

2013

A Key to Some

Common



of Pennsylvania

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

BUREAU OF FORESTRY

www.dcnr.state.pa.us/forestry

Key To Some Common Trees of Pennsylvania

- 1a. Leaves needle or scale-like Coniferous Trees – 2
- 1b. Leaves broad and flat Broad-leaved Trees – 12

CONIFEROUS TREES

- 2a. Leaves scale-like 3
- 2b. Leaves needle-like 4
 - 3a. Scales pointed, twigs not flat Eastern red-cedar (*Juniperus virginiana*)
 - 3b. Scales blunt, twigs flat Arbor-vitae (*Thuja occidentalis*)
- 4a. Needles (leaves) single on twigs 5
- 4b. Needles (leaves) in bundles, tufts, or rosettes 7
 - 5a. Needles flat, blunt 6
 - 5b. Needles four-sided and sharp-pointed Spruce (*Picea* species)

- Spruce (*Picea* species)
- a. Needles 1/3 to 3/4 in., cones 1-4 in., twigs hairless, cultivated White spruce (*Picea glauca*)
 - b. Needles 1/2 - 1 in., cones 3 1/2-8 in., twigs hairless and drooping, cultivated Norway spruce (*Picea abies*)
 - c. Needles 1/4 to 3/4 in., cones 2 1/2-4 1/2 in., twigs hairy, grows in bogs Black spruce (*Picea mariana*)
 - d. Needles 1/2 - 1 in., cones 1-2 in., twigs hairy, moist forest and swamps Red spruce (*Picea rubens*)

- 6a. Needles with small stalks attaching needles to twig Eastern hemlock (*Tsuga canadensis*)
- 6b. Needles without stalks Balsam fir (*Abies balsamea*)
 - 7a. Needles in bundles with sheaths at base 8
 - 7b. Needles in tufts or rosettes Tamarack (*Larix laricina*) or cultivated Larch (*Larix* spp.)
- 8a. Needles in bundles of 5 White pine (*Pinus strobus*)
- 8b. Needles not in bundles of 5 9
 - 9a. Needles in bundles of 3 Pitch pine (*Pinus rigida*)
 - 9b. Needles in bundles of 2 10
- 10a. Needles 4-6 inches, brittle-snap cleanly when bent Red pine (*Pinus resinosa*)
- 10b. Needles 1-3 inches long, twisted 11
 - 11a. Cone scales with prickles, bark gray-brown Virginia pine (*Pinus virginiana*)
 - 11b. Cone scales without prickles, bark of upper trunk distinctly orange-red Scots pine (*Pinus sylvestris*)

BROAD-LEAVED TREES

- 12a. Leaves opposite or whorled 13
- 12b. Leaves alternate 18
 - 13a. Leaves opposite 14
 - 13b. Leaves whorled Catalpa, Indian bean (*Catalpa* species)
- 14a. Leaves simple 15
- 14b. Leaves compound (leaf made up of leaflets) 16
 - 15a. Margins entire Flowering dogwood (*Cornus florida*)
 - 15b. Margins lobed Maple (*Acer* spp.)

- Maple (*Acer* species)
- a. Leaf 5-7 lobed, wider than long, broken leaf stalks show milky sap Norway maple, (*Acer platanoides*)
 - b. Leaf 5 lobed, margins smooth, sap clear Sugar maple (*Acer saccharum*)
 - c. Leaf 5 lobed with deep notches, margins toothed Silver maple (*Acer saccharinum*)
 - d. Leaf mostly 3 some 5 lobed. shallow notches. leaf stalks often red Red maple (*Acer rubrum*)

Key To Some Common Trees of Pennsylvania

16a. Pinnately-compound 17

16b. Palmately-compound Buckeye or Horse-chestnut (*Aesculus* species)

 17a. Leaf divided into 3 to 5 leaflets Box-elder (*Acer negundo*)

 17b. Leaf divided into 5-11 leaflets Ash (*Fraxinus* spp.)

Ash (*Fraxinus* spp.)

 a. 9 to 11 leaflets without stalks, leaf scars crescent-shaped, in wet woods, swamps Black ash (*F. nigra*)

 b. 5 to 9 stalked leaflets, leaf scar U-shaped, twigs smooth, upland sites White ash (*F. americana*)

 c. 5 to 9 leaflets with winged stalks, twigs velvet-hairy, bottomlands Green ash (*F. pennsylvanica*)

18a. Leaves alternate, simple 19

18b. Leaves alternate, compound (leaf made up of leaflets) 39

 19a. Margins entire 20

 19b. Margins deeply cut, lobed, or toothed 22

20a. Leaf base heart-shaped Eastern redbud (*Cercis canadensis*)

20b. Leaf base tapering 21

 21a. Leaves 2 to 5 inches long, leathery Blackgum (*Nyssa sylvatica*)

 21b. Leaves 5 to 10 inches long, thin Cucumber-tree (*Magnolia acuminata*)

22a. Margins deeply cut or lobed, with or without additional teeth 23

22b. Margins coarsely or finely toothed but not lobed 28

 23a. Leaves with five deeply cut lobes, star-shaped leaf Sweetgum (*Liquidambar styraciflua*)

 23b. Leaves not star-shaped 24

24a. Leaves square or notched at top Tuliptree, Yellow-poplar (*Liriodendron tulipifera*)

24b. Leaves not square or notched 25

 25a. Leaves entire, one and two-lobed on each tree; aromatic Sassafras (*Sassafras albidum*)

 25b. Leaves with more than two lobes, not aromatic 26

26a. Leaf lobes pinnate, bark various 27

26b. Leaf lobes palmate, bark white under exfoliating brown flakes Sycamore (*Platanus occidentalis*)

 27a. Lobes or large teeth rounded White oak group (*Quercus* species)

White oak group (*Quercus* species)

 a. 3-4 deep lobes and sinuses on each side, leaves hairless White oak (*Quercus alba*)

 b. 8 or more large rounded teeth on each side, leaf underside hairy Chestnut oak (*Quercus montana*)

 c. Large terminal, coarsely toothed lobe and 2-3 additional lobes on each side, small star-shaped hairs on underside of leaves Bur oak (*Quercus macrocarpa*)

 d. Very shallow lobes or teeth, leaf broadest near middle, narrowing to the base, leaf undersides white with star-shaped, straight and branched hairs Swamp white oak (*Quercus bicolor*)

 27b. Lobes sharp-pointed with a hair-like bristle on end of each lobe Red oak group (*Quercus* species)

Red (or black) oak group (*Quercus* species)

 a. Sinuses often less than 1/2 way to mid-vein, leaf underside hairless except tufts in vein angles, bark with broad, smooth, vertical ridges and narrow fissures, acorn 3/4 - 1 1/4 in. long with shallow cap Red oak (*Quercus rubra*)

 b. Depth of sinuses variable, young leaves rusty-hairy beneath, persisting in vein axils, bark dark, rough plates with vertical and horizontal fissures, acorn 1/2 - 3/4 in. long with deep cap Black Oak (*Quercus velutina*)

 c. Sinuses deeply U-shaped, extend 3/4 of the way to mid-vein, leaves hairless, bark with broad, shallow fissures, acorn 1/2 in. long, cap shallow Pin oak (*Quercus palustris*)

Key To Some Common Trees of Pennsylvania

28a. Teeth coarse, one at end of each lateral vein	29
28b. Teeth fine, several for each main lateral vein.....	30
29a. Leaves slender, 3 times as long as broad	American chestnut (<i>Castanea dentata</i>)
29b. Leaves not more than 2 times as long as wide	American beech (<i>Fagus grandifolia</i>)
30a. Leaves very narrow, 4 or 5 times as long as wide	Willow (<i>Salix</i> spp.)
30b. Leaves broad	31
31a. Leaves not over 1.5 times as long as broad.....	32
31b. Leaves about twice as long as broad	33
32a. Leaf base unequal, heart-shaped, petiole round	Basswood (<i>Tilia americana</i>)
32b. Leaf base not heart-shaped, sides equal, petiole flattened	Aspen (<i>Populus species</i>)
Aspen (<i>Populus species</i>)	
a. Leaves have small, fine teeth less than 1/16 inch	Trembling aspen (<i>Populus tremuloides</i>)
b. Leaves have large teeth.....	Big-toothed aspen (<i>Populus grandidentata</i>)
33a. Leaves smooth, single serrate, fine teeth.....	34
33b. Leaves rough or smooth and double-serrate	35
34a. Leaf stalk with 1-2 small glands (small bumps).....	Cherry (<i>Prunus</i> spp.)
34b. Leaf stalk without glands	Shadbush, Serviceberry (<i>Amelanchier</i> spp.)
35a. Rough leaves with uneven bases, single or double-toothed.....	36
35b. Smooth leaves with even bases, finely double-toothed	37
36a. Leaf margins double-serrate from base, vein extend into the teeth	Elm (<i>Ulmus</i> spp.)
36b. Leaf margins single-serrate above base, veins branch before reaching the teeth	Hackberry (<i>Celtis occidentalis</i>)
37a. Leaf base tapered or rounded, bark without obvious lenticels	38
37b. Leaf base blunt to slightly heart-shaped, bark lenticels obvious	Birch (<i>Betula</i> species)
Birch (<i>Betula</i> species)	
a. Young bark smooth shiny gray with dark horizontal lenticels, aging to dark peeling plates	Black birch, Sweet birch, Cherry birch (<i>Betula lenta</i>)
b. Young bark yellow-bronze slightly peeling, aging to broad gray plates	Yellow birch (<i>Betula alleghaniensis</i>)
c. Young bark light-orange, peeling in ragged sheets	River birch (<i>Betula nigra</i>)
38a. Trunk gray and smooth, with muscle-like ridges	Ironwood, Musclewood (<i>Carpinus caroliniana</i>)
38b. Trunk brownish, bark in narrow, loose flakes	Hop-hornbeam (<i>Ostrya virginiana</i>)
Leaves alternate, compound	
39a. Twigs armed with a pair of spines at each node	Black locust (<i>Robinia pseudoacacia</i>)
39b. Twigs unarmed (trunk armed in honey-locust).....	40
40a. Terminal leaflet equal-sized or smaller than other leaflets, or lacking.....	41
40b. Terminal leaflet usually larger than lowermost leaflets.....	Hickory (<i>Carya</i> species)
Hickory (<i>Carya</i> species)	
a. Most leaves <10 in. long, with 7-11 leaflets, buds yellow, bark shallow-ridged	Bitternut (<i>C. cordiformis</i>)
b. Most leaves with 5 leaflets-some 7, hairless, bark ridged.....	Pignut (<i>C. glabra</i>)
c. Most leaves with 7 leaflets-some 9, lower surface and petiole very hairy, bark ridged	Mockernut (<i>C. tomentosa</i>)
d. Most leaves with 5 leaflets, hairs on leaf margins, bark peeling, shaggy, throughout PA.....	Shagbark (<i>C. ovata</i>)
e. Most leaves >12 in. long with 7 leaflets, bark peeling, grows in southern PA lowlands	Shellbark (<i>C. laciniosa</i>)

Key To Some Common Trees of Pennsylvania

- 41a. Leaflets round-tipped, some leaves twice-compound Honey-locust (*Gleditsia triacanthos*)
- 41b. Leaflets pointed 42
 - 42a. Twigs and leaf stalks densely long-hairy, buds encircled by deep, U-shaped to circular leaf scars Staghorn sumac (*Rhus typhina*)
 - 42b. Twigs hairless or only somewhat hairy, leaf scars heart-shaped 43
- 43a. Leaflets mostly entire, a few coarse glandular teeth at the base Tree-of-heaven (*Ailanthus altissima*)
- 43b. Leaflets evenly and finely toothed along the margins, pith of branchlets chambered 44
 - 44a. Terminal leaflet well developed, pith dark brown, nuts oblong, pointed Butternut (*Juglans cinerea*)
 - 44b. Terminal leaflet small or lacking, pith tan, nuts round, not pointed Black walnut (*Juglans nigra*)

Parts, Types, And Positions Of Leaves

