



Hummingbird Hill Native Plant Nursery

January/February Newsletter

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Happy 2023! We are inspired by each of you who came out to the nursery last year, sharing your projects with us and joining in the effort to help native plants. Thank you for caring about nature, for stepping outside of the box, and for working towards creating habitat corridors on your properties.



A look at

Native Plant Volunteers

8 Common species you may have volunteering
on your property & why they matter



Often viewed in vegetable and ornamental gardens as weedy species, these natives are valued for their ecological integrity and wildlife benefits in native plantings and habitat corridors.

Do you have Pokeweed growing on a fenceline or in an unsupervised corner of your property? Perhaps American Plantain is peeking up in your yard by the sidewalk? Like many of the more common natives that can be found around development and home sites, these species are

opportunists. Often when ground is disturbed or left unmanaged, these native opportunists don't take long to show themselves. Taking advantage of both natural and man-made disruptions in the environment, they come in as early successional species and revive the soil for future generations of natives. As they grow, their roots combat erosion, they host a large variety of wildlife, and denser colonies form a safe environment where other native species can germinate more easily. Supporting these opportunists on your property is the first step to building a better ecosystem. This can be done by becoming familiar with their identification and being sure to not accidentally remove them as you are weeding out non-natives from your habitat corridor. Here, we take a look at some of the native opportunists you may have growing on your property:



Common Yellow Wood Sorrel (*Oxalis stricta*)

A short annual that grows around 3-8 inches tall. 3 clover-like leaflets that are notched grow on each stalk. Stems are upright and branching. Yellow flowers with 5 petals appear in May through October.

Wildlife Benefits:

The flowers are visited by bees, including Halictid Bees, and flower flies. Seeds are used by juncos, a variety of sparrows, and native mice.



*Dark-eyed Junco
(right)*

Short volunteer species, such as Common Yellow Wood Sorrel and Common Blue Violets, can naturalize in the understory of your habitat corridor. Above these, tall and medium-sized plants can be mixed throughout. The greater number of plants you have in your corridor, the more habitat it creates and the more usable it is to wildlife. Remember, the end goal is to have no bare soil showing.



American Plantain

(Plantago rugelii)

A perennial with broad leaves that grow in a basal rosette close to the ground. Leaves are thick and distinctly veined. Stalks with flowers/seeds appear in June-November. Other common names include Blackseed Plantain and Broad-leaved Plantain.

Wildlife Benefits:

Seeds are used by squirrels and birds, including Northern Cardinals. Native grasshoppers feed on the foliage. A host plant for several species of butterflies/moths including

Buckeye Butterflies.



A Common Buckeye caterpillar feeds on American Plantain. Adult butterfly (left).



Annual Fleabane

(Erigeron annuus)

An annual or biennial that grows 3-4 ft tall. White (or slightly pink) flowers are daisy-like and bloom in May through October. Each flower is $\frac{1}{2} - \frac{3}{4}$ " wide with numerous thin petals. Leaves are toothed and hairy. Watch for the seedlings (left) popping up in disturbed soil.

Wildlife Benefits:

The pollen and nectar are used by a large array of insects, including native butterflies, beetles, flies, bees, and wasps.





Carolina Horse Nettle

(Solanum carolinense var. carolinense)

A perennial with purple or white 5-petaled flowers that bloom in May to July. Plants typically grow to be 2 feet tall and have prickly stems. Fruit is a showy yellow berry that resembles a small tomato.

Wildlife Benefits:

Yellow berries are eaten by birds, including Wild Turkeys and Bobwhite. Bumblebees help to pollinate the flowers. This species is also the native host plant for Tobacco Hornworm caterpillars.



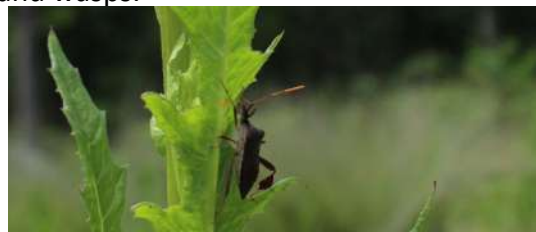
American Burnweed

(Erechtites hieraciifolius)

An upright annual that can grow 6 ft or taller. Stems are unbranched, except at the top of the plant near the blooms. Central stem is green, round, and smooth (juicy-looking), with small dark green vertical lines. Leaves are alternate with serrated edges. Flowers are inconspicuous, appearing to look like buds. More noticeable are the fluffy white seedheads. Blooms in August-November.

Wildlife Benefits:

The flowers are used by native insects, including bees, flies, and wasps.





Horseweed

(Conyza canadensis var. canadensis)

The erect central stem is unbranched, except near the flowering heads, and covered with white hairs. Flowers are small, white, and inconspicuous. These turn into fluffy white seedheads. Alternate leaves are usually lance-shaped and grow on the entire stem, sometimes appearing whorled around the stem. An annual that grows around 6 ft tall. Blooms July-November.

Wildlife Benefits:

The stems are used by a variety of insects, including Tarnished Plant Bugs and the larvae of Tumbling Flower Beetles. Native flies, bees, and wasps visit the flowers for nectar/pollen.

Tarnished Plant Bug (right)



American Pokeweed

(Phytolacca americana var. americana)

A perennial with sturdy, round stems that are a distinctive reddish-purple color. Plants have a bushy, branching habit and large leaves. Flowers are white/green to pink and bloom in May to November. Later, purple berries form, hanging in elongated clusters. Plants typically grow around 6 ft tall.

Wildlife Benefits:

Many native birds feed upon the berries including Mockingbirds, Cardinals, and Robins. Opossums, raccoons, and other mammals also use them for food.





Common Blue Violet (*Viola sororia*)

A short perennial without a central stem. The heart-shaped leaves emerge directly from rhizomes in the ground, giving the plant a bushy, mounding structure. Typically grows up to 8 inches tall. The flowers are purple or white with purple centers. Blooms in March to June, sometimes reblooming in the fall when weather cools.

Wildlife Benefits:

Bees come to the flowers, along with some species of native flies and butterflies. The leaves are a host plant for **Fritillary Butterfly caterpillars.**



What's New At the Nursery

At this time of year, our potted plants are tightly arranged into groups in the nursery and covered with row covers. These row covers help to keep the plants insulated and protect them during the cold of winter.

Meanwhile, as our plants rest, we are busy planting seeds for next year. We will be opening for the 2023 season around the beginning of April and look forward to seeing everyone then!



Maryland Wild Senna (*Senna marilandica*) seeds



When the seeds disperse,

White-throated sparrows are back.

Leaves have fallen from the trees and winter has come, washing the landscape in browns, tans, and yellows. Habitat corridors are now filled with withered leaves, drying foliage, and standing stems. There's no doubt that the growing season is over—but, one of your habitat corridor's largest impacts of the year has just begun.

Seeds are dispersing. For native plants—and for those of us trying to help them—this is the ultimate goal. This is the time of year when our habitat corridors have reached their climax, and their utmost importance shines through.

A plant's life is one giant journey to produce more plants, in order to ensure that its species will survive. Throughout the course of a year, it will grow, bloom, and—if properly pollinated—set seeds that can disperse to reclaim new territories. In theory, and in an ideal environment, each plant only needs one of its seeds to germinate, grow, and survive until adulthood. This new plant will, in time, replace the aging parent plant. However, in the fragmented landscape of today's world, it is necessary for as many of these seeds to grow as possible to recolonize and boost populations.

But, each plant species needs a specific set of growing conditions for survival: a certain soil acidity, amount of moisture, and level of sunlight. And, the chance that a seed will get to a new location with growing conditions that will help them thrive is very low. So plants overcompensate by producing an abundance of seeds, hoping that a few will at least arrive at a place where they can prosper, and they've evolved to have creative methods to solve this problem.



One way that plants disperse their seeds is by using air currents for transportation. This is the most well-known method of seed dispersal, utilized by plants like those in the milkweed, goldenrod, and aster families. Seeds are equipped with silky hairs and, when a gust of wind hits them, they are

Maryland Golden Aster (*Chrysopsis mariana*)



propelled into the air. Depending on their luck, they can end up right on the ground in front of them or drifting hundreds of feet away.

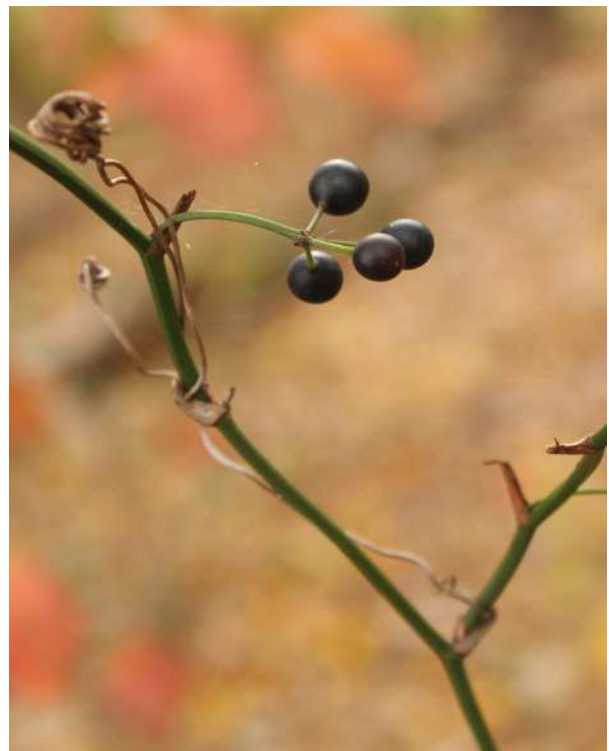
This method of dispersal gives plants very little control over the final destination of their seeds. Seeds could wind up hung in a tree, on a rock, or in a habitat that's completely unsuitable to their needs. To account for this, plants that use wind for seed dispersal usually produce much larger numbers of seeds than plants employing other methods.

A safety mechanism that most native seeds, especially those using wind dispersal techniques, rely upon is the inability for them to germinate until they have received a certain number of cold and moist days. This means seeds won't accidentally sprout on a warm day in the middle of the winter, only to get killed by a frost the next day. For some plant species, this period of dormancy may mean needing at least a month of cold/moist conditions before they are able to germinate. For others, it may require three months. The length of time partially depends upon when the seed would naturally ripen and fall to the ground, as well as the thickness of the seed coating.

Common Milkweed (*Asclepias syriaca*) seeds disperse through the wind.

In turn, this inability to germinate for a certain set period also provides the seed with a long duration in which it can be blown by the wind. This permits the seed to travel long distances before it finds a final destination to germinate. Suppose seeds germinated soon after they touched the ground. This would create numerous seedlings growing right at the feet of their parents and offering competition. The goal of the species is to travel far, conquer new territory, and gain a more diverse gene pool. To do so, some species, such as Jack in the Pulpit, have taken this seed dormancy period to a more extreme level. Rather than waiting to germinate in spring, their dormancy period requires two years before they are able to come up.

Plants with berries are also outfitted with a smart seed dispersal strategy. In fact, berries are simply fleshy fruits that contain seeds which have evolved to travel long distances. With berries, plants engage animals (such as birds) to get their seeds to new



Common Greenbrier (*Smilax rotundifolia*) berries are eaten by birds, like Hermit Thrushes.

locations. When a bird eats a berry, the fruit part is digested, giving the bird vital energy and nutrition. During this process, the seeds travel safely through the digestive system and are dispersed in the bird's droppings, sometimes many miles from the parent plant. This allows the seeds to claim new areas—and they also get a fresh start at life with the fertile nutrients in the bird's fecal material.

A plant creates a berry so that an animal will come along and eat it, transporting its seeds to a new location. This sounds like a complex enough scenario, but many fruit-bearing trees and shrubs go a step further with tannins.

Tannins are chemical substances found throughout nature, used by plants to deter diseases, fungi, and animals. Trees and shrubs that are dependent on seed dispersal by mammals often have fruits that are high in tannins when unripe. This makes the fruit distasteful and acts as a deterrent to keep animals from eating the fruits before the seeds inside have fully matured. As the seeds mature, the fruit ripens and the tannin level decreases, until the fruit is finally ready for consumption. The seeds are transported through the body, their hard coat softening as they go through the digestive system, and emerge in fecal material, ready to germinate the following spring.



AMERICAN PERSIMMON

(*Diospyros virginiana*) seeds are spread by mammals that eat the fruit. Before the fruit is ripe, it contains high levels of tannin, which discourages animals from eating it before the seed is ready for dispersal.

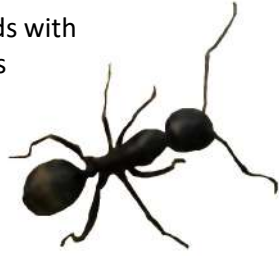


Orange Jewelweed (*Impatiens capensis*) can propel its seeds 6 feet away.

Other native plants use a spring mechanism approach to disperse their seeds. An example of this is Orange Jewelweed, a native plant that can propel its seeds up to six feet away. Once the pods are ripe, they explode, their edges curling up, and their seeds are propelled in all directions. During the time of peak ripeness, the small projectile seeds can be heard popping and landing, and even the slightest brush from an insect or hummingbird can make the pods burst.

Similar to Jewelweed, Violets apply this spring method for their seed dispersal. Their seeds, however, also have fleshy structures attached to them called elaiosomes. These elaiosomes consist of lipids, a type of fat that is found attractive to ants. After the Violet seedpods have ruptured, ants find these seeds on the ground and carry them to their nests. There, they feed upon the elaiosomes

Ants spread seeds with elaiosomes



and discard the unharmed seeds in a waste disposal spot with frass and other nutrients. The seeds of various spring blooming natives, including Bloodroot and Wild Ginger, are spread through this technique. Plant species that depend on this method typically can be found growing in loose groups. This is due to ants traveling short distances and carrying the seeds to their nests around the designated area.

Plant species in the *Bidens* and *Desmodium* genus have seeds that have adapted in yet another ingenious way: hitchhiking. Their seed structure has developed in a manner that makes them proficient at clinging to animals. Once the seed is ripe, it may be armed with small barbs that make quick work of attaching to fur. Other species are furnished with discreet hooked hairs. These clinging features develop at the seed's peak maturity, preventing the seed from accidentally being stripped from the plant before it is viable. Seeds that disperse through this method only have to sit and wait for a passerby, perhaps a bear or raccoon or maybe a human. When fur or clothing brushes against the seed, it instantly attaches and is transported wherever the creature takes it. Eventually, it will be brushed off and dropped to the ground, where it can germinate. With this method, seeds are able to travel long distances.



Devil's Beggartick (*Bidens frondosa*) seeds have little barbs that catch on fur and clothing.



This winter, we hope you will take time to notice the seedheads in your habitat corridor. All of those intricate brown seedheads or ripe berries have the potential to go on and spread to other places. Even a small habitat corridor that's a few feet wide holds hundreds of seeds. Maybe one of the seeds will find a home in a clearing in the woods nearby. Perhaps another will germinate in an edge strip in your neighbors yard or on the side of the road somewhere. Wherever they go, some will likely find a way to germinate, even in an urban setting. Where they travel and grow may always remain a mystery, but some may reach adulthood, seed, and continue to spread, recolonizing the land and counteracting habitat loss. While your selected habitat corridor is a finite size, the potential area for the seeds to spread and create new habitat is endless. The chance for the seeds to spread is the greatest aspect that your habitat corridor has to offer. This winter, when you look among the shriveled brown leaves and bent stems, we hope you can see the promise of the future you are providing with your habitat corridor.

When the seeds disperse,

there is hope.