Common Tree Species Guide

for Greater Toronto Area and Niagara Region

Sugar Maple *Acer saccharum*

Bark: young trees have smooth, grey bark; mature bark is irregularly ridged to flaky when mature
Leaves: opposite, simple with 5 lobes (sometimes 3), all leaf ends and lobes are pointy, stalks are 4-8cm long
Buds: brown, faintly hairy, sharply pointed, 12-16 paired scales, 6-12 mm long at twig tips
Twigs: shiny reddish brown, hairless, and straight

Red Maple *Acer rubrum*

Bark: young bark light grey and smooth; mature bark dark greyish-brown with scales and plates that peel at ends
Leaves: opposite, simple, have 3-5 lobes, irregularly double-toothed, stalks have red colour
Buds: shiny, reddish and hairless, normally has 8 paired scales, buds at twig tips are 3-4mm
Twigs: shiny, reddish, and hairless

White Ash *Fraxinus americana*

Bark: young bark light grey, smooth; mature bark has regular pattern of intersecting ridges forming diamond pattern, light to dark grey
Buds: blunt, reddish brown, upper pair close to terminal
Leaves: opposite pairing, compound composed of 5-9 oval leaflets, edges smooth or with few wavy teeth above middle
Twigs: shiny and hairless, purplish, glossy with grey film and smooth,lenticels

Black Maple *Acer nigrum*

Bark: flat ridged when young; mature bark is blackish-grey, with deep, vertical irregular ridges
Leaves: opposite, simple, usually has 3 lobes (sometimes 5). Blunt (not pointy) lower lateral lobes
Buds: dark greyish brown, hairy, has paired scales. Buds at twig tips are 3-5mm long
Twigs: reddish-brown, dull and hairy

Silver Maple *Acer saccharinum*

Bark: young bark is grey and smooth; mature bark is grey, often shaggy with thin strips that peel at ends
Leaves: opposite, simple with 5-7 lobes, irregularly coarse-toothed. Light green on top and silvery-white underneath
Buds: shiny, reddish and blunt, 6-10 paired scales
Twigs: shiny and hairless, opposite buds

Mountain Maple *Acer spicatum*

Bark: green-grey to red, trunks crooked often separated near ground
Leaves: opposite, simple, 3 large upper lobes, sometimes has 2 small lower lobes, irregularly toothed with long stalks
Buds: grey with 2 scales, hairy
Twigs: yellow-green to purple-grey or pink, slightly hairy

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White Oak *Quercus alba*
Bark: young bark scaly, pale grey mature bark, often with reddish tinge, long, narrow scaly ridges
Leaves: alternate, simple, bright green above and paler green below with 5-9 rounded lobes
Buds: reddish-brown, 3-5 mm, clustered at twig tips
Twigs: green to red, mostly hairless

Black Oak *Quercus velutina*
Bark: mature bark greyish-brown to black with rough, irregular square ridges
Leaves: alternate, simple, dark shiny green above and dully yellow-brown underneath, 5-7 lobes, few teeth, star-shaped hair on veins
Buds: pointed, 6-10 mm, grey to white, hairy
Twigs: dark reddish-brown, stout

Red Oak *Quercus rubra*
Bark: young bark smooth and grey; mature bark deeply ridged and grey
Leaves: alternate, simple, dull yellowish green above and paler underneath, with 7-11 lobes with pointy ends and a few teeth
Buds: brown, 2-4mm long, pointed and smooth
Twigs: reddish-brown, hairless

Bur Oak *Quercus macrocarpa*
Bark: rough with irregular A-shaped ridges; mature bark is grey, usually reddish-tinged
Leaves: alternate, simple, with rounded lobes. Upper lobes are irregularly finely toothed and usually wider than lower lobes
Buds: hairy, 3-6mm long
Twigs: hairy, reddish-brown, often coarse-ridged

Basswood *Tilia americana*
Bark: young bark pale grey and smooth; mature bark grey-brown with flat ridges
Leaves: alternate, simple, with teeth, heart shaped, assymetrical
Buds: reddish, hairless, 2-3 scaled, assymetrical, 5-7mm long
Twigs: yellow-brown, hairless

American Beech *Fagus grandifolia*
Bark: grey, smooth sometimes with dark scar-like cuts
Leaves: alternate, simple, straight veins that end in a coarse tooth, oval, leaves sometimes persist on lower branches or saplings in winter
Buds: red-brown to grey-brown, narrow, 1.5-2.5 cm long
Twigs: shiny light brown

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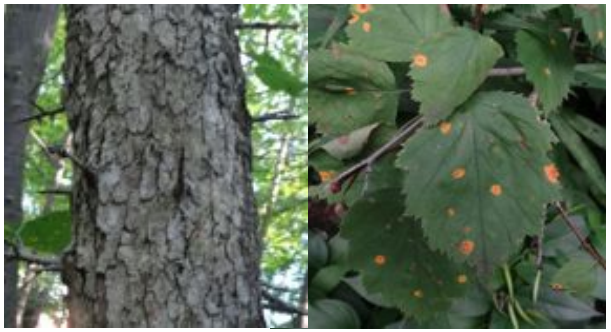
Black Cherry *Prunus serotina*

Bark: young bark almost smooth with lenticels, reddish-brown to black; mature bark looks like cornflakes
Leaves: alternate, simple, dark green and waxy above, lighter in colour beneath, toothed
Buds: brown, sometimes with greenish tinge, 3-4mm long
Fruits: reddish to blackish cherries, dark purple on the inside
Twigs: reddish-brown, produce smell when broken

Hawthorn *Genus Crataegus*

Bark: scaly bark with thorns
Leaves: alternate, simple, single or double toothed; flowers are usually white, sometimes pink to red and smell bad
Fruit: most are red, some are green, orange-red, dark purple-red and sometimes yellow
Buds: rounded, dark brown in many species
Twigs: have thorns (black hawthorn sometimes thornless)



Ironwood *Ostrya virginiana*

Bark: young bark smooth; mature bark has peeling strips, greyish-brown
Leaves: alternate, simple, dark green-yellow, sharply toothed, each vein ends in a tooth
Buds: green-brown colour, 3-4 mm long, a little hairy
Twigs: dark reddish-brown with no hair, start off being pale green with hair

Bitternut Hickory *Carya cordiformis*

Bark: young bark smooth with flat vertical ridges; mature bark has greyish shallow ridges
Leaves: alternate, compound, 7-11 leaflets (rarely 5), dark green and shiny above, pale with hair and dots underneath, toothed, upper leaf of leaflet is largest
Fruits: round greeny-brown fragrant nuts with 4 ridges
Buds: yellow to orange-yellow, 2-4 large scales, buds are 1-1.8 cm long at twig tips
Twig: greyish-brown or shiny green, slender

Shagbark Hickory *Carya ovata*

Bark: mature bark shaggy with plates that peel, dark grey-brown
Leaves: alternate, compound, usually 5 leaflets, sometimes 7; yellow-green above and pale beneath, very short stalks, leaves are smaller near stems and largest near leaf tips
Fruits: round fragrant nuts, with 4 lines emerging from base, green to dark reddish-brown
Buds: green-brown, 1.2-1.8 cm long at twig tips
Twigs: short and shiny

Black Walnut *Juglans nigra*

Bark: mature bark brown or almost black, with intersecting ridges
Leaves: alternate, compound, 14-23 leaflets that are yellow-green, toothed with short stalks; produce a fragrance
Fruits: round yellow-green to brown nuts that give off fragrance, 4-6 cm across
Buds: light grey-brown with some hair, small, larger at twig tips
Twigs: brownish-orange with some hair

Common Invasive Species Guide

Manitoba Maple *Acer negundo*

Bark: greyish-brown; mature bark has narrow hard ridges
Leaves: opposite, compound, 3-7 leaflets with irregular lobes
Buds: oval shaped with white hair
Twigs: brown; young twigs greenish-purple with waxy white coating that comes off

Norway Maple *Acer platanoides*

Bark: dark grey with intersecting ridges
Leaves: opposite, simple, stalk has white sap, five lobed and commonly afflicted with black spot fungus; green to purple in colour
Buds: round, reddish-brown, 3-4 mm long
Twigs: shiny reddish brown with lenticels

Common and Glossy Buckthorn *Rhamnus cathartica and R. frangula*

Bark: young bark smooth, brown, with lenticels; mature bark rough and peeling
Leaves: common buckthorn has oval-shaped, mostly opposite, dark green leaves with some teeth; glossy buckthorn have mostly alternate, glossy green tear drop shaped leaves
Buds: glossy buckthorn buds have no scales, common buckthorn buds have dark scales
Twigs: glossy buckthorn have brown to grey twigs with lenticels, common buckthorn twigs often have spines

common buckthorn

Dog-strangling vine *Cynanchum rossicum and C. nigrum*

Leaves: smooth edged, lance shaped
Seeds: bean shaped pods
Flowers: small with 5 petals, *C. rossicum*- pink; *C. nigrum* - purple

Common reed *Phragmites australis*

Leaves: long, narrow leaves over 1 cm wide
Seed/Flowers: purple flowers, flower heads are “feather or broom-like” in appearance
Stems: Stems are rough and mature plants can be greater than 3 m tall

Garlic mustard *Alliaria petiolata*

Leaves: first year of growth leaves form a rosette; heart-shaped and toothed, smells like garlic when ripped or crushed
Seed/Flowers: seeds are small, round and black and found in long “bean-like”

Canada Thistle *Cirsum arvense*

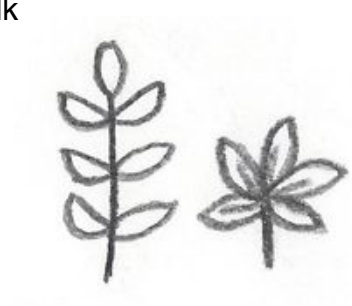
Leaves: alternate, shiny dark green and lance shaped with sharp spines; lower leaves are largest
Seeds: in an achene (simple dry fruit) 2-4 mm long
Flowers: clusters of flowers at the end of stems; flowers are purple, pink, or white

Teasel *Dipsacus fullonum*

Leaves: opposite, simple, first year of growth leaves form a rosette, long leaves with prickles and teeth, second year of growth stems are upright and can be up to 2m high
Flowers: oval shaped flowers with prickly bristles, white near bottome and light to deep purple, mature flowers are hard and brown with spines

Plant terms/Glossary

Compound leaves - have two or more leaflets growing from a central stalk



Simple - Simple leaves are comprised of a single leaf growing from a single stalk

Opposite leaves

Alternate leaves

Lobed leaves - comprised of lobes or rounded divisions as oppose to one continuous shape

lance shaped

tear drop shaped

heart shaped

oval shaped

Tooth - small pointed or serrated edges of a leaf

single-toothed

double-toothed

lenticel - gas exchange pores present on the bark of a tree

native species - a plant growing in a particular habitat, and appears to be present in its natural state

invasive species - pose a significant threat to native species; displace and compete with native species

exotic species - a species found growing in an area where they do not occur naturally

Key to Conifers of Ontario

A	Leaves needle-like, not hiding twig	Leaves in bundles	→ Go to B
		Leaves single	→ Go to BB
AA	Leaves scale-like, hiding twig	Twigs leaf-covered and flat	→ **White-cedar**
		Twigs leaf-covered and rounded	→ **Eastern red cedar**
B	Leaves (needles) in bundles	Deciduous; 10-30 needles per bundle	→ Go to C
		Evergreen; 2-5 needles per bundle	→ Go to D (pine)
C	Deciduous	Cones 1 cm long	→ **Tamarack (Am. Larch)**
		Cones 2-5 cm long	→ **European larch**
D	Pine	5 leaves per bundle	→ **White pine**
		2 leaves per bundle	→ Go to E
E	2 leaves per bundle	Leaves under 8 cm long	→ Go to F
		Leaves about 10 cm long	→ **Red pine**
F	Leaves usually under 8 cm long	Leaves 2-8cm; cones curved; mature cones often closed	→ **Jack pine**
		Leaves 4-5cm; bluish green and twisted; young bark orange-red; mature cones usually open	→ **Scots pine**
BB	Leaves single	Leaves 2-sided (flat)	→ Go to G
		Leaves 4-sided	→ Go to CC (spruce)
G	Leaves 2-sided (flat)	Leaves with stalk	→ Go to H
		Leaves stalkless	→ **Balsam fir**
H	Leaves with stalk	A shrub; leaves pointed at tip, yellow-green above and pale green below	→ **Canada yew**
		A tree; leaves rounded at tip; many lengths of leaves on same twig	→ **Hemlock**
CC	Leaves 4-sided (spruce)	Leaves green	→ Go to I
		Leaves silvery-blue, sharp and very stiff	→ **Blue spruce**
I	Leaves green	Leaves roll easily between fingers; cones 2-5 cm long	→ Go to J
		Leaves slightly flattened; do not roll easily; cones 10-15cm long	→ **Norway spruce**
J	Leaves roll easily; cones 2-5 cm long	Cones 2-4 cm long; twigs with dense short hairs; not common in Southern Ontario	→ **Black spruce**
		Cones 4-5 cm long; twigs usually hairless	→ **White spruce**

Planting for Change Tree Species Guide

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Twigs: shiny, reddish, and hairless

White Spruce *Picea glauca*

Bark: young trees have smooth, light gray bark; mature trees have darker gray, scaly bark
Needles: straight and stiff, 4 sided, green to bluish-green
Buds: ovoid, blunt pointed with tight fitting scales
Twigs: light greenish-grey, often tinged with orange or purple, shiny and hairless

Common Hop Tree *Ptelea trifoliata*

Bark: reddish brown, young bark is smooth; mature bark becomes rougher with age
Buds: lateral buds, erupt through a leaf scar in the spring
Leaves: alternate pairing, compound – composed of 3 leaflets on a central stalk, wide middle, with sharp tip
Twigs: slender, yellowish to reddish brown

Planting for Change Tree Keys

Tree Key- By Young Bark

1. Is the bark:
   a) Scaly? …… White Spruce
   b) Smooth? ……..…. 2

2. Is the smooth bark:
   a) Ridged? ……..... Bur Oak
   b) Not Ridged? ……..... 3

3. Are the lenticels:
   a) Obvious horizontal marks? ... Hoptree
   b) Not obvious? ……..….. 4

4. Is the colour of the bark:
   a) Dark Gray? ……..…..... Basswood
   b) Medium Gray? …….. Sugar Maple

Tree Key - By Leaves

1. Does the tree have:
   a) Needles? …… White Spruce
   b) Broad Leaves? ……..…… 2

2. Are the leaves arranged in:
   a) Opposite Pairs? ……..... Sugar Maple
   b) Alternate Pairs? ……..…… 3

3. Are the leaves:
   a) Compound? ……..…. Hoptree
   b) Simple? ……..…….... 4

4. Are the leaf margins:
   a) Lobed? ……..…. Bur Oak
   b) Toothed? ……..… Basswood

Glossary

Compound: Compound leaves have two or more leaflets growing from a central stalk
Exotic Species: A species found growing in an area that it is not its natural state
- exotic species are typically present due to human interference
Lenticels: Gas exchange pores present on the bark of a tree
Lobed: Lobed leaves refer to leaves that are comprised of several lobes rather than one continuous shape
Native Species: A plant growing in a particular habitat, and appears to be present in its natural state
Ovoid: An ovoid shape resembles that of an egg
Simple: Simple leaves are comprised of a single leaf growing from a single stalk
Toothed: Toothed leaves have jagged, irregular edges

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