

The Urgent Need to Landscape with Native Plants

Photo by John Adolph, MD DNR Flickr.



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When anyone asks, “Why landscape with native plants?” I think, “There are so many reasons, where to begin?” For starters, consider the Ruby-throated Hummingbird (*Archilochus colubris*), who builds her marsh-mallow-sized nest of spider webs, plant down, and pine resin, plastered with bits of moss and lichen. Or perhaps the Baltimore Oriole (*Icterus galbula*), who weaves its sock-like nest of long slender plant fibers like grass or grapevine bark, along with horse hair and feathers. Or even our tiniest songbird, the cold-hardy Golden-crowned Kinglet (*Regulus satrapa*), who hatches her bumblebee-sized nestlings into a cradle of plant fibers, mosses, spiderweb, insect cocoons, bark strips, feathers, and deer hair built with her partner. The myriad intricate relationships among birds and native plants are truly astounding, from food and shelter to nest materials and nesting sites. These relationships have fueled my own fascination with native plants for decades.

Maybe even more remarkable in their specialization on native plants are some butterflies, moths, and bees that depend upon one particular plant species with which they co-evolved. One familiar habitat specialist is the monarch butterfly (*Danaus plexippus*). Despite the fact that most U.S. school children can now recite the dependency of monarch caterpillars on milkweeds for reproduction, we have failed to halt the decline of monarchs across the mid Atlantic. Changing spring and fall weather patterns along with expanding suburbs and alterations in agricultural landscapes and practices are all possible contributors to the monarch’s decline. Residential landscapes don’t typically feature the wide array of nectar and pollen-bearing flowers that meet a monarch’s needs for reproduction and migration on the US leg of its international migratory journey. However, we have an opportunity to change that here in the mid-Atlantic region, by improving habitat conditions across residential landscapes.

Beyond monarchs, entomologist and ecologist Doug Tallamy reports that a whopping 557 species of lepidoptera (butterflies, moths, and skippers) caterpillars rely upon North American oak tree species, and we know that caterpillars are a primary

food source for songbird nestlings. According to Sam Droege of the USGS Wild Bee Lab, the mid-Atlantic region is home to 500 species of native bees, and any given yard has an estimated 100 species of native bees in search of the right plants for nectar, pollen, and (sometimes) nest sites. Many of our native plants directly depend upon native bees for pollination to reproduce.

Unfortunately, landscapes dominated by invasive plant species, single-aged tree stands, or monoculture turfgrass crops dotted with ornamentals don’t offer the variety of nest sites, nest material, or insect food necessary for rearing young songbirds or much else in North America’s web of life. Furthermore, an estimated 80% of all flowering plants worldwide are pollinated by native bees not well supported by our typical residential landscape.

In *The Serviceberry*, Robin Wall Kimmerer writes about reciprocity of relationships as a central organizing theme in nature. She describes a seemingly utopian “gift economy” of sorts, one that is also entirely grounded in a web of mutually beneficial relationships among plants and animals, including humans, that prioritizes the relational over the transactional. She writes, “Climate catastrophe and biodiversity loss are the consequences of unrestrained taking by humans. Might cultivation of gratitude be part of the solution?”

In this vein, we must rethink traditional lawns and isolated ornamental plants to make space for the web of life to flourish. But this is not just for the birds, as native plants support most of humanity’s most basic survival needs – clean water to drink, oxygen to breathe, healthy soils, temperature regulation, and pollination for our crops. Society may be able to get by for a while longer living in such deep denial about our interdependence with the plant kingdom, but not much longer.

Maryland climate extremes add further urgency as conditions fluctuate between prolonged drought and heavy downpours that bring floods and erosion, coinciding with rising sea levels and saltwater intrusion. It’s time to look closely at the missed

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potential of residential landscapes to store more carbon, absorb more stormwater and pack in far more native plants, beneficial insects and wildlife that provide essential life support systems and enrich our daily lives.

University of Maryland Extension programs like Bay-Wise 2.0 Master Gardeners and Watershed Stewards Academy seek to improve stormwater management using a number of practices that incorporate native plants into residential landscapes. We are currently revising our Bay-Wise checklist of practices to dramatically increase its focus on best practices that incorporate native plants in ways that support water quality, soil health, human well-being, and flourishing biodiversity.

The Bay-Wise certification process supports Marylanders in growing into our responsibilities as land and water stewards, in order to attain healthy, resilient Maryland watersheds and a brighter future for the Chesapeake Bay, our nation's largest estuary. We are excited to work in cooperation with the new Maryland Native Plants Program to advance this vision.

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