NATIVE PLANT NOTES

GROWING WOODLAND PLANTS

Audubon Society of Western Pennsylvania

Introduction

Spring unfolds in the Eastern deciduous forest with a burst of blooming wildflowers and the return of colorful neotropical migrant songbirds. This pageant is unrivaled in the temperate world and is the signature of our Western Pennsylvania landscape. We can lend this same important “sense of place” to our home landscapes by studying the ways in which groups of plants occur in the wild. Besides being beautiful and functional, your backyard woodland can be an oasis for native wildlife as well as a welcoming, relaxing addition to your home.

How Woodlands Work

At first glance a forest can seem like a chaotic place, but one pattern basic to all forests is vertical structure. Starting with a ground layer of wildflowers and ferns, moving up through a shrub layer, followed by a higher layer of understory trees and, finally, topped off by an overstory tree layer. Each layer is composed of different plants and animals and plays an important design role as well. For instance, flowering dogwood trees can lend an intimate feel to a woodland by “lowering its ceiling.” Under the dogwoods, a shrub layer of witchhazel or maple-leaved viburnum will visually connect the understory dogwoods to the wildflowers of the forest floor.

In Western Pennsylvania the trees that make up the forest canopy are largely determined by the moisture level. Drier sites with thinner soils or those that face south or west will usually be dominated by oaks. As available moisture increases, maples, sweet birch, beech and hemlock prevail. Because of our relatively steep terrain, the vegetation will often change quickly, with maple and beech on the lower elevations changing to oaks higher up the slope. Coinciding with these changes will be differences in the composition of the understory, shrub, and ground layer vegetation. When designing a woodland or augmenting an existing woodland, keep in mind this natural structure and rhythm.

Another distinctive rhythm is exhibited by the wildflowers of the forest floor. Most of them show an explosion of growth in late April and May, fueled by warming temperatures and the light that exists before the tree canopy leafs out. "Spring ephemerals,” such as trillium, create a burst of spring color and then all but disappear with the onset of summer. Working to support these forest patterns and processes is the soil. Almost always, the top layer of woodland soil is very high in organic matter replenished annually by the decaying of leaves, stems and roots from forest vegetation. This humus-rich soil drains well, but retains moisture and is very loose and uncompacted.

Steps In Creating a Woodland

Site Inventory

What existing trees could be the backbone of your design? Do you have some aggressive exotic species that should be removed? How sunny or shady is the site? Is it wet or dry? Which directions do the slopes face?

Site Analysis

Begin a simple plan on graph paper, showing where your woodland should be, based not only on site conditions but landscape function. Will it shade your vegetable garden or interfere with a children’s play area?

Circulation

Using tracing paper overlays, begin to plan how you will move through the woodland. Invoke a sense of mystery by using curving paths that slowly reveal what lies ahead. You can control the pace of a visitor by varying the width of the path and incorporating a rest area with a bench at a strategic point.

Plant Selection

Make plant selections based on which natives are adapted to the site conditions revealed in step one.

Understory Trees/Shrubs

Gradually add overlays of plant materials to the base plan. If your site has no existing trees, the quickest way to achieve shade is to plant wide-spreading understory trees. You’ve controlled the visitor’s feet with your path layout; you can now guide their eyes by placing shrubs to block and then reveal a view.

Ground Layer

Use plenty of groundcovers to lessen weeding chores, conserve moisture and create a restful background. Use Spring ephemerals as seasonal highlight plants, but remember to interplant them with others that have flower or foliage interest later in the season. For instance, cinnamon ferns can emerge in a planting of early Virginia bluebells and disguise their fading foliage as summer approaches.

Maintenance

The most important process to encourage in your woodland is the constant recycling of organic material. Don’t rake leaves out in the fall unless they need to be redistributed from areas of excess to areas of need. Often you’ll initially need to import organic materials to mulch your planting from other areas of your property or by starting a compost pile fueled with materials like wood chips and grass clippings.

This publication is made possible by the generous support of the Fred J. and Shirley H. Jordan Foundation

Woody Plants

Understory Trees

Common Name	Scientific Name	Height in Feet	Moisture (Moist/Dry)	Interest
Juneberry	*Amelanchier*	20-40	Moist/Dry	Good fall color, flowers, edible fruit
Pagoda Dogwood	*Cornus alterifolia*	15-25	Moist	Disease resistant, blue fruit
Flowering Dogwood	*Cornus florida*	20-40	Moist	White flowers, fruit

Shrubs

Common Name	Scientific Name	Height in Feet	Moisture (Moist/Dry)	Notes
Witch-hazel	*Hamamelis virginiana*	15-30	Moist	Fall flowers, wide spreading
Wild Hydrangea	*Hydrangea arborescens*	3-6	Moist	Winter interest, white flowers
Mountain Laurel	*Kalmia latifolia*	6-15	Moist/Dry	Evergreen, white flowers
Spicebush	*Lindera benzoin*	5-12	Moist	Yellow flowers, red fruit
Lowbush Blueberry	*Vaccinium angustifolium*	1-2	Moist/Dry	Fall color, white flowers, edible fruit
Maple-leaved Viburnum	*Viburnum acerifolium*	3-6	Moist	Good fall color, white flowers, blue fruit

Herbaceous Plants

Groundcovers

Common Name	Scientific Name	Bloom Season/Color	Moisture (Moist/Dry)	Height in Feet	Notes
Wild Ginger	*Asarum canadense*	Spring/Maroon	Moist	<1	Aromatic
Wild Geranium	*Geranium maculatum*	Spring/Rose	Moist/Dry	1	Showy blooms
Foamflower	*Tiarella cordifolia*	Spring/White	Moist	<1	Upright bloom spikes
Wild Stonecrop	*Sedum ternatum*	Spring/White	Moist/Dry	<1	Evergreen

Spring Ephemerals

Common Name	Scientific Name	Bloom Season/Color	Moisture (Moist/Dry)	Height in Feet	Notes
Blue-eyed Mary	*Collinsia verna*	Blue	Moist	<1	Biennial
Dutchman's Breeches	*Dicentra cucullaria*	White	Moist	<1	Ephemeral
Bloodroot	*Sanguinaria canadensis*	White	Moist	<1	Ephemeral

Long Season Foliage

Common Name	Scientific Name	Bloom Season/Color	Moisture (Moist/Dry)	Height in Feet	Notes
Rue Anemone	*Thalictrum thalictroides*	Spring/White	Moist/Dry	<1	Ephemeral
Jacob's Ladder	*Polemonium reptans*	Spring/Blue	Moist	1	Spreading
Solomon's Seal	*Polygonatum biflorum*	Spring/ White	Moist	1-2	Blue Fruit

Late Season Interest

Common Name	Scientific Name	Bloom Season/Color	Moisture (Moist/Dry)	Height in Feet	Notes
Doll's Eyes	*Actaea pachypoda*	Spring/White	Moist	2-3	White fall fruits
Woodland Aster	*Eurybia divaricata*	Summer/White	Dry	1-2	Easy care
Fairy Candles	*Actaea racemosa*	Summer/White	Moist	3-4	Upright bloom spikes
Wreath Goldenrod	*Solidago caesia*	Summer/Yellow	Dry	1-3	Pollinator friendly

Audubon Suggested Reading List – Available for purchase at the Audubon Nature Store

Bringing Nature Home by Douglas W. Tallamy
Milkweeds, Monarchs and More by Rea, Oberhauser and Quinn
The Wild Garden by Robinson & Darke
National Audubon Society Field Guide to Wildflowers
Newcomb's Wildflower Guide by Lawrence Newcomb
Wildflowers of Pennsylvania by Mary Joy Haywood
Understanding Perennials: A New Look at an Old Favorite by W. Cullina
Attracting Native Pollinators by the Xerces Society
Native Plants of the Northeast by Donald J. Leopold
Dirr's Encyclopedia of Trees and Shrubs by Michael Dirr

For further info and plant purchases: Audubon Center for Native Plants 412-963-6100 • www.aswp.org