

# Field Guide

## Native Trees of Manitoba







**Field Guide**  
to the  
Native Trees of Manitoba

*Trembling Aspen, White Lake*



*We would like to thank the following contributing photographers:  
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# Manitoba's ecozones

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Manitoba is divided into five ecozones: boreal plains, prairie, taiga shield, boreal shield and Hudson plain. Each zone has its own characteristics, including native trees.

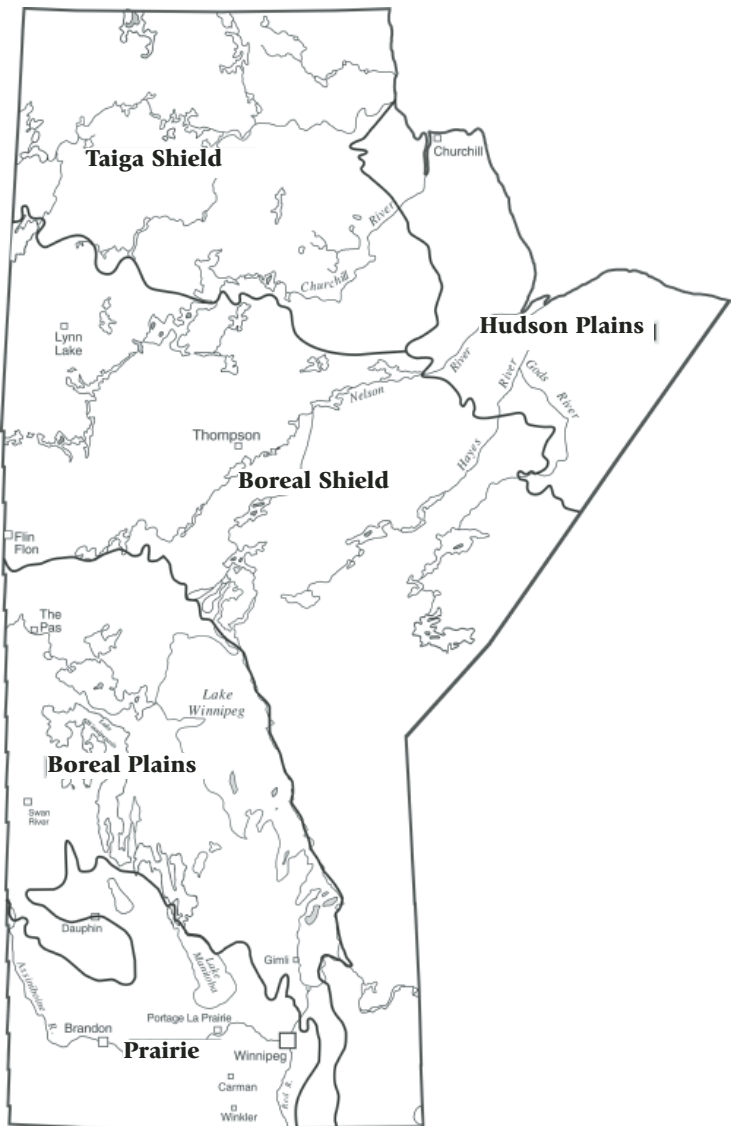
**Boreal Plains** - The boreal plains ecozone consists of plains and valleys. Much of it is forested with spruce, balsam fir and jack pine. Broadleaf trees such as aspen and poplar are common.

**Prairie** - This zone is dominated by flat plains, the majority used for agriculture. The north prairie ecozone features trembling aspen and balsam poplar.

**Taiga Shield** - In the taiga shield, much of the forest is open and tree growth is often stunted due to permafrost and cold temperatures. Black spruce and jack pine dominate, though trees such as trembling aspen and white birch can be found.

**Boreal Shield** - This zone is dominated by forests. The dominant coniferous species are black spruce, jack pine, white spruce, tamarack and balsam fir. Trembling aspen, white birch and balsam poplar are the most common deciduous species.

**Hudson Plains** -The northern part of this ecozone is largely treeless, though areas further south grow open forest. Southern, wet locations grow some willow, tamarack and black spruce.









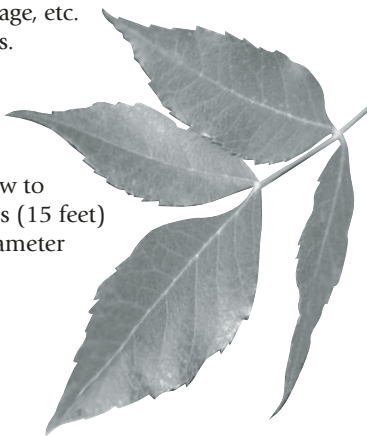
## Identifying Manitoba trees

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Like faces in a crowd, trees in a forest may look alike. However, a closer inspection of their leaves and twigs will reveal their unique character and distinctiveness. In Manitoba, there are 24 native trees. While some can be spotted only in localized areas, the majority can be seen by most Manitobans within a half-day's drive from their home. This field guide will help readers understand what features to look for to easily recognize all 24 native Manitoba trees.

When identifying trees, it is important to note that not all members of the same species will look alike. For example, trees growing in dense forest shed their lower branches. They will be more pole-like and narrow than trees growing in open areas. Some trees may grow typically tall in one area yet hardly develop into more than a shrub in another. The shape of a tree alone, therefore, is not always the best guide for identification. Leaf shape, bud growth, bark, flowers and cones should also be used. Very young trees have different form, leaf stage, etc. from their mature characteristics.

In this guide, a tree is defined as a woody plant having one well-defined trunk and a recognizable crown. It must grow to a minimum height of 4.5 metres (15 feet) at maturity and have a trunk diameter of not less than five centimetres (two inches).



## Acknowledgement

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This field guide was originally written by Edward T. Oswald and Frank H. Nokes for the Canadian Forest Service. This edition was printed by Manitoba Conservation with minor changes and updates. The department thanks Mr. Oswald, Mr. Nokes and the Canadian Forest Service for producing the original publication.

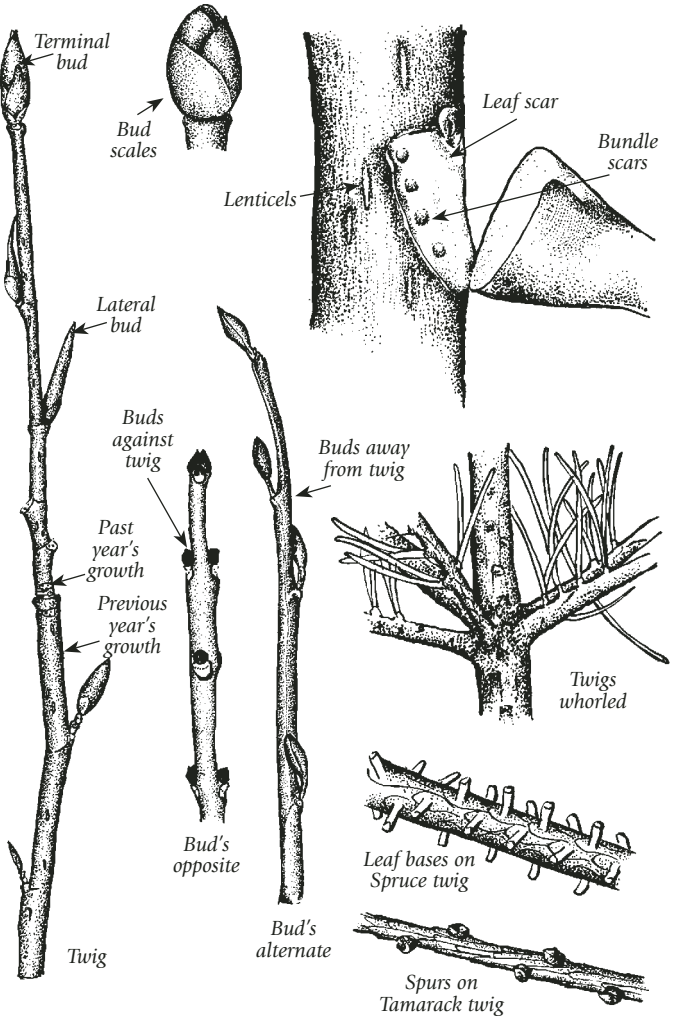
## Using this guide

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This booklet provides a way to identify trees using leaves or twigs. First, turn to page 9 and 10 and familiarize yourself with the terms used in this book. Next, refer to the chart on page 11 for twigs or page 12 for leaves. At the top of the page, you'll find two choices. For twigs, for example, the choices are: do the buds grow opposite each other or are they alternate? Let's say that a visual check of the twig shows they are opposite. This leads to another set of choices: are the twigs hairy or not hairy? The chart shows that if the twig is hairy, the tree is a Manitoba maple. If there are no hairs, follow the chart and check the next set of choices: are the buds black or rusty-brown? If the buds are black, it is a black ash, if rusty-brown the tree is a green ash. In summer, follow the leaf chart in the same way. To confirm tree identification, turn to the full description of the tree in this book and compare other details such as general form, bark and distribution.

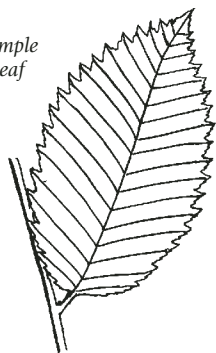
# Illustrated Terms

A graphic guide to technical terms found in this book.

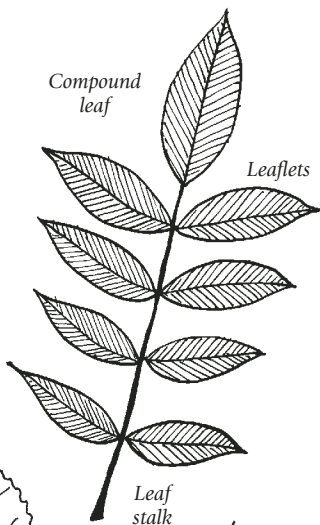


# Illustrated Terms

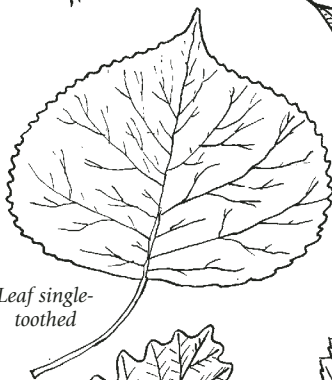
Simple leaf



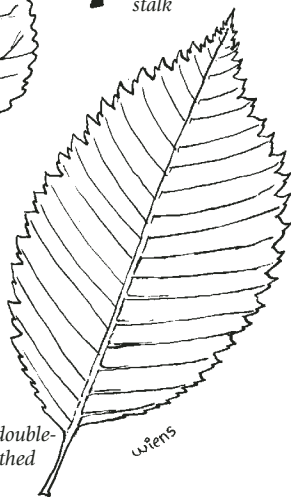
Compound leaf



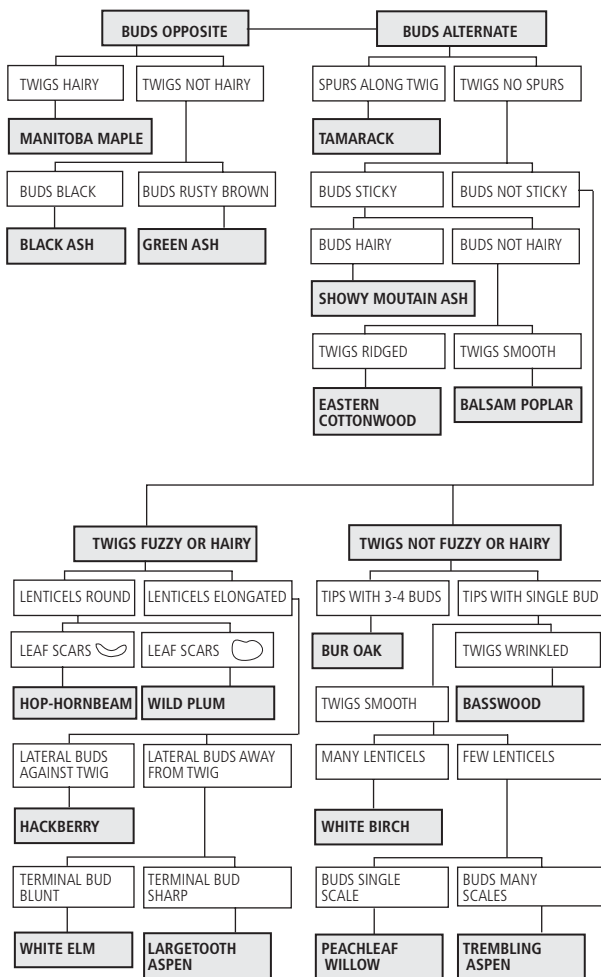
Leaf single-toothed



Leaf double-toothed

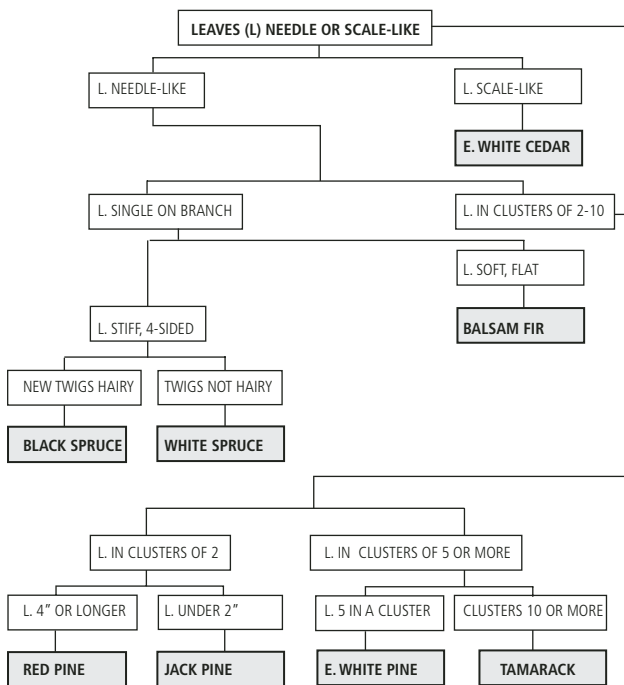


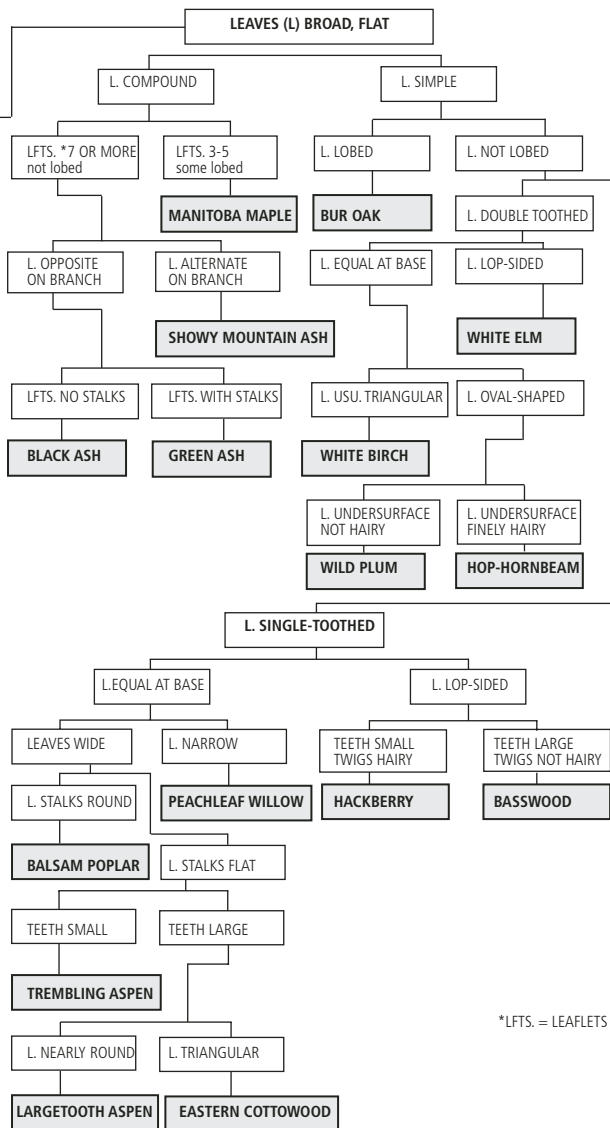
# Guide to trees based on their winter twigs





# Guide to trees based on their leaves





\*LFTS. = LEAFLETS





Coniferous Trees

# Eastern White Cedar

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*Thuja occidentalis L.*

## FORM:

A dense, compact evergreen tree with a cone-shaped crown, often occurring in clumps.

## BARK:

Thin, shreddy, with narrow elongated fibrous strips; reddish-to-pale brown.

## TWIGS:

Alternate, slender, flattened, fan-shaped, covered with green sharp-pointed scales that become brown with age and shed in three to four years. Leaf buds are covered with leaves but cone buds slightly emerge at tips of some branches.

## LEAVES:

Scale-like, paired, overlapping, short, 3 - 6 millimeters ( $\frac{1}{8}$  -  $\frac{1}{4}$  inch), tight against the twigs, yellowish green in colour.

## FLOWERS:

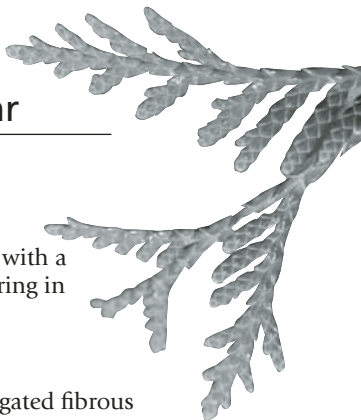
May, solitary at tip of twig, yellow or pink, small and oval.

## FRUIT:

An oblong erect cone about 12 millimeters ( $\frac{1}{2}$  inch) long with four-to-six pairs of thin brown rounded cone scales.

## OCCURRENCE:

Mostly in wet habitats in southeastern Manitoba but occasionally between Lake Winnipeg and Lake Winnipegosis as far north as Grand Rapids.







*Closed cone*



*Open cone*

# Balsam Fir

*Abies balsamea* (L.) Mill.

## FORM:

A moderately dense evergreen tree with a slender symmetrical spire-shaped crown.

## BARK:

Grey, smooth-to-roughened by raised resin blisters on young trees becoming cracked and scaly on older trees.

## TWIGS:

Opposite, grey, slender, smooth, more or less hairy. Buds about 5 millimetres (1/8 inch long) with greenish-brown scales covered with resin.

## LEAVES:

Single, flat, twisted at base, needle-like, soft, rounded or notched at tip, 15 - 25 millimetres (3/4 - 1 inch) long, usually spreading into one plane; whitened below along two lines.

## FLOWERS:

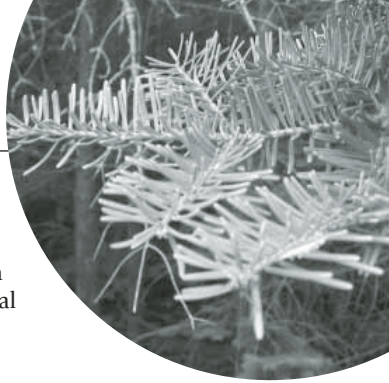
April-May, solitary from base of previous year's leaves, red or purple, oval.

## FRUIT:

An erect oblong dark purple cone with thin scales attached to upper side of branches, 4 - 10 centimetres (2 - 3 1/2 inches) long; disintegrating at maturity leaving cone axis on branch.

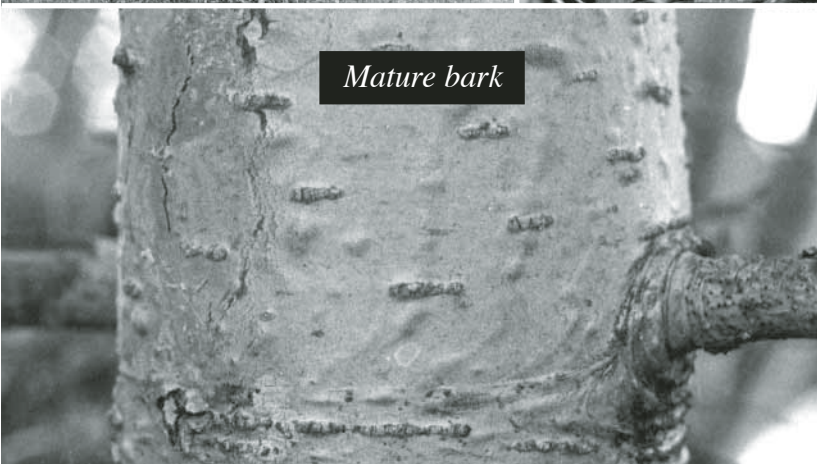
## OCCURRENCE:

Fairly common throughout forested region, except extreme north, in moist habitats; usually mixed with other tree species.





*Young bark*



*Mature bark*



# Black Spruce

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*Picea mariana* (Mill.) B.S.P.

## FORM:

A dense evergreen tree; crown generally irregularly pyramidal and symmetrical but tip often club-shaped; lower branches extending to ground with tips upturned.

## BARK:

Thin, brown-to-greyish scales; inner bark olive-greenish tinged.

## TWIGS:

Irregularly whorled, hairy, light brown when young, darkening with age, roughened by outward pointing leaf bases. Buds slightly hairy, 3 - 5 millimetres ( $1/8$  inch) long with many overlapping brown scales.

## LEAVES:

Single, short stalked, sharp-pointed, stiff, four-sided, bluish green, whitened along sides, needle-like, about 8 - 15 millimetres ( $1/2$  inch) long.

## FLOWERS:

May, solitary on preceding year's twig, dark red or purple, oval.

## FRUIT:

Egg-shaped cones about 2 - 3 centimetres (1 inch) long with thin brown scales, usually remain on the tree for more than one year; most trees have a cluster of persistent cones near the top.

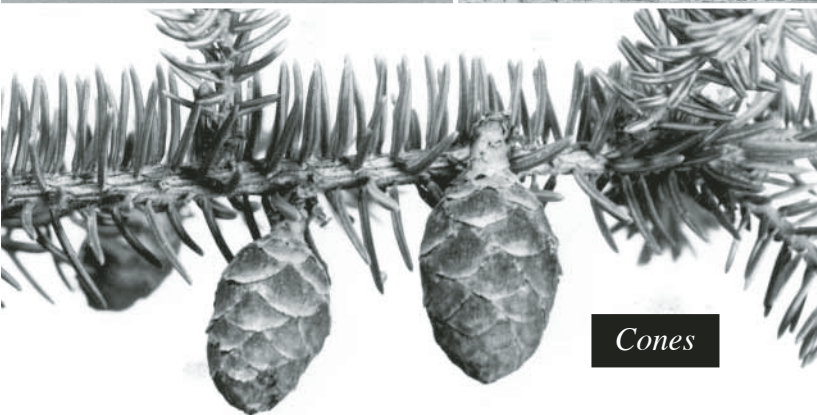
## OCCURRENCE:

Wide-spread throughout the forested region; in the south mostly in bogs or wet habitats but often on mineral soil in the west and north.





*Flower*



*Cones*



# White Spruce

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*Picea glauca* (Moench) Voss

## FORM:

A dense evergreen tree with a pyramidal crown composed of horizontal branches, often the lower branches having upturned tips.

## BARK:

Thin, grey-to-brown scales that flake off readily on older trees; inner bark cinnamon-to-light silverish-white.

## TWIGS:

Irregularly whorled, yellowish-brown, becoming darker with age, covered with small, elongated, spirally arranged leaf bases making twigs and branches rough. Buds 6 millimetres ( $\frac{1}{4}$  inch) long with many overlapping brown scales.

## LEAVES:

Single, sharp-pointed, needle-like, stiff, four-sided, whitened along sides, up to about 15 millimetres ( $\frac{3}{4}$  inch) long; more numerous on upper side of twig.

## FLOWERS:

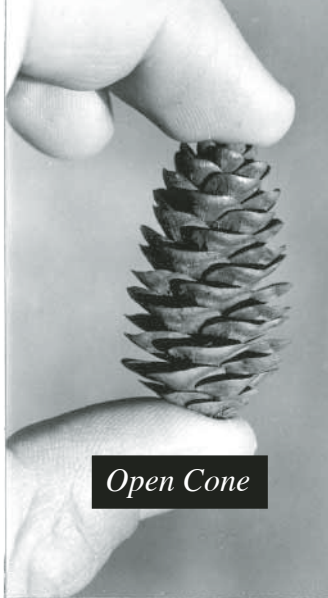
May, solitary on preceding year's twig, red or yellow, oval.

## FRUIT:

Cones which usually drop in one year but some often persist scattered about the crown; 3 - 6 centimetres ( $1\frac{1}{2}$  - 2 inches) long; scales brown, thin.

## OCCURRENCE:

Common throughout the forested region on well-drained habitats or along streams and around lakes.



*Open Cone*



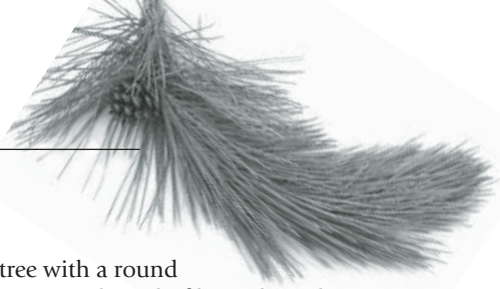
*Closed Cone*



*Flowers*

# Red Pine

*Pinus resinosa* Ait.



## FORM:

A large evergreen tree with a round symmetrical, open crown; devoid of lower branches especially in dense stands, branches nearly horizontal.

## BARK:

Reddish-brown with smooth, broad, scaly plates.

## TWIGS:

Opposite or single, light brown but soon darkening, stout, roughened by projecting leaf bases. Buds up to 2 centimetres ( $\frac{3}{4}$  inch) long with many reddish-brown scales with tips turned back.

## LEAVES:

Needle-like, 10 - 16 centimetres (4 - 6 inches) long, in clusters of two with a brown sheath at base, soft, minutely-toothed.

## FLOWERS:

May, in clusters near tip of twig, red or purple, elongated.

## FRUIT:

A stalkless egg-shaped cone, 4 - 7 centimetres ( $1\frac{1}{2}$  - 2 inches) long; scales thickened at outer edge but not barbed.

## OCCURRENCE:

In dry habitats in southeastern Manitoba, also on Black Island, Lake Winnipeg; not common.

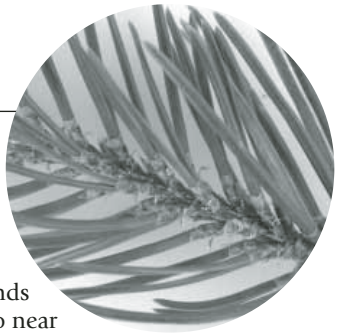


*Cones*



# Jack Pine

*Pinus banksiana* Lamb.



## FORM:

A medium-sized evergreen tree with a narrow, open crown; crown rather small in dense stands but becomes bushy extending to near the ground in open areas.

## BARK:

Brownish with thin irregularly furrowed scales.

## TWIGS:

Whorled, reddish-brown, slender, usually with narrow elongated ridges, slightly roughened by leaf bases. Buds about 15 millimetres ( $\frac{1}{4}$  inch) long, with many small, brown, sticky scales.

## LEAVES:

Needle-like, 2 - 4 centimetres ( $\frac{3}{4}$  - 2 inches) long, stiff, in clusters of two with a brown sheath at base, sometimes minutely toothed.

## FLOWERS:

May, in clusters near tip of twig, yellow or purple, elongated.

## FRUIT:

A brown cone 3 - 7 centimetres (1 - 3 inches) long, usually curved, occurring in pairs, scales thickened at tips, cones persist on the trees, usually remaining closed.

## OCCURRENCE:

Very common in dry-to-moist habitats throughout the forested region.





*Cones*



*Flowers*



# Eastern White Pine

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*Pinus strobus* L.

## FORM:

A medium-sized evergreen tree with a broadly cylindrical-to-irregular crown when open-grown; narrower in closed stands.

## BARK:

Thin, smooth, greyish-green when young, becoming rough, dark grey, deeply furrowed with scaly ridges.

## TWIGS:

Opposite or whorled, slender, greenish-grey, roughened by leaf bases at first but becoming smooth and brown. Buds 15 millimetres ( $\frac{1}{4}$  -  $\frac{1}{2}$  inch) long with light brown pointed scales.

## LEAVES:

Needle-like, soft, 5 - 15 centimetres ( $2\frac{1}{2}$  - 5 inches) long, finely-toothed, in clusters of five with a deciduous brown sheath at base.

## FLOWERS:

May, in clusters near tip of twig, yellowish or pinkish, oval.

## FRUIT:

Cone, almost cylindrical and sometimes curved, 8 - 20 centimetres long (3 - 8 inches) on curved stems; cone scales thin, brown and not barbed.

## OCCURRENCE:

Extreme southeastern Manitoba in dry habitats; rare.







*Cones*



## Tamarack (Larch)

*Larix laricina* (Du Roi) K. Koch

### FORM:

A small tree with an open, light-green, usually symmetrical crown. The only native Manitoba conifer that loses its needles each autumn.



### TWIGS:

Alternate, slender, flexible, slightly hairy, light-brown but darkening with age; roughened by thin scales with upturned tips. Buds with numerous small scales, elevated on spurs on older branches.

### LEAVES:

Needle-like, 20 - 50 millimetres ( $\frac{3}{4}$  -  $1 \frac{1}{4}$  inches) long, in sheathless clusters of 12 to 20 from spurs on older branches, soft, flexible, pale green in summer and turning yellow in autumn.

### FLOWERS:

With leaves, solitary on short spurs, yellow or red, small, semi-circular.

### FRUIT:

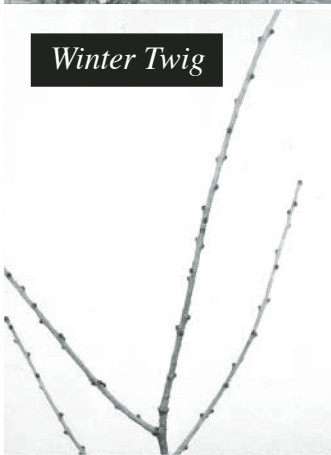
Erect, egg-shaped brownish cone 1 - 5 centimetres ( $\frac{1}{2}$  -  $\frac{3}{4}$  inch) long, composed of about 20 rounded thin scales.

### OCCURRENCE:

In bogs and wet habitats throughout most of the forested region.



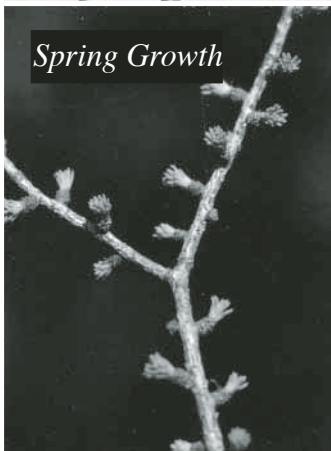
*Winter Twig*



*Cones*



*Spring Growth*









**Deciduous Trees**

# Manitoba Maple (Box-elder)

*Acer negundo* L.

## FORM:

Small-to-medium sized deciduous tree with spreading crown of thick limbs.

## BARK:

Light brown or dark grey, furrowed into irregular flat-topped ridges.

## TWIGS:

Opposite, stout, smooth, densely fuzzy, at least near tip; green at first but becoming grey to black. Lenticels common, rusty-brown, elongated, often covered by fuzz, at least near tips of current year growth. Terminal bud blunt, about 3 - 8 millimetres (1/8 inch) long, hairy; lateral buds smaller, encased by outer scale that splits at tip revealing bud. Leaf scars semi-circular, narrow, coming together on the sides of twig forming a point; bundle scars inconspicuous.

## LEAVES:

Opposite, compound, 15 - 38 centimetres (6 - 15 inches) long, composed of 3-5 coarse-toothed or lobed, paired, leaflets 5 - 12 centimetres (2 - 5 inches) long.

## FLOWERS:

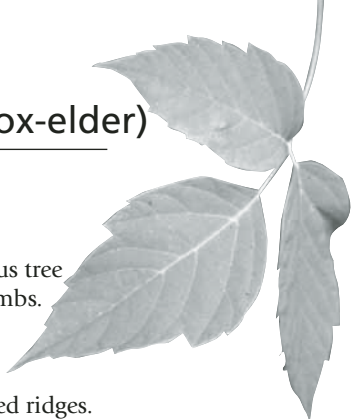
Before or with leaves, in yellow-green clusters, male flowers often with conspicuous elongated red-tipped stamens.

## FRUIT:

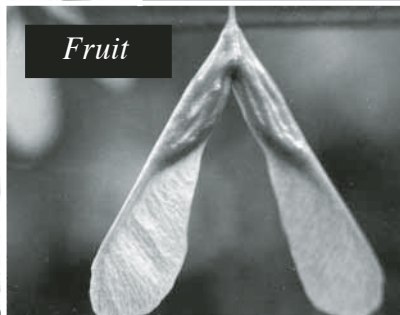
Winged, wrinkled, dry, yellowish, ascending, in pairs, each 30 - 50 millimetres (1½ - 2 inches) long.

## OCCURRENCE:

Throughout the southern part of Manitoba usually in moist habitats and along stream beds.







# Showy Mountain Ash

*Sorbus decora* (Sarg.) Schneid.

## FORM:

Large deciduous shrub or small tree with spreading, ascending branches.

## BARK:

Greyish-brown, thin, smooth, forming loose papery scales on older stems or trunks.

## TWIGS:

Alternate, greyish-brown, stout, smooth or with shredding cuticle; lenticels several, scattered, elongated, tan. Terminal bud about 10 – 14 millimetres ( $\frac{1}{2}$  inch) long, conical, smooth, gummy, dark purplish-red, inner scales short hairy; lateral buds smaller. Leaf scars narrow moon-shaped, dark brown with five light brown bundle scars.

## LEAVES:

Alternate, compound, 20 centimetres (5 - 10 inches) long composed of 11-15 paired, coarse-toothed, conical tipped, oblong leaflets, 3 - 8 centimetres ( $1\frac{1}{2}$  - 3 inches) long, 2 to 3 times as long as broad, blue-green above.

## FLOWERS:

June, white, about 4 - 5 millimetres ( $\frac{1}{2}$  inch) in diameter occurring in flat-topped open clusters.

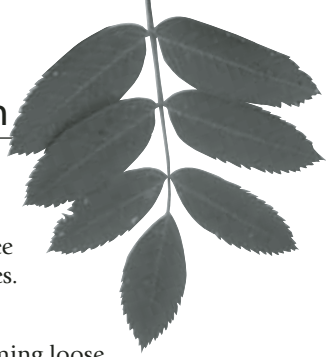
## FRUIT:

In August, berry 8 - 10 millimetres ( $\frac{1}{4}$  -  $\frac{1}{2}$  inch) diameter scarlet or vermilion with a fine powdery covering, in clusters.

## OCCURRENCE:

Southern half of Manitoba, except south-west, in moist habitats.

*American mountain ash (Sorbus americana Marsh.) may be found in southeastern Manitoba but is rare. It can be distinguished from the showy mountain ash by its slender, lance-shaped leaflets that are sharply toothed from tip to base.*





# Black Ash

*Fraxinus nigra* Marsh.

## FORM:

Medium-to-large deciduous tree with a narrow open crown.

## BARK:

Greyish, scaly, shallow-furrowed into soft, often spongy, ridges.

## TWIGS:

Opposite, round, stout, smooth, grey. Terminal bud about 4 - 10 millimetres ( $\frac{1}{4}$  inch) long, dark brown to black, pointed with two large lateral scales; lateral buds smaller, nearly circular. Leaf scars heart-shaped to nearly circular, prominent, with a line of prominent bundle scars following contour of leaf scars. Lenticels elongated, yellowish-to-dark brown.

## LEAVES:

Opposite, compound, 15 - 30 centimetres (10 - 16 inches) long composed of 7 to 11 lance-shaped, fine-toothed leaflets 10 - 14 centimetres (3 - 5 inches) long, stalkless and arranged in pairs.

## FLOWERS:

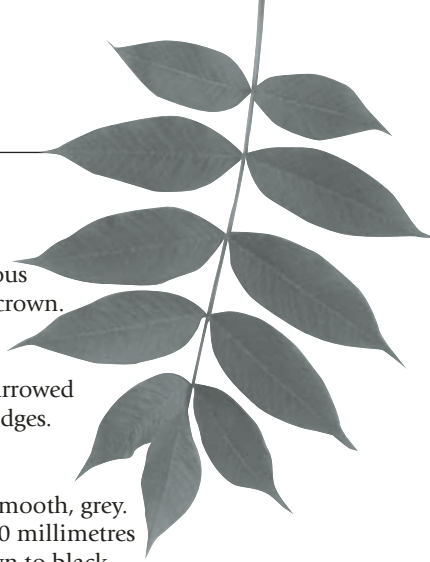
Before leaves, small, in clusters.

## FRUIT:

Single, dry, with an elongated wing 2.5 - 4 centimetres (1 - 1  $\frac{1}{2}$  inches) long, blunt at both ends.

## OCCURRENCE:

Southeastern Manitoba to Lake Manitoba along stream banks and in moist habitats.







*Spring Growth*



*Winter  
Twig*



*Fruit*

# Green Ash

---

*Fraxinus pennsylvanica* Marsh.  
*var. subintegerrima* (Vahl.) Fern.

## FORM:

Medium-to-large deciduous tree with a slender trunk and spreading crown.

## BARK:

Greyish-brown, furrowed into soft scaly ridges, a diamond pattern in mature bark.

## TWIGS:

Opposite, stout, smooth; lenticels brown, linear, common. Terminal bud reddish-brown, about 3 - 8 millimetres ( $\frac{1}{4}$  inch) long with two prominent lateral scales, not hairy; lateral buds smaller. Leaf scars horseshoe-shaped with about 18 bundle scars in a single row with same contour as leaf scar.

## LEAVES:

Opposite, compound, 15 - 20 centimetres (8 - 12 inches) long composed of 7 - 9 short-stalked, lance-shaped, coarse-toothed, leaflets 10 - 15 centimetres (4 - 6 inches) long, borne in pairs.

## FLOWERS:

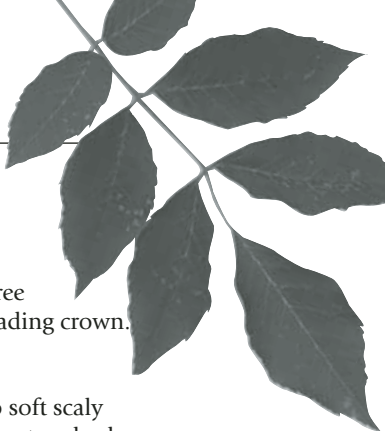
Before or with leaves, small.

## FRUIT:

Dry, single, with a narrow elongated wing, 3 - 6 centimetres ( $1 - 1 \frac{3}{4}$  inches) long, pointed at base.

## OCCURRENCE:

Common along river banks throughout southern Manitoba.







*Male Flowers*



*Fruit*



*Female Flowers*

## Bur Oak (Scrub Oak)

---

*Quercus macrocarpa* Michx.

### FORM:

A small to medium size deciduous tree with a broad, rounded crown composed of variously spreading stout branches.



### BARK:

Light brown, rough, divided by deep furrows into scaly, flaky plates.

### TWIGS:

Alternate, stout, ridged, hairy at first but becoming hairless. Lenticels small, oval, yellowish-brown. Terminal bud hairy, about 3 - 6 millimetres (1/8 inch) long, surrounded by five narrow hairy bracts and two or more lateral buds; lateral buds about same size. Leaf scars moon-shaped, raised, brown; bundle scars in two curved rows, yellowish, not prominent.

### LEAVES:

Alternate, simple, prominently lobed, 15 - 30 centimetres (4 - 10 inches) long, finely hairy beneath.

### FLOWERS:

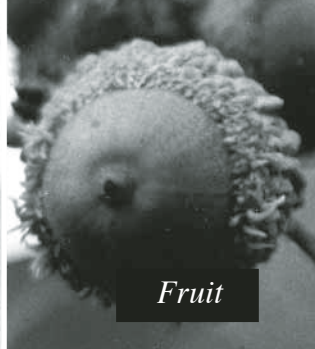
After leaves, male in catkins, female single or few in a cluster.

### FRUIT:

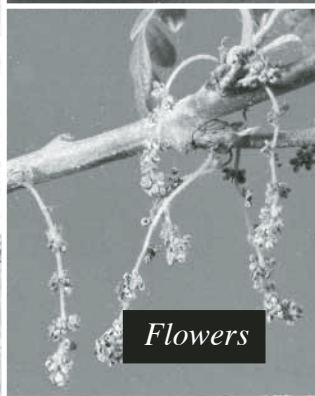
An acorn, 20 - 30 millimetres (3/4 - 1 1/4 inches) long, half-covered by cap, maturing in one year.

### OCCURRENCE:

Southern Manitoba, usually in dry habitats and river bottom forests.



*Fruit*



*Flowers*



# American Elm (White Elm)

*Ulmus americana* L.

## FORM:

A large deciduous tree, slender in dense stands but branching from near the ground in open situations, the limbs large and spread giving it a graceful, vase-like appearance.

## BARK:

Dark-grey, rough, furrowed when old.

## TWIGS:

Alternate, slender, smooth or hairy; terminal buds conical, about 5 millimetres (1/8 inch) long, reddish-brown, somewhat hairy; lateral buds smaller. Flower buds rounded, larger. Leaf scars nearly oval, tan, with about five prominent bundle scars across middle. Lenticels common, yellowish-brown, elongated.

## LEAVES:

Alternate, simple, oval, sharp-pointed, unequal at base, coarse double-toothed, 10 - 15 centimetres (3 - 6 inches) long.

## FLOWERS:

Before leaves, small purplish or yellowish, on long stems in loose drooping clusters.

## FRUIT:

Oval, dry, one-seeded, flattened, winged with a hairy margin, about 8 - 10 millimetres (1/2 inch) in diameter, usually notched at tip.

## OCCURRENCE:

Southern part of province on rich, moist, well-drained habitats.







*Fruit*

# White Birch (Paper Birch)

*Betula papyrifera* Marsh.

## FORM:

Small-to-medium sized deciduous tree or coarse shrub with ascending, spreading branches. During winter, the reddish-brown branches contrast with the white trunk of mature trees.

## BARK:

Thin, smooth, at first dark but becoming creamy to pinkish-white, easily separating into papery layers.

## TWIGS:

Alternate, moderately stout, hairy at first but becoming smooth, reddish-brown, shiny. Lenticels numerous, small, circular, yellowish. Terminal bud sharp-pointed, about 5 - 7 millimetres ( $\frac{1}{4}$  inch) long, chestnut-brown, curved, slightly sticky and hairy; lateral buds smaller. Leaf scars very small, moon-shaped, with three bundle scars.

## LEAVES:

Alternate, simple, usually triangular, coarse double-toothed, 5 - 10 centimetres ( $1\frac{1}{2}$  - 4 inches) long, slender stalked, hairy beneath at least when young.

## FLOWERS:

April to May, in catkins.

## FRUIT:

A dry two-winged nut, less than 1.5 - 2.5 millimetres ( $\frac{1}{2}$  inch) broad in drooping cone-like catkins 3 - 5 centimetres (1 - 2  $\frac{1}{2}$  inches) long.

## OCCURRENCE:

In moist to dry habitats throughout the forested region except far north.

*Alaska birch* (*Betula neoalaskana* Sarg.) is similar, but has warty twigs and mature bark that does not peel as readily as white birch. Occurs throughout much of the province.





# Wild Plum

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*Prunus americana* Marsh.

## FORM:

Mostly a large deciduous shrub but occasionally tree-like.

## BARK:

Smooth, grey or reddish-brown on young trees, splitting into curly scales when older.

## TWIGS:

Alternate, slender, smooth, brown, with thorns. Terminal bud about 4 - 8 millimetres (1/8 inch) long, composed of several small overlapping brown scales with light coloured tips; lateral buds similar. Leaf scars broadly heart-shaped, dark brown with a few bundle scars near upper side. Lenticels yellowish, circular, of variable sizes.

## LEAVES:

Alternate, simple, oval or oblong, sharp-pointed, 6 - 12 centimetres (2 - 4 inches) long; teeth sharp-pointed, single and double-toothed.

## FLOWERS:

With or before leaves, white, about 25 millimetres (1 inch) in diameter, in usually clusters of five flowers.

## FRUIT:

A berry, generally round, orange-red in color with a single flattened stone, about one inch long, sour.

## OCCURRENCE:

Southern Manitoba generally in moist habitats along river channels.

*Canada plum (Prunus nigra Ait.) is similar but has rounded teeth on the leaves, white flowers that usually turn pink, and a round stone in the fruit. Occurs in southern Manitoba.*



*Flowers*



*Fruit*



# Hop-Hornbeam (Ironwood)

*Ostrya virginiana* (Mill.) K. Koch

**FORM:**

A small deciduous tree with a slender erect trunk; crown broad, round-topped in open; but narrow and pyramidal in dense stands.

**BARK:**

Light-brown, roughened by narrow, elongated, shreddy scales which loosen at the ends.

**TWIGS:**

Alternate, very slender, tough, somewhat hairy, shiny, dark reddish-brown. Buds sharp-pointed, chestnut-brown, about 3 - 4 millimetres (1/8 inch) long composed of several scales with light-coloured margins. Leaf scars small, moon-shaped; bundle scars inconspicuous. Lenticels common, white, small, circular.

**LEAVES:**

Alternate, simple, oval, tapered at tip, finely double-toothed, thin, 7 - 12 centimetres (2 1/2 - 5 inches) long, finely hairy beneath.

**FLOWERS:**

With leaves; in greenish elongated clusters.

**FRUIT:**

A small greenish nut in a papery bladder growing in dense elongated clusters on slender stems.

**OCCURRENCE:**

In southeastern Manitoba in rich, moist habitats. Rare.







*Fruit*



# Hackberry

*Celtis occidentalis* L.

## FORM:

A small deciduous tree with large bushy crown of ascending or spreading branches.

## BARK:

Greyish-brown, covered with deeply furrowed wart-like ridges when old.

## TWIGS:

Alternate, rusty-brown becoming greyish-brown, slender, smooth or hairy. Buds about 6 - 8 millimetres (1/8 inch) long, hairy, light-brown, pressed against twig except for terminal bud that is at nearly right angles to the twig. Leaf scars small, oval, often raised on short stalks; bundle scars inconspicuous. Lenticels common, elongated, small, yellowish-brown.

## LEAVES:

Alternate, simple, oval to lance-shaped, 6 - 9 centimetres (2 - 6 inches) long, about 3/5 as wide, tapered at tip, sharp-toothed to middle or below.

## FLOWERS:

Before or with leaves, minute, greenish; solitary or in pairs.

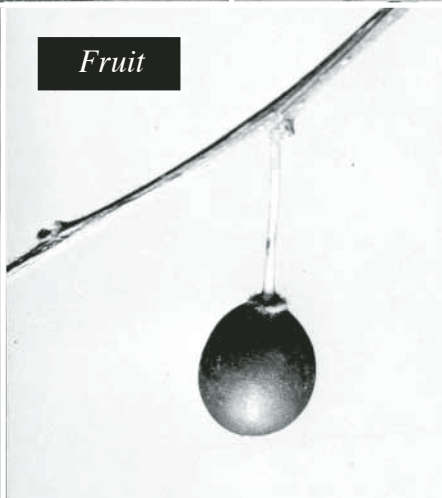
## FRUIT:

A berry, about 6 - 8 millimetres (1/3 inch) diameter, orange-red becoming dark purple at maturity and containing a single hard nut.

## OCCURRENCE:

Localized along the southern margin of Lake Manitoba, mainly on beaches. Rare.





*Fruit*

# Basswood (Linden)

*Tilia americana* L.



## FORM:

Medium-to-large deciduous tree varying from a single straight trunk with narrow or long pyramid crown to divided trunks with two or more heavy wide-spreading limbs.

## BARK:

Dark grey, smooth on young trees becoming furrowed into soft, flat with scaly ridges.

## TWIGS:

Alternating, smooth, shiny red or green wrinkled. Lenticles are common, elongated, rusty-brown. Terminal bud is broad, about 6 millimetres (1/4 inch) long, greenish-brown, shiny, composed of two tight scales and one lateral scale that is somewhat separated from others making it long-sided, lateral buds similar but smaller. Leaf scars moon-shaped brown, bundle scars few.

## LEAVES:

Alternate, simple, heart-shaped, abruptly pointed at tip, coarsely toothed, lop-sided, 12 - 16 centimetres (5 - 6 inches) long.

## FLOWERS:

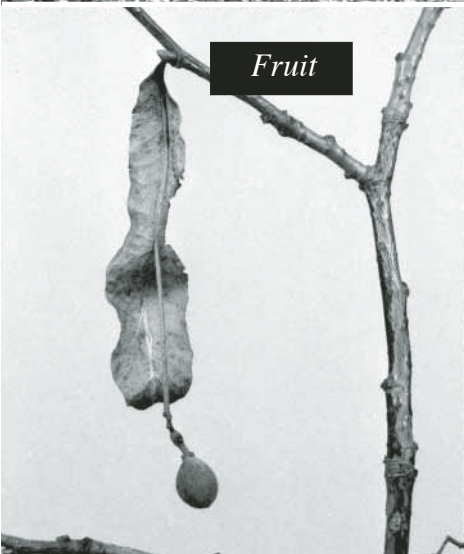
With leaves or later, cream-coloured, fragrant.

## FRUIT:

A pale-brown, hard nut-like berry about one third inch in diameter in small open clusters drooping from an elongated smooth-margined leaf.

## OCCURRENCE:

Occurrence: Southern Manitoba from the Spruce Woods eastward along river banks.



*Fruit*



# Balsam Poplar (Black poplar)

*Populus balsamifera* L.

## FORM:

Medium sized deciduous tree with long cylindrical trunk and a narrow, open crown of stout limbs.

## BARK:

Smooth, becoming furrowed into thick ridges, whitish to greyish-brown.

## TWIGS:

Alternate, moderately stout, round, shiny, smooth, bright reddish-brown. Lenticels few, mostly inconspicuous. Terminal bud sharp, pointed, up to 25 millimetres ( $\frac{1}{2}$  - 1 inch) long, shiny, very gummy with a fragrant odour, chestnut-brown; lateral buds smaller, pressed against twig. Leaf scars moon-shaped, small, with three bundle scars.

## LEAVES:

Alternate, simple, oval, tapering to tip, rounded at base (or heart-shaped at base in var. *subcordata* Hylander), fine-toothed, 7 - 10 millimetres (3 - 6 inches) long, with a yellowish metallic lustre on undersurface.

## FLOWERS:

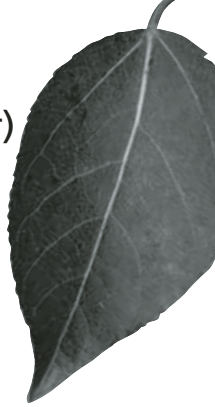
Before leaves, in drooping dense catkins.

## FRUIT:

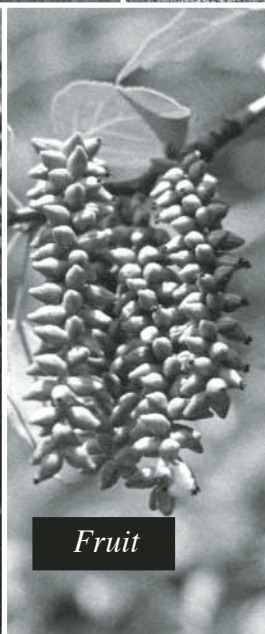
With leaves, smooth, capsule about 6 - 7 millimetres ( $\frac{1}{4}$  inch) long in catkins.

## OCCURRENCE:

Throughout the forested region, except extreme north, in moist habitats.







*Fruit*



# Trembling Aspen (White poplar)

*Populus tremuloides* Michx.

## FORM:

Medium-to-tall deciduous tree with slender trunk and moderately stout ascending branches forming an open, round-topped crown.

## BARK:

Smooth, greenish-grey to whitish, becoming rough and furrowed.

## TWIGS:

Alternate slender, flexible, shiny. Lenticels generally inconspicuous, small, elongate. Terminal bud about 6-7 millimetres ( $\frac{1}{4}$  inch) long, lustrous, usually without hairs, sharp-pointed, with several scales, slightly gummy; lateral buds smaller. Leaf scars moon-shaped, light-brown with three raised bundle scars.

## LEAVES:

Alternate, simple, egg-shaped to nearly circular, abruptly pointed, fine-toothed with numerous rounded teeth, 3 - 7 millimetres ( $1\frac{1}{2}$  - 3 inches) long and about the same width, on flattened stalks longer than leaf blade.

## FLOWERS:

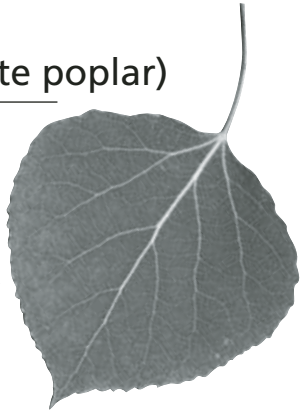
Before leaves, in drooping hairy catkins.

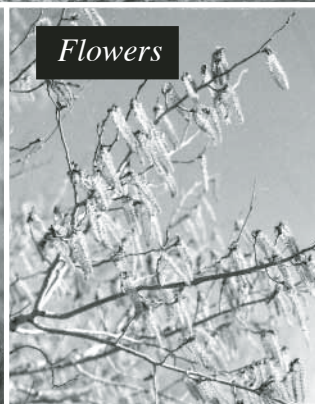
## FRUIT:

With leaves, a capsule about 5 - 7 millimetres ( $\frac{1}{4}$  inch) long in catkins.

## OCCURRENCE:

Common throughout the forested region in moist to dry habitats.





# Largetooth Aspen

*Populus grandidentata* Michx.

## FORM:

A medium-to-tall deciduous tree with moderately stout branches forming a round-topped crown.



## BARK:

Smooth, greenish-grey to whitish, becoming deep-furrowed at base of old trunks.

## TWIGS:

Alternate, moderately stout, stiff, somewhat hairy. Terminal bud, dull brown, finely hairy, about 7 - 8 millimetres ( $\frac{1}{4}$  inch) long, pointed, lateral buds spreading away from twig. Flower buds larger. Leaf scars crescent-shaped with three groups of bundle scars. Lenticels elongated.

## LEAVES:

Alternate, simple, 5 - 10 centimetres (2- 4 inches) long and of about the same width, sharp-pointed, rounded at base, very coarse-toothed with 5 - 15 large unequal teeth which are often curved inward at tip; white hairy at first but becoming hairless; on flattened stems.

## FLOWERS:

Before leaves, in drooping catkins.

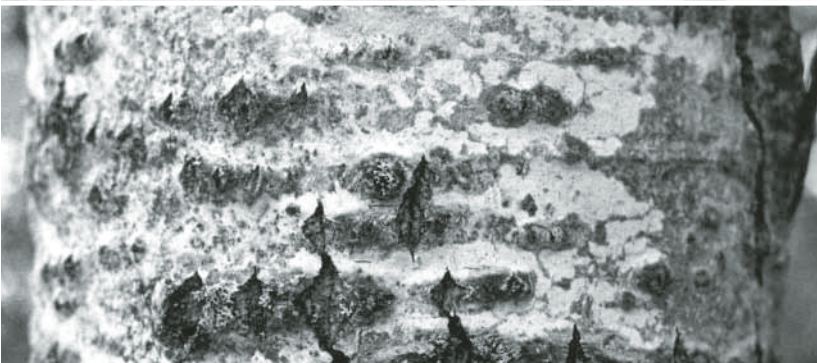
## FRUIT:

With leaves; a hairy capsule need 6 - 7 millimetres ( $\frac{1}{8}$  -  $\frac{1}{4}$ ) inch long in loose, drooping catkins.

## OCCURRENCE:

In southeastern corner of Manitoba on a variety of sites; rare.





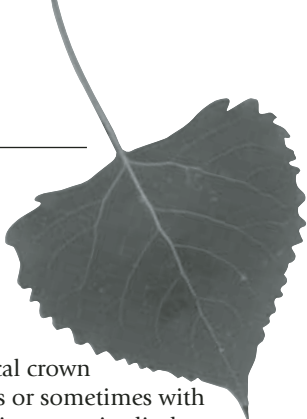


# Cottonwood

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*P. deltoides* Bartr. ex Marsh.  
var. *deltoides* (Eastern Cottonwood)

*P. deltoides* var. *occidentalis* Rydb.  
(Plains Cottonwood)



## FORM:

A large deciduous tree with a conical crown of spreading to ascending branches or sometimes with its trunk dividing near the ground into massive limbs forming a broad open crown.

## BARK:

Smooth, yellow-green becoming deeply furrowed, scaly and grey.

## TWIGS:

Alternate, stout, smooth, shiny, often four-sided or ridged, greenish-brown. Terminal bud sharp-pointed, about 20 millimetres ( $\frac{3}{4}$  inch) long, chestnut or greenish-brown, smooth, shiny, very gummy, outer scales hairy at base; lateral buds similar, about 13 millimetres ( $\frac{1}{2}$  inch) long. Leaf scars roughly elliptical, light greenish-brown; bundle scars in three prominent groups. Lenticels common, elongated, straw-coloured.

## LEAVES:

Alternate, simple, triangular, with coarsely rounded teeth, somewhat hairy, 5 - 10 millimetres (2 - 4 inches) long and about the same width, stalk flattened near base of leaf.

## FLOWERS:

Before leaves, in drooping catkins.

**FRUIT:** A capsule about 8 - 12 millimetres ( $\frac{1}{3}$  inch) long in catkins.

## OCCURRENCE:

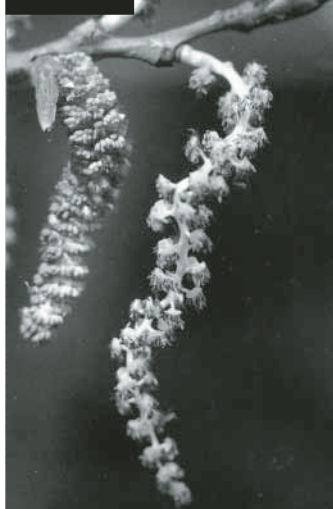
Common in southern Manitoba.



*Fruit*



*Flowers*



# Peachleaf Willow

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*Salix amygdaloides* Anderss.

## FORM:

A large deciduous shrub to small tree with somewhat drooping branches.

## BARK:

Smooth, becoming ridged and more or less scaly, reddish-brown.

## TWIGS:

Alternate, flexible, yellowish becoming darker, shiny. Lenticels few, mostly small and brown but some are larger, linear and yellowish. Buds small, dark shiny brown with tan bases, largest along middle of twig, these about 2 - 4 millimetres (1/8 inch) long, with only one scale, somewhat lop-sided. Leaf scars very small, inconspicuous, with three bundle scars.

## LEAVES:

Alternate, simple, lance-shaped, 5 - 14 centimetres (2 - 4½ inches) long and 2 - 5 millimetres (½ - 2 inches) wide, narrowed or rounded at base, narrowly tapered at tip, finely toothed, stem slender, green above, whitish below.

## FLOWERS:

Before leaves, in catkins.

## FRUIT:

A capsule in catkins on short leafy branches.

## OCCURRENCE:

Along stream beds in southern part of Manitoba; not common.

*Black willow (Salix nigra Marsh.) and Crack willow (Salix fragilis L.) are similar but have narrower, somewhat curved leaves up to 8-14 millimetres (6 inches) long. Black willow has conspicuous leaf-like stipules at base of leaf stalk on young twigs that are lacking on Crack willow.*





*Fruit*



# Notes

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