



EVERGREEN
COMMON GROUNDS

Bringing Nature to Our Cities

Common Grounds
Fact Sheet #3

Woodland Communities

Most woodland communities consist of three main layers: the canopy; the middle-story and the under-story or ground layer. To closely mimic natural woodlands, your garden should include tall trees, smaller trees and shrubs, vines, wildflowers and ground covering plants. The under-story will have more wildflowers or ground covers depending on the shade of the canopy layer. As this may change over time, don't be surprised if some species disappear, or appear in your woodland.



Tips for Designing Your Woodland Habitat

- Natural woodlands thrive in areas with rich soil. Add organic matter to the soil, such as leaf-mould compost to provide a rich layer of humus similar to natural woodland conditions. To maintain these conditions, add leaves or leaf-compost each fall.
- Woodland species do best in soil that is not disturbed or compacted. Do not cultivate the site when planting and provide protection around the base of trees with under-story plants or mulch.
- Nothing is wasted in the forest—dead twigs and leaves fall to the forest floor and provide nourishment for surrounding plants. Leave fallen branches as they provide homes and food sources for various wildlife species.
- Woodland species like to be sheltered. Some projects include fences or hedgerows to reduce the effect of cold, damaging winds on newly planted seedlings.
- Group trees, shrubs and wildflowers to mimic natural growth patterns.



Hillside Outdoor Education Centre, Scarborough, Ontario

This fact sheet is part of a series that provides community groups with practical hands-on information for naturalizing parks and other public spaces. The fact sheets are a companion to Evergreen's guidebook, *No Plot is Too Small: A Community's Guide to Restoring Public Landscapes*, which provides the tools to plan, implement and sustain a successful greening project.

The fact sheets in this series include:

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| 1. <i>Tips and Techniques for the Naturalized Garden</i> | 5. <i>Windbreaks, Corridors, Hedgerows and Living Fences</i> |
| 2. <i>Prairie and Meadow Communities</i> | 6. <i>Community Gardening - Themes and Ideas</i> |
| 3. <i>Woodland Communities</i> | 7. <i>Designing Community Spaces</i> |
| 4. <i>Pond and Wetland Habitats</i> | |

Case Study

Hendryx Street Forest Garden, Nelson, British Columbia

The Hendryx Street Forest Garden began after the City of Nelson made a request to a local environmental group, Earth Matters to create a flower garden on an unattractive, unused and overgrown site in the city. The site was on a steep slope and was considered a wasted space by most community members. Earth Matters saw this as an opportunity to create a greenspace that demonstrated a sustainable solution to enhancing ecological and social issues on the site.

There are seven layers in the Hendryx Street Forest Garden: a canopy layer of trees; a lower layer of dwarf fruit trees; a shrub layer; a vertical layer of climbing vines; a herbaceous layer of perennials; and a ground cover layer. The multiple layers of a woodland community efficiently use the small space while demonstrating the natural shade and nutrient cycles occurring in a natural woodland.

The forest garden allows the community contact with natural spaces in the heart of this small city. The garden encourages people to work cooperatively, provides healthy affordable food, reduces stress by creating a comfortable, safe and peaceful environment to relax, creates a positive community image and helps preserve natural and cultural heritage. It also helps build local skills—community members can work in the garden for two hours per week in exchange for training in permaculture.

Creating Your Woodland Habitat

Preparing the Site

Depending on the size of your site and the area you are planting you may want to follow one of these options.



1 Small sites (i.e. planting beds)

- Remove the grass using a flat-edged shovel, leaving the soil intact.
- Dig in lots of compost, to a depth of approximately 30 centimetres. Top dress with mulch.

2 Medium-scale sites or areas under trees

- If your site is too large to dig by hand, or existing tree roots could be damaged by digging, consider building soil layers using permaculture techniques.
- Place at least three layers (10 is ideal) of newspaper or cardboard over the planting area in the spring to help suppress the growth of grass.
 - Wet down the newspaper or cardboard and cover with compost or well-rotted manure to create the humus layer. The grass and the newspaper or cardboard will decompose, adding another layer for your rich woodland soil bed.
 - Plant the following fall or spring. Or, plant the same day by preparing pre-dug holes and not covering those areas with newspaper.

3 Large-scale sites (i.e. open fields)

- Dig holes throughout the field for your trees, shrubs and wildflowers.
- Place compost in the holes and plant.
- Place newspaper and cardboard (following the steps above) around the plants in areas where weed growth is a concern or where future plantings will take place to expand the woodland area.



Selecting Plants

The general rule when creating a woodland community is to start from the ground up. Follow these general guidelines to create a woodland habitat.

- Visit surrounding woodland communities and see if you can identify the species there. Use a field guide to help you or see if a local expert can take you on a tour of a nearby woodland. Take photos and identify canopy and under-story species to see what your woodland could look like.
- Start by planting early successional wildflowers, such as black-eyed Susan, gray-headed coneflower and wild bergamot, in the spring. These species enjoy the full sun offered by little tree cover and will gradually decline as trees are added to your woodland community. They also provide protection for the root system of trees and help to build healthy soil structure by trapping leaves and other debris, which will decompose in the area.

- Plant trees and shrubs the following season (fall or spring). Or wait a few years and watch the tree species that move into your woodland garden—but remove any invasive species that arrive. Observe the changes that take place as your trees grow and the under-story adjusts to more shade.
- Introduce more shade-loving species as the canopy layer develops.

Maintenance

Maintenance is rarely a problem in woodland gardens once they begin to be shaded by trees, since many hardy weeds need sunny locations to thrive. However, you will need to do some maintenance early on to help establish a mature woodland garden.

- Add compost every year in the spring, summer or fall. Make sure it covers the area at the base of your plants to nourish them throughout the year.
- Water your plants to help them establish and during periods of drought to maintain the medium to moist soil conditions your plants require.
- Add mulch around your plants to help conserve moisture.
- In the fall, cover your woodland garden with a 15-centimetre layer of leaves. The leaves will protect your plants from extreme changes in weather conditions, and will eventually decompose, adding more nutrients to the soil.
- Remove any invasive species (e.g. Norway maple and garlic mustard) that find their way into your natural woodland.



Where to *go* from here?

Sources for this fact sheet

Evergreen. *Gardening with Native Plants: Woodland Gardens*. Gardening for Life Fact Sheet #7. On-line articles. Available from the Go for Green Web site: <http://www.goforgreen.ca/gardening/Factsheets>.

Kock, Henry. "Re-thinking Tree Planting." A section in Grant, Tim and Littlejohn, Gail (eds.), *Greening School Grounds: Creating Habitats for Learning*. Gabriola Island, British Columbia: New Society Publishers, 2001. Available from Green Teacher: (416) 960-1244, www.greenteacher.com.

Example projects

Hendryx Street Forest Garden, Nelson, British Columbia: www.kics.bc.ca/earthmatters/forestgarden.html

Hillside Outdoor Education Centre, Scarborough, Ontario: (416) 396-6963

Organizations and Web sites

Carolinian Canada, London, Ontario: www.carolinian.org

Leaf/ Urban Forest Network, Toronto, Ontario: www.leaftoronto.org

Naturescape British Columbia: www.hctf.ca/nature.htm

Naturescape Alberta: www.fan.ab.ca

Published by Evergreen

Evergreen is a national non-profit environmental organization with a mandate to bring nature to our cities through naturalization projects. Evergreen motivates people to create and sustain healthy, natural outdoor spaces and gives them practical working tools to be successful through its three core programs: **Learning Grounds** (transforming school grounds), **Common Grounds** (working on publicly accessible lands) and **Home Grounds** (for the home landscape). We believe that local stewardship creates vibrant neighbourhoods, a healthy natural environment and a sustainable society for all.

Evergreen's Common Grounds Program

Common Grounds brings land-use planners, landscape architects and community members together to restore public land. By supporting community greening initiatives, Common Grounds enriches ecological diversity, fosters healthy, sustainable communities and increases environmental awareness.

Part of the Tool Shed Series

The Tool Shed is an integrated collection of resources designed to inspire, educate and guide students, teachers, planners, community groups and individuals through all stages of a school, community or home naturalization project. The Tool Shed series includes guide books, instructional and inspirational videos, fact sheets, case studies, newsletters, research reports and an on-line registry. For the latest information on Evergreen's Tool Shed resources, check out our website at www.evergreen.ca.

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