

TREE IDENTIFICATION KEY

BEGIN HERE:

- Tree has needles..... **CONIFER KEY**
- Tree has broad leaves **BROADLEAF KEY**

CONIFER KEY

- 1. Needles in bundles or groups (2)
- 1. Needles single or flattened and scaly (3)
 - 2. Needles in clusters of more than 5 needles..... **tamarack* (*Larix laricina*)**
 - 2. Needles 2 to 5 per bundle: Pine species (see a-c below)
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 - a. Five needles per bundle..... **white pine (*Pinus strobus*)**
 - b. Needles in pairs, 3 to 4 inches long..... **red pine (*Pinus resinosa*)**
 - c. Needles in pairs, under 2 inches long,
bark dark gray **jack pine (*Pinus banksiana*)**
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- 3. Needles scaly and flattened (4)
- 3. Needles single (5)
 - 4. Has cones, scales flat, branches fan-like..... **northern white-cedar (*Thuja occidentalis*)**
 - 4. Has berries, may have scaly and prickly needles on same tree, scales rounded..... **eastern redcedar (*Juniperus virginiana*)**
- 5. Needles flat (6)
- 5. Needles square, 4-sided, stiff, sharp: Spruce species (see a-b below)
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 - a. Needles 1/3 to 3/4 inch long, twigs hairless..... **white spruce (*Picea glauca*)**
 - b. Needles 1/3 to 3/4 inch long, twigs have
hair, grows in wet areas **black spruce (*Picea mariana*)**
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- 6. Needles 1/2 inch long with short petiole..... **eastern hemlock (*Tsuga canadensis*)**
- 6. Needles 3/4 inch to 1 1/4 inches long, no petiole, bubbles in bark..... **balsam fir (*Abies balsamea*)**

*Note: A tamarack is a deciduous conifer.

TREE IDENTIFICATION KEY

BROADLEAF KEY

- 1. Opposite branching (2)
- 1. Alternate branching (4)
 - 2. Compound leaves (3)
 - 2. Simple leaves: Maple species (see a-c below)
 - a. Leaf margin entire, 5 lobes **sugar maple (*Acer saccharum*)**
 - b. Leaf margin double-toothed, 3 to 5 lobes **red maple (*Acer rubrum*)**
 - c. Leaf margin single-toothed, 3 to 5 lobes, lobes separated by deep, angular openings..... **silver maple (*Acer saccharinum*)**
- 3. 3 (rarely 5) leaflets **boxelder (*Acer negundo*)**
- 3. 5 to 11 leaflets: Ash species (see a-c below)
 - a. 7 to 13 leaflets, leaflets do not have petiole **black ash (*Fraxinus nigra*)**
 - b. 5 to 9 leaflets, leaflets have petiole, smile-shaped leaf scar extending up sides of new bud..... **white ash (*Fraxinus americana*)**
 - c. 7 to 9 leaflets, leaflets have petiole, leaf scar ends at base of new bud..... **green ash (*Fraxinus pennsylvanica*)**
- 4. Compound leaves (5)
- 4. Simple leaves (8)
- 5. 7 or fewer (usually 5) leaflets, egg-shaped nut..... **shagbark hickory (*Carya ovata*)**
- 5. 7 or more leaflets (6)
 - 6. Leaflets rounded..... **black locust (*Robinia pseudoacacia*)**
 - 6. Leaflets pointed (7)
- 7. Leaf 6 to 8 inches long..... **mountain-ash (*Sorbus americana*)**
- 7. Leaf 8 to 24 inches long..... **black walnut (*Juglans nigra*)**
- 8. Leaves not lobed (9)
- 8. Leaves lobed: Oak species (see a-f below)
 - a. Rounded lobes, 5 to 9 deep even lobes and sinuses, leaves hairless..... **white oak (*Quercus alba*)**
 - b. Rounded lobes, pair of deep sinuses near middle of leaf, hairy underside of leaves **bur oak (*Quercus macrocarpa*)**
 - c. Rounded lobes, leaf narrow at base and broad near middle, hairy underside of leaves **swamp white oak (*Quercus bicolor*)**
 - d. Pointed lobes, sinuses extend halfway to mid-vein, leaves hairless, dull green..... **red oak (*Quercus rubra*)**
 - e. Pointed lobes, deep sinuses extend 3/4 of the way to mid-vein, leaves hairless, bright green and shiny **northern pin oak (*Quercus ellipsoidalis*)**
 - f. Pointed lobes, deep sinuses, young leaves hairy underneath, dark green and shiny, leathery..... **black oak (*Quercus velutina*)**

TREE IDENTIFICATION KEY

BROADLEAF KEY

9. Bark not papery (10)

9. Bark papery: Birch species (see a-c below)

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- a. Leaf margin single-toothed, white
peeling bark..... **white birch (*Betula papyrifera*)**
- b. Leaf margin double-toothed, dull green
leaves, yellow or bronzed bark **yellow birch (*Betula alleghaniensis*)**
- c. Leaf margin double-toothed, shiny green
leaves, reddish-brown to silvery-gray bark **river birch (*Betula nigra*)**
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10. Leaf petioles flat (11)

10. Leaf petiole round (12)

11. Leaf triangular-shaped with coarse teeth **eastern cottonwood (*Populus deltoides*)**

11. Leaf oval: Aspen species (see a-b below)

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- a. Leaves have small, fine teeth less than
1/16 inch..... **trembling aspen (*Populus tremuloides*)**
- b. Leaves have large teeth..... **bigtooth aspen (*Populus grandidentata*)**
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12. Leaves nearly as wide as long (13)

12. Leaves longer than wide (14)

13. Leaf margin finely toothed..... **balsam poplar (*Populus balsamifera*)**

13. Leaf margin coarsely toothed..... **basswood (*Tilia americana*)**

14. Leaf less than 3 times as long as wide (15)

14. Leaf at least 3 times as long as wide..... **willow species (common species include weeping willow and black willow)**

15. Leaf veins thin and branch often (16)

15. Leaf veins thick and run from center to edge of leaf without branching (17)

16. Fine blunt teeth, leaves 2 to 6 inches long,
bark dark **black cherry (*Prunus serotina*)**

16. Sharp pointed teeth, leaves 2 to 4 inches long
and hairy, leaf base asymmetrical **hackberry (*Celtis occidentalis*)**

17. Leaf shiny and leathery (thick), coarse sharp teeth..... **beech (*Fagus grandifolia*)**

17. Leaf dull and rough (18)

18. Most leaf bases even, seed in elongated clusters **ironwood (*Ostrya virginiana*)**

18. Leaf base uneven, seeds flat and papery..... **elm species (common species include American elm, rock elm, and slippery elm)**