

TREE IDENTIFICATION KEY

BEGIN HERE:

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

CONIFER KEY TREE IDENTIFICATION KEY

1. Needles in **bundles** or groups (go to #2)
1. Needles **single** or flattened and scaly (go to #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)
 - 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,
3. Needles **scaly and flattened** (go to #4 below)
3. Needles **single** (go to #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** (go to #6)
5. Needles **square**, 4-sided, stiff, sharp: Spruce species (see a-b below)
 - 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*)**
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.

BROADLEAF KEY

TREE IDENTIFICATION KEY

1. **Opposite** branching (go to #2)



OPPOSITE

1. **Alternate** branching (go to #4)



ALTERNATE

- 2. **Compound** leaves (go to #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 (go to #5)
- 4. **Simple** leaves (go to #8)

- 5. 7 or fewer (usually 5) leaflets, egg-shaped nut..... **shagbark hickory (*Carya ovata*)**
- 5. 7 or more leaflets (go to #6)
 - 6. Leaflets rounded..... **black locust (*Robinia pseudoacacia*)**
 - 6. Leaflets pointed (go to #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 (go to #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*)**

BROADLEAF KEY

TREE IDENTIFICATION KEY

9. Bark not papery (go to #10)

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

- 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

10. Leaf **petioles** (leaf stem) **flat** (go to #11)

10. Leaf **petiole** (leaf stem) **round** (go to #12)

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

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

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

12. Leaves nearly as wide as long (go to #13)

12. Leaves longer than wide (go to #14)

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

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

14. Leaf less than 3 times as long as wide (go to #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 (go to #16)

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