POLLINATORS ARE an integral part of our gardens and ecosystems. However, loss of habitat, reduction in the number and quality of food sources, and indiscriminate use of pesticides and herbicides have taken a heavy toll on pollinator populations everywhere. Gardeners can be part of the solution by creating landscapes that support pollinators of all kinds. While pollinator or “butterfly” gardens consisting of just annuals and herbaceous perennials are quite common, the addition of shrubs, trees, and vines greatly enhances their habitat value. In the Smithsonian Gardens in Washington, D.C., where we work, we use all these plant types to draw pollinators year-round. But among the most versatile workhorses are the deciduous native shrubs that support a wide range of pollinators as well as some very specialized ones.

From a gardening perspective, not only are these tough shrubs relatively unfussy about growing conditions and adaptable to gardens across most of the country, they provide multi-season interest to the landscape in the form of flowers, berries, bark, and fall color. The following species help us to serve pollinators throughout the seasons, from early in spring when the first insects emerge from dormancy to fall when they start preparing for winter.

**SPRING BLOOMERS**

*Virginia sweetspire (Itea virginica, USDA)*

Support Pollinators with Native Shrubs

BY JAMES GAGLIARDI AND HOLLY WALKER

Top: A mix of perennials, shrubs, and trees in the Smithsonian Gardens provides an ideal habitat for a variety of wildlife in the heart of Washington, D.C. Bottom: Thriving in a sloped bed bordering a parking lot near the Bird Garden, ‘Henry’s Garnet’ Virginia sweetspire draws butterflies and bees with its fragrant spring blooms. Opposite page: The spherical, white blooms of buttonbush grab the attention of passersby and pollinators alike.

Provide a pollinator smorgasbord through the seasons with these adaptable, deciduous plants.
the American Gardener

the American Gardener

Summary of the text:

- **Red chokeberry** (Aronia arbutifolia, Zones 3–9, 9–1) is a versatile plant in the Smithsonian Gardens. It is prominently featured in an understory planting at an entrance and beside a nearby parking lot where it helps retain a sunny slope. It thrives in both locations, but the blooms are best in full sun. Its berries are a sweet nectar reward once they get past birds after exposure to low temperatures.

- **Dwarf fothergilla** (Fothergilla gardenii, Zones 4–8, 8–4) is a lovely three-season shrub with large, white, pyramidal panicles of blooms from May to July that will draw butterflies and native bees. The plant's rich red-to-purple fall color is stunning. As its name suggests, running serviceberry is a stoloniferous shrub and grows about four or five feet tall and wide. Compared to more commonly used serviceberry species—which often develop as multi-stemmed small trees—the size of this species makes it perfect for gardens where space is at a premium.

- **Lead plant** (Amorpha canescens, Zones 3–9, 9–4) mixes nicely into perennial borders because of its small habit. Growing only one to three feet tall, it features gray foliage and spiked clusters of iridescent purple flowers that are quite unique for a member of the pea family. Individual flowers are composed of a single-petal wrapped around to stamens, and provide nectar to bees, butterflies, and ants. It is especially important in prairie ecosystems where it supports native solitary bees as well as the endangered Karner blue butterfly (Plebejus melissa samueli). Its cousin, California false indigo (A. californica), is one of the host plants of the California dogface butterfly (Zerene eurydice), the state butterfly of California.

- **Round, reddish-brown fruits follow, which are a magnet to several species of bees and butterflies. They also grab the attention of passersby, so we have placed this shrub at the entrance to the Pollinator Garden. Round, reddish-brown fruits follow, which can last into winter. This plant gets six to 12 feet tall, and though it is adaptable to most growing conditions, it does best in a damp, part-shady location.

- **Another great option for shady, consistently moist areas is bottlebrush buckeye.** (Aesculus parviflora, Zones 5–9, 9–1), which draws in a range of pollinators with its flower fly wrapped around 10 stamens, and abundant fruit will grow to only four to six feet.
Common witch-hazel also produces pollinator-attracting flowers during the colder months, after its foliage turns yellow and drops in fall. Many of our native bee species, such as mason bees and sweat bees, overwinter as adults. Due to their size, they are able to seek shelter in hollow stems and canes from existing shrubs. These structures provide protection from the harsh winter weather and from potential predators. Other pollinators, such as some beetle species, can also overwinter as adults hiding out in leaf litter and decaying plant material. So leaving some cut stems and fallen leaves on the ground until spring can provide vital winter habitat for these pollinators.

And don’t forget about caterpillars. Most of us learned very early on from reading The Very Hungry Caterpillar by Eric Carle that we will not have a beautiful butterfly without a hungry caterpillar. Caterpillars can be picky eaters, so in the Pollinator Garden we include a variety of host plants. This means accepting some leaf damage. We also recommend that when shopping for shrubs, make sure they have not been treated with systemic insecticides. The plants in the Pollinator Garden are in generally good health, in part because of the diversity of species we include. In all the Smithsonian Gardens, we practice integrated pest management and prefer to use mechanical, cultural, and biological controls first. In the rare case that we may need to apply an insecticide, we only use ones that do not affect beneficial insects and pollinators.

In the end, pollination is all about survival and sex. The animal and the plant both need something from the other. The pollinator is often drawn to a plant with an offer of food. In turn, the plant relies on the pollinator to move its pollen to the stigma of another flower. Plants have evolved with particular traits, and pollinators select blooms for their preference for color, odor, nectar, nectar guides, pollen, and flower shape. These traits, combined with bloom period and location, make for a variable matrix of pollinator and plant interactions. This is why it is important to grow a large selection of plants—including shrubs—for various pollinators to support their needs.

Sources
Naturally Native Nursery, South Bend, IN. www.naturallynative.net.
Sooner Plant Farm, Park Hill, OK. www.soonerplantfarm.com.

Resources
National Wildlife Federation

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