophorum*), and bloodroot (*Sanguinaria*)).

Step 6. Cleaning

Cleaning involves separating the seed from everything else taken during collection. This includes other plant parts, other seeds, soil, and insects that may feed on the seeds. Cleaning also reduces the amount of space required for storage. Seed may

first need to be freed from a protective coating. This can involve threshing, shaking in a paper bag, plastic container, or bucket; beating, crushing, rolling, cutting, rubbing between rubber covered paddles or gloved hands, tweezing, etc. Take care not to damage the seed during this process. A microscope can confirm that no harm has been done as well as confirm seed quality.

Seeds encased in fleshy fruit can be pinched out, rubbed through screens, carefully macerated in a blender, or loosely packed in moist vermiculite or potting soil and allowed to sit until the fruit has rotted enough to be washed away with clean water.

Separating the seed from the chaff can be accomplished by winnowing in front of a fan, blowing a controlled air stream with ones' breath, or sifting through wire screens, colanders, or sieves with different mesh sizes. A Clipper type seed cleaner allows for much more sophisticated, refined, and versatile cleaning.

Some seeds that contain a lot of fluff can be cleaned using a food processor whose blade has been dulled using a file. Short bursts will cause the fluff to collect in clumps, and the heavier seed can then be separated. This process is not necessary for germination, but it produces seed that is clean enough to be sold.

Step 7. Storage

The best storage conditions provide constant temperature and humidity, ideally 40 to 50 degrees F and 50 percent humidity or less. Frequent fluctuations in temperature or humidity are stressful and will shorten the storage life of the seed. Low light levels are also preferred.

Seeds can be stored safely in glass jars in the refrigerator or in a cool room, provided they have been thoroughly air-dried first. Paper or cloth bags may require protection from insects and rodents. Some species may need to be stored moist and refrigerated, while some should be sown immediately after collection.

For cold moist storage, mix the seeds with dampened (not wet) whole-fiber sphagnum moss and store them in the refrigerator in glass jars, heavy-duty zip-lock bags, or lidded containers. Sphagnum moss is anti-viral, antifungal, and antibacterial.

Tree of the Month -- American Smoke Tree

You might be picturing a large purple-leaved shrub with large plumes of billowy pink in summer, but the native smoke tree, *Cotinus obovatus*, has a different kind of beauty. American smoke tree has similar airy pink flower clusters, but it is best known for its brilliant fall foliage that can range from orange to red to purple.



Smoke tree's large, oval leaves emerge pinkish in the spring, becoming blue-green in summer. This tree tends to branch low and can resemble a large shrub in form. In areas with severe deer pressure, the tree can be pruned high-

er, to keep the leaves out of reach.

Smoke tree blooms throughout the summer, with panicles up to 10" long appearing at the ends of the branches. Long plumes of pink to purplish pink hair-like petioles cover the plant with fluffy, 'smoky' puffs that are more prominent on male plants.



The actual flowers on each panicle are tiny greenish-yellow stars, insignificant compared to the eye-catching airy pink tufts that form on the spent flower clusters.

Finches eat the seeds that form from the ripening flower, and the dense foliage provides cover for birds and other wildlife.

The bark of mature trees flakes off at the base of the trunk, showing a dark grey to black exfoliating character.

American smoke tree is native to the southern states, where it may be in danger of extinction in the wild due to mature trees being harvested for the yellow and orange dye produced from the wood. It is hardy to zone USDA zone 4, so it should thrive in southeastern Pennsylvania.

American Smoke Tree Quick Facts

Size	20 to 30 feet tall & wide
Habit	rounded form
Growth Rate	medium
Sun & Soil	full sun, average dry to moist, well-drained alkaline soil; tolerates poor, rocky soil and clay; intolerant of wet soil
Flowers	large airy pale pink plumes
Leaves	excellent fall color
Habitat	rocky north- or east-facing slopes
Attributes	drought-tolerant, disease-resistant, moderately deer resistant

Plant Asters, Not Mums!

Chrysanthemums are one of the most commonly used plants for fall color, whether in gardens or pots. They are native to Asia and have been cultivated for more than 1000 years. There are many hundreds of cultivars bred for color, form, and heaviness of flowering. They may be advertised as “hardy,” meaning the plant should survive to re-bloom once planted, but in fact few plants do so.

Native asters are a great alternative for fall color, with the added benefit of providing late-season pollen and nectar for many insects. Late-season food is particularly important because insects need energy to migrate (e.g., monarchs) or to overwinter as adults, pupae, or eggs. Without late-season nutrition, butterflies, bees, beetles, moths, wasps, and other important native insects might not make it through the winter.

Native asters have a much wider range of habitats and sizes compared to chrysanthemums. Asters can thrive in sun or part shade, and many can handle clay and dry soil. Their colors range from pink to purple, pale blue to sky blue, and white. They can be as tall as 5 feet or as short as a ground cover. If you’re set on including yellow in your fall garden palette, plant native goldenrods along with asters. Both plant are highly beneficial to insects.



Asters have large or small rayed flowers that surround a central disk that starts out yellow and in some species changes to rust or dark red after pollination. This color change is a cue to insects foraging on plants that are thick with

flowers, telling them which one still have pollen.

You can look for this color change on your own plants. The photo above shows heath aster (*Symphotrichum ericoides*) with some flowers showing a yellow central disk and others a red one.

Heath aster is a tall, multistem aster with a loose habit, but a cultivar, *S. ericoides* var. *prostratum* ‘Snow Flurry’ (below), forms a thick ground cover less than 6” high and up to 2 feet wide. It loves to drape over the edge of a sunny border. With its stiff, narrow green leaves, it resembles a tiny, ground-hugging evergreen shrub until it bursts into a cloud of tiny white flowers buzzing with bees in late September.



New England aster (*Symphotrichum novae-angliae*) and New York aster (*S. novi-belgii*) are host plants for the caterpillars of the Pearly Crescentspot, Crescentspot, and Silvery Crescentspot butterflies. Both asters are tall plants preferring moist, rich soils, but are easily grown in a broad range of conditions, thriving in full sun or light shade in all but the driest soils. They are perfectly suited to a rain garden.

Smooth blue aster (*Aster laevis*) grows 3 to 4 feet tall with smooth gray-green leaves. It prefers moist soil and full sun to light shade.

Aromatic aster (*A. oblongifolius*), shown below growing with butterfly milkweed (*Asclepias tuberosa*), forms large mounds 3 feet high and wide. It tolerates

dry soil and proximity to black walnut trees. Skippers are frequently seen feeding on its blossoms.



Spotlight on Plants with “Weed” in the Name -- Ironweeds

New York ironweed (*Vernonia noveboracensis*) and yellow ironweed (*Verbesina alternifolia*) both surprised me by showing up unannounced in relatively wild areas of my garden. These native volunteers are good sources of pollen for bees and butterflies in late summer when other perennials are fading.

Yes, ironweeds can also be aggressive and take over their chosen spot, but once they show up, they can be moved to appropriate locations simply by scattering mature seed heads where you want them to grow. Removing them where they're not wanted is a bit trickier, as both species quickly develop substantial root systems.

Ironweeds are long-lived perennials that rarely need division. The common name may be a nod to the iron-like rigidity of the stems. Although both species are said to prefer moist soils, both are drought tolerant once established. If the leaves droop during a dry spell, their strong root system ensures a quick recovery with the first rain.

Ironweed's bitter-tasting leaves are not palatable to most mammals, including deer. Still, the leaves are occasionally browsed, or you may find a stem gnawed off.

Ironweeds are in the aster family but lack the flamboyant, petal-like ray florets. Instead, upward of 50 or more tubular disk florets crowd into compact flower heads enclosed by leafy bracts that are unique to a species and helpful in identification. The flower heads of some species measure a foot or more across.

New York ironweed has large, coarse, dark green leaves and dramatic, bright purple clusters of flowers on multiple stems to 7 feet tall. However, it's easy to keep this plant shorter by trim-



ming it back to half its height in late June. Plants will also grown shorter in shade. The blooms are often covered with monarch butterflies in late summer.



Narrowleaf ironweed, *V. lettermannii* (above), is native to Arkansas and Oklahoma but grows well in our ecoregion. Its soft, needle-like leaves cover the stems from top to bottom, giving the plant a shaggy appearance, somewhat like *Amsonia*. In August, this plant is topped with open clusters of small purple rayed flowers. Narrowleaf ironweed prefers full sun, and due to its deep taproot it can grow in thin, rocky soil.

Upland ironweed, *V. glauca*, is native to our ecoregion and is a host plant for the American painted lady butterfly caterpillars. It is shorter (3 to 5 feet tall) and more drought-tolerant than New York ironweed.

Yellow ironweed (*Verbesina alternifolia*) volunteers in fertile soil in part shade. It is less drought-tolerant but bounces back quickly with rain. It can grow to 8 feet tall and is an aggressive spreader. Its flowers are larger and flower clusters are more open than New York ironweed. The stems are winged, especially toward the bottom of the plant.



Invasive Plant Alert -- Ground Ivy

As the season winds down and some plants in your beds start losing their leaves, a weed that has crept in over the summer unnoticed might become more obvious. Fall is a good time to remove invasive ground ivy, *Glechoma heteracea*, also known as gill-over-the-ground and creeping Charlie. This low-growing nonnative perennial occurs throughout the United States. It's a vigorous grower that spreads across the ground underneath other plants. In the absence of competition, it can form dense patches several inches high and can crowd out emerging natives.

Identification is easy -- look for small, scalloped leaves on thin, creeping stems that send out slender roots at each node that touches the ground. Flowering stems are square and rise several inches above the leafy mat, with small tubular lavender flowers in the leaf axils in early spring. Ground ivy, a member of the mint family, has a strong, identifiable scent, more musky than minty.



Ground ivy is easier to identify than to remove. The creeping stems and underground rhizomes can form layers, one on top of the next. A three-tined fork is a good tool for lifting these rooted layers out

of the leaf duff without disturbing the surrounding deeper-rooted natives. Removal is easiest when the soil is damp and the surrounding plants are still emerging (spring) or fading (fall), so the stems and rhizomes are easier to follow and pull. Elimination will not be effective unless all rhizomes are removed.

Ground ivy is found in moist areas such as floodplains, low woods, and disturbed sites. It a significant weed in lawns and can spread to adjacent planting beds. It grows on damp, heavy, fertile and calcareous soils and does not tolerate highly acidic or saline soils.

Smothering can be an effective tool for control if an entire area is to be replanted. Weed-whacking the area to the ground before smothering is recommended because ground ivy can thrive under leaves, wood chips, and even cardboard, emerging wherever its thin stems can creep.

Ground ivy's tolerance for shady, moist conditions makes it problematic because it can invade under a forest canopy. For this reason, if you compost ground ivy after removing it, avoid compost areas in or near wooded areas.

Ground-ivy's ability to regenerate vegetatively from rooted stolons or rhizomes left in the soil after mechanical removal makes it hard to control without consistent monitoring of areas where it has been removed.

Could ground ivy, once removed from an area, be prevented from returning by introducing aggressive native ground covers? Creeping phlox (*P. stolonifera*) is a vigorous ground cover in shady, moist soil. For sunnier, drier exposures, prostrate heath aster (*Symphotrichum ericoides* var. *prostrates* 'Snow Flurry') can spread to 2 feet and cover the ground thickly with its soft green needle-like foliage. Enchanter's nightshade (*Circaea canadensis*) and golden ragwort (*Packera aurea*) both spread to create small colonies in half-shaded woodlands which might be able to shade out ground ivy.

Resources

[USDA Forest Service: Weed of the Week](#)

[Invasive Plant Atlas of the US](#)

[iNaturalist](#)

Lights Out To Protect Migrating Birds

Every fall, billions of birds migrate south, most of them flying at night, navigating with the night sky. Bright outdoor lighting can throw birds off their migration paths. Here are some things every property owner can do:

- Turn off exterior decorative outdoor lighting.
- Extinguish pot and flood-lights.
- Down-shield exterior lighting to eliminate horizontal glare.
- Eliminate outdoor lighting that's directed upward.
- Install automatic motion sensors and controls wherever possible.
- When converting to new lighting, assess the quality and quantity of light needed. Avoid the temptation to use brighter technology, which can lead to over-lighting.



Learn more: [National Audubon's Lights Out program](#).

WO-SEPA 2023 Program & Event Schedule

November 16 Chapter elections will be held, after which members can view a webinar presented by Wild Ones National. Authors Neil Diboll and Hilary Cox will present their latest book, [The Gardener's Guide to Prairie Plants](#). This comprehensive compendium is a treasure trove of knowledge for gardeners looking to incorporate native prairie plants into their landscapes. Neil and Hilary will share rich historical and ecological insights about prairie ecosystems, while showcasing stunning images of prairie flora. This book provides all the inspiration and information necessary for eager native planters from across the country to welcome these plants back to their landscapes.

Register for the webinar [here](#).

Recordings of past meetings can be viewed on our [Youtube channel](#).

Educational Opportunities

Oct 26 [Increasing Interest in Lenape Gardening](#). New Directions in American Landscape webinar. 7:00 p.m.

Oct 31 [Wild Residential: Accommodating Spontaneous Vegetation](#). New Directions in American Landscape webinar. 3:00 p.m.

Nov 11 [Home Gardening Series: Creating a Garden That Welcomes Wildlife](#). Penn State Extension webinar, 9:30 a.m.

Nov 11 [Solidagos As Keystone Species for Specialist Wild Bees](#). PA Native Plant Society, Shaver's Creek Environmental Center, 3400 Discovery Rd, Petersburg PA. 2:00 p.m.

Nov 12 [Seed Share & Sustainable Landscaping Presentation](#). Wild Ones of South Central PA. Giant Grocery Store Community Room, 3301 E. Trindle Rd, Camp Hill PA. 1:00-4:00 p.m.

Nov 15 [Ask the Experts: Native Plant Queries for Curious Gardens](#). Brandywine Nature Conservancy webinar, 12:00 p.m.

Nov 16 [The Gardener's Guide to Prairie Plants with Neil Diboll and Hilary Cox](#). Wild Ones webinar, 7:00 p.m.