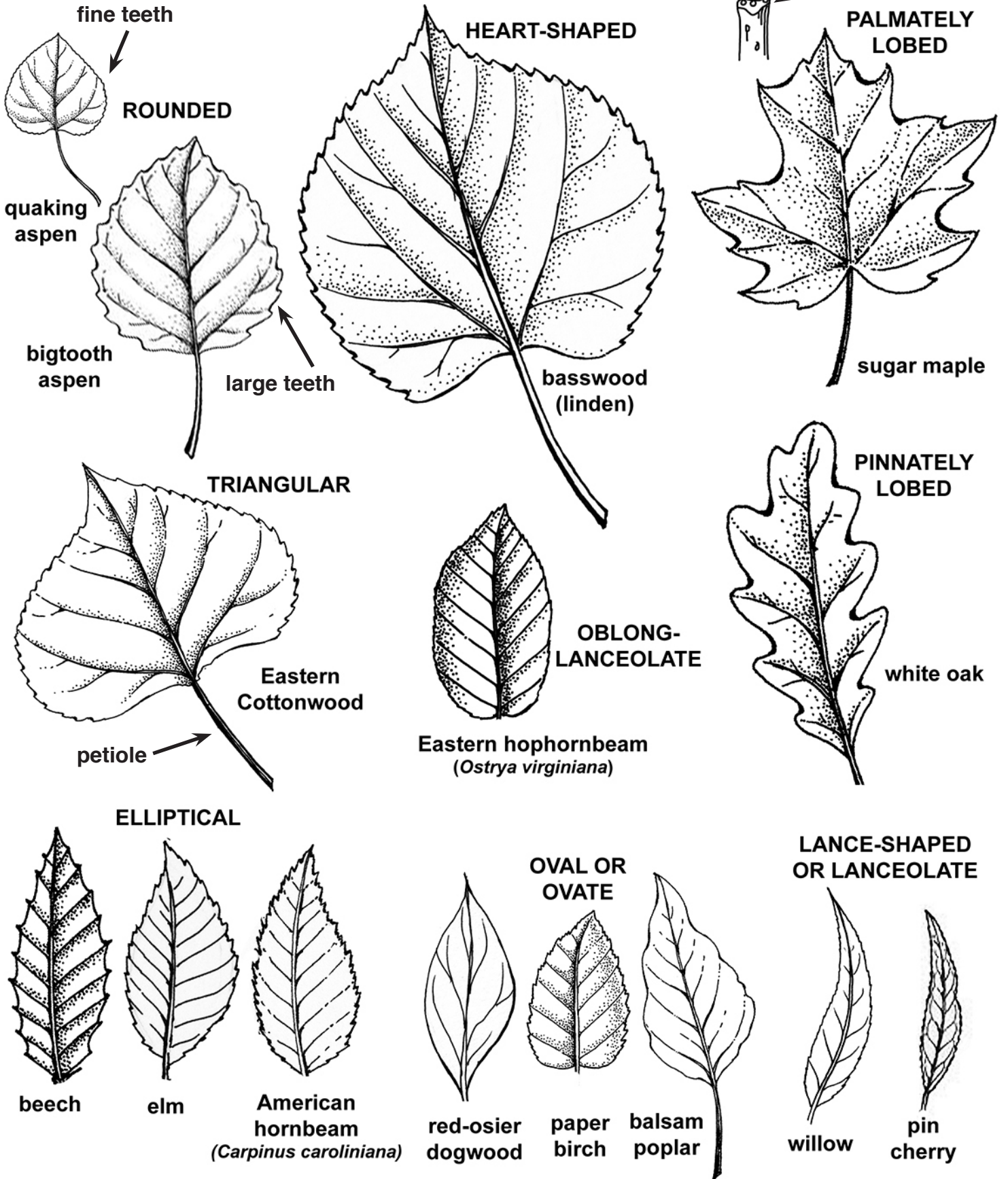


# Simple Leaf Guide

Knowing tree leaf shapes and structures will help you identify trees using a dichotomous key.



## DECIDUOUS TREE DICHOTOMOUS 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*)

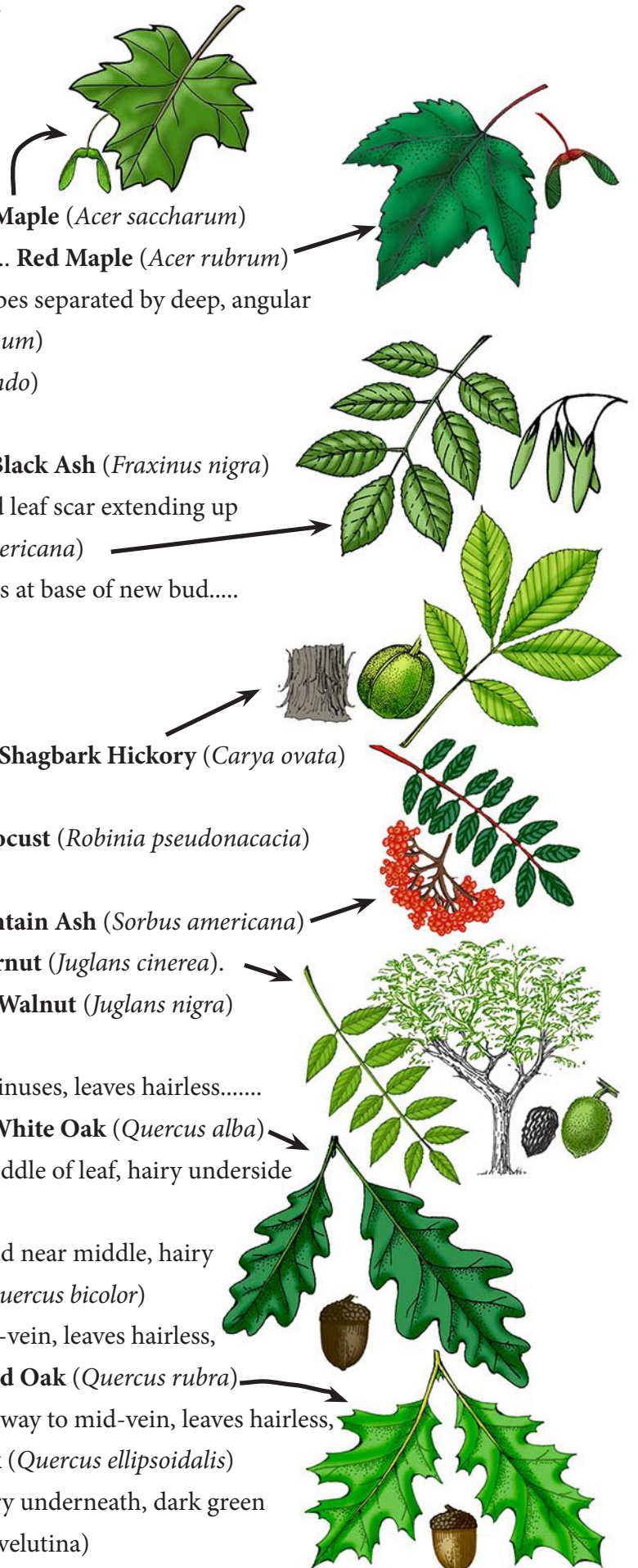
b. Rounded lobes, pair of deep sinuses near middle of leaf, hairy underside of leaves..... **Bur Oak** (*Quercus macrocarpa*)

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*)



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)

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)

