



*“The tree which moves
some to tears of joy is in the
eyes of others only a green
thing that stands in the way.
Some see Nature all ridicule
and deformity, and some
scarce see Nature at all. But
to the eyes of the man of
imagination, Nature is
Imagination itself.”*

*William Blake
The Letters (1799)*

Woodlands & Treelines

Although the margin quote from William Blake refers to trees from long ago, trees are an integral part of our world today too. Besides providing year-round beauty, trees clean the air we breathe, shelter us from the wind and provide habitat for animals. By saving woodlands and treelines we enrich our open space and beautify our communities.

Woodlands and treelines can be defined in many different ways. For our purposes, we will define them as areas where the ground is mostly shaded by larger trees and shrubs. The most common tree communities in southeast Wisconsin are oak woodlands and maple forests. A woodland has fewer trees than a forest. (see Key to Plant Communities in *Getting Started* chapter). If these situations already exist on a site they are a ready-made environmentally friendly option for use of open space. The most important maintenance activity in treelines and woodlands is the control of non-native invasive plant species. Wisconsin is now home to several invasive species that, if left unchecked, can take over and destroy a diverse forested plant community.

Establishing and Enhancing the Community

Because mature woodlands and treelines are increasingly rare in Southeast Wisconsin and take 30 to 40 years to develop, these habitats should be preserved whenever possible. Two main goals in the care of these landscapes are (1) controlling non-native invasive plant species and (2) enhancing the diversity of the existing forest community by planting a variety of trees, shrubs and wildflowers. Old, treeless fields can also be planted with trees and shrubs to create a woods. One delight of the native woods is the spring ephemeral flowers such as dutchman’s breeches, trillium and spring beauties. The ambitious landowner might plant these species after the invasive species are under control, or perhaps wait until they return on their own.

Maintenance

A goal for a wooded area might be to maintain any existing healthy forest and restore degraded areas by removing invasive understory plants on a yearly basis. Invasive species such as buckthorn, honeysuckle and garlic mustard can overtake the woods, crowding out a wide variety of native plant species. A sustained long-term removal program is the best method to control these invasive plants; however, be prepared, it is a labor-intensive task. A good time to control buckthorn is in the fall when it is still growing actively while other plants are going dormant. Buckthorn should be cut as close to the ground as possible and immediately painted with glyphosate (Roundup). There has also been success with winter treatment. Any small



Woodlands and Treelines



Note the abundance of shrubs in this oak woodland community. The canopy is thinner and allows more light to reach the ground thereby stimulating more plant growth. Oak woodlands provide food (acorns, nuts and berries) for many kinds of wildlife.

Maintenance Continued. . .

seedlings can be pulled by hand or mowed. In spring, before it flowers, is a good time to eradicate Honeysuckle. Just like with buckthorn, cut the stems low and treat the stumps chemically with glyphosate.

Garlic mustard can be controlled in small areas by hand pulling before the flowers emerge in the spring. If the site can be safely burned, garlic mustard can also be destroyed with fire. It will take at least 3-5 years to establish control over these invasive species.

Woodlands and treelines should be monitored on a yearly basis for invasive plants and a plan for their annual removal should be in place. Invasive control is an ongoing job, but once the plants are under control, natural reproduction of plants should occur and the maintenance demands will decline. Publications covering care of woods, animal habitats and invasive weedy plant control are listed below. Also review the chapter on *Invasive Plants*.

Attracting Wildlife

Woodlands and treelines can offer ideal habitat for wildlife by providing food, shelter and nesting sites. Treelines also provide safe corridors for the movement of wildlife through a landscape. In general, the greater the variety of plants in your woodland the wider the diversity of animals it will attract. Consider a planting program of native wildflowers, trees and shrubs to create additional resources. (see *Bird Sanctuary* chapter for more information)

Cavity Nesting Birds in Wisconsin

Turkey vulture
American kestrel
Saw-whet owl
Screech owl
Barred owl
Pileated woodpecker
Red-headed woodpecker
Red-bellied woodpecker
Common flicker
Hairy woodpecker
Downy woodpecker
Yellow bellied sapsucker
Red-breasted nuthatch
White-breasted nuthatch
House wren
Great crested flycatcher



Downy woodpecker

Tree swallow
Purple martin
Black-capped chickadee
Eastern bluebird
Prothonotary warbler
Chimney swift
Wood duck
House sparrow (introduced species)
Starling (introduced species)

Many species of birds and mammals need standing dead or dying trees in their habitat. These 'snags', as they are called, provide natural cavities for nesting, roosting and winter cover for 25 species of birds and an equal number of mammals. Dead limbs provide hunting perches for hawks and owls, song perches for songbirds and 'drumming' sites for woodpeckers. Fallen, rotting logs also provide shelter and nesting sites for many animals like chipmunks, opossums and deer mice. Even frogs, salamanders, and snakes are attracted to these habitats for cover and winter hibernation sites. Spare your fallen and standing dead trees to encourage wildlife for your viewing pleasure and a more ecologically balanced woodland.

Woodlands and Treelines

Trails and Paths

When establishing trails and paths through a woodland, care should be taken to choose a route that does not harm existing trees. Steep slopes and wet areas should also be avoided to minimize erosion. Paths are especially appealing when they lead to a scenic view, a beautiful plant or a wetland. Trails and paths can be kept open with hand clippers and a small mower.

Planting Trees

Tree selection should be based on the type of community you are trying to enhance or start from scratch. Oak woodlands need fewer trees (but more than an oak savanna) and are found on open, drier sites. Maple forests are heavily shaded and do better on sites with more soil moisture. It would be very difficult to start a maple forest in an open site since they generally need the shade of other trees (like oaks) to grow successfully. Trees typically found in natural oak woodlands are bur oak, black oak, white oak, red oak, shagbark hickory, black walnut and black cherry. Dominant maple forest trees are sugar maple, basswood, ironwood, white ash, slippery elm, and beech.* (*Only in counties near Lake Michigan)

Tree planting can be done by machine or by hand depending on the size of the project area. Tree seedling can be obtained from the DNR-Forestry Department, or from private nurseries who sell native trees. *(Do not use cultivars if you want a more natural look. Cultivars have been selected for some ornamental purpose and would be inappropriate in a natural setting.)* It is strongly recommended that tree protectors be used to prevent deer and rabbit damage for the first few years of growth.



A mature Maple-Beech forest. Thick shade prevents most shrubs from growing in this habitat. Early spring wildflower manage to find sun by emerging before the trees leaf out.

Wildflowers and shrubs you are likely to find in Oak and Maple Woodlands



Oak Woodlands

- Wood anemone
- Wild columbine
- Wild geranium
- Woodland sunflower
- Bellwort
- False Solomon's seal
- Solomon's seal
- Tall bellflower
- Wild strawberry
- Early meadow rue
- Hepatica
- Hog peanut
- Hazelnut
- Nannyberry
- Juneberry
- Gray dogwood



Maple Woodlands

- White baneberry
- Wild leek
- Jack-in-the-pulpit
- Spring beauty
- Dutchman's breeches
- Wild geranium
- Hepatica
- Mayapple
- Bloodroot
- Large flowered trillium
- Trout lily
- Woodland phlox
- Witchhazel
- Gooseberry
- Bladdernut



Contacts

Wisconsin Department of Natural Resources (DNR) The DNR's forestry program helps private and public landowners with forest management. Contact your DNR forester for more information.

<http://www.dnr.state.wi.us/org/land/forestry/fax/County.asp>

University of Wisconsin Cooperative Extension (UWEX) County and state based horticulture educators can answer woodland questions or refer you to other experts.

<http://basineducation.uwex.edu/woodland/index.htm>

<http://www.uwex.edu/ces/cty/>.

Natural Resources Conservation Service (NRCS) A federally funded organization that works with private landowners to conserve natural resources, including forests.

http://www.wi.nrcs.usda.gov/contact/office_search.html

Wisconsin Woodland Owners Association (WWOA) A non-profit organization that encourages via statewide programs and local chapters the wise use and management of Wisconsin's woodlands for timber production, wildlife habitat and recreation.

<http://www.wisconsinwoodlands.org/>

Publications and Other Sources of Information

Critter Condos, Managing Dead Wood for Wildlife From the series: Wildlife and Your Land, Wisconsin DNR Publication #WM-222

<http://dnr.wi.gov/org/land/wildlife/publ/wildland.htm>

A Guide to Selecting Landscape Plants for Wisconsin ER Hasselkus, 1998, UW Extension Publication #A2865

<http://www.uwex.edu/ces/wihort/landscape/Publications.htm>

Sustaining our Forest Resources, What is Your Role Laurie Osterndorf and Nancy Piraino, 2004, Wisconsin DNR Publication #FR-117

<http://www.dnr.state.wi.us/org/land/forestry/Publications/index.htm>

Wisconsin Native Plant Sources and Restoration Consultants Gretchen Messer & Carmen Wagner, 2004, UW Extension Publication #GWQ041

<http://clean-water.uwex.edu/pubs/shore/>

Wisconsin Woodlands: Wildlife Management Scott Craven, UW Extension Publication #G3097 <http://cecommerce.uwex.edu/>

Options for Open Space

A resource guide for private and public land owners and managers.

Produced by the Southeast Wisconsin Fox River Partnership Team to protect, restore and enhance the natural resources of the Fox River basin.

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