West Virginia University
Extension Service

4-H-M-1761-95

Tree Identification

4-H Project

Name _____ Club _____

County _____ Address _____

Age _____ Years in 4-H _____ Date project completed _____

4-H Program

Objectives:

- To learn how to identify our more important forest trees.
- To learn how to build a plant press or display box.
- To learn how to collect leaves so they can be mounted and kept for the future.
- To build self-esteem by successfully completing a project.

Contents

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1995

West Virginia Forests

West Virginia was almost all covered by forests when the first European explorers began searching for adventure and wealth in the late 1600s. By the early 1900s most of West Virginia had been timbered. More than half of the land was cleared for farms, town, cities, and roads.

The number of trees of different species has decreased greatly over the past 200 years. The American Chestnut was eliminated by a disease brought in from China. Only root sprouts remain of this valuable tree of our early forests. Trees with valuable wood, such as black walnut, white oak, and red spruce were over-cut in early timbering operations. Red spruce once grew in pure stands on more than a million acres of West Virginia mountaintops. Heavy cutting, wildfires, and insect attacks killed so many spruce that we now have less than 100,000 acres of them.

The most common forest type in West Virginia is the *central hardwoods*, covering the western half of the state. Common trees in this forest type are elms, poplar, maples, oaks, basswood, sycamore, and ash. The *northern* hardwood forest type covers most of our higher elevations. Common trees in the northern hardwoods are maples, birches, beech, black cherry, hemlock, and red spruce. The eastern ridge and valley portion of West Virginia is covered with the oak-pine forest type. Common trees in this area are black, scarlet, and chestnut oaks, and Virginia and white pines.

Project Information

Nearly 105 trees can be found quite easily in West Virginia forests. Another dozen species are rare. Twenty or so trees are commonly planted as shade trees or forest plantations.

This project will help you identify our more important *forest* trees.

Trees can be identified by leaves, twigs, bark, flowers, fruits/seeds, wood, shape, and habitat. Leaves are the easiest characteristic for identification but are useful only on deciduous trees from late spring to early autumn.

You will complete the following:

Year 1	A. Collect, press, mount, and label leaves from 20 trees B. Fill in record sheet (page 33) C. Build a plant press (optional)
Year 2 or 3	A. Collect, press, mount, and label leaves from 20 different trees B. Fill in record sheet (page 34) *or* A. Collect, label, and display 20 fruits/seeds B. Fill in record sheet (page 35) C. Build a fruit/seed display box (optional)

A Tree

Trees are different from woody shrubs. Trees normally have a single stem and are more than 20 feet tall when full grown. Even seedlings of trees should have a single stem. Shrubs normally have two or more stems and are less than 20 feet tall when mature.

Leaves

Leaf arrangement, type, shape, margin, size, and hairiness are common characteristics used to identify trees. *Leaf arrangement* refers to how leaves are attached to the woody stem. Maples, ashs, dogwoods, buckeyes, honeysuckles, and viburnums have opposite (pairs) leaves. Catalpas have leaves that are whorled (three leaves in a circle around the stem). Other trees, such as oaks, birches, hickories, and poplars, have alternate leaf patterns. *See Figure 1.*

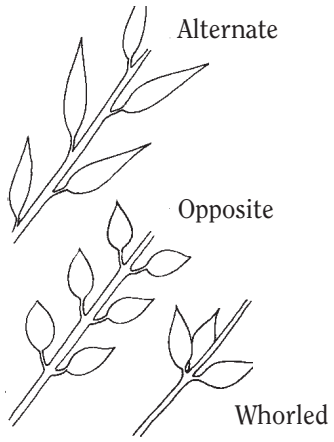


Figure 1

Leaf Types

A leaf with a single blade is termed a *simple leaf.* But the leaves of some trees consist of three or more blades attached to a common stalk. Leaves of this type are said to be *compound,* and the individual blades are called *leaflets*. If the leaflets are attached along the sides of the stalk, the leaf is called *pinnately compound*. On the other hand, if a number of leaflets radiate from the top of the stalk, the leaf is *palmately compound. See Figure 2.*

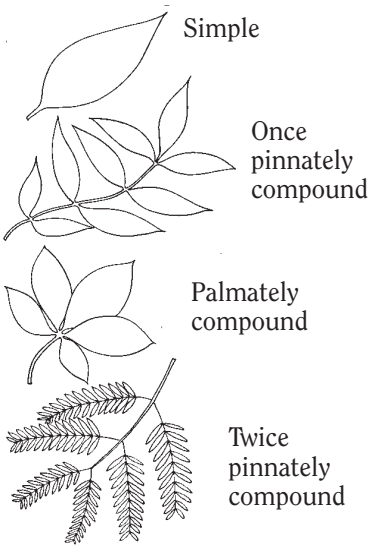


Figure 2

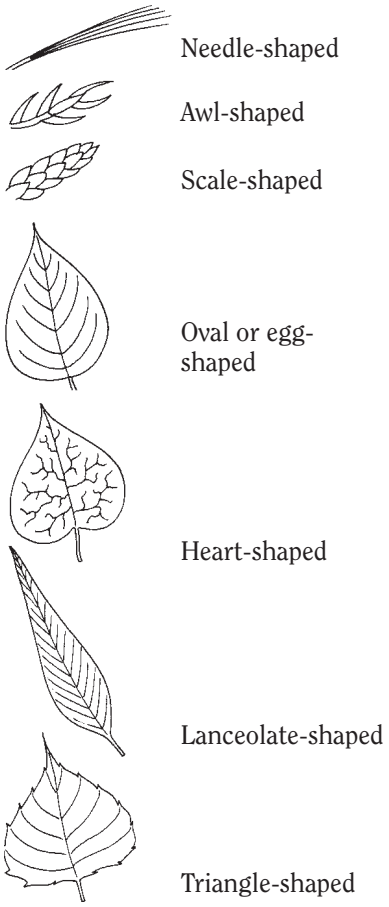


Figure 3

Leaf Shapes

The shape of a leaf is usually characteristic of a species. Figure 3 shows common leaf shapes.

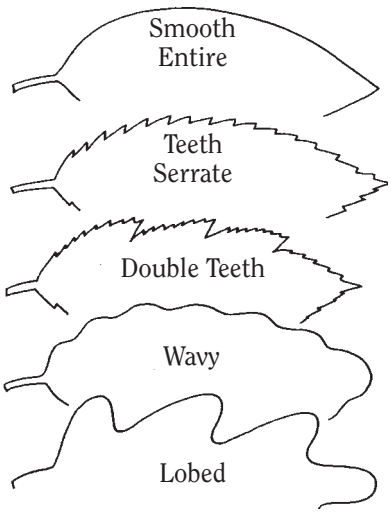


Figure 4

Leaf Margins

The edge of a leaf blade is called the margin. Figure 4 shows common types of leaf margins.

Twigs and Buds

Twigs are an excellent way of identifying trees in the winter. The most obvious features of twigs are their buds, leaf scars, stipule scars, and pith. *See Figure 5.*

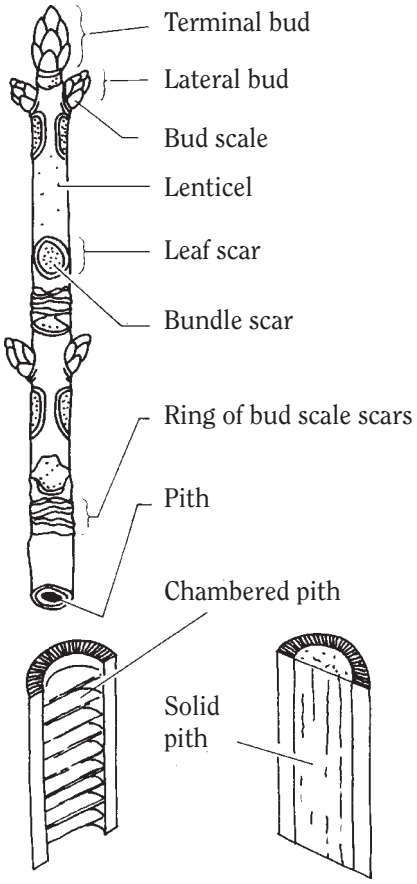


Figure 5

Collecting and Mounting Leaves, Twigs, Seeds, or Fruit

Building a Plant Press *(Optional)*

Before you collect any leaves and twigs for mounting, build a plant press. A plant press is the apparatus used to dry plant specimens under pressure. Collecting and mounting leaves and twigs will be more enjoyable if you have a plant press for drying them properly. Making a plant press is an easy job. Just follow the directions and complete each step to the best of your ability.

Buy or cut the following:

1. Four pieces of wood 18 inches long, 1-1/2 inches wide, and about 3/8-inch thick.

2. Sixteen pieces of wood 12 inches long, 1 inch wide and 1/4-inch thick.

Also, have these materials and tools on hand:

1. Thirty-two small nails or small 1/2-inch screws.

2. Hammer, screw driver, and square.

Make two frames out of the slats. Use half of the material for each frame. They should look like the one in Figure 6.

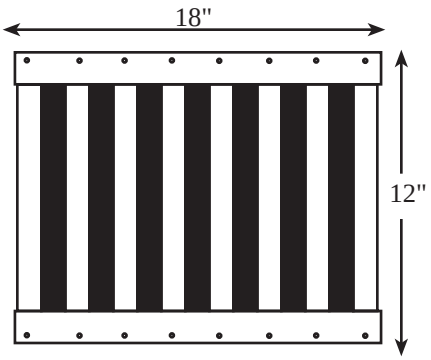


Figure 6

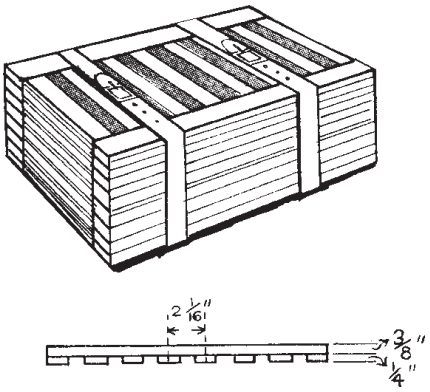


Figure 7

To make the press (Figure 7) ready for use, get the following:

1. Two buckle straps or pieces of rope, each about 4 feet long.

2. At least 20 newspaper sheets for holding plant specimens.

3. Several pieces of cardboard 12 inches by 18 inches in size.

Collecting and Pressing the Leaves and Twigs

The only equipment needed is a small knife, small pad of note paper, roll of masking tape, pencil, and white kitchen-sized garbage bag. While in the field, carry the specimens in the garbage bag. As the sample is collected, add a sheet of note paper with the information that you want to remember, such as the place and date of collection and notes about the surroundings. Masking tape should be attached to each leaf stalk to provide name, opposite/alternate information, or any other information that will help you with identification and the final label.

Select only good average samples. Small seedlings or new growth are not typical of the particular tree. Collect three or four leaves from each tree to allow for any damage in drying or mounting.

Place the samples in the plant press within a few hours after they are collected. Put the leaf or twig between several sheets of newspaper — be sure to arrange the leaves and twigs in exactly the way they are to appear on the display sheet. Place a piece of cardboard between each sample being pressed. Keep this up until the plant press is packed. Wrap the press tightly with straps or pieces of rope.

Specimens usually need 10 days in the press to dry properly. On about the fourth day, replace the newspapers with dry ones. If you do not, the samples may become discolored or rotted by mold.

If a press cannot be built, the leaves can be dried and flattened by placing heavy objects on top of the pile of newspapers, plants, and cardboard. Bricks, flat rocks, books, etc., will do the trick.

Keep the press with plants in a sunny spot where there is good air circulation.

Mounting the Leaves and Twigs in a Display Book

When the sample is thoroughly dried, mount it on a page of the display book. The paper used for mounting should be stiff enough not to buckle when handled and should be at least 12 inches by 16 inches in size. (Do not use sheets larger than 16 inches by 20 inches.) Mount the leaves, twigs, seeds, or fruit of each tree on separate sheets.

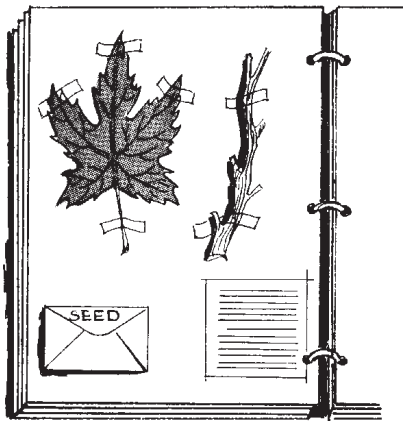


Figure 8

Use paste, transparent tape, or gummed tape to fasten leaves and twigs to the paper. Small seeds are displayed best in transparent envelopes pasted to the mounting paper.

The mounting sheet label is usually placed in the lower right-hand corner of the sheet. The information placed on this label will increase in value over the years, so be thorough. Include the common name, the scientific name, date and place of collection, habitat, and the commercial and farm uses of the tree.

The last step is to bind the plant mountings into a book. Print your name, club, and year of membership on the cover.

Constructing a Fruit Display Box

Since tree fruits are irregular in size and do not lend themselves to simple mounting techniques, it is desirable to build a display box in which all of them may be kept. A container can easily be made from a shoe box, or a box of similar size, cut to a height of about 2 inches. You may cover it with cellophane or a similar material. Fill the box with cotton and arrange the fruits neatly in it. Any number of fruits may be put in the box as long as they are arranged neatly and are not too crowded. Place a name tag near each specimen to identify it. Your box may look more attractive if you cover it with cloth, wallpaper, or similar material. Reinforcing the corners with tape will make it stronger.

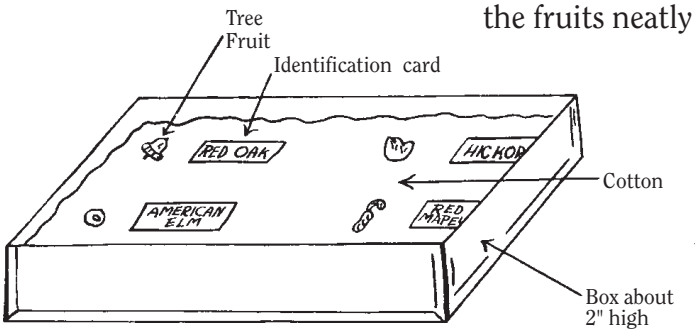


Figure 9

Key to Trees

A “key” is a scientific way of making choices to identify plants, animals, birds, insects, etc. The tree key for this project primarily uses twigs and leaves to identify a tree.

Use the key the same way as a road map. Both of the number 1s on the left margin represent forks in a road. You will choose the characteristics that fit your twig/leaf sample. The numbers on the right tell you which set of left numbers to go to for your next decision.

You keep moving left to right, down, and left to right until you finally reach the tree you are trying to identify. Its name will appear on the right.

You then can look in the illustrations to make sure your identification is correct. Although the key looks complicated, a few practice tries will help you learn to use it.

Key to West Virginia Forest Trees

1. Conifers - mostly evergreen with needles, having awl-like or scale-shaped leaves and bearing cones 2

1. Deciduous - broadleaf hardwoods that mostly lose leaves in winter 15

    2. Leaves are needles 3

    2. Leaves scale-like or awl-shaped 14

3. Needles in clusters or bundles (Pines and Larches) 4

3. Each single needle attached to twig (Spruce, Fir and Hemlock) 8

    4. Needles in clusters of 8-30 on short spur twigs, needles drop in autumn, cones upright ..... Tamarack or American Larch

    4. Needles in bundles of 2-5 (Pines) 5

5. Needles in bundles of 5, 3-5" long ..... White Pine

5. Needles in bundles of 2 and 3 6

    6. Needles in bundles of 3, 3-5" long ..... Pitch Pine

    6. Needles in bundles of 2 or 3, 3-5" long ..... Shortleaf Pine

    6. Needles in bundles of 2 7

7. Needles 5-7" long, dark green, brittle when bent in circle ..... Red Pine

7. Needles 1-4" long 8

    8. Needles 2-4" long, blue-green; cones large, in clusters and covered with sharp prickles ..... Table Mountain Pine

    8. Needles 1-3" long, twisted 9

9. Twigs often whitish, old cones hang on trees and covered with sharp curved prickles ..... Virginia or Scrub Pine

9. Twigs brownish, cones fall each year and have no prickles ..... Scotch or Scots Pine

10. Needles 4-sided, stiff and sharp-pointed (Spruces) 11

10. Needles flat and flexible with 2 white lines beneath 13

11. Needles more than l" long, green or blue ..... Colorado Blue Spruce

11. Needles l" long or less 12

12. Needles 1/2-1" long, twigs not hairy, hanging branchlets ..... Norway Spruce

12. Needles 1/2" long and spread from all sides of twig, twig hairy ..... Red Spruce

13. Needles 1-1 1/2" long, fallen needles leave a circular scar ..... Balsam Fir

13. Needles 1/2-3/4" long, fallen needles leave a peg ..... Eastern Hemlock

14. New growth needles awl-shaped, old growth scale-like and twigs 4-sided ..... Eastern Red Cedar

14. Leaves and twigs flattened and scale-like ..... Arbor Vitae or Northern White Cedar

15. Leaves compound 16

15. Leaves simple 36

16. Leaves alternate 17

16. Leaves opposite 31

17. Leaves 2 or 3 times pinnately compound 18

17. Leaves 1 time pinnately compound 20

18. Leaves mostly 2 times (sometimes 1 time) pinnately compound, leaflets small (1/2-1" long) with rounded tips ..... Honeylocust

18. Leaves mostly 2 times (sometimes 3 times) pinnately compound, leaflets over 1 inch long, leaf tip pointed 19

19. Leaves mostly 2 times pinnate, twigs large and without thorns ..... Kentucky Coffeetree

19. Leaves 2 or 3 times pinnately compound, twigs covered with thorns ..... Hercules Club

    20. Leaflets 11-41 26

    20. Leaflets 5-11 (Hickories) 21

21. Leaflets 5-11, bud with 2 long flat yellow scales ..... Bitternut Hickory

21. Leaflets 5-9, buds large, round, tan, or brownish 22

    22. Leaflets 5-7 23

    22. Leaflets 7-9 25

23. Leaflets 7 ..... Oval Pignut Hickory

23. Leaflets 5 24

    24. End leaflet slightly larger than side leaflets, husk on pear-shaped nut not splitting to base, bark not shaggy ..... Pignut Hickory

    24. End leaflet much larger than side leaflets, husk on round nut splits freely to base, bark on older stems shaggy ..... Shagbark Hickory

25. Leaf 8-14" long, crushed leaves fragrant, bark on older stems not shaggy ..... Mockernut Hickory

25. Leaf 14-20" long, crushed leaves not fragrant, bark on older stems shaggy ..... Shellbark Hickory

    26. Leaflets 7-21, egg-shaped, smooth margin and round tips ..... Black Locust

    26. Leaflets lance-shaped with sharp tips 27

27. Leaves 1-2" long, leaflets 13-41 with smooth margin except for a lobe at the base of each, crushed leaflets with foul odor ..... Tree-of-heaven

27. Leaflets with small teeth on margin 28

    28. Leaflets and twigs very hairy with milky sap ..... Staghorn Sumac

    28. Twigs with no milky sap 29

29. Leaves 5-10" long, buds sticky ..... American Mountain-Ash

29. Leaves 12-24" long, buds white and wooly 30

30. Terminal leaflet often missing, pith light yellow ..... Black Walnut

30. Terminal leaflet present, pith chocolate brown ..... White Walnut

31. Leaves palmately compound 32

31. Leaves pinnately compound 33

32. Broken twig with foul odor, spiny fruit husk ..... Ohio Buckeye

32. Broken twig with no foul odor,
yellow or smooth fruit husk ..... Sweet Buckeye

33. Leaflets 3-5, notched or lobed ..... Boxelder or Ashleaf Maple

33. Leaflets 5-13, margin with small teeth or smooth (Ashes) 34

34. Leaflets not stalked ..... Black Ash

34. Leaflets on a short stalk 35

35. Leaflets hairless ..... Green Ash

35. Leaflets with white hairs underneath ..... White Ash

36. Opposite leaves and twigs 37

36. Alternate leaves and twigs 47

36. Whorled leaves and twigs 105

37. Lobed leaf margin 38

37. Unlobed or toothed leaf margin 43

38. U-shaped notches 39

38. V-shaped notches 41

39. Leaf white, silvery underneath, deeply cut notches ..... Silver Maple

39. Leaf pale or yellow-green underneath 40

40. Leaf with 5 lobes, hairless ..... Sugar or Hard Maple

40. Leaf with 3 drooping lobes, hairy underneath ..... Black Sugar Maple

41. Leaf pale green to whitish underneath, 3-5 lobes ..... Red or Soft Maple

41. Leaf green underneath, 3 lobes 42

42. Coarse teeth on leaf margin, bark brownish ..... Mountain Maple

42. Fine teeth on leaf margin, greenish
bark with white stripes ..... Striped Maple or Moosewood

43. Leaves heart-shaped 44

43. Leaves egg-shaped 46

44. Large leaf 6-15" long, hairy upper
and soft velvety underneath ..... Paulownia or Imperial tree

44. Large leaf, hairless upper and
hairy underneath, fruit a long bean-like pod 45

45. Leaf with long pointed tip and
no odor when crushed ..... Western or Northern Catalpa

45. Leaf with short pointed tip
and foul odor when crushed ..... Southern Catalpa or Cigartree or Indian Bean

46. Smooth leaf margin, leaf veins parallel
to the leaf edge and curve to the leaf tip ..... Flowering Dogwood

46. Small sharp teeth on leaf margin ..... Blackhaw

47. Leaves with lobes 48

47. Leaves unlobed 68

48. Small reddish brown buds clustered at the end
of twigs, pith star-shaped, fruit an acorn (Oaks) 49

48. Buds not clustered at end of twigs, pith round 59

49. Leaf veins without a bristle tip (White Oaks) 50

49. Leaf vein with a bristle tip (Black Oaks) 55

    50. Leaf leathery and "cross-shaped" ..... Post Oak

    50. Leaf not "cross-shaped" 51

51. Leaf with a pair of deep-cut U-shaped notches just below the midpoint ..... Bur or Mossycup Oak

51. Leaf with no pair of deep-cut notches 52

    52. Leaf hairless underneath ..... White Oak

    52. Leaf hairy underneath 53

53. Leaf with coarse sharp teeth ..... Chinquapin or Yellow Oak

53. Leaf with coarse rounded teeth 54

    54. 7-16 pairs of teeth ..... Chestnut Oak

    54. 4-6 pairs of teeth ..... Swamp White Oak

55. Leaf hairy underneath 56

55. Leaf hairless underneath except some with small tufts in vein joints 57

    56. Leaves of two basic shapes (3-lobed that is broadest near the tip and a 5 to 11-lobed which has a long end lobe that is usually curved) ..... Southern Red or Spanish Oak

    56. Leaves of variable shapes, 5-7 lobes, leathery, dark green and shiny upper ..... Black Oak

57. Leaf hairless ..... Red Oak

57. Leaf with hairy tufts in vein joints 58

    58. Openings between major lobes circular ..... Scarlet Oak

    58. Openings between major lobes U-shaped or squarish ..... Pin Oak

59. Leaf margin with small teeth 64

59. Leaf margin smooth 60

60. Leaf with 2 ear-like lobes at the base, 10-20" long .... Mountain or Fraser Magnolia

60. Leaf base tapered or flat 61

61. Leaf tip square-like or with a slight notch, 4 lobes and hairless ..... Tulip Tree or Yellow Poplar

61. Leaf tip round or pointed 62

62. Leaves of different shapes (3-lobed, mitten-shaped or oval), crushed leaves or broken green twigs have spicy, aromatic smell ..... White Sassafras

62. All leaves of the same basic shape 63

63. Leaves dense white wooly underneath ..... White Poplar

63. Leaf with many teeth-like lobes and a large sharp pointed tip, buds hidden in base of leaf petiole ..... Sycamore

64. Thorns present on stem, limbs, or twigs 65

64. Thorns not present 66

65. Leaves on thorns ..... Wild Crabapple

65. Thorns leafless ..... Hawthorn

66. Leaf star-shaped ..... Sweetgum or Redgum

66. Leaf shape variable 67

67. Leaf with white hairs underneath, rough upper ..... Red Mulberry

67. Leaf hairless, very shiny upper ..... White Mulberry

68. Crushed leaves and twigs with almond (cyanide) odor and bitter taste, bark peels horizontally (Plums and Cherries) 69

68. Crushed leaves and twigs without almond odor 71

69. Mild almond (cyanide) odor, some limbs usually with thorns ..... Wild Plum

69. Strong almond odor, no thorns (Cherries) 70

70. Leaf oval with a short but sharp tip, bark brown to black ..... Wild Black Cherry

70. Leaf lance-shaped with long tapering tip, bark reddish brown on twigs and young stems ..... Fire, Pin, or Bird Cherry

71. Broken twigs with aromatic wintergreen (teaberry) odor 72

71. Broken twigs without wintergreen odor 74

72. Leaf triangle-shaped, tree of swamps and stream banks ..... River Birch

72. Leaf egg-shaped 73

73. Bark on twigs and young stems black, leaf margin usually has teeth of one size ..... Black or Sweet Birch

73. Bark on twigs and young stems yellowish, leaf margin with big and small teeth ..... Yellow Birch

74. Leaves thick and leathery, evergreen 75

74. Leaves thin or thick, deciduous 78

75. Leaves with spines on edges ..... American Holly

75. Leaves with smooth edges 76

76. Leaves rounded at base and tip ..... Purple Laurel

76. Leaves with tapered base and pointed tip 77

77. Leaf 2-5" long ..... Mountain Laurel

77. Leaf 4-12" long ..... Rhododendron or Great Laurel

78. Leaf margin smooth 79

78. Leaf margin with teeth 86

79. Leaves less than 6" long 80

79. Leaves 6-24" long 84

80. Leaves leathery 83

80. Leaves not leathery 81

81. Leaf heart-shaped ..... Redbud

81. Leaf not heart-shaped 82

82. Thorns and branches and twigs, leaf with a very long pointed tip .... Osage-Orange

82. Thornless, leaf with round tips ..... Black or Sour Gum or Black Tupelo

83. Leaf soft hairy underneath, bristle tip ..... Shingle Oak

83. Leaf hairless ..... Persimmon

84. Crushed leaf with foul, rancid odor ..... Pawpaw

84. Crushed leaf with strong but not foul, rancid odor 85

85. Leaf hairy underneath, bud silvery ..... Cucumber-Tree

85. Leaf hairless underneath ..... Umbrella Magnolia

86. Leaf base lopsided 87

86. Leaf base sides relatively even in size 92

87. Leaf triangle-shaped, with many teeth,
hairy and rough upper ..... American Hackberry

87. Leaf heart- or egg-shaped (Elms and Basswoods) 88

88. Leaves heart-shaped (Basswoods) 89

88. Leaves egg-shaped (Elms) 90

89. Leaf with dense white hairs underneath ..... White Basswood

89. Leaf hairless or with a few tufts underneath ..... American Basswood

90. Leaf rough (sandpapery) upper ..... Slippery Elm

90. Leaf smooth upper 91

91. Leaf small, 1-3" long, with small teeth ..... Siberian Elm

91. Leaf larger, 2-6" long, with large teeth of 2 sizes ..... American Elm

92. Heart-shaped leaves with 3-5 palm-like veins (Poplars) 93

92. Leaves oval or lanceolate with many feather-like veins 96

93. Leafstalk not flattened, buds gummy and fragrant ..... Balm-of-Gilead

93. Leafstalk flattened 94

94. Leaf with coarse angular teeth, young leaves white and wooly ..... Bigtooth Aspen

94. Leaves with sharp or small teeth 95

95. Leaf with coarse sharp teeth; thick, shiny upper ..... Eastern Cottonwood

95. Leaf with fine teeth, 1-3" long ..... Quaking Aspen

96. Leaf long and narrow (lance-shaped) 97

96. Leaf oval or egg-shaped 100

97. Leaf with large angular teeth 98

97. Leaf with small teeth 99

98. Leaf 4-10" long, thin, hairless, teeth curving inward ..... American Chestnut

98. Leaf 4-7" long, thick, a few hairs on veins underneath, teeth straight ..... Chinese Chestnut

99. Leaf 1/2" or less in width ..... Black Willow

99. Leaf 1-3" in width ..... Sourwood

100. Leaf with large angular teeth, conspicuous parallel veins ..... American Beech

100. Leaf with small, sharp teeth 101

101. Leaf tip long and sharp-pointed 102

101. Leaf with short, sharp tips or rounded tip 103

102. Leaf dense, hairy underneath ..... Hop Hornbeam

102. Leaf hairless or with a few tufts underneath ..... American Hornbeam

103. Long sharp thorns on stems and branches ..... Hawthorns

103. Without thorns 104

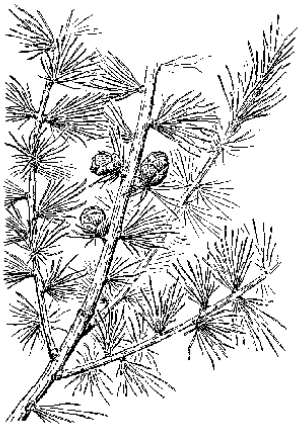
104. Bark smooth, gray with horizontal speckles ..... Speckled Alder

104. Bark smooth, gray with vertical dark vertical stripes ..... Serviceberry

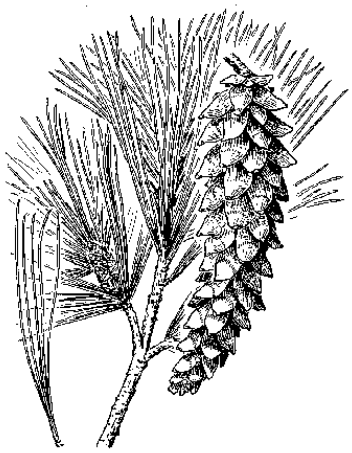
105. Leaf with long pointed tip and
no odor when crushed ..... Western or Northern Catalpa

105. Leaf with short pointed tip and
foul odor when crushed ..... Southern Catalpa or Cigartree or Indian Bean

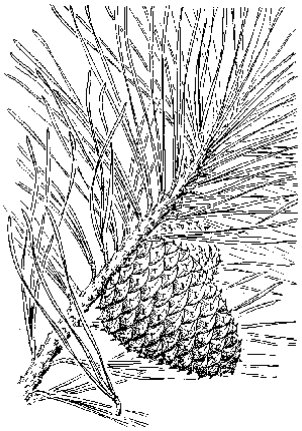
Leaves



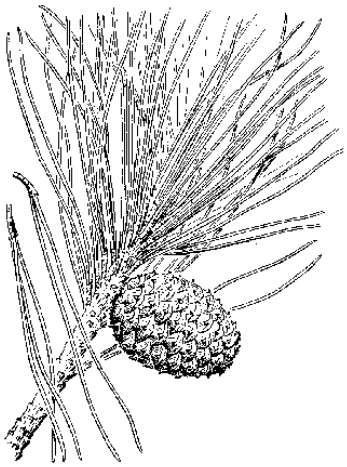
LARIX laricina
Tamarack



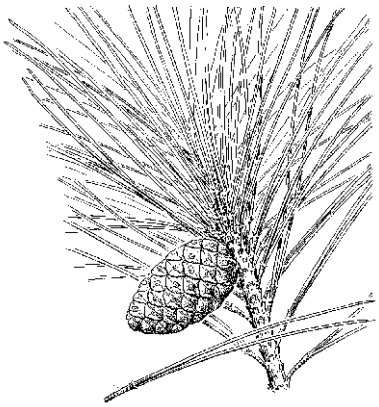
PINUS strobus
White Pine



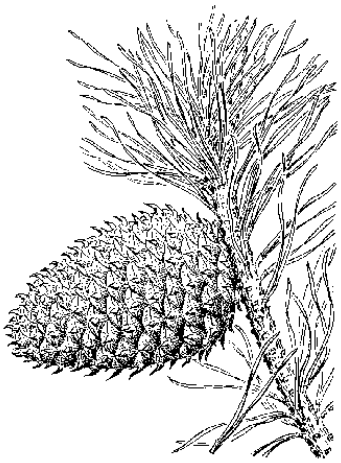
PINUS rigida
Pitch Pine



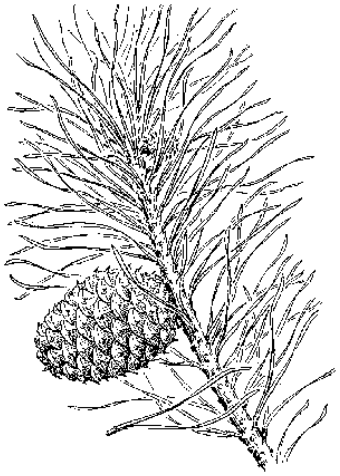
PINUS echinata
Shortleaf Pine



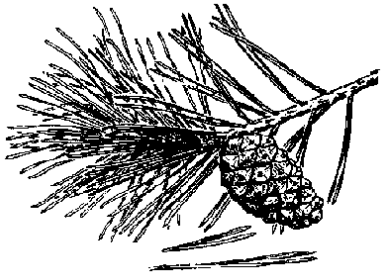
PINUS resinosa
Red Pine



PINUS pungens
Table Mountain Pine



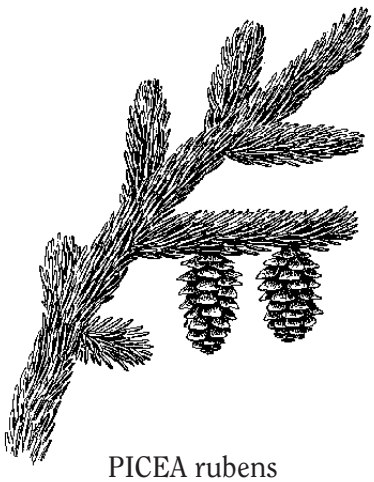
PINUS virginiana
Virginia Pine



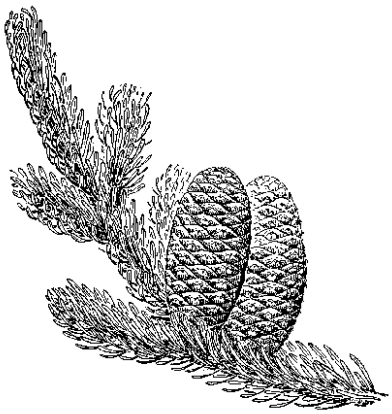
PINUS sylvestris
Scotch Pine

PICEA pungens
Colorado Spruce

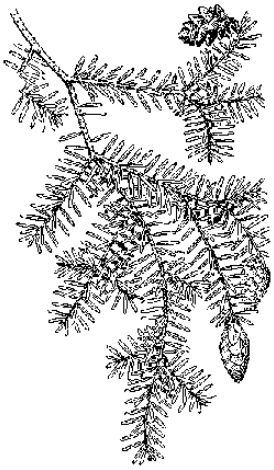
PICEA abies
Norway Spruce



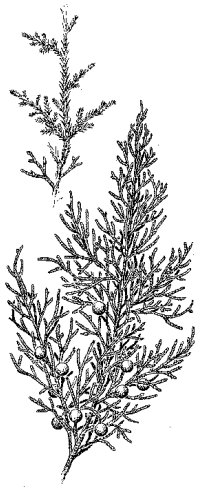
PICEA rubens
Red Spruce



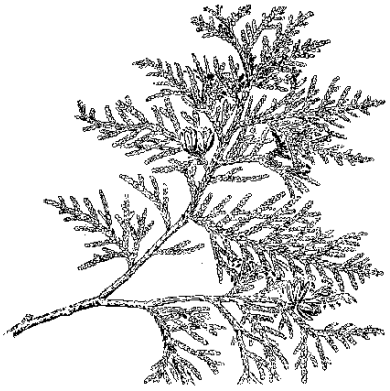
ABIES balsamea
Balsam Fir



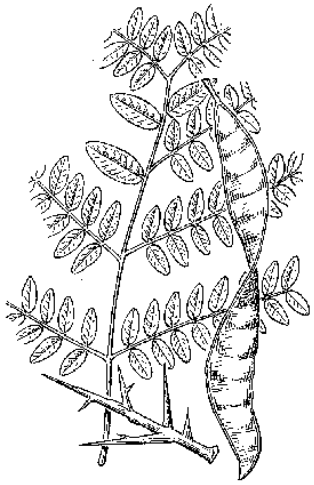
TSUGA canadensis
Eastern Hemlock



JUNIPERUS virginiana
Eastern Redcedar

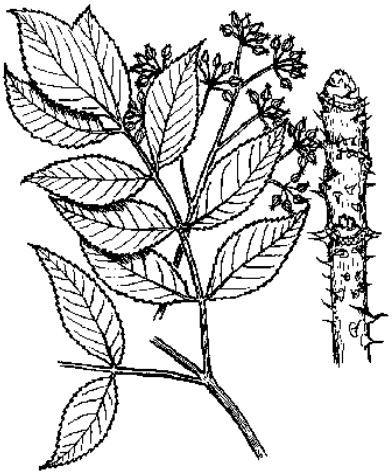


THUJA occidentalis
Arbor Vitae

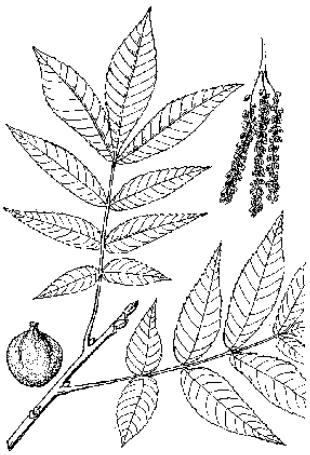


GLEDITSIA triacanthos
Honeylocust

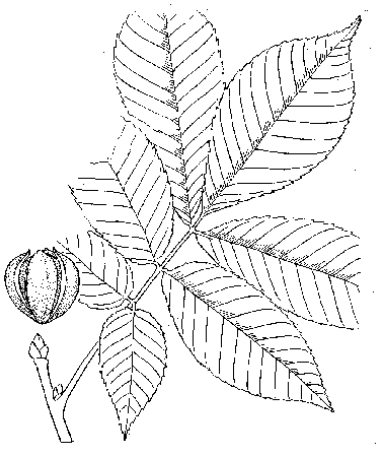
GYMNOCLADUS dioica
Kentucky Coffeetree



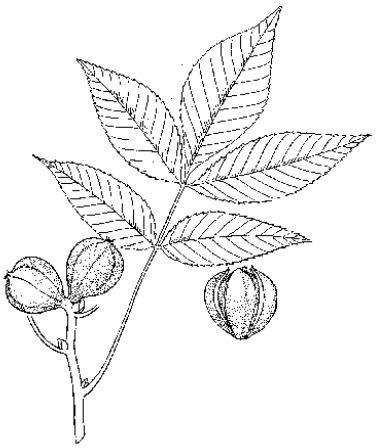
ARALIA spinosa
Hercules' Club



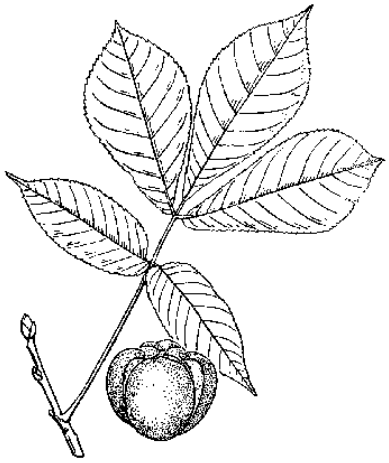
CARYA cordiformis
Bitternut Hickory



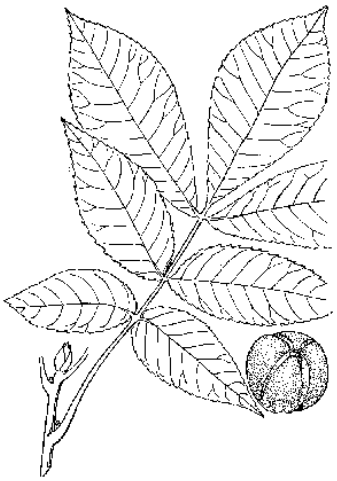
CARYA ovalis
Oval Pignut Hickory



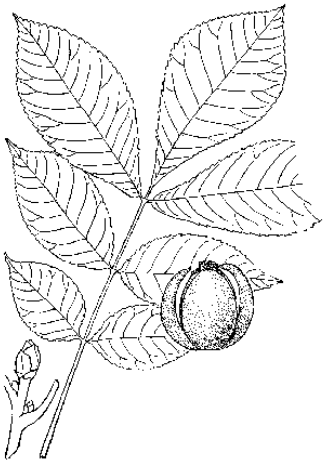
CARYA glabra
Pignut Hickory



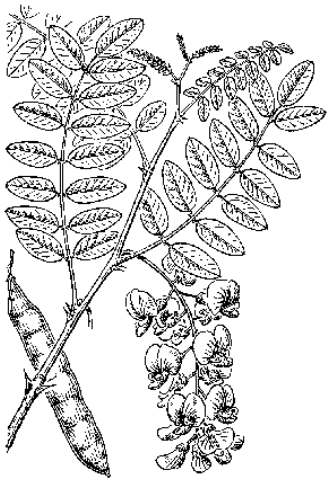
CARYA ovata
Shagbark Hickory



CARYA tomentosa
Mockernut Hickory

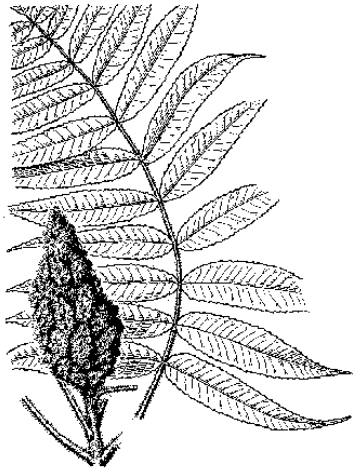


CARYA laciniosa
Shellbark Hickory

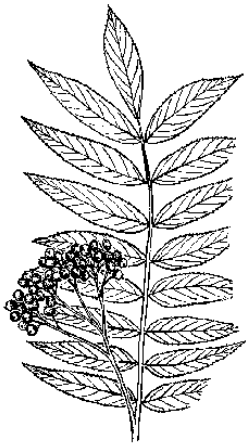


ROBINIA psuedo-acacia
Black Locust

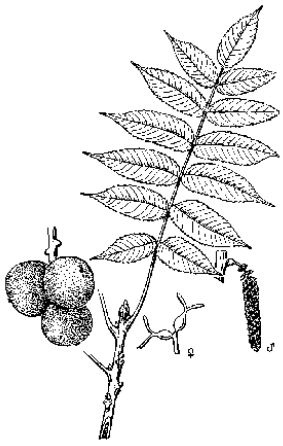
AILANTHUS altissima
Tree-of-Heaven



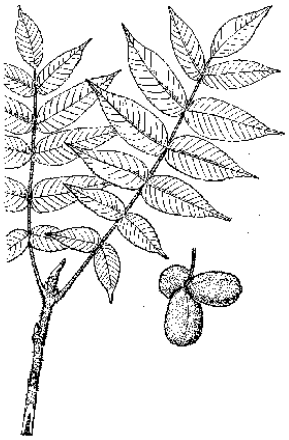
RHUS typhina
Staghorn Sumac



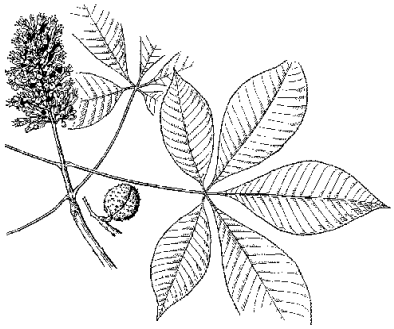
PYRUS americana
American Mountain-ash



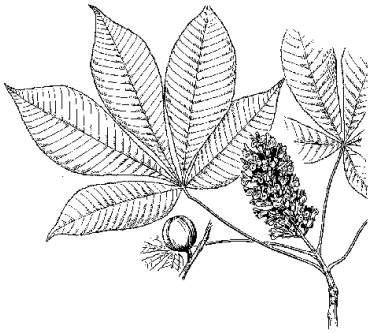
JUGLANS nigra
Black Walnut



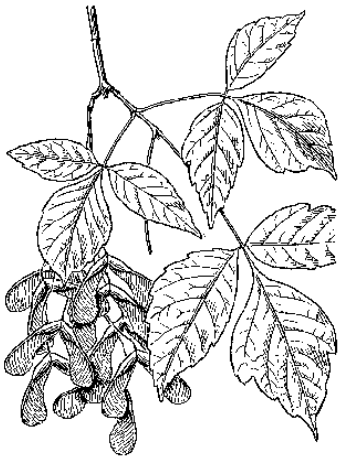
JUGLANS cinerea
White Walnut



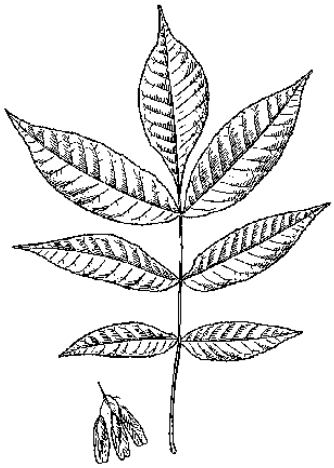
AESCULUS glabra
Ohio Buckeye



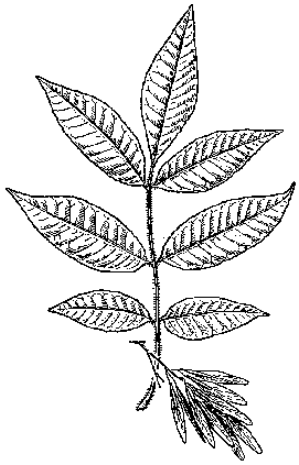
AESCULUS octandra
Yellow Buckeye



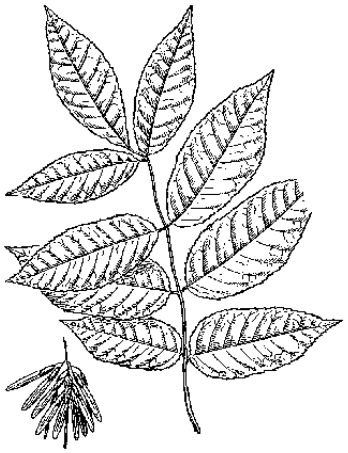
AESCULUS negundo
Boxelder



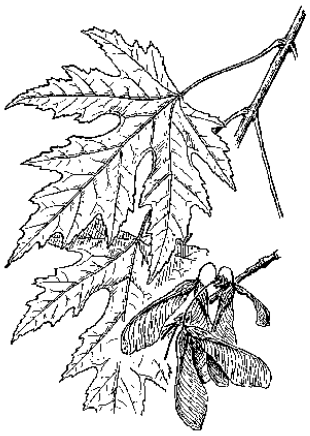
FRAXINUS nigra
Black Ash



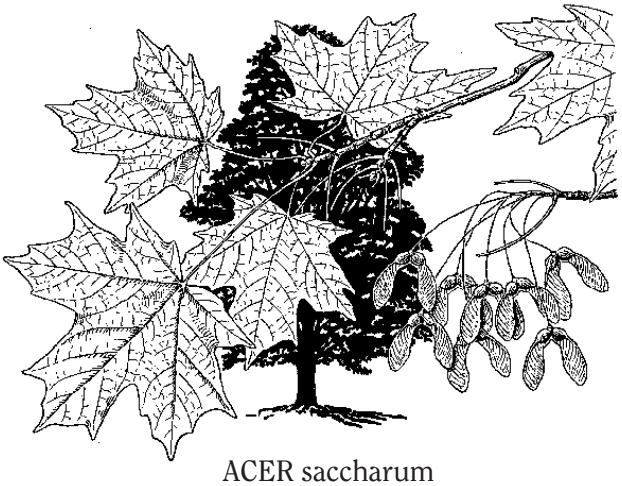
FRAXINUS pennsylvanica
Green Ash



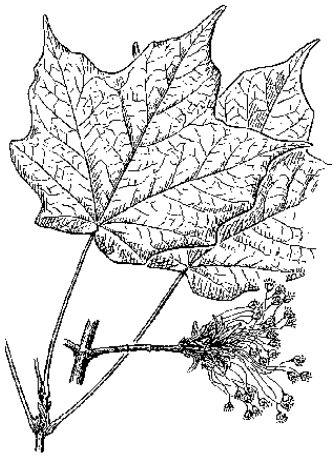
FRAXINUS americana
White Ash



ACER saccharinum
Silver Maple



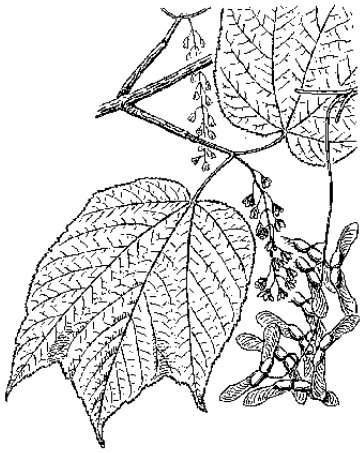
ACER saccharum
Sugar Maple



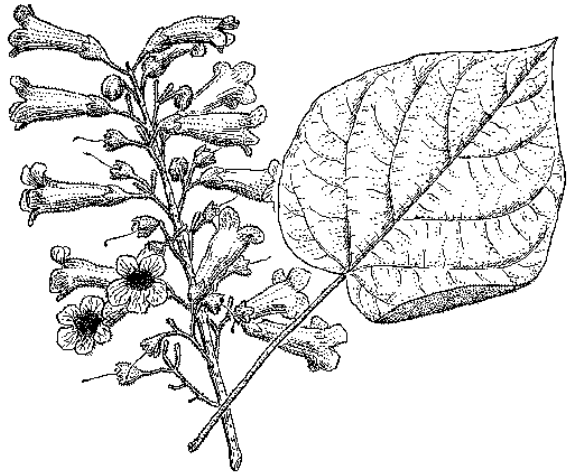
ACER nigrum
Black Sugar Maple

ACER rubrum
Red Maple

ACER spicatum
Mountain Maple

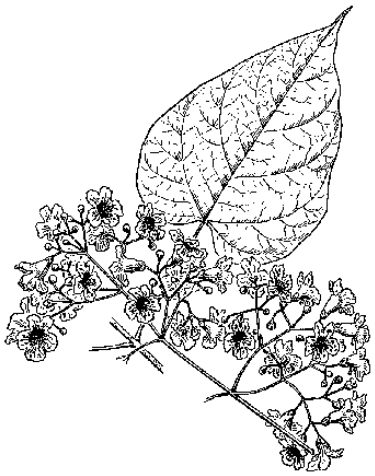


ACER pensylvanicum
Striped Maple



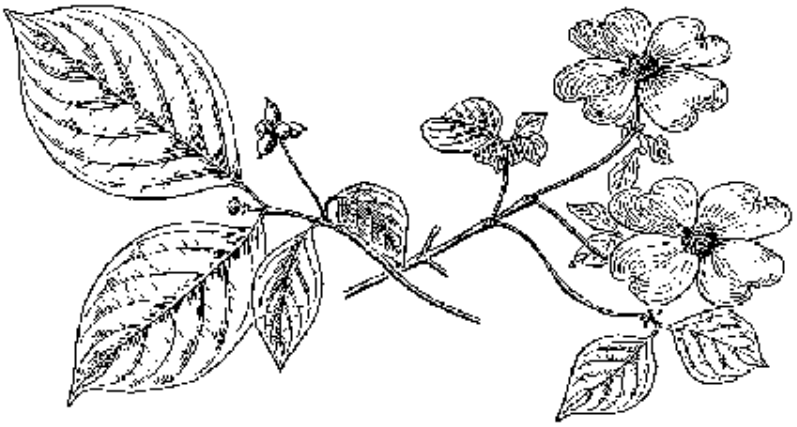
PAULOWNIA tomentosa
Paulownia

CATALPA speciosa
Western Catalpa



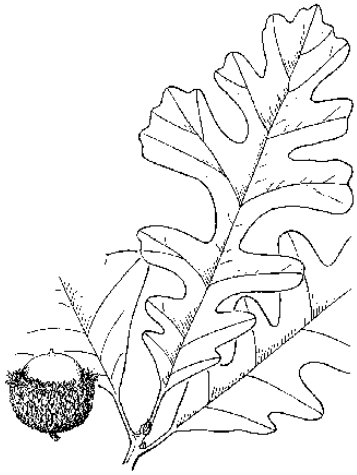
CATALPA bignonioides
Southern Catalpa

VIBURNUM prunifolium
Black Haw

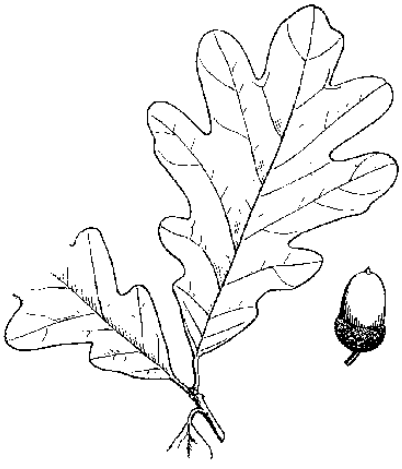


CORNUS florida
Flowering Dogwood

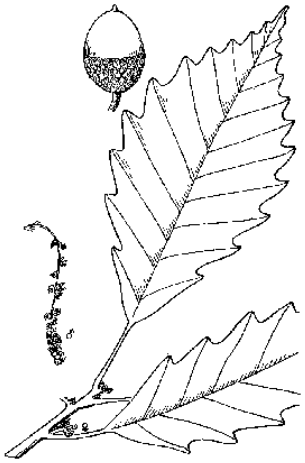
QUERCUS stellata
Post Oak



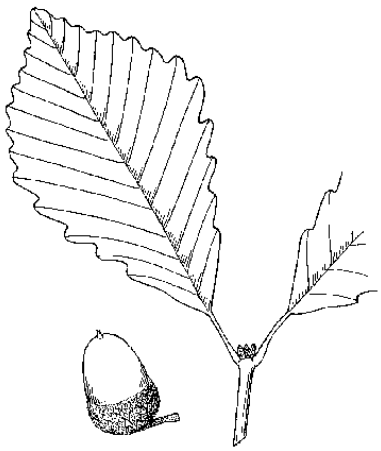
QUERCUS macrocarpa
Bur Oak



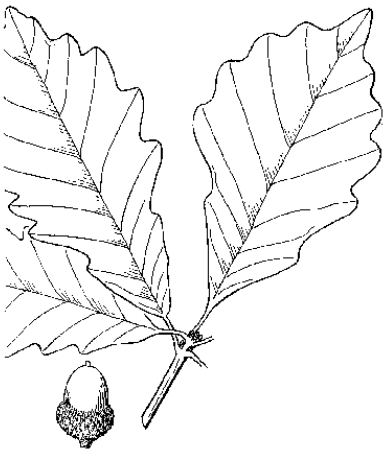
QUERCUS alba
White Oak



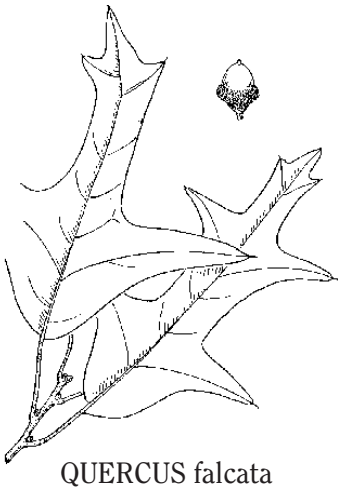
QUERCUS muehlenbergii
Chinquapin Oak



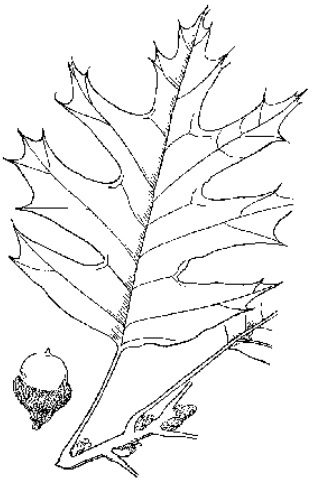
QUERCUS prinus
Chestnut Oak



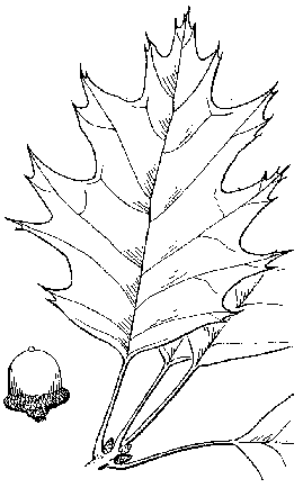
QUERCUS bicolor
Swamp White Oak



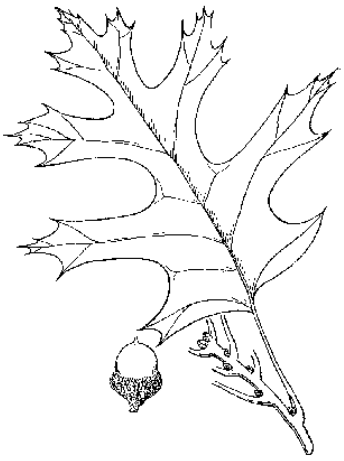
QUERCUS falcata
Southern Red Oak



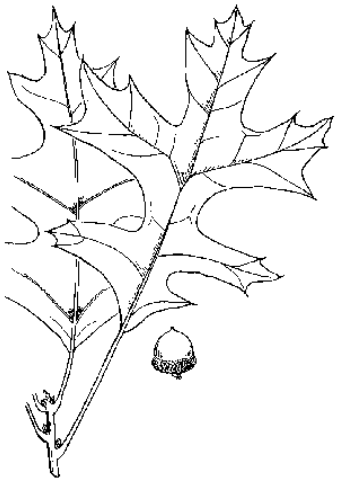
QUERCUS velutina
Black Oak



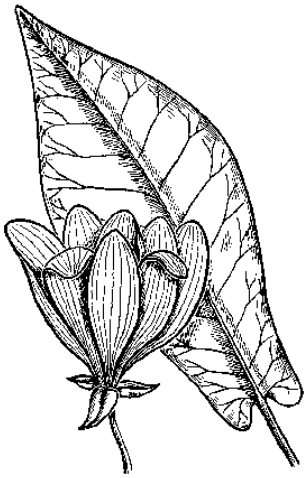
QUERCUS rubra
Red Oak



QUERCUS coccinea
Scarlet Oak



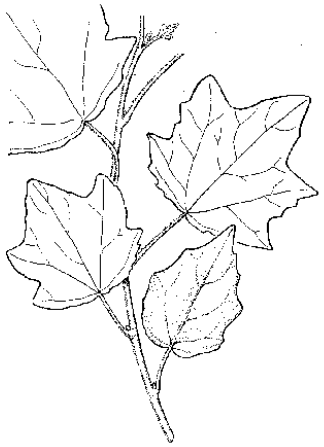
QUERCUS palustris
Pin Oak



MAGNOLIA fraseri
Mountain Magnolia

LIRIODENDRON tulipifera
Tulip Tree

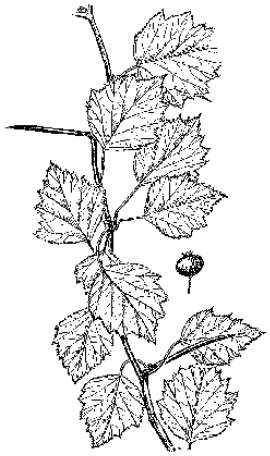
SASSAFRAS albidum
White Sassafras



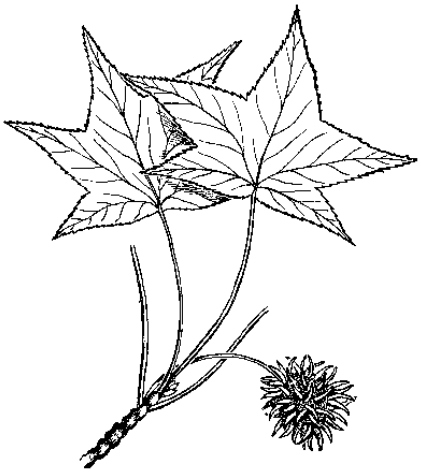
POPULUS alba
White Poplar

PLATANUS occidentalis
Sycamore

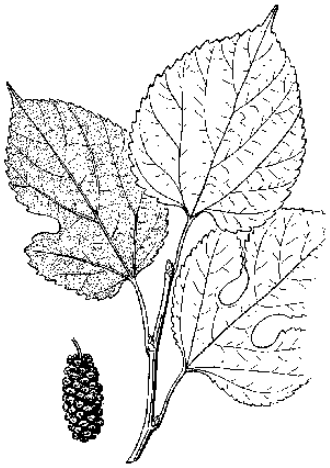
PYRUS coronaria
Wild Crabapple



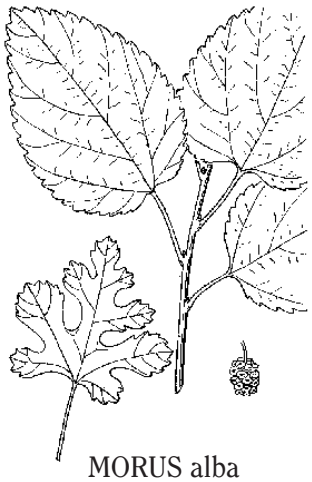
CRATAEGUS macrosperma
Hawthorn



LIQUIDAMBAR styraciflua
Sweetgum



MORUS rubra
Red Mulberry

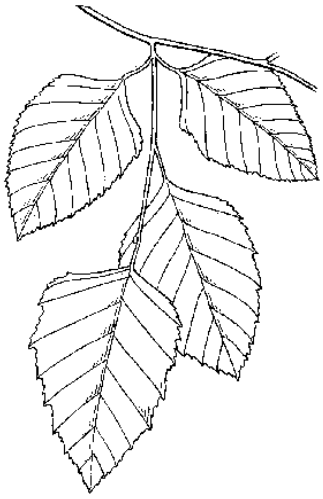


MORUS alba
White Mulberry

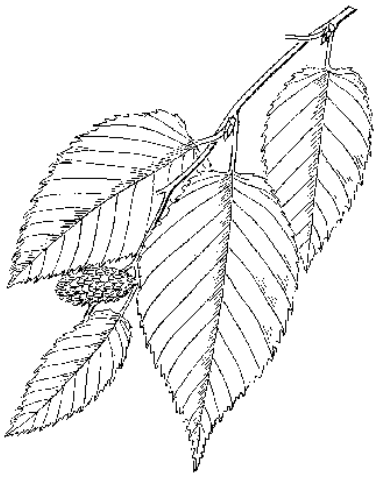
PRUNUS americana
Wild Plum

PRUNUS serotina
Wild Black Cherry

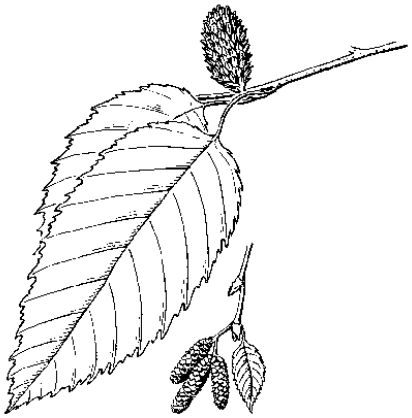
PRUNUS pensylvanica
Fire Cherry



BETULA nigra
River Birch

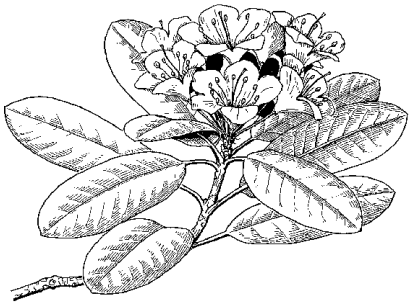


BETULA lenta
Black Birch

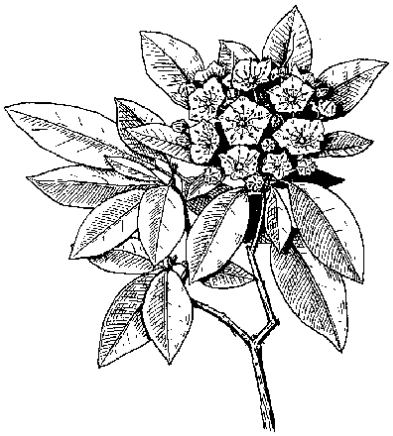


BETULA alleghaniensis
Yellow Birch

ILEX opaca
American Holly



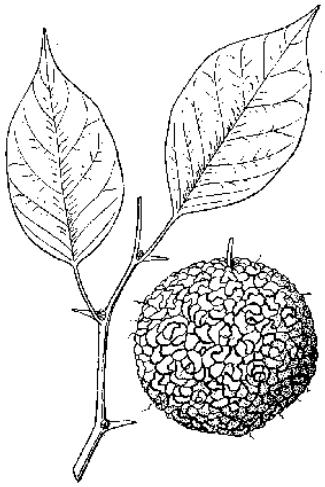
RHODODENDRON catawbiense
Purple Laurel



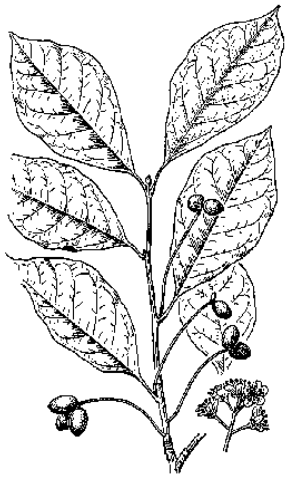
KALMIA latifolia
Mountain Laurel

RHODODENDRON maximum
Rhododendron

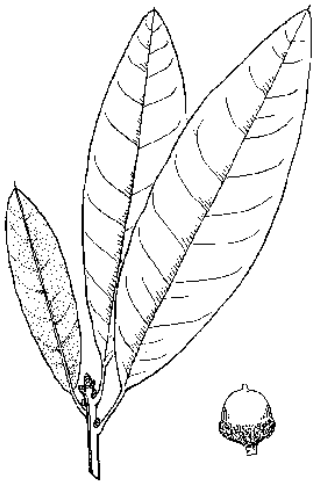
CERCIS canadensis
Redbud



MACLURA pomifera
Osage-orange



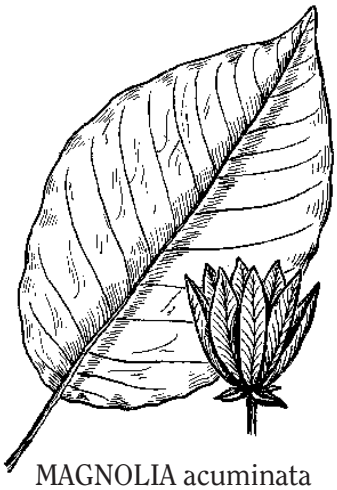
NYSSA sylvatica
Black Gum



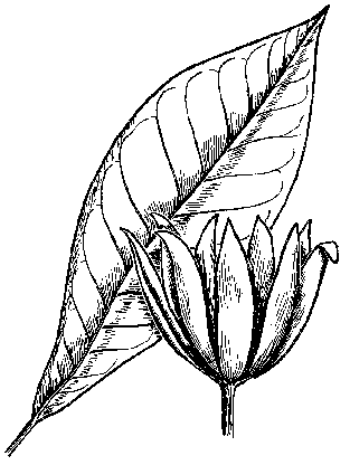
QUERCUS imbricaria
Shingle Oak

DIOSPYROS virginiana
Persimmon

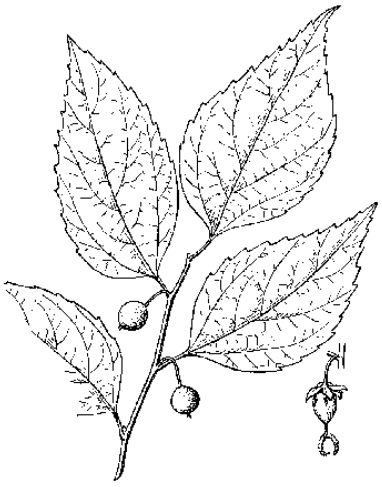
ASIMINA triloba
Pawpaw



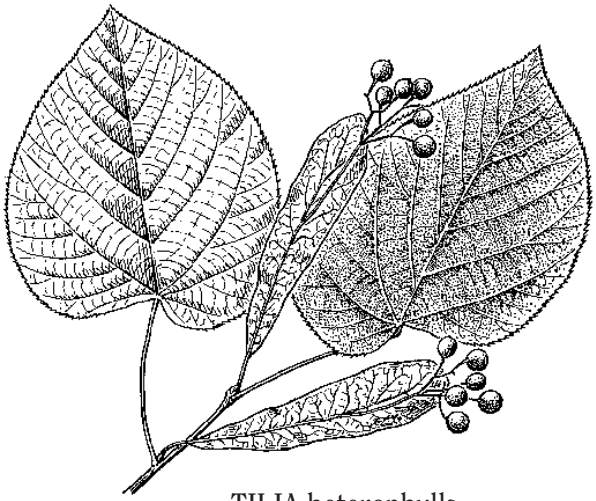
MAGNOLIA acuminata
Cucumber-tree



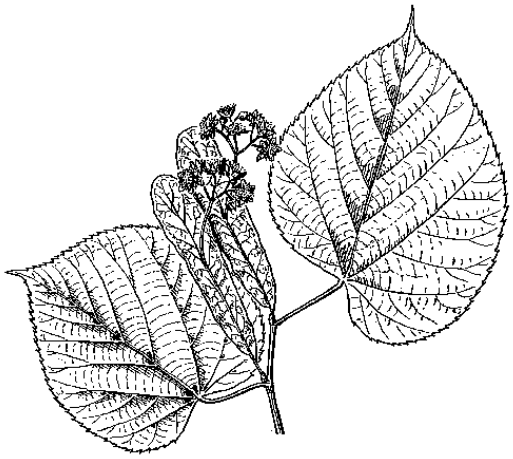
MAGNOLIA tripetala
Umbrella Magnolia



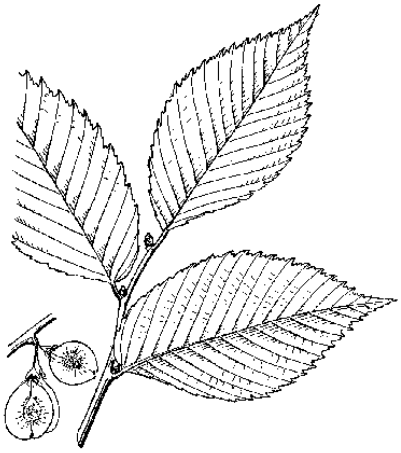
CELTIS occidentalis
American Hackberry



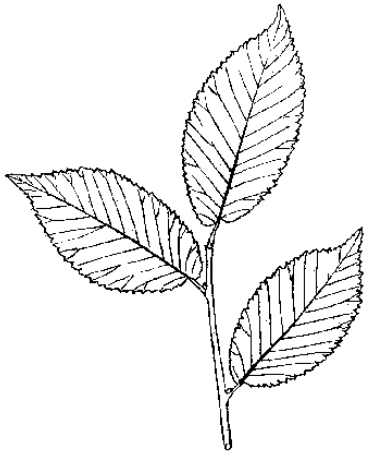
TILIA heterophylla
White Basswood



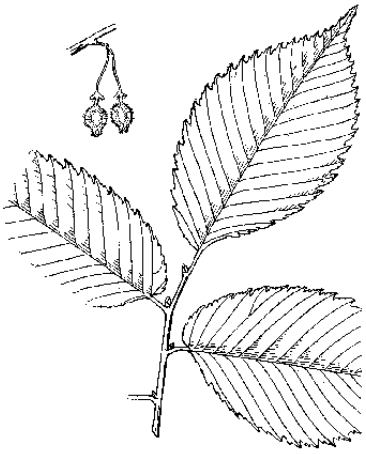
TILIA americana
American Basswood



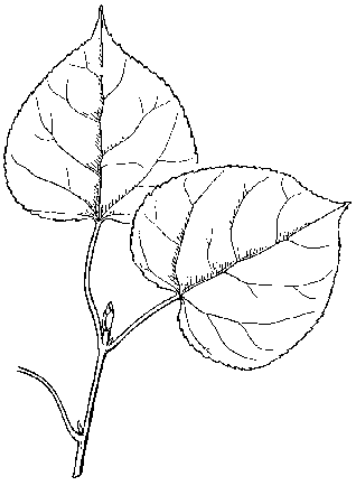
ULMUS rubra
Slippery Elm



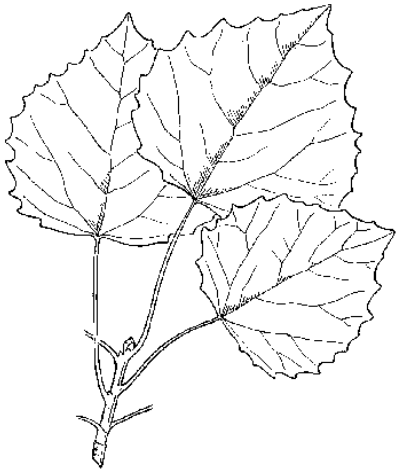
ULMUS pumila
Siberian Elm



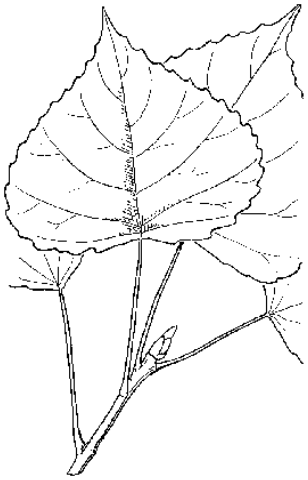
ULMUS americana
American Elm



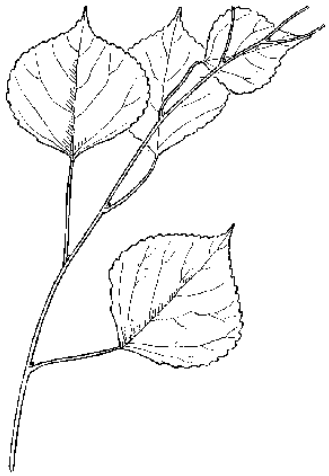
POPULUS gileadensis
Balm-of-Gilead



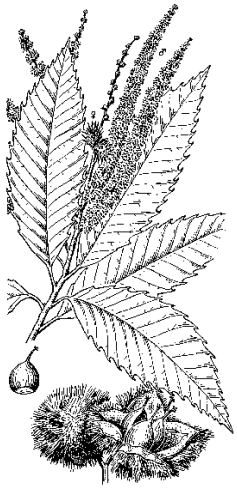
POPULUS grandidentata
Bigtooth Aspen



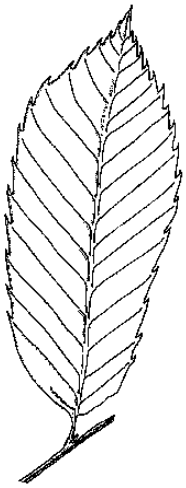
POPULUS deltoides
Eastern Cottonwood



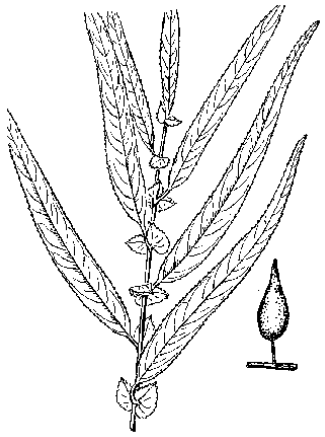
POPULUS tremuloides
Quaking Aspen



CASTANEA dentata
American Chestnut

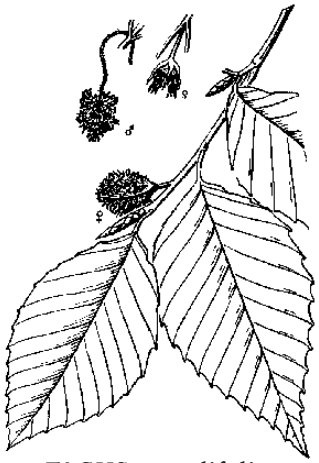


CASTANEA mollissima
Chinese Chestnut

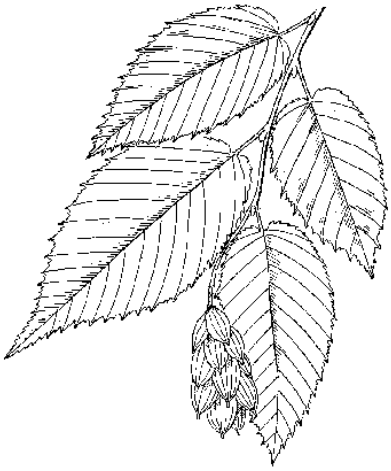


SALIX nigra
Black Willow

OXYDENDRUM arboreum
Sourwood

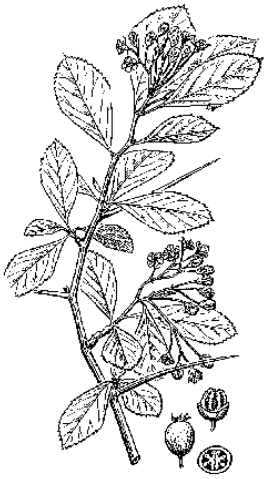


FAGUS grandifolia
American Beech

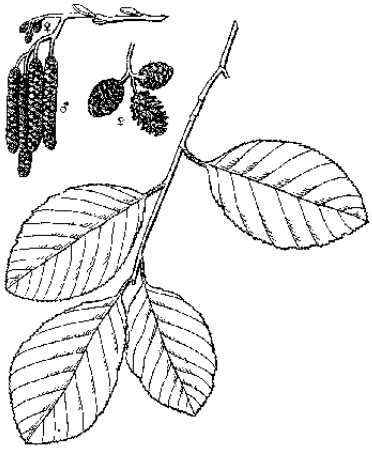


OSTRYA virginiana
Hop Hornbeam

CARPINUS caroliniana
American Hornbeam



CRATAEGUS crus-galli
Hawthorn



ALNUS rugosa
Speckled Alder

AMELANCHIER arborea
Serviceberry

LEAF RECORD SHEET I

Fill in the required information about the leaves in your collection.

Common Name	Where Collected	Habitat	Date Collected	Fruit Collected
Example: White Pine	Laurel Creek	Swamp	July 3, 1995	Yes

LEAF RECORD SHEET II

Fill in the required information about the leaves in your collection.

Common Name	Where Collected	Habitat	Date Collected	Fruit Collected
Example: White Oak	Jackson's Mill	Dry Hillside	June 20, 1995	No

FRUIT/SEED RECORD SHEET

Fill in the required information about the fruits/seeds in your collection.
(Specify fruit, seed, or both.)

Common Name	Where Collected	Habitat	Date Collected	Fruit/Seed Collected
Example: Sugar Maple	Center Park	Near Ballfield	July 4, 1995	Seed

Project Checklist

Have you:

____ Learned how to identify our more important forest trees?

____ Learned how to build a plant press or display box?

____ Learned how to collect and mount leaves, seeds, and fruit?

____ Learned how to identify the items you collected and mounted?

____ Filled in your record sheet?

____ Given a visual presentation or illustrated talk on this project?

____ Had your parent/s and leader review your completed record?

____ Completed a project evaluation and forwarded it to either your 4-H leader or State 4-H Office?

4-H Project Evaluation

Now that you have finished this project, it is time for you to think about what you have learned. We also would like to know what you have learned and if the project needs to be improved. Your comments will help the people who write the projects. Please write answers to the following questions. Then give this form to your 4-H leader or mail it to:

Project Evaluation
State 4-H Office
Knapp Hall, P.O. Box 6031
Morgantown, WV 26506-6031

Title of Project Tree Identification

Tree Identification _____

Girl Boy *(circle one)* Age _____ Grade in School _____ Years in 4-H _____

1. Was this your first project in this subject? _____
2. Why did you pick this project? _____
   _____
3. What was your favorite part of this project? _____
   _____
4. By doing this project, what did you learn that you didn't know before? _____
   _____
5. Did you do the activities in the project book? Why or why not? _____
   _____
6. Did you like doing the activities in the project book? Why or why not? _____
   _____
7. How would you change this project to make it better? _____
   _____
8. Would you tell others to take this project? Why or why not? _____
   _____
9. What other 4-H projects have you taken? _____
   _____
10. If you have something else to say, write it on the back.

Score Sheet

The work of each 4-H member will be scored as follows:

_____		Points possible	Points earned
YEAR 1			
Collect, press, mount, and label leaves from 20 trees		60	_____
Leaf Record Sheet information		20	_____
Activity Record		20	_____
	Total	**100**	_____
_____			
YEAR 2 OR 3			
Collect, press, mount, and label leaves from 20 trees *(different than Year 1's)*		60	_____
Leaf Record Sheet information		20	_____
Activity Record		20	_____
	Total	**100**	_____
_____			
YEAR 2 OR 3			
Collect, press, mount, and label fruits/seeds from 20 trees		60	_____
Fruit/Seed Record Sheet information		20	_____
Activity Record		20	_____
	Total	**100**	_____

References:

Strausbaugh, P.D. and E.L. Core, 1977. Flora of West Virginia, 2nd Edition, Seneca Books, Grantsville, West Virginia, 1,079 pages.

Core, E.L. and R.L. Guthrie, 1977. Forest Trees of West Virginia, 7th Edition. West Virginia Division of Natural Resources, 119 pages. This low-cost booklet can be purchased at most West Virginia Division of Forestry offices.