

# Wildflowers at The Holden Arboretum

**T**he five acres devoted to the Myrtle S. Holden Wildflower Garden, currently includes over 700 native Ohio species displayed in representative habitat plantings modeled after significant plant communities found in Ohio. The plantings consist of the woody and herbaceous species which are characteristic of each community. Associated species are displayed together to demonstrate habitat relationships, landscape situations, and Ohio's diverse flora. When complete, the garden will consist of 28 habitat planting areas that allow for the display of species which naturally occur in Ohio's varied woodlands, prairies, bogs and fens, sand barrens, and cliff-face communities.

## Woodland Planting

The woodland plantings reflect the dominant forest types of northeastern Ohio and glaciated Allegheny Plateau. This is where the Allegheny species of the Hemlock-White Pine-Northern Hardwood forest meet the Appalachian species of the Beech-Maple and Mixed Oak forests. Ravine and bottomland forests characteristic of the plateau and the lake plain are also represented in the varied plants. Acid-loving and dry soil species are found in the upper sections of the garden while neutral, moisture-loving species are found in the garden's lower sections. Peak bloom occurs during the period of April-June.

Key planting areas within the Woodland Garden include the neutral soil plantings: **Flood Plain** with its spring ephemerals and rich flora; **Pierson Creek Area** with the varied flora of the cool, moist ravine bottoms; and the **Fern Garden** with all the common fern species of our deciduous woodlands. Species characteristic of acid soil woodlands are found in the **Acid Area** and the **Sharon Conglomerate Rockery**. These cool soil and acid-loving species are characteristic of the Hemlock-White Pine-Northern Hardwood and Mixed Oak forests.

## Rockery Planting

A large **Sandstone Rockery** and **Limestone Rockery** are featured in this planting. Each is designed to display their associated cliff-face communities. Other distinctive plant communities include: **Sand Barrens**, two **Aquatic Emergent Pools**, and a wetland area that contains a **Shrub Border** and **Fens**.

## Prairie Planting

Ohio once supported an estimated 1,000 square miles of prairie in the western and southern sections of the state. As its agricultural potential was realized, the prairie was soon reduced to mere remnants. Prairie is our native North American grassland, often defined as a plant community dominated by grasses and characteristic summer blooming wildflowers. Found generally in regions with underlying calcareous bedrock, prairies have few trees and a flora that is very distinctive. Holden's prairie is being expanded each year and when complete will display species which grow in dry, moist and wet prairies. Peak bloom starts when the species are around three feet tall in July and culminates when the plants are six to ten feet tall in October.

## Bog Planting

*Webster defines bog as "...wet spongy ground where a heavy body is likely to sink."* While Webster provides a practical definition, more specifically bogs are defined as a soil and vegetation complex in which a specialized group of herbs and low shrubs grow on a wet acid soil composed of peat.

The distinctive flora of bogs is best characterized by first a ground layer of Sphagnum moss, then an herbaceous layer of sedges and insectivorous plants, and a low shrub layer composed largely of members of the Heath family. This plant community develops on a layer of peat, derived from the slowly decomposing Sphagnum moss. The very acid soils, pH 3.5 to 4.5, combine with environmental factors, such as lower air temperatures, and work along with the plant species to produce a self-perpetuating system, which is capable of maintaining itself if not disturbed.

Holden's **Bog Planting** is designed to display the distinctive flora of bogs. The **Sphagnum Bog** displays the associated species characteristic of the open Sphagnum mat or meadow stage in bogs.

Many unusual plants such as cranberry and carnivorous plants are located here.

## Endangered Plant Efforts

The taming of Ohio land in the last 200 years has exacted a heavy price from our native flora. Of Ohio's estimated 1800 native species, approximately one-third are now considered rare and endangered throughout the state. The Myrtle S. Holden Wildflower Garden currently displays over 150 species with a restricted distribution in Ohio. Holden's endangered plant species work has led it to join The Center for Plant Conservation, a national organization designed to bring all of our nation's endangered plant species into protective cultivation. Holden serves as the regional garden for the Midwest/Great Lakes section of the United States.

While native plant species make wonderful additions to the home landscape and many are easy to grow, the digging and removal of plants from the wild is yet another pressure on already shrinking plant populations. Propagated plants with intact and contained root systems will become established in the garden much more successfully than wild collected plants and will not add further stress to the native populations.

## Cultural Requirements

Wildflowers, as any other perennial, have cultural requirements that must be met in order to become part of the landscape. The successful interpretation of the cultural and habitat requirements of a given species ensures a successful garden. The correct application of light and moisture conditions and the corresponding soil type are critical to the success of a wildflower garden in the home landscape. Of all the cultural requirements, light is the most difficult to generalize. In most cases, woodland species will do well on the north, east, or shaded west side of a house. Meadow and prairie species prefer full sun and will do best on the open south or west side of a residence.

