



Figure 1. North Cherry Creek Bog, owned by The Nature Conservancy, is valued for its plant and animal communities, including rare and uncommon plants. Photo by Kirsten Johnson

Introduction

The preservation of Maryland’s botanical heritage—and its biodiversity—requires conservation of native plants in their natural habitats. The Work Group had a broad mandate. It was to define challenges, explore opportunities, and make recommendations regarding the preservation of “plant species native to the State and region,” that is, Maryland’s botanical heritage. Our native plants exist in many settings: natural areas, disturbed places like roadsides and field edges, planted landscapes and gardens, and as dried specimens in herbaria. But the cornerstone of our botanical heritage is native plants in their natural habitats.

Public support for conservation of Maryland’s botanical heritage is crucial. Public understanding of the importance of native plants and how they are threatened will be key to preserving our biodiversity and our botanical heritage.

Why Maryland Citizens Care about Preserving their Botanical Heritage

“[T]he loss of genetic and species diversity by the destruction of natural habitats. . . is the folly our descendants are least likely to forgive us.” E.O. Wilson

The impact of human activity reaches all other living things. However, we can choose to be responsible stewards of the natural environment in which we live. Conservation of Maryland’s native plants is an essential component of responsible stewardship of our State’s resources. Native plants have intrinsic worth. They also serve us directly and indirectly, and are likely to serve future generations in ways that we cannot predict. For example, a thriving economy depends on healthy native plant communities, which support pollinators essential for agricultural production, provide habitats for economically important wildlife and aquatic species, protect our water supply, and provide timber and industrial products. Healthy and diverse native plant communities also have greater ecological resilience in the face of potentially changing climatic conditions.

The Ongoing Destruction of Maryland’s Native Plants and Native Biodiversity

Most Maryland citizens are aware of natural areas being lost to residential, commercial, and other uses. This loss is occurring at a rapid pace to accommodate our increasing population and its preference for suburban living. What many are not aware of is that even our remaining natural



Figure 2. Spotted beebalm, Monarda punctata, an attractive native plant that benefits native pollinators. Photo by Rochelle Bartolomei.

areas—our forests, our meadows, and our wetlands—are severely stressed. **The idea that nature is doing fine somewhere “out there” is no longer valid.**

Plant species that once were common, that were regarded as ubiquitous as recently as the 1980s, have become uncommon in many areas. Parklands that in our lifetimes displayed a profusion of spring wildflowers do so no more. Many of our forests, including those protecting our reservoirs, are missing the understory of shrubs, tree saplings and herbaceous plants that permit forest regeneration and support animal life. Our stream banks are choked with monocultures of non-native plants and our trees are dying and falling under the weight of non-native vines. White-tailed deer are a common sight throughout Maryland, sometimes in herds of more than a dozen, each consuming many pounds of plant material a day. These trends are most pronounced in urban and suburban areas but also exist in rural areas of the Eastern Shore and western Maryland. As the plants go, so go the animals—the birds, the mammals, the reptiles, the bees and butterflies and the other insects that depend on native plants for food and shelter.

In a nutshell, we are losing our native biodiversity to habitat destruction from human activity, the invasion of non-native species, and the over-abundance of white-tailed deer. At the same time, fewer resources are devoted to preventing or alleviating the loss.

Overview of the Report

We begin with Maryland’s extraordinarily rich native flora (that is, the set of all its native plants), and the geologic and historic forces that shaped it. Maryland’s flora includes about 2500 species. Yet, 710 of those species, or about 28%, are now listed as rare, threatened, endangered or extinct in Maryland by the Wildlife and Heritage Service of the Department of Natural Resources. **Rare, threatened and endangered species are like the “canary in the coal mine.”** Their status is an indicator of the health of the ecosystems that we share with them, and can signal the decline of animals and other plants whose existence may not yet be threatened.

The major challenges to the conservation of our native plants and their habitats include the impact from direct habitat destruction and the effects of fragmentation of natural areas. Habitat

destruction continues despite various measures at the state level designed to slow the pace of this type of loss.

In addition, our native plants are being devastated by the large numbers of white-tailed deer whose abundance is no longer kept in check. Deer consumption of native plants prevents forest regeneration and facilitates the spread of non-native invasive plants. Maryland has many areas where the majority of plant species are native, but the vast bulk of plant biomass is non-native and invasive. Restoration and landscaping practices, including by government agencies and private landowners, can either harm or help—but can never replace—our native plant diversity.

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The Work Group is comprised of individuals with various affiliations and expertise, but what we have in common is that each of us spends time outdoors in Maryland, closely observing our plant and animal communities. So this Report is founded not only on the sources cited within, but on the day-to-day observations and expertise of Work Group members with many decades of collective experience. Our unanimous perception is that Maryland’s natural resources—not the least of which is its botanical heritage—are under serious threat and in need of both preservation and remediation.

We are grateful to the General Assembly for recognizing the need to preserve Maryland’s botanical heritage, and for giving us the opportunity to prepare a comprehensive report that focuses attention on this important subject.



Figure 3. Rare and threatened Maryland native, large purple fringed orchid, Platanthera grandiflora. Photo by Wesley Knapp