



11 MARSHES are shallow wetlands with emergent vegetation, non-woody plants growing up out of the water. These plants have roots adapted to growing in submerged soil. Our marsh has a stream flowing slowly through it, bringing in sediment and making a rich muck favored by many typical marsh plants: sedges, buckbean, St. John’s-wort, blue flag, and bristly rose.



12 BOGS form in basins with poor drainage. Often Acadia’s bogs are lined with clay that was deposited during the last ice age. Unlike a marsh or a swamp, bogs have little water flowing through them—they are mostly fed by rain. The partial decomposition of plants makes the water acidic; the acidity and lack of oxygen make it a hostile environment for bacteria. Without bacterial decomposers, plant debris builds up, forming peat. A surprising collection of dwarf evergreen shrubs, many small orchids, and carnivorous plants—like the pitcher plant—have adapted to this still, cool, peaty wetland.



13 The open water of the **POND** is thick with floating vegetation. These plants are anchored on the bottom, but have leaves and flowers at the surface. Some parts of these plants provide flotation, allowing the plant to use space that others cannot. Notice how the vegetation forms rings around the pond edges, depending on the species’ tolerance for a watery footing. Water-lily and pickerelweed are surrounded by horsetail and cat-tail, and on the banks grow sweetgale, steeple-bush, and turtlehead. Our pond often hosts tadpoles or frogs.

Illustrations by Ruth Soper and Kristina Beal • Printed 2019

HELPFUL BOOKS

- The Plants of Acadia National Park* by Glen Mittelhauser, Linda Gregory, Sally Rooney, and Jill Weber (2010).
- The Wild Gardens of Acadia* by Anne Kozak and Susan Leiter (2016).
- Other Plant Guides**
- A Field Guide to the Ferns and their Related Families* by Boughton Cobb, Elizabeth Farnsworth, and Cheryl Lowe. Second edition (2005).
- Flora Novae Angliae: A Manual for the Identification of Native and Naturalized Higher Vascular Plants of New England* by Arthur Haines (2011).
- Forest Trees of Maine* by the Maine Forest Service (2008). Fact sheets available at: www.maine.gov/dacf/mfs/publications/handbooks_guides/forest_trees/index.html
- Go Botany* by the Native Plant Trust. Website: gobotany.nativeplanttrust.org
- Newcomb’s Wildflower Guide* by Lawrence Newcomb and Gordon Morrison (1989).
- On Plant Communities**
- Natural Landscapes of Maine: A Guide to Natural Communities and Ecosystems* by Susan Gawler and Andrew Cutko (rev. 2018). Fact sheets available at Maine Natural Areas Program: www.maine.gov/dacf/mnap/features/community.htm
- On Cultivation**
- Wildflowers* (2000); *Native Trees, Shrubs, and Vines* (2002); and *Native Ferns, Moss, and Grasses* (2008), all by William Cullina.
- On Birds**
- National Geographic Field Guide to the Birds of North America* by Jon L. Dunn and Jonathan Alderfer. Seventh edition (2017).
- The Sibley Guide to Birds* by David Allen Sibley. Second edition (2014).

HISTORY

Mount Desert Island is unique for its beauty and glacial accidents which left it with flora from both the cold north and the warmer south. In the early 1900s, Charles W. Eliot and George B. Dorr recognized these special qualities and began to acquire land to be preserved for public enjoyment and for “educational and scientific purposes.” Dorr bought the Sieur de Monts Spring area in 1909 and in 1916 formed the Wild Gardens of Acadia Corporation.

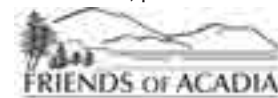
In 1961, Acadia’s superintendent, Harold Hubler, offered a three-quarter acre plot to grow and display wildflowers grown by participants in a propagation program sponsored by the Bar Harbor Garden Club. Although the plot was covered with blackberry bushes and mature red maples damaged by the 1947 wildfire, its assets included a wealth of large ferns and a winding brook fed by Sieur de Monts Spring. The Wild Gardens of Acadia committee, comprised of members of area garden clubs and other interested gardeners, began laying out paths and divided the Gardens into areas simulating natural plant communities. The decision to include only those species indigenous to Acadia precluded planting daisy, yarrow, lupine, rugosa rose, purple loosestrife, and clover, all of which are abundant on Mount Desert Island but are not native.

Guided by Edgar T. Wherry’s *Wild Flowers of Mt. Desert Island*, published in 1928 under the aegis of the Garden Club of Mount Desert, volunteers established more than 400 indigenous plant species. These efforts have been recognized by awards from the Garden Club of America, New England Wildflower Society, Garden Club Federation of Maine, National Council of State Garden Clubs, and Massachusetts Horticultural Society. The Wild Gardens of Acadia committee received a certificate of appreciation from the National Park Service in 1979, the Partnership Award from Acadia National Park in 2011 in recognition of “50 years of devoted stewardship,” and in 2019 the Excellence in Volunteerism Award from Friends of Acadia.

In 2010, the Wild Gardens of Acadia became an official committee of Friends of Acadia in partnership with Acadia National Park. This new relationship ensures the Gardens’ long-term viability and provides additional support and guidance. Maintained primarily by volunteers along with a head gardener and summer intern sponsored by Friends of Acadia, the Gardens not only enhance understanding of native plants and their habitats but also foster stewardship—ensuring that parks and gardens continue to be preserved through volunteers and private philanthropy. The gardeners and committee plant, study, collect, propagate, label, and fundraise. Beyond this support, the budget is met by grants, gifts from individuals, the Garden Club of Mount Desert, the Bar Harbor Garden Club, plant sales, and the sale of cards and leaflets at the Gardens’ entrances. Recently the Gardens have received help from the Hancock County Master Gardener and Maine Master Naturalist programs.

If you enjoyed your visit to the Wild Gardens of Acadia and would like to make a contribution toward the maintenance of the Gardens, please contact:

Friends of Acadia
P.O. Box 45, Bar Harbor, ME 04609
www.friendsofacadia.org



The Wild Gardens of Acadia



Displaying, preserving, and propagating Acadia’s native flora

Sieur de Monts Spring
Acadia National Park

WHY DOES A PLANT GROW WHERE IT DOES?

Many factors affect the habitat of a plant: sunlight and wind, temperature and elevation, the availability and nature of the water, the topography or lay-of-the-land, the type of bedrock and soil, and a history of fire or other disturbance. Of course, plants in one particular location are also affected by the other plants growing there as well as by the habitat's animals and, especially, the microorganisms in the soil. The plant community reflects all of these factors to such an extent that the plants growing in one place tell us a lot about that environment.

Gardeners try to create a good, "rich" soil that is high in the elemental nutrients that garden plants need. The soil must also have a texture that is porous enough for air, water, and nutrients to move through it. Unlike garden plants, wild plants are not so lucky and have adapted to a variety of soil and environmental conditions.

Here in Acadia National Park, we are at the southern limit of growth for a number of plants that normally occur much farther north, plants such as the arctic blue flag iris. Yet this area of Maine is also home to plants like pitch pine and bear oak that typically grow in the mid-Atlantic region. The result is that Acadia National Park, for such a small part of Maine, has an extraordinary variety of plant species.

In order to share with you this diverse flora, the Wild Gardens of Acadia have tried to mimic the growing conditions found in the ecosystems of the park. Welcome!



1 The **MIXED WOODS** present a transitional forest between one that is composed not only of deciduous hardwoods that prefer richer soil and a warmer climate, but also the northern coniferous forest whose evergreen trees tolerate more acidic, cooler soil with fewer nutrients. These woods grow on loose glacial till where the terrain is gentle. Here a deep fertile soil has accumulated and is capable of supporting large trees. Indeed, trees define this forest: look for white pine, eastern hemlock, northern red oak, American beech, sugar maple, red maple, and yellow birch. The sunlight-dappled understory has interesting wildflowers, but many are ephemeral and disappear by early summer. Please see the bulletin board in the Wild Gardens for a list of plants in flower now.

Ferns are sensitive to soil moisture and the presence of certain nutrients, so you might not find all of these fern species growing side-by-side in the wild, but here the Fern Path creates a lush and informative diversion.

Within the Mixed Woods, there is a small stand of northern white cedar. These lowland forest swamps are home to many unusual northern birds; as you explore the park, look for them: palm warbler, yellow-bellied flycatcher, and northern waterthrush.



2 Some plants prefer sunny disturbed areas and these you find in abundance along the **ROADSIDE**. Here several kinds of brambles and goldenrods grow in front of an old stone wall, alongside hawthorn, shadbush, and viburnum. Unfortunately, the disturbed shoulders that line roadways may offer invasive, non-native plants a chance to become established. But you won't see these exotics in the Wild Gardens, since we grow only native plants.



3 **MEADOWS** are impermanent communities here. In coastal Maine, only disturbance—fire, flooding from beavers, the scouring action of river water and ice, or human intervention—keeps meadows from becoming woodlands. Many small plants—strawberries, violets, and pussytoes—love the sunny, sometimes damp meadow as do the larger and later-blooming dogbane, fireweed, groundsel, roses, and meadowsweet. The Meadow is most regal in late summer when goldenrods and purple asters bloom. We mow this Meadow yearly to prevent the return of the forest.



4 On the steep exposed bedrock of a **MOUNTAIN**, wind, rain, and gravity prevent soil from accumulating, and the hard granite of Acadia doesn't decompose readily. The thin soil and harsh conditions of these bald summits limit the flora to small plants, low shrubs, and stunted trees. On our Mountain, you may spot the tiny spleenwort fern and the progressively larger crowberry, three-toothed cinquefoil, bearberry, columbine, blueberry, juniper, and bear oak.



5 The **BEACHES** of Acadia National Park vary: no two are quite alike. They range from granite-and-shell sand to large cobbles tumbled by crashing waves. However, the plants growing on the upper reaches of any beach are deeply rooted and all are subject to salt, wind, and occasional inundation. This area, constructed and maintained by the introduction of seaweed and beach gravel, supports several uncommon coastal headland plants: roseroot sedum and arctic blue flag iris. Plants you are likely to find on sea beaches and in this habitat are beach-peas, lovage, skullcap, silverweed, and large beach grasses.



6 A **HEATH** has poor, often sandy, acidic soil—conditions preferred by members of the "heath" family, Ericaceae. Blueberry, huckleberry, rhodora, and lambkill belong to this group.



7 The **PITCH PINE UPLAND** is dry and open. Look for pitch pines on south- or west-facing slopes, in old quarries on Mount Desert Island, and along the Tarn. They are Acadia's only pine with needles in bundles of three. Where drainage is good, shrubs

such as huckleberry, shadbush, bush-honeysuckle, sweet-fern, and chokeberry may grow. Fire maintains this type of woodland, and pitch pines are adapted to it. They can re-sprout after a fire and, as a result, sometimes assume a natural bonsai shape.



8 The **BIRD THICKET** features native plants that provide wildlife with a variety of foods such as buds, nectar, fruits, seeds, and accompanying insects. To attract birds, choose plants so that the feast spans the entire season.

A diversity of plants (both living and dead) provides a structural mix of shapes and heights that can be used for cover or nest sites by birds with differing needs. Space between groups of plants helps those animals that thrive on edges. Finally, whenever the goal is to attract wildlife, don't forget to provide water.



9 The certainty of water makes the **BROOKSIDE**, stream shores, and other riparian habitats competitive environments for plants. Vines and trees reach for the sun, but after these overhead plants leaf out, they shade the lower non-woody plants which must be adapted to summer shade and moist ground. If you look across the stream, you may spot trees that have been gnawed by beavers, which are especially fond of birch and aspen.



10 The coastal **CONIFEROUS WOODS** of Acadia National Park say "Maine." Lichen-clad red spruce, white spruce, and balsam fir cling to coastal rocks that are only thinly covered with soil. Often these trees are pruned by the wind. Away from the fog and salt spray, these conifers are joined by larger cone-bearing trees such as white pine, red pine, and eastern hemlock, as well as some hardwood trees, becoming part of the vast northern spruce-fir forest.