

# 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 dull 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, asymmetrical

**Buds:** reddish, hairless, 2-3 scaled, asymmetrical, 5-7mm long

**Twigs:** yellow-brown, hairless



## American Beech *Fagus grandifolia*

**Bark:** grey, smooth sometimes with dark scar-like cut

**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 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



### 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



### 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" pods; white flowers with four



### 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 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



### Canada Thistle *Cirsium 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



### 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

### 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

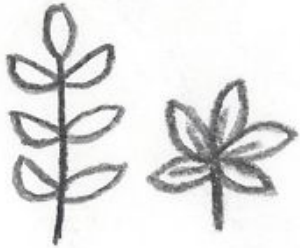
**Flowers:** oval shaped flowers with prickly bristles, white near bottom and light to deep purple, mature flowers are hard and brown with spines





## 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**



**heart shaped**



**tear drop 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

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<b>A</b>	Leaves needle-like, not hiding twig	Leaves in bundles leaves single	↑	Go to B
<b>AA</b>	Leaves scale-like, hiding twig	Twigs leaf-covered and flat twigs leaf-covered and rounded	↑	Go to BB
<b>B</b>	Leaves (needles) in bundles	Deciduous: 10-30 needles per bundle Evergreen: 2-5 needles per bundle	↑	White-cedar Eastern red cedar Go to C Go to D (pine)
<b>C</b>	Deciduous	Cones 1 cm long Cones 2-5 cm long	↑	Tamarack (Larch, Larix)
<b>D</b>	Pine	5 leaves per bundle 2 leaves per bundle	↑	European larch White pine Go to E
<b>E</b>	2 leaves per bundle	Leaves under 8 cm long leaves about 10 cm long	↑	Go to F Red pine
<b>F</b>	Leaves usually under 8 cm long	Leaves 2-8 cm; cones curved; mature cones often closed leaves 4-5 cm; bluish green and twisted; young twigs orange-red; mature cones usually open	↑	Jack pine Balsam pine
<b>BB</b>	Leaves single	leaves 2-sided (flat) leaves 4-sided	↑	Go to G Go to CC (spruce)
<b>G</b>	Leaves 2-sided (flat)	Leaves with stalk Leaves stalkless	↑	Go to H Balsam fir
<b>H</b>	Leaves with stalk	A shrub; leaves pointed at tip, yellow-green above and pale green below A tree; leaves rounded at tip; many lengths of leaves on same twig	↑	Canada yew Keteleeria
<b>CC</b>	Leaves 4-sided (spruce)	Leaves green leaves silvery-blue, sharp and very stiff	↑	Go to I Blue spruce
<b>I</b>	Leaves green	leaves roll easily between fingers; cones 2-5 cm long leaves slightly flattened; do not roll easily; cones 10-15 cm long	↑	Go to J Monterey spruce
<b>J</b>	Leaves roll easily; cones 2-5 cm long	Cones 3-4 cm long; twigs with dense short hairs; not common in Southern Ontario Cones 4-5 cm long; twigs usually	↑	Black spruce White spruce

## Planting for Change Tree Species Guide

### **Sugar Maple *Acer saccharum***

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**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



### **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



### **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 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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