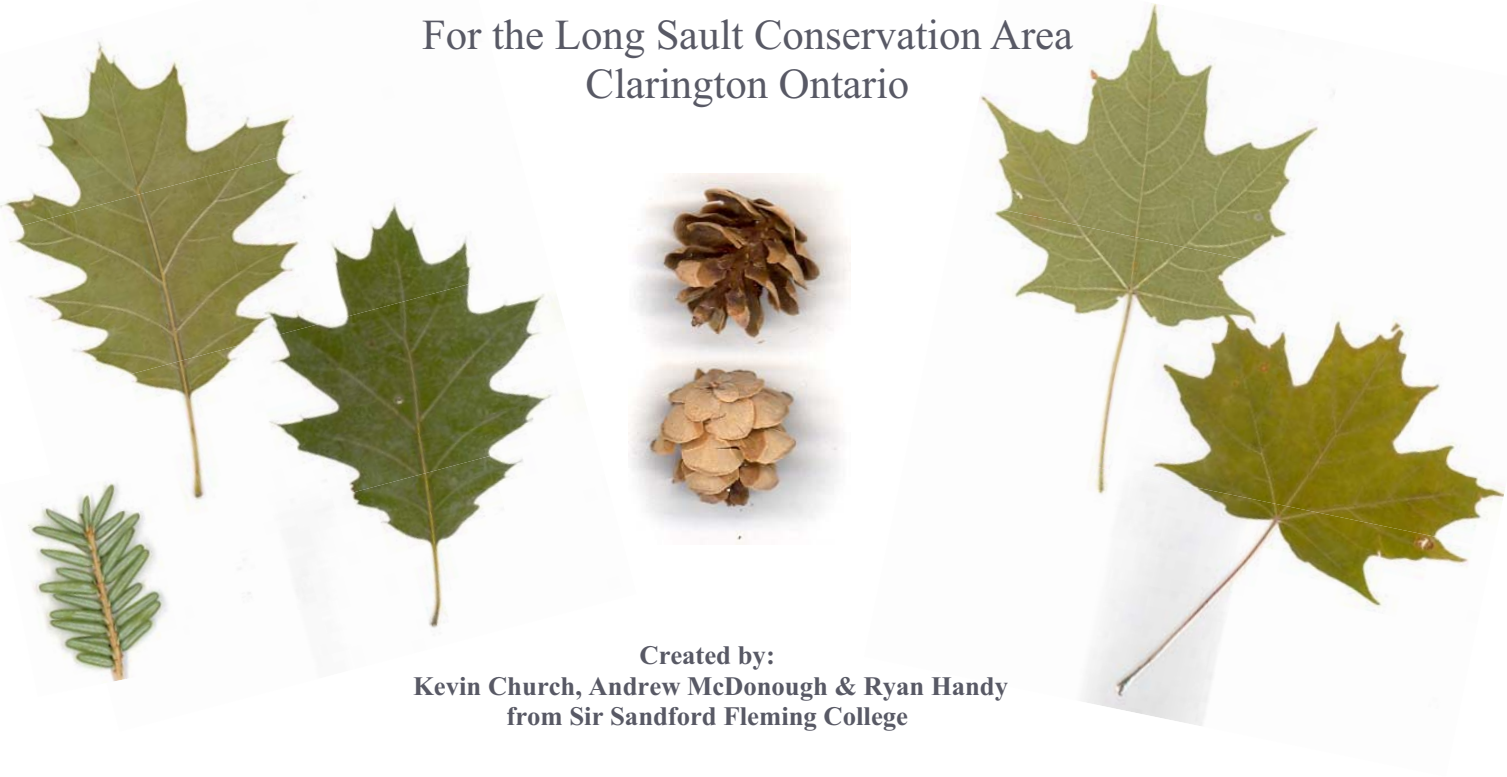
Tree Identification Book

For the Long Sault Conservation Area
Clarington Ontario



Created by:
Kevin Church, Andrew McDonough & Ryan Handy
from Sir Sandford Fleming College

Tree ID Workshop Partners and Supporters

This workshop has been generously supported by the Oak Ridges Moraine Foundation, the George Cedric Metcalf Foundation, and the Durham Land Stewardship Council.

Intended for Educational Purposes Only - Not For Sale

Table of Contents

Page

Tree Identification Basics 1
White Pine (*Pinus strobus*) 2
Eastern Hemlock *(Tsuga canadensis)* 3
Sugar Maple *(Acer saccharum)* 4,5
Red Maple *(Acer rubrum)* 6,7
Red Oak *(Quercus rubra)* 8,9
White Ash *(Fraxinus americana)* 10,11
Black Cherry *(Prunus serotina)* 12,13
American Beech *(Fagus grandifolia)* 14,15
White Birch *(Betula papyrifera)* 16,17
Ironwood *(Ostrya virginiana)* 18,19
Largetooth Aspen *(Populus grandidentata)* 20,21

Tree Identification Basics

BUD ARRANGEMENT

Alternate

Opposite

LEAF FORMS

Simple

Compound

TWIG

Terminal Bud
Lateral Bud

GLOSSARY

Catkin - hanging clusters of flowers found on birches, poplars, etc.
Compound—leaf consisting of more than one leaflet.
Drupes - seeds enclosed in large, fleshy fruit, i.e. apples and pears.
Furrowed - deeply grooved, rough bark.
Leaflet - the individual leaves that comprise a compound leaf.
Midleaf - the midsection of the leaf. Used to describe shape.
Palmate - lobes or leaflets originate from one point.
Petiole - the stem connecting the leaf to the branch.
Petiolule - the stem connecting each leaflet to the main rachis.
Pinnate - lobes or leaflets do not originate from one point.
Rachis - the main ridge or vein along the leaf surface.
Stalk—same as petiole, connects needle to hemlock to the twig.
Samara - the winged nutlets (keys) found on maples and ashes.
Stomata - two white lines on the underside of the hemlock needles.
Sinus - the area where two leaf lobes meet; the intersection of leaf lobes.
Vein - strands of tubes on leaves; used for transporting nutrients.
Whorled - refers to bud arrangement, arranged in vertical whorls.

MONITORING the MORAINE

Fleming College

Eastern White Pine *(Pinus strobus)*

(Kellogg Community College, 2007)

(Princeton University, 2007)

Needles

Light bluish-green, soft, slender, flexible evergreen needles. 5-15 cm long, straight to slightly curved, 3 sided in bundles of 5's. Sheathed with membranous scales at the base, finely toothed. Drop after 1-4 years.

Trunks

Tall, straight. Smooth grayish green when young, with age become dark grayish-brown and broken into broad scaly ridges 2-5 cm thick. Deep longitudinal furrows.
(Farrar, 1995)

KEY ID FEATURES - Long, soft evergreen needles in bundles of five. Pinkish-red inside deeply furrowed, dark bark.

MONITORING the MORAINE

Fleming College

Eastern Hemlock *(Tsuga canadensis)*

(PSU, 2003)

(PSU, 2003)

Leaves

Flat, flexible evergreen needles. Needle tips round. Dark to yellowish green and grooved above with 2 whitish lines running along bottom. 1-2 cm long each in twisted rows on both sides of the twig.

Trunks

Straight, young bark reddish-brown and scaly. Mature bark dark brown, furrowed, broadly ridged, inner bark reddish purple.

(Kershaw, 2001)

(PSU, 2003)

KEY ID FEATURES - Stomata along underside of needles. Flat needles. - Tree top tipped with nodding leader

MONITORING the MORAINE

Fleming College

Sugar Maple *(Acer saccharum)*

(Indiana University, 2001)

Leaves

Opposite, simple, deciduous.
Leaves 8-20 cm long.
Petiole 4-8 cm long
Blades deep yellowish green above, paler below.
5 palmate lobes (occasionally 3) separated by rounded sinuses.
Blunt and pointed teeth.
Yellow to bright red in autumn.

(Indiana University, 2007)

Trunks

Straight, 50-150 cm diameter.
Young bark brown-grey and smooth.
Mature bark grey-brown, irregularly ridged to sometimes scaly. (Kershaw, 2001)

Fruits

Green to brown pairs of U-shaped winged keys (samaras) that are 2-4 cm long. U-shaped, hanging in clusters. Plump seed case, flat wing.
Drop in autumn

(Indiana University, 2001)

KEY ID FEATURES - Opposite arrangement. U-shape in leaf sinus. Bark peels from side to side. Buds pointed.

Sugar Maple *(Acer saccharum)*

(Staud, 2001)

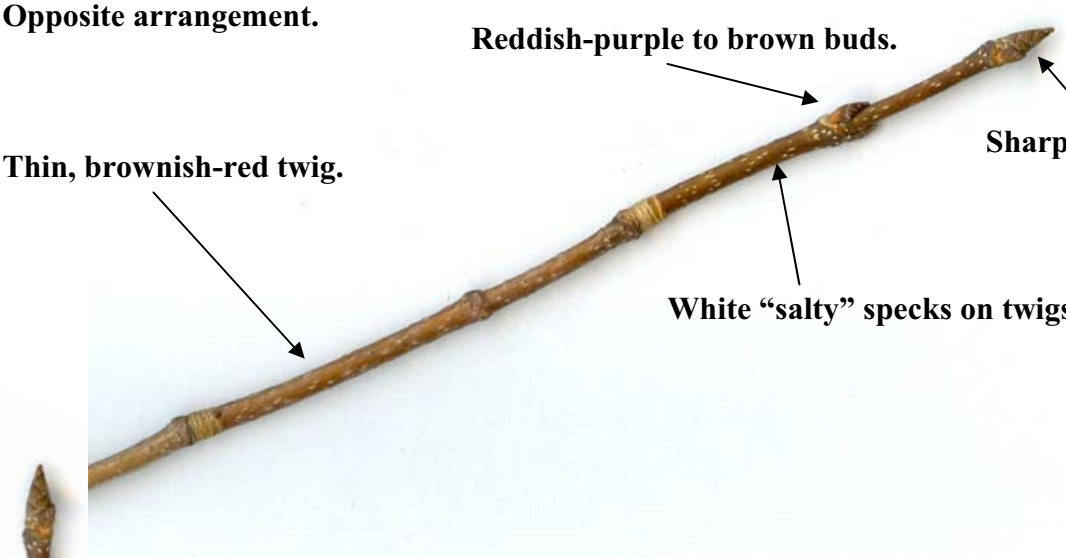
Opposite arrangement.

Reddish-purple to brown buds.

Sharp, pointy buds.

Thin, brownish-red twig.

White "salty" specks on twigs.



Terminal Bud

KEY ID FEATURES - Opposite arrangement. Dark reddish purple to reddish brown, sharp pointy buds. Slender, brown twig.

MONITORING the MORAINE

Fleming College

Red Maple *(Acer rubrum)*

(Staud, 2001)

(OPLIN, 1997)

Leaves

Opposite, simple, deciduous.
Blades light green, whitish beneath.
Leaf 5-15 cm long.
Petiole 5-10 cm long.
3-5 palmate lobes separated by shallow and sharp notches.
Irregularly double-toothed.
Leaves bright red in autumn.

(OPLIN, 1997)

(COFC, 2007)

Trunks

Straight, 40-130 cm diameter.
Young bark smooth & grey.
Mature bark scaly, greyish-brown.
(Kershaw, 2001)

Fruits

Red, reddish-brown or yellow pairs of winged keys (samaras) 1.5-2.5 cm long.
Drop in late May to early June

(OPLIN, 1997)

KEY ID FEATURES - Opposite arrangement. V-shape in leaf sinus. Bark peels from top to bottom. Buds red & round.

Red Maple *(Acer rubrum)*

(Staud, 2001)

KEY ID FEATURES - Large, round, red buds. Buds usually in large clusters. New growth red, old growth grey-brown.

MONITORING the MORAINE

Fleming College

Red Oak *(Quercus rubra)*

(ICONS, 2007)

Leaves

Alternate, simple, deciduous.
Blades 10-20 cm long, 7-11 roughly triangular shaped lobes, lobes tipped with small bristles.
Deep green above, paler beneath.
Red in autumn.
V-shaped rounded sinuses.

Trunks

Straight, 30-90 cm diameter. Young bark: smooth & slate grey. Mature bark: long, low pale grey ridges, eventually checkered; inner bark pinkish-red.
(Kershaw, 2001)

Fruits

Acorns - single or paired. Round, leathery-shelled nuts with a rough cap made of thin, hairless, reddish-brown scales. 1.2 - 2.8 cm long.

(DHD Multimedia)

KEY ID FEATURES - Alternate arrangement. Clustered terminal bud. Dark and strongly furrowed bark.

Red Oak *(Quercus rubra)*

Alternate arrangement.

Clustered terminal buds.

Dark reddish brown, pointy buds.

Terminal Bud

KEY ID FEATURES - Reddish brown twigs and buds. Clustered terminal buds. Buds sharp and pointy.