## TREE IDENTIFICATION KEY

Tree has needles use.....use **CONIFEROUS TREE KEY**Tree has broad leaves .....use **DECIDUOUS TREE KEY** 

CONIFEROUS TREE 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
2. Needles 2 to 5 per bundle: Pine species (see a-c below)
a. Five needles per bundle
b. Needles in pairs, 3 to 4 inches long
c. Needles in pairs, under 2 inches long, bark dark gray Jack Pine (Pinus banksiana)
3. Needles scaly and flattened (4)
3. Needles single (5)
4. Has cones, scales flat, branches fan-likeNorthern White Cedar ( <i>Thuja occidentalis</i> )
4. Has berries, may have scaly and prickly needles on same tree, scales rounded Eastern Red Cedar
(Juniperus virginiana)
5. Needles flat (6)
5. Needles square, 4-sided, stiff, sharp: Spruce species (see a-b below)
a. Needles 1/3 to 3/4 inch long, twigs hairlessWhite Spruce
(Picea glauca)
b. Needles 1/3 to 3/4 inch long, twigs have hair, grows in wet areas <b>Black Spruce</b>
(Picea mariana)
6. Needles 1/2 inch long with short petioleEastern Hemlock (Tsuga canadensis)
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6. Needles 3/4 inch to 1 1/4 inches long, no petiole, bubbles in barkBalsam Fir
(Abies balsamea)
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## **DECIDUOUS TREE KEY**

- 1. Opposite branching (2)
- 1. Alternate branching (4)
  - 2. Compound leaves (3)
  - 2. Simple leaves: Maple species (see a-c below)
    - a. Leaf margins smooth, 5 lobes ...... Sugar Maple (Acer saccharum)
    - b. Leaf margins double-toothed, 3 to 5 lobes..... Red Maple (Acer rubrum)
    - c. Leaf margins single-toothed, 3 to 5 lobes, lobes separated by deep, angular openings.......Silver Maple (*Acer saccharinum*)
- 3. Three (rarely 5) leaflets..... Box Elder (Acer negundo)
- 3. Five to 11 leaflets: Ash species (see a-c below)
  - a. 9 to 11 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 pseudonacacia)
  - 6. Leaflets pointed (7)
- 7. Leaf 6 to 8 inches long ...... Mountain Ash (Sorbus americana) •
- 7. Leaf 8 to 24 inches long ...... Butternut (Juglans cinerea).
  - 8. Leaves not lobed (9) or **Black Walnut** (*Juglans nigra*)
  - 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, sinues extend halfway to mid-vein, leaves hairless,

dull green..... Red Oak (Quercus rubra)-

- e. Pointed lobes, deep sinues extend 3/4 of the way to mid-vein, leaves hairless, bright green and shiny.... Northern Pin Oak (*Quercus ellipsoidalis*)
- f. Pointed lobes, deep sinues, young leaves hairy underneath, dark green and shiny, leathery......Black Oak (Quercus velutina)

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- 9. Bark not papery (10)
- 9. Bark papery: Birch species (see a-c below)
  - a. Leaves single-toothed, white peeling bark....Paper Birch (Betula papyrifera)
  - b. Leaves double-toothed, dull green leaves, yellow or bronzed bark .....

## Yellow Birch (Betula alleghaniensis)

- c. Leaves double-toothed, shiny green leaves, reddish-brown to silvery-gray
  - bark......River Birch (Betula nigra)
- 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)

a. Leaves have small, fine teeth less than 1/16 inch..... Quaking Aspen

- (Populus tremuloides)
- b. Leaves have large teeth..... Big-toothed Aspen (Populus grandidentata)

12. Leaves nearly as wide as long (13)

- 12. Leaves longer than wide (14)
- 13. Leaves finely toothed ...... Balsam Poplar (Populus balsamifera)
- 13. Leaves 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
- 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... Hackberry (Celtis occidentalis)
- 17. Leaf shiny and leathery (thick), coarse sharp teeth.... Beech (Fagus grandifolia)
- 17. Leaf dull and rough (18)
  - Most leaf bases even, rough, reddish, scaled bark.....
    Ironwood (Ostrya virginiana)
  - 18. Most leaf bases even, smooth, muscular, blue-gray bark: Musclewood (Carpinus caroliniana)
  - 18. Leaf base uneven, seeds flat and papery....

Elm species (including American, Rock, and Slippery Elm)