

Lake Huron Biodiversity



An alarming trend is being observed as more and more lakeshore development occurs along Lake Huron. Endemic plants are being replaced with lawns and gardens, comprised primarily of non-native species. This 'urbanization' of the shoreline is occurring with significant costs to the ecosystem. These non-native plants are "high maintenance" and usually require substantial support systems to keep them alive. These support systems, in the form of fertilizers, pesticides and large additions of water, place considerable strain on the environment. Of course, we can avoid these problems entirely if we adopt native plants into our landscaping.

Native plants are plants that have evolved in a particular region over many thousands of years. Therefore, they have adapted to the climate, geography and animal populations of the region. Native plants provide habitat to and are a source of food for animals, such as birds, butterflies and mammals.

Native landscaping is an effort to re-establish native plant populations to a certain area, whether it be as small as your backyard or as large as a nature trail or park. Some benefits of planting native plants include the following.

Native plants save energy and reduce pollution

Native plants do not need fertilizer or irrigation, and they attract beneficial insects which prey upon pests, eliminating the need for pesticides. Native plants reduce air pollution, improve water quality and reduce soil erosion. Native vegetation, unlike cultivated landscapes, does not require the use of lawn maintenance equipment (a major contributor to air pollution and another source of climate change gases). They improve water quality by filtering contaminated runoff, and reduce soil erosion by stabilizing soils with their deep root systems.

For the purpose of this information sheet, the terms "native" and "endemic" are used interchangeably. The Centre advocates the use of locally adapted plant species in an attempt to promote the genetic integrity of our coastal plant communities.

Native plants provide a diverse landscape

Using native plants promotes biological diversity. Planting a small meadow that once was lawn replaces a one-plant monoculture with many species, increasing the opportunities for beneficial wildlife and insects to live.

Native plants help the animals

As discussed earlier, native plants provide shelter and food to birds, butterflies and other wildlife, promoting biodiversity. In contrast, mowed lawns are of little use to most wildlife. Because many animal habitats today are being lost to urban development, consciously creating or maintaining a habitat full of native plants can be of great help and relief to animals looking for a home.

Native plants can save money

Because native plants are adapted to a certain region, they do not need to be watered as often, nor do they need fertilization, therefore reducing the cost of maintaining a large area of plants. A U.S. study in Wisconsin, estimated that over a 20-year period, the cost of maintaining a prairie or a wetland totals \$3,000 per acre versus \$20,000 per acre for non-native turf grasses.

Coastal Ecosystems

There are a number of different ecosystems along Lake Huron and depending on your surrounding ecosystem will depend on what species you select for your property. For example, dunes, coastal wetlands and upland bluffs, each have their own communities of plants which are native to those particular ecosystems. Each species will have its own ecological requirements, whether it's the need for shade, sun, high moisture, a specific soil type or topography. Do some basic research to find out what is appropriate for your specific area. Some reading resources are provided on page 4. The Coastal Centre and other conservation organizations are an information resource as well.

Few local nurseries and landscape companies carry native plants, but there are some that specialize in growing local native species. As a start:

Acorus Restoration - specialize: native, locally collected woody, herbaceous & aquatic plants.
RR#1
Walsingham, ON. N0E 1X0
tel: (519) 586-2603

Baker Nursery Ltd.
R.R. 2
Bayfield, ON N0M 1G0
Tel: (519) 482-9995

Recommended Native Plants

Native Trees

basswood (*Tilia americana*)
 sugar maple (*Acer saccharum*)
 white ash (*Fraxinus americana*)
 red mulberry (*Morus rubra*)
 white pine (*Pinus strobus*)
 red pine (*Pinus resinosa*)
 eastern white cedar (*Thuja occidentalis*)
 eastern hemlock (*Tsuga canadensis*)
 chokecherry (*Prunus virginiana*)
 paper birch (*Betula papyrifera*)



Native Shrubs

common juniper (*Juniperus communis*)
 honey locust (*Gleditsia triacanthos*)
 trembling aspen (*Populus tremuloides*)
 American highbush cranberry (*Viburnum opulus* var. *americana*)
 mountain ash (*Sorbus americana*)
 pin cherry (*Prunus pensylvanica*)
 serviceberry (*Amelanchier* spp.)
 red osier dogwood (*Cornus stolonifera*)
 alternate-leaved dogwood (*Cornus alternifolia*)

Native Groundcovers

trumpet creeper (*Campsis radicans*)
 native ferns
 herb Robert (*Geranium robertianum*)
 wild ginger (*Asarum canadense*)
 bee balm (*Monarda didyma*)
 Solomon's seal (*Polygonatum biflorum*)
 trout lily (*Erythronium americanum*)
 white trillium (*Trillium grandiflorum*)
 Virginia creeper (*Parthenocissus inserta* or *P. quinquefolia*)
 bearberry (*Arctostaphylos uva_ursi*)
 wild strawberry (*Fragaria virginiana* and *F. vesca*)

There are many endemic species from which to choose. Many of the plants listed here are appropriate for upland woodland ecosystems. You may wish to consult the Coastal Centre for species appropriate in dune or coastal wetland areas.

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There are many other endemic species from which to choose.. The following are our Recommended Resources:

Johnson, L., The Ontario Naturalized Garden, Whitecap Books, Toronto, 1995.

Kershaw, L., Trees of Ontario, Lone Pine Publishing, 2001.

Soper, J.H., & Heimburger, M.L., Shrubs of Ontario, Life Sciences Miscellaneous Publication of the Royal Ontario Museum, 1982.

www.lakehuron.on.ca

Alien and Invasive Trees

silver poplar (*Populus alba*)
black locust (*Robinia pseudo-acacia*)
Scots pine (*Pinus sylvestris*)
Norway Maple (*Acer platanoides*)
Siberian elm (*Ulmus pumila*)
Himalayan balsam (*Impatiens glandulifera*)
European and Japanese barberry (*Berberis vulgaris* and *B. thunbergii*)
European birch (*Betula pendula*)
Autumn Olive (*Elaeagnus umbellata*)
Russian olive (*Elaeagnus angustifolia*)

Invasive Shrubs

European highbush cranberry (*Viburnum opulus*)
European mountain ash (*Sorbus aucuparia*)
privet (*Ligustrum vulgare*)
white mulberry (*Morus alba*)
horse chestnut (*Aesculus hippocastanum*)
oriental bittersweet (*Celastrus orbiculatus*)
glossy buckthorn, European alder (*Rhamnus frangula*)
wayfaring_tree (*Viburnum lantana*)

Invasive groundcovers

multiflora rose (*Rosa multiflora*)
silver dollar (*Lunaria annua*)
creeping bellflower (*Campanulaceae glomerata*)
sweet woodruffe (*Asperula odorata*)
crown vetch (*Coronilla varia*)
lily of the valley (*Convallaria majalis*)
moneywort (*Lysirnachia nununularia*)

goutweed (*Aegopodium podagraria*)
English ivy (*Hedera helix*)
leafy spurge (*Euphorbia esula*)
garlic mustard (*Alliaria petiolata*)
purple loosestrife (*Lythrum salicaria*)
periwinkle or myrtle (*Vinca minor*)
bugleweed (*Ajuga reptans*)



**Avoid
Using
These
Plants**

Invasive plants can 'escape' from gardens into surrounding local environments and can completely overtake native populations.