Dioecious Native Shrubs for Wildlife

Learn how to get the best wildlife value from native shrubs that have male and female flowers on separate plants.

ARTICLE AND PHOTOGRAPHS
BY KAREN BUSSOLINI

A LIFELONG gardener who grew up roaming woods and wetlands, I’m thrilled to see people embrace native plants in an effort to create restorative, beautiful, wildlife-friendly habitat in their yards. Many natives do it all—solve problems, feed and shelter wildlife, and add beauty as well.

But if you are eager to add native shrubs to your garden, it’s important to know a little bit about their sex lives to ensure you are providing the most benefit to wildlife. A number of versatile native shrubs—including willows (Salix spp.), bayberries and wax myrtles (Mairella spp.), sumacs (Rhus spp.), and spicemakers (Lindera spp.)—are dioecious, meaning they bear male and female flowers on separate plants.

Why is this important, you may ask? Well, the simple answer is that if you are planting dioecious shrubs, you need to make sure you have both male and female specimens to guarantee a chance for successful pollination. Otherwise, it’s unlikely these plants will develop the seeds or berries that add winter interest to the garden and provide all the benefits of pollen, nectar, and fruits that sustain birds and other wildlife.

So why are some plants dioecious? From the perspective of a plant, there are a lot of benefits to ensuring pollen is transferred between different plants. Among these are genetic diversity, plant vigor, seed viability, and fruitfulness. Dioecious plants’ separation of sexes is a good strategy for avoiding inbreeding, but there’s a tradeoff: Male and female plants must bloom concurrently, in proximity and, except for wind-pollinated forms, color and scent that so engages animal pollinators, especially bees and butterflies. Plants must first attract and then offer a reward—protein-rich pollen and sweet nectar—in order to perpetuate the species. The incredible diversity in flower forms, color, and scent that so engages us as gardeners is the result of eons of plant-pollinator co-evolution.

Both male and female flowers of dioecious plants offer nectar, but only the males produce nutritious pollen and only females give rise to nourishing seeds and berries that entice birds and other animals to distribute them. Bees, the most important plant pollinators, feed on one species per foraging trip; so spicemakers, pollen, for instance, moves between spicemakers rather than dying on a daffodil. Bees also collect nectar and pollen to bring back to the nest for offspring. Pollen is crucial to the life cycle of both plants and pollinators—not to mention gardeners hoping for a beautiful berry display. Given this, it’s surprising that nurseries and garden centers don’t make it easier to pair up male and female dioecious plants, but rather than hollys, they seldom do. Matchmaking is easier with male hollies, because named female cloned cultivars are typically paired with a male “consort.”

Another thing to consider is that gardeners are often advised to plant several females to just one male because the latter’s flowers are considered aesthetically insignificant. By skimping on males to save space for berry-producing females, however, we shortchange pollinators that need the pollen only males produce. The so-called “insignificant” flowers of the dioecious shrubs discussed in this article are significant indeed.

Perhaps it’s time to adjust our aesthetic and frame of reference. Heather McCargo, director of Maine’s nonprofit Wild Seed Project, urges gardeners to ask, “How can we help other creatures?”—instead of it being all about us.” She encourages gardeners to grow lots of genetically diverse seed-grown male and female plants.

CLUES FOR TELLING SEXES APART

When shopping for dioecious plants, poke around for clues. The presence of berries—often shriveled up and hard to spot—is a ripoff; lack of berries tells you nothing, as they may have been pruned, knocked off when stuffed into a hoop house to overwinter, eaten by birds, or plants may be immature. If you do find an irresistible specimen American holly heavily laden with shiny red berries, it’s because nurseries are swarming with pollen. It won’t look like that in your garden next year unless you give it some male company, however.

Ideally, try to catch plants in bloom. Even then, it’s hard to tell the sex of tiny spicemakers, willows, and holly flowers with the naked eye. Male and female flowers look about the same except for anthers or pistils, visible through an inexpensive 30-90x magnifying jeweler’s loupe. Male spicemakers have tight conelike structures that expand into yellow-green catkins clustered densely together; females appear singly or in twos or threes and have a little green bump, the ovary, in the center. Bayberry males have right conelike structures that expand into yellow-green catkins clustered densely together; females appear singly spread out along stems. Fer-
The American Gardener

Bayberry female flowers (left) are small and appear singly along stems, while larger conelike male flowers (right) are borne in dense clusters.

In 2016, I started out plant shopping in a local garden center, but went on to plant shop elsewhere. There were some plants I knew to be dioecious, but I couldn’t remember which were male and which were female. I got one with big fluffy panicles of male catkins, and it turned out that this spicebush is male. A VERSATILE SELECTION

The native dioecious plants mentioned here support a diverse range of pollinators, birds, and other critters. Bigger isn’t always better, for small birds can’t eat the biggest, showiest berries. For food and shelter aplenty, think in terms of thickets and deep garden beds instead of narrow foundation plantings. With thoughtful plant choices, you can surround yourself with garden beauty year round and wildlife will put on its own kind of show.

WILLOWS (Salix spp.)

Delaware-based entomologist and author Douglas Tallamy ranks native willows second only to oaks as the best host plant for moths and butterflies. Most of the 37 North American willows are small-to-medium shrubs or small trees with fine-textured foliage and low-maintenance requirements. Widely distributed across the continent, black willows (S. nigra) grow the largest. Most willows form thickets along wet edges, making them excellent for rain gardens, but there are also upland species like Scouter’s willow, also known as western pussy willow (S. scouleri). Western prairie/riparian species include the golden willow (S. lutea) and peachleaf willow (S. amygdaloides). Northwestern alpine willow (S. petrophila) forms short, prostrate mats with large catkins. Seek most of these species out at restoration nurseries.

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The American Gardener

February 2018

SUMACS (Rhus spp.)

Give most sumacs plenty of room—or be prepared to trim or cut them down occasionally and let them regenerate. Their dense clusters of red berries (drupes), called sumac bobs, are edible and ornamental well into winter, and fall foliage sizzles.

DeBolt favors skunkbush, also known as lemonade bush or three-leaf sumac (R. trilobata), a western species. She recommends this drought-tolerant, five- to six-foot-tall, thicket-forming shrub for fire-wise landscaping because “its leaves are full of moisture.” A selection of a similar eastern species, R. aromatica, ‘Gro-Low’ has handsome glossy leaves and the ability to weave its way through rocky infertile soil and always look good, even before it erupts into blazing fall color. Although it is touted as providing berries for wildlife, nobody I’ve asked has ever seen any fruiting, so the consensus is that it is a female clone that rarely gets pollinated because R. aromatica males are uncommon.

Smooth sumac (R. glabra), native throughout North America, is an open shrub with dark green, pinnately compound leaves. Shining, or winged sumac (R. copallinum) is similar. Andrea DeLong-Amaya, director of horticulture at the Lady Bird Johnson Wildflower Center in Austin, Texas, finds the prairie flame-leaf sumac (R. lan-
Nyunt, manager of Las Pilitas Nursery in Santa Margarita, California, recommends it as a fast-growing, deer-resistant screen for coastal areas of California. “The dense shrub has a wonderful woody scent and can be easily hedged,” she says.

Bayberries, also known as candelberries, are adaptable, fast-growing shrubs with dense, aromatic foliage, an upright habit, nitrogen-fixing ability, and tolerance to coastal conditions and drought.

Northern bayberry (Moehringia fruiticosa) forms five- to six-foot-tall irregular semi-evergreen mounds and is hardy to Zone 3. It is a superb plant for dry, sandy, infertile, acidic soils, for soil stabilization, screening, and hedges. The Morton Arboretum in Chicago, Illinois has introduced matched female and male cultivars called Silver Sprite (“Morton”) and Male Silver Sprite (“Morton Male”) through its Chicago Grows program. A mass planting with 20 percent males should produce copious silver-gray berries for the many species of birds that depend on them in winter. Similar in habit and value to wildlife is evergreen southern wax myrtle (Ilex vomitoria), a southerner with a smaller-scaled presence, boasts a beautiful glistening silver bark.” She says “It’s quite a spectacle.”

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