

GROWERTALKS

Features

8/1/2020

Woodies for Our Winged Friends

Dr. Matthew Chappell

These days, the concept of pollinator-friendly plants often focuses on herbaceous perennials. Given the size of most landscapes or balconies being developed (built) in the last decade, it's a reasonable expectation that smaller-sized plants are filling an important urban pollinator niche. However, there are quite a few shrubs and trees that knock it out of the park when it comes to providing the pollen, nectar and/or forage that many pollinators require to thrive in suburban/urban settings.

Additionally, there are many shrubs and trees that provide food, forage and shelter to more than just the "typical" pollinators referenced in popular press (bees and butterflies). These important, but often forgotten, pollinators include flies, moths, birds (hummingbirds) and wasps. They're important because these pollinators hold critical roles in the food web, including pollinating native species, and the many new vegetable gardens and small orchards installed by homeowners this spring and summer, as the pandemic has forced us all into a bit of a bubble.

Books have been written on the subject of pollinator plants, some specific to certain states or regions of North America, so there's no way to cover everything related to shrubs that support pollinators in a short article. As a result, I default to those species that I really love and that are native to North America, as listed in Table 1. Many of the species listed in the table have few, if any, cultivars available in branding programs, however some branding programs like Proven Winners and First Editions are embracing the concept of natives and releasing some nice cultivars.

In my day job as a Professor of Horticulture at the University of Georgia, it seems like I've received double the number of calls, texts and emails this spring asking how to draw in pollinators (compared to previous years). Let's tackle each of these questions individually.

What are the characteristics that make a good pollinator plant? Evolution makes a good pollinator species, in that the best pollinator species evolve with the insects that pollinate them. For example, many magnolias (*Magnolia* spp.) are among the oldest plant taxa (evolutionally speaking) on Earth and therefore evolved with certain types of insects as pollinators that evolved around the same time. Yep—if you guessed beetles—you're correct in assuming which insect evolved to pollinate many magnolias (and *Michelia* spp.). BTW—bees have also evolved to love magnolia pollen over the last hundred million years or so.

Are native species better pollinator attractants compared to exotic species (and cultivars of these exotic species)? To pick up where I left off with the last question, pollinators evolved with the plant (species) in close proximity, so pollinators native to North America generally prefer North American plant taxa.

However, there are quite a few pollinators that are drawn to non-native plants. How does this happen? Well, there

are a number of characteristics that attract pollinators. Most gardeners recognize flower color as an attractant and this is a correct assumption. However, floral aroma, nectar production, pollen production and flower size/color can make a native pollinator salivate over a non-native plant. This is especially true for social insects, such as honeybees, who actively search for acceptable pollen resources and then relay information to a community of pollinators that converge on that pollen/nectar source.

Can you develop a garden with plants that attract pollinators throughout the year? In short, of course you can. That's one of the main points of the associated table, which lists bloom times for the various species identified as superior pollinator species. In fact, it was a struggle to keep this list to 34 species, as I could list 100 that currently reside in my personal garden in Zone 8 (Georgia). If you're looking for a local-centric list, it would be a good starting point to contact your local Cooperative Extension county/regional office and ask them for a catalog of pollinator plants for your area.

What are the best species on the list? One could argue that the size of the plant, coupled with the number of flowers, is the best indicator of pollinator value. Others may think that the native range of a species is most important when considering their value as a pollinator taxa. Others would argue that the length of flowering period would be most critical. I would suggest that as long as we're focusing on those species/cultivars that support pollinators, we're winning. Don't be judgmental—just support the pollinator movement because it supports our movement as horticulturists.



Pictured left to right: California buckeye, Crossvine, Summersweet and Winged sumac

Nonetheless, here are my favorite species in the table, with a blurb about why I love each of them. (Don't be judgmental ... it won't change my opinion.)

***Aesculus californica* (California buckeye)**

Growing up a poor child on a tobacco farm in the Mid-Atlantic, the first time I saw this species was when I traveled to California as a sophomore in college. Landing on a midnight flight to San Francisco, we rented a car and slept in the parking lot of Muir Woods National Monument (when that was still allowed). I woke up at dawn, stepped out of the car and was greeted by a huge buzz of pollinators from bees to hummingbirds. That same tree still resides in the parking lot and most folks walk right past it daily without looking up. If it's blooming, it's worth a stop to look up and smile.

***Bignonia capreolata* (Crossvine)**

Vines—you either love them or hate them. But hummingbirds certainly love them and bees love them so much they'll chew through the base of the flower to reach the nectar. If you want some serious hummingbird action, you can plant this or *Lonicera sempervirens* (trumpet honeysuckle) to draw in the hummingbirds.

***Clethra alnifolia* (Summersweet)**

When this blooms, there's absolutely nothing with wings (or legs—especially ants) that will not be attracted. It's (at the very least) something worth putting in a landscape for documenting the diversity of insects. I have several that I use to teach my kids the diversity of pollinators in our region.

***Aronia arbutifolia* (Red chokeberry)**

I didn't witness the value of this pollinator species until I was participating in a leadership development training in Minneapolis in 2014. There was a lake with a running trail around it and this was literally around the entire southern edge of the lake (about 2 miles of trail). The entire run was a-buzz and the smell was pretty amazing, too.

***Prunus serotina* (Black cherry)**

It's a shame to keep the theme going, but when this blooms it's absolutely the most amazing sound of wings you'll hear. This is partly due to the time of flower (mid-spring) and the fact that it produces an extraordinary number of florets that contain an excellent nectar and pollen source.

***Rhus copallinum* (Winged sumac)**

Okay, part of the reason why I picked this was purely pun-related. It doesn't really matter what sumac you plant—I guarantee it'll be a pollinator magnet (but this is my favorite species). If you accept that it'll spread with time to encompass a larger area, then you'll plant it in the background and be happy with its forward progression.

***Sophora secundiflora* (Texas mountain laurel)**

This is a species that's relatively unknown and one that I'm going to do my best to promote. It's salt-tolerant, cold tolerant to Zone 8 and has excellent blue blooms in late spring. Folks said it couldn't grow in Zone 7, but I have plots that are on their second winter with no damage. No widely available cultivars exist, and it's not easy to obtain, but it's certainly worth a chance. **GT**

Matthew Chappell is a professor at the University of Georgia and editor of our Nursery & Landscape Insider e-newsletter.

Table 1. This table is meant to offer an example of excellent pollinator shrubs and trees, yet it's just a fraction of native woody plants that serve as great pollinator plants. In general, if you don't see a species on this list that does well for your area, then back up to the genus level because many of these genera as a whole offer excellent feed and forage to pollinators.

Common Name	Botanical Name	Pollinators Attracted	Bloom Time	USDA Zone	Flower Color	Plant Size H x W (ft.)
Red Maple	<i>Acer rubrum</i>	Flies - Wasps	Early Spring	3-9	Red to Green	50 x 35 (VC)
California buckeye	<i>Aesculus californica</i>	Butterflies - Hummingbirds	Spring	7-9	Cream Yellow	35 x 30
Bottlebrush buckeye	<i>Aesculus parviflora</i>	Butterflies - Hummingbirds	Summer	4-8	White to Cream	12 x 15
Red chokeberry	<i>Aronia arbutifolia</i>	Butterflies (F) - Moths (F)	Early Spring-Spring	4-9	White to Light Pink	8 x 4
Oregon grape	<i>Berberis aquifolium</i>	Wasps	Early Spring	5-8	Yellow	6 x 6 (VC)
Crossvine	<i>Bignonia capreolata</i>	Butterflies - Hummingbirds	Late Spring-Late Summer	5-9	Dark Pink to Red (VC)	Vine to 30
Carolina allspice	<i>Calycanthus floridus</i>	Beetles - Flies - Wasps	Spring-Early Summer	4-9	Reddish Brown	10 x 10 (VC)
Trumpet creeper	<i>Campsis radicans</i>	Butterflies - Hummingbirds	Late Spring-Late Summer	4-9	Orange to Scarlet Red	Vine to 30
Blue Mist Shrub	<i>Caryopteris x clandonensis</i>	Butterflies	Late Summer	6-9	Light to Dark Blue	4 x 4 (VC)
California lilac	<i>Ceanothus</i> spp.	Butterflies - Hummingbirds	Late Spring-Late Summer (VC)	8-10	White to Deep Blue (VC)	20 x 20 (VC)
Buttonbush	<i>Cephalanthus occidentalis</i>	Butterflies	Summer	5-9	White	12 x 8
Western Redbud	<i>Cercis occidentalis</i>	Butterflies - Wasps	Early Spring	7-9	Dark Pink to Lavendar	20 x 20
Summersweet	<i>Clethra alnifolia</i>	Butterflies - Flies - Wasps	Summer	3-9	White	8 x 6 (VC)
Fothergilla	<i>Fothergilla</i> spp.	Moths - Wasps	Early Spring	4-8	White	4 x 4 (VC)
Western Coffeeberry	<i>Frangula californica</i>	Moths - Wasps	Spring	7-10	Green to Canary Yellow	12 x 12 (VC)
Ozark witch-hazel	<i>Hamamelis vernalis</i>	Flies - Moths	Late Winter	4-8	Yellow, Orange, Red, Purple (VC)	10 x 15 (VC)
Common witch-hazel	<i>Hamamelis virginiana</i>	Flies - Moths	Early Winter	3-8	Yellow to Red (VC)	20 x 20 (VC)
Smooth hydrangea	<i>Hydrangea arborescens</i>	Flies - Moths - Wasps	Summer	3-9	White to Pink (VC)	5 x 5 (VC)
Oak leaf hydrangea	<i>Hydrangea quercifolia</i>	Flies - Wasps	Spring-Early Summer	5-9	White to Light Pink (VC)	15 x 15 (VC)
Winterberry holly	<i>Ilex verticillata</i>	Flies - Wasps	Late Spring-Early Summer	3-9	Off-white to Green	12 x 12 (VC)
Virginia Sweetspire	<i>Itea virginica</i>	Butterflies (F) - Moths	Early Summer	5-9	White to Light Pink (VC)	8 x 8 (VC)
Mountain Laurel	<i>Kalmia latifolia</i>	Moths - Wasps	Spring	4-8	White to Pink (VC)	8 x 8 (VC)
Spicebush	<i>Lindera benzoin</i>	Butterflies (F)	Early Spring	5-9	Green to Canary Yellow	12 x 12
Ninebark	<i>Physocarpus opulifolius</i>	Flies - Wasps	Late Spring-Early Summer	2-8	White	8 x 8 (VC)
Black cherry	<i>Prunus serotina</i>	Butterflies - Flies - Wasps	Spring	3-9	White	80 x 60
Mountain azalea	<i>Rhododendron canescens</i>	Butterflies - Bees	Early Spring	4-9	Pink	8 x 4 (VC)
Winged Sumac	<i>Rhus copallinum</i>	Butterflies - Flies - Wasps	Summer	4-9	Light Yellow to Green	15 x 15
Staghorn Sumac	<i>Rhus typhina</i> (syn. <i>R. hirta</i>)	Butterflies - Flies - Wasps	Summer	3-8	Light Yellow to Green	30 x 30
American elderberry	<i>Sambucus canadensis</i>	Butterflies - Flies - Wasps	Early Summer	3-9	White to Cream	12 x 12
Texas mountain laurel	<i>Sophora secundiflora</i>	Butterflies - Wasps	Spring	8-11	Violet to Lavender	35 x 15
Meadowsweet	<i>Spiraea alba</i>	Butterflies - Flies - Wasps	Summer	3-7	White	4 x 4
Coralberry	<i>Symphoricarpos orbiculatus</i>	Flies - Moths - Wasps	Early Summer	2-8	White to Light Pink	6 x 8
Farkleberry	<i>Vaccinium arboreum</i>	Flies - Moths - Wasps	Spring	6-9	White	7 x 4
Nannyberry viburnum	<i>Viburnum lentago</i>	Butterflies - Flies - Wasps	Spring	2-8	White to Cream	15 x 12

All species listed attract bees native to the region where grown. Other pollinators listed.

VC = Varies by Cultivar, Species characteristics listed

Early spring defined as before foliage emerges on deciduous taxa in your area.

Spring defined as between leaf emergence and the first day of summer.