

Leaf Key to Common Trees in Maryland

Bulletin 238



Prepared by:
John F. Kundt
Extension forestry specialist

Robert L. Baker
Retired
Department of Horticulture

Extension Bulletin 238
Published 1970
Reprinted 1983-84

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914 in cooperation with the U.S. Department of Agriculture, University of Maryland and local governments. Craig S. Oliver, Director of Cooperative Extension Service, University of Maryland.

The University of Maryland is an equal opportunity institution with respect to both education and employment. The university's policies, programs and activities are in conformance with pertinent federal and state laws and regulations on nondiscrimination regarding race, color, religion, age, national origin, sex and handicap. Inquiries regarding compliance with Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Educational Amendments; Section 504 of the Rehabilitation Act of 1973; or related legal requirements should be directed to the Human Resources Coordinator, Maryland Cooperative Extension Service, University of Maryland, Room 1214, Symons Hall, College Park, Maryland 20742.

Trees are Important to You!

Ecology, an ever growing concept in our society today, relates nature to you. Trees are important to your every breath, as well as to your way of life—beauty, shade, lumber for housing and furniture, paper for numerous uses.

Maryland has over 150 different species of trees native to the state. Others have been imported for their fruits, nuts or ornamental features. By using this bulletin, you can become familiar with trees that are important to you ecologically, economically, and aesthetically.

LEAF KEY TO COMMON TREES OF MARYLAND

This bulletin is designed to help identify the common trees of Maryland. These include:

1. Those native to Maryland and most likely to be found in our fields and forests. Some of these occur naturally in our towns and cities or have been planted.
2. Those not native to Maryland and introduced from other sections of the United States or from foreign countries. These are most likely to be seen as shade or ornamental plants. Several, like *Ailanthus* and *Paulownia*, have been distributed naturally and appear in wayside areas.

The simple key on page 2 groups together the common trees of Maryland having similar leaf characteristics. Read the descriptions at each numbered heading and by process of elimination, determine that group to which the leaf of any unknown tree belongs and refer to the pages indicated. Match the leaf with the illustration it most closely resembles to find its name.

Diagrams of the leaf characters in the key are shown on page 3. Leaf descriptions are repeated in the upper corner of each page throughout the key. They indicate the leaf types appearing on that page.

An important feature of the key is whether the leaves are opposite or alternate on the twigs. This must be noted and remembered, especially if leaves from several trees are to be gathered at one time and identified later.

Trees with alternate leaves also have alternate twigs and branches. Those with opposite leaves have opposite twigs and branches. Gather several leaves or carefully

examine the branching habits of any tree to be identified. Frequently, a leaf, twig or branch may have died on an opposite-leaved species, and the tree appears to be an alternate type.

The leaves of all trees frequently vary widely in size. Those on stump sprouts may often be three times larger than normal. Leaves will be smaller than usual during dry years or on trees growing in poor sites.

The leaves of all trees vary greatly in form. No two leaves on any single tree are precisely alike. Those on the lower branches may be somewhat different than those higher in the tree. Leaves of Black Oak, in particular, are extremely variable in form and shape. In using this key, try to pick a leaf that appears average in size and form for each tree.

Leaves of mulberry and sassafras trees may be either entire or lobed. Each is keyed-out and illustrated under both headings.

Oak trees hybridize readily and the offspring of these crosses are difficult to identify. Hybrids of willow oak and southern red oak, for example, will often have leaves typical of both parents and all variations between them on a single branch. The parents of such hybrids can sometimes be determined by using two or more leaves that repeatedly show the widest variation in form.

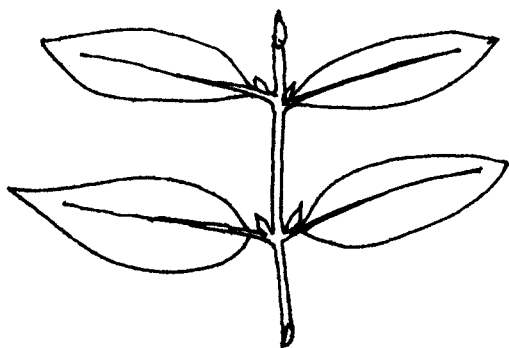
A few Maryland tree species have leaves almost alike. These will have an additional feature illustrated to aid in their identification.

The illustrations in the key have been drawn proportionately to a one-inch scale as indicated by the bracket in each drawing.

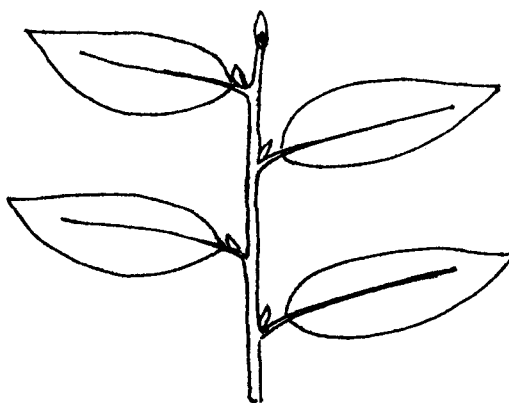
LEAF KEY

	Drawing Nos.
I. Leaves broad; definitely not needle-like or scale-like; mostly deciduous.	
A. Leaves alternate on the twigs	
1. Leaves compound	1-18
2. Leaves simple	
a. Leaf margins entire	19-33
b. Leaf margins toothed	34-64
c. Leaves lobed	65-86
B. Leaves opposite on the twigs	
1. Leaves compound	87-93
2. Leaves simple	
a. Leaf margins entire	94-97
b. Leaf margins toothed	98
c. Leaves lobed	99-106
II. Leaves needle-like or scale-like; mostly evergreen.	
A. Leaves needle-like	107-126
B. Leaves scale-like	127-130

Leaf Characters



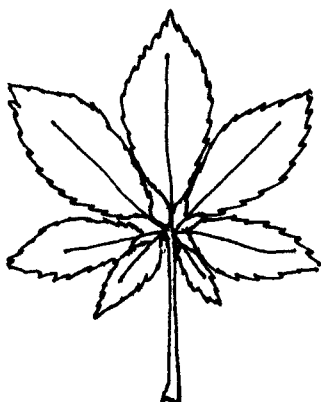
OPPOSITE



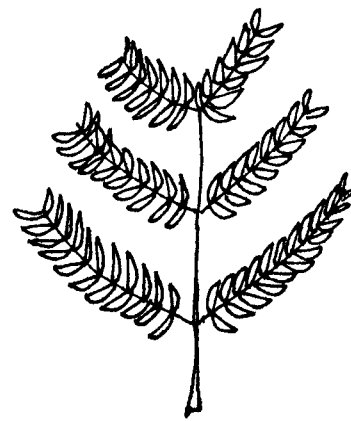
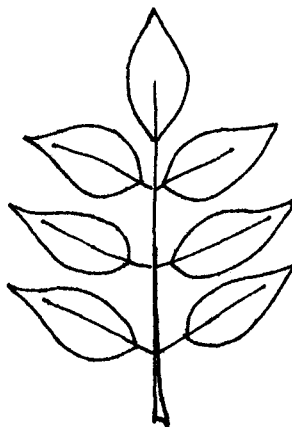
ALTERNATE



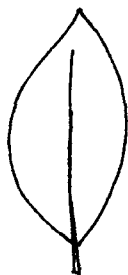
SIMPLE



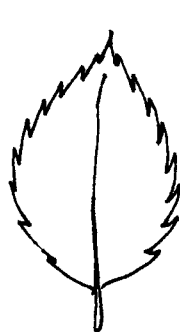
COMPOUND



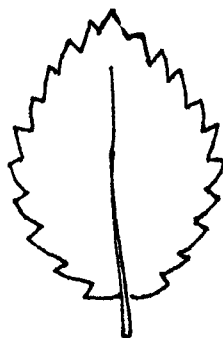
DOUBLY COMPOUND



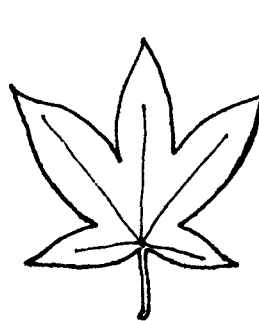
ENTIRE



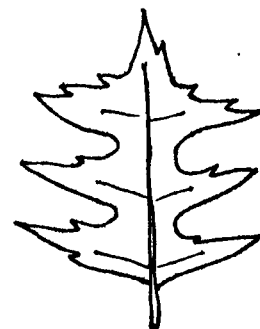
SERRATE



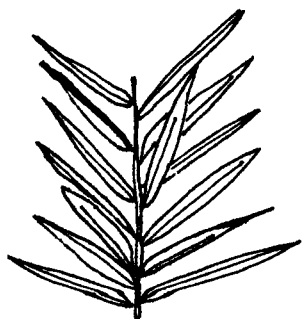
DENTATE



LOBED



SCALE-LIKE



SINGLE

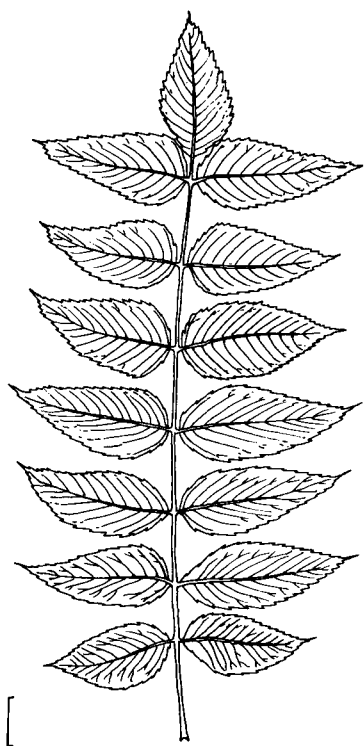


BUNDLES

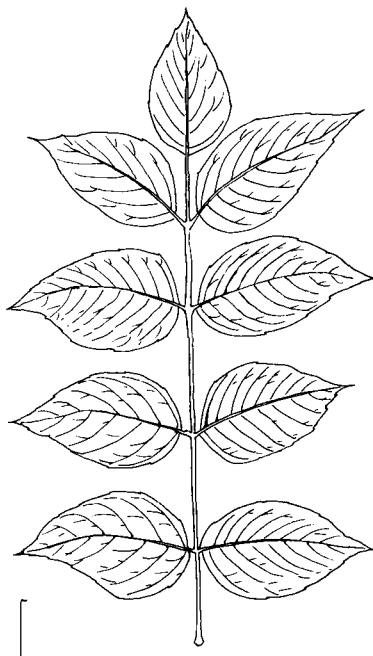


NEEDLE-LIKE

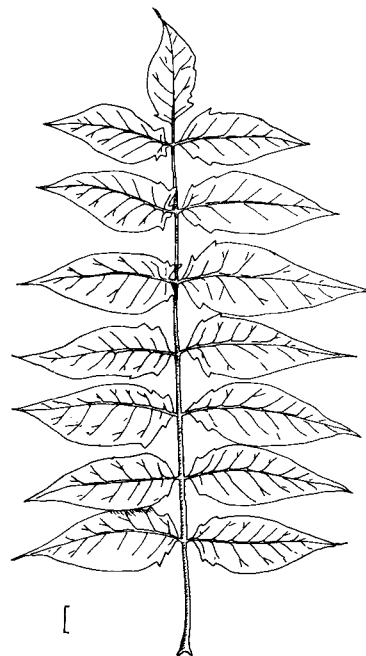
Alternate, Compound



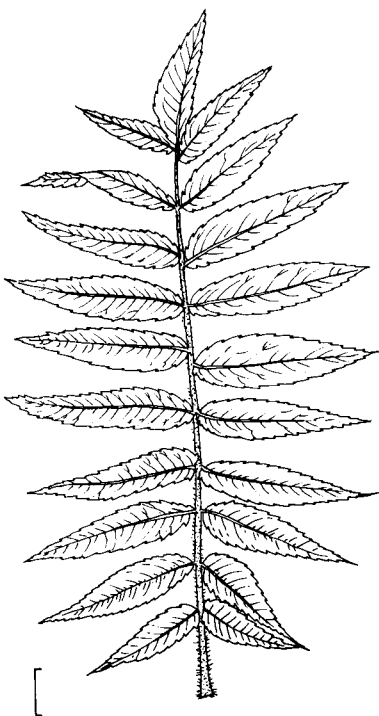
1. *Juglans nigra*
Black Walnut



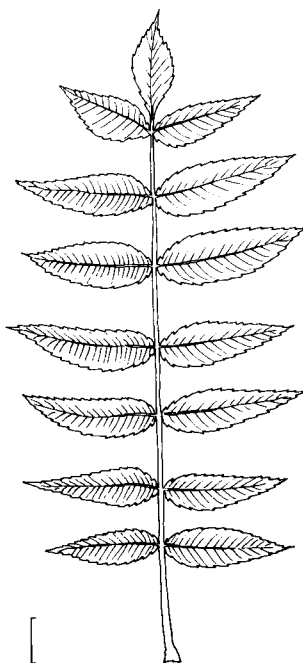
2. *Juglans regia*
English Walnut



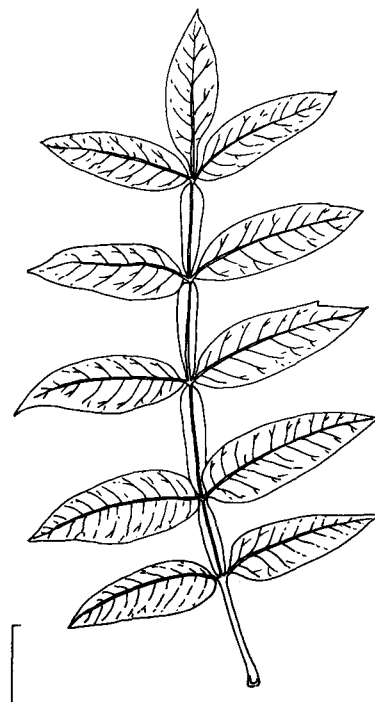
3. *Ailanthus altissima*
Tree of Heaven



4. *Rhus typhina*
Staghorn Sumac

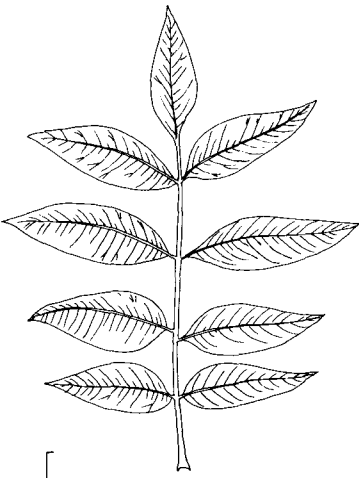


5. *Rhus glabra*
Smooth Sumac

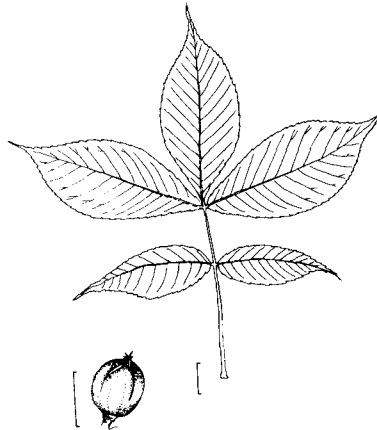


6. *Rhus copallina*
Shining Sumac

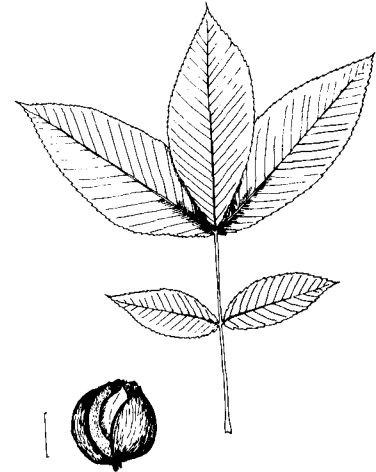
Alternate, Compound



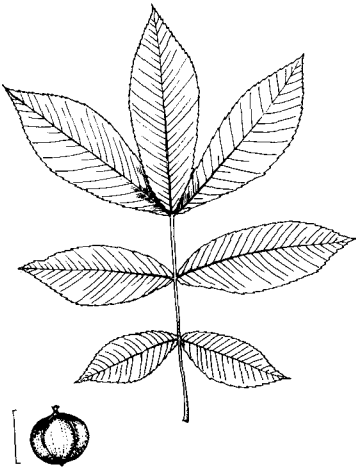
7. *Rhus vernix*
Poison Sumac



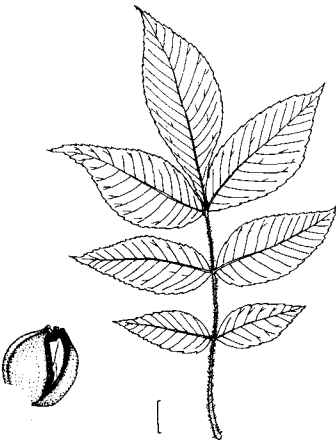
8. *Carya glabra*
Pignut Hickory



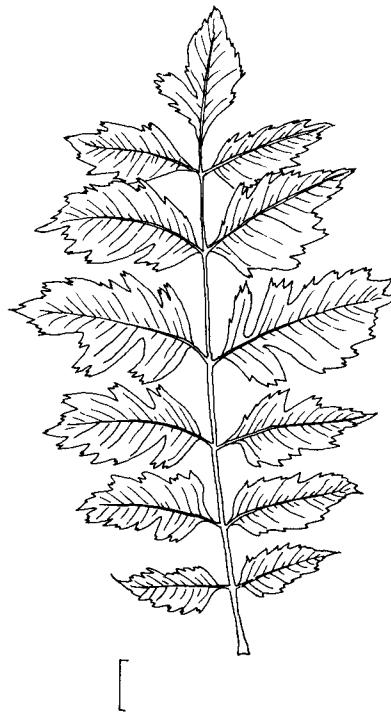
9. *Carya ovata*
Shagbark Hickory



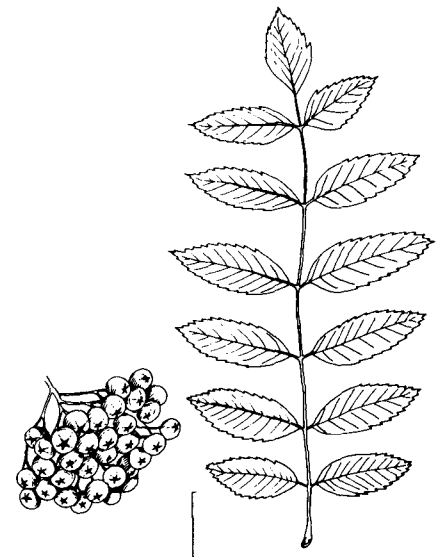
10. *Carya cordiformis*
Bitternut Hickory



11. *Carya tomentosa*
Mockernut Hickory

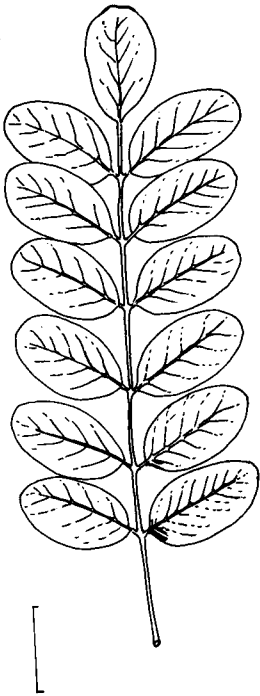


12. *Koelreuteria paniculata*
Golden-rain Tree

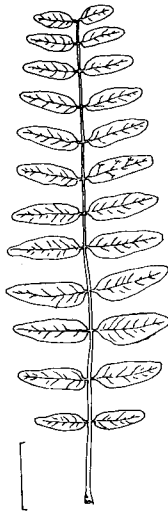


13. *Sorbus aucuparia*
European Mountain Ash

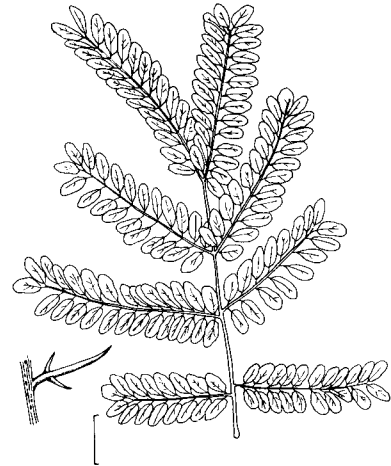
Alternate, Compound



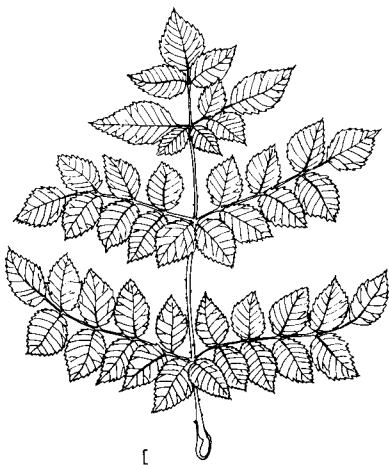
14. *Robinia pseudacacia*
Black Locust



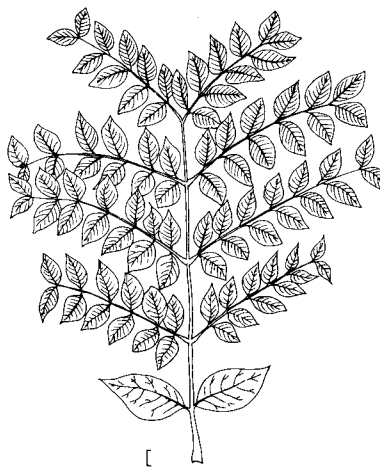
15a. *Gleditsia triacanthos*
Honey Locust
(compound leaf)



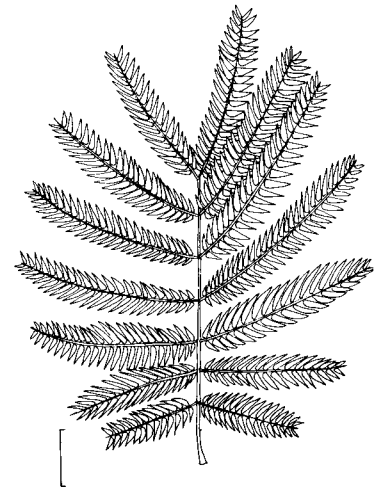
15b. *Gleditsia triacanthos*
(doubly-compound leaf)
Honey Locust



16. *Aralia spinosa*
Devil's Walkingstick

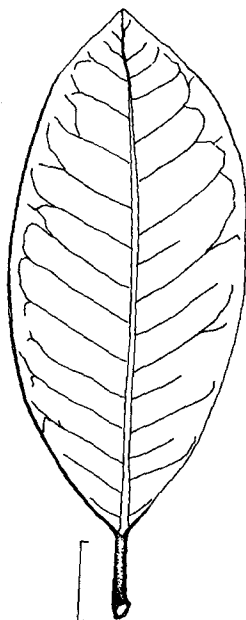


17. *Gymnocladus dioica*
Kentucky Coffee Tree

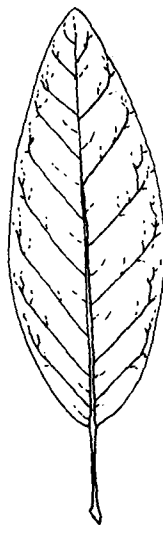


18. *Albizia julibrissin*
Mimosa

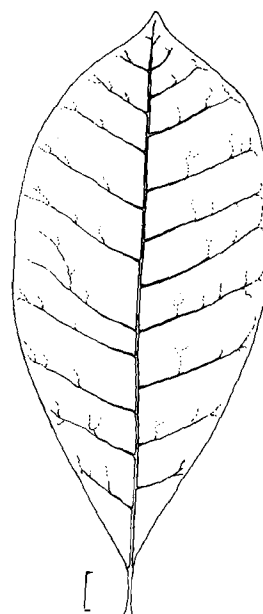
Alternate, Simple, Entire



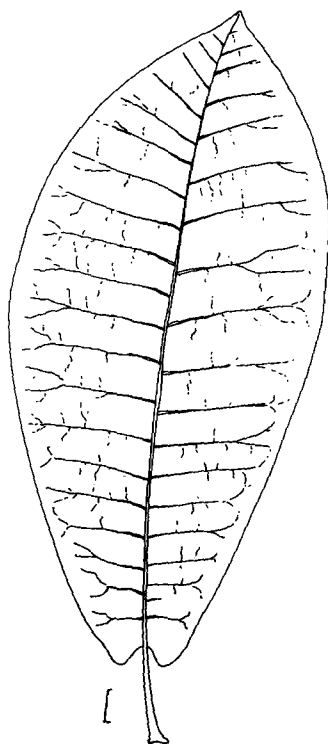
19. *Magnolia grandiflora*
Southern Magnolia



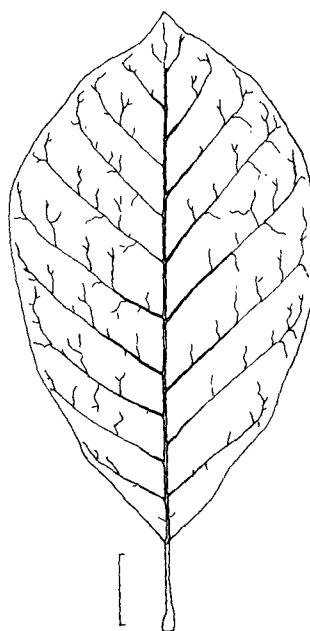
20. *Magnolia virginiana*
Sweetbay Magnolia



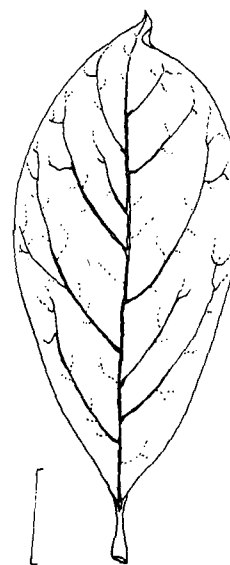
21. *Magnolia tripetala*
Umbrella Magnolia



22. *Magnolia macrophylla*
Bigleaf Magnolia

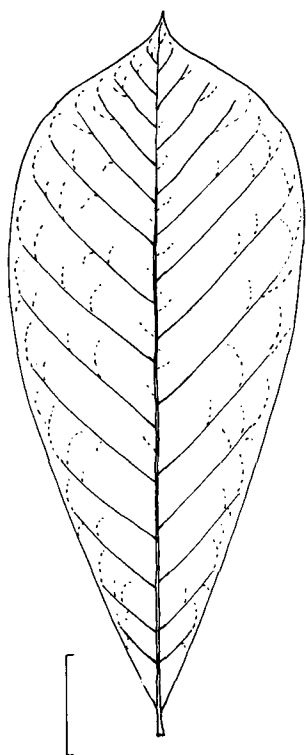


23. *Magnolia acuminata*
Cucumber Tree

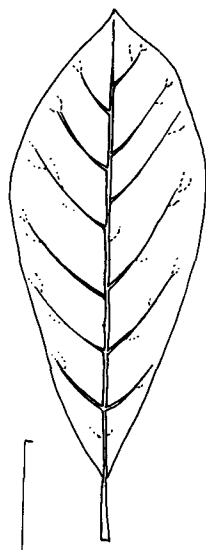


24. *Magnolia soulangeana*
Saucer Magnolia

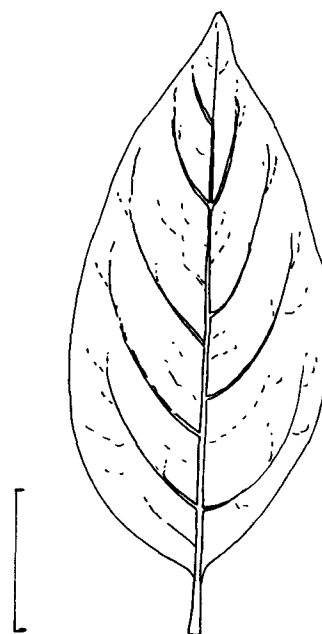
Alternate, Simple, Entire



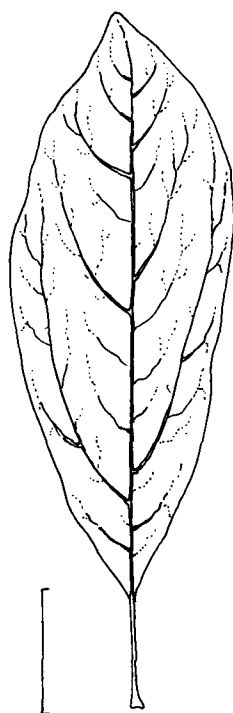
25. *Asimina triloba*
Pawpaw



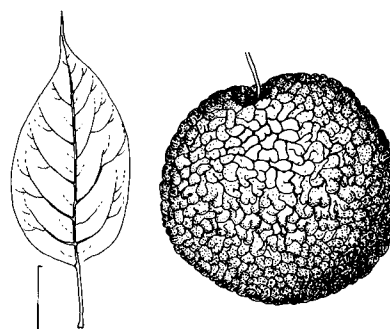
26. *Nyssa sylvatica*
Black Gum



27. *Diospyros virginiana*
Persimmon

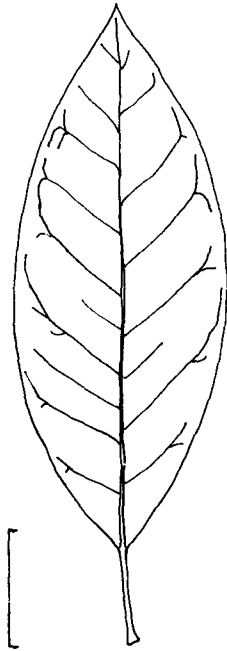


28. *Sassafras albidum*
Sassafras



29. *Maclura pomifera*
Osage Orange

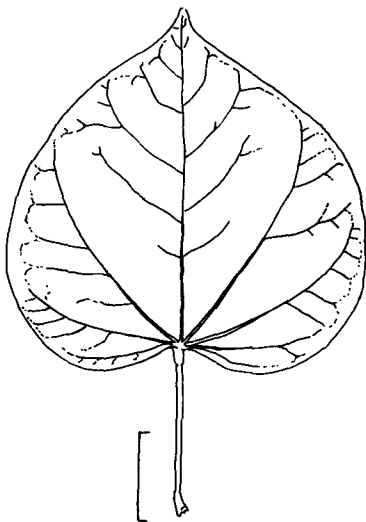
Alternate, Simple, Entire



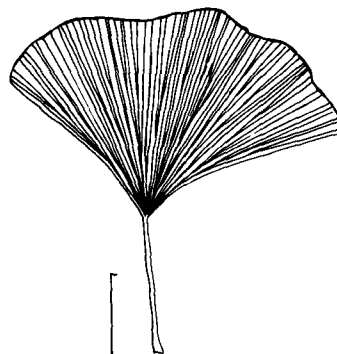
30. *Quercus imbricaria*
Shingle Oak



31. *Quercus phellos*
Willow Oak

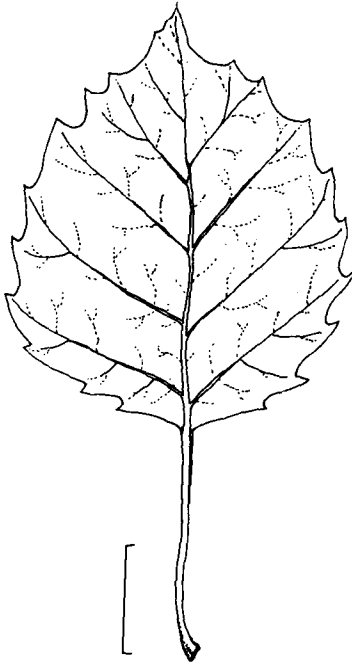


32. *Cercis canadensis*
Redbud

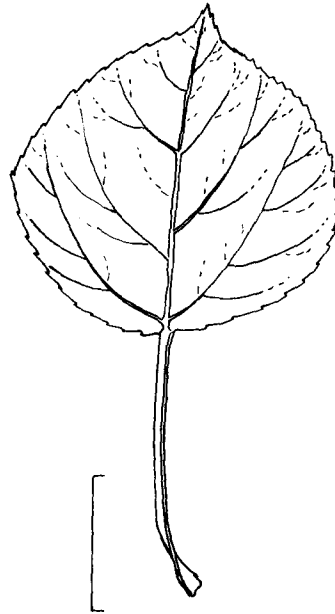


33. *Ginkgo biloba*
Ginkgo

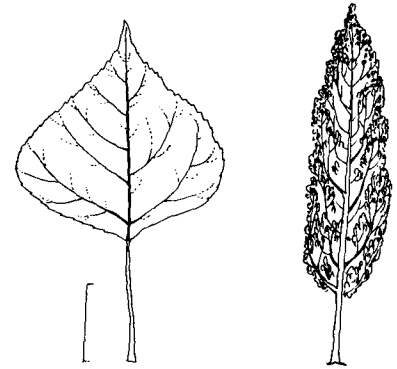
Alternate, Simple, Toothed



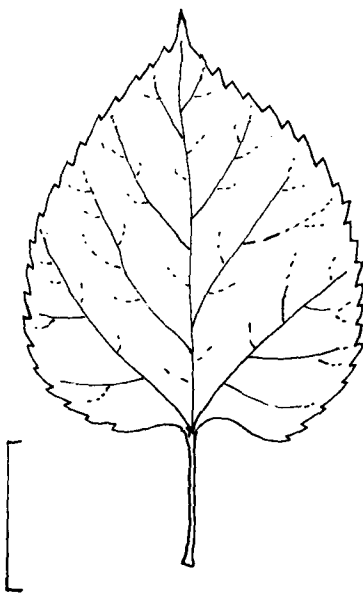
34. *Populus grandidentata*
Bigtooth Aspen



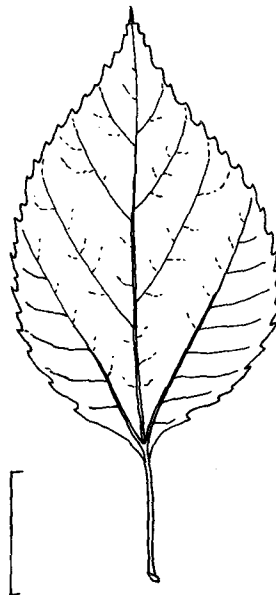
35. *Populus tremuloides*
Quaking Aspen



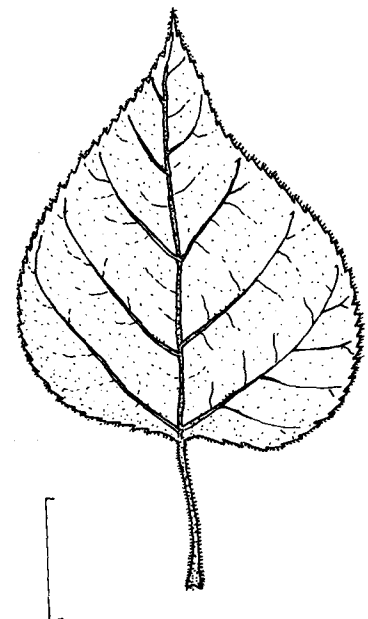
36. *Populus nigra* 'Italica'
(leaf & tree shape)
Lombardy Poplar



37. *Morus alba*
White Mulberry

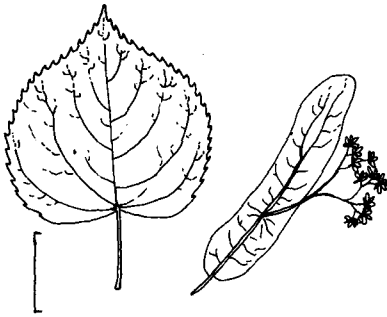


38. *Morus rubra*
Red Mulberry

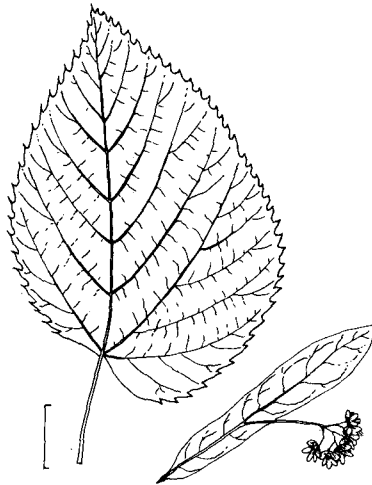


39. *Broussonetia papyrifera*
Paper Mulberry

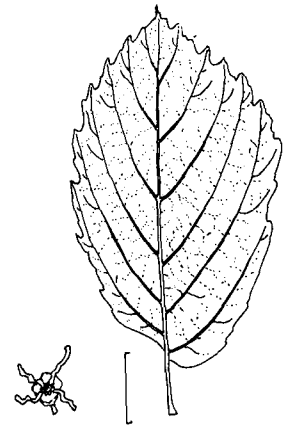
Alternate, Simple, Toothed



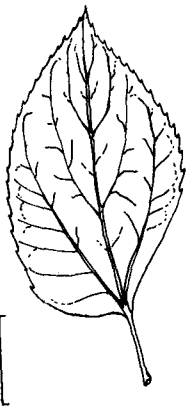
40. *Tilia cordata*
Littleleaf Linden



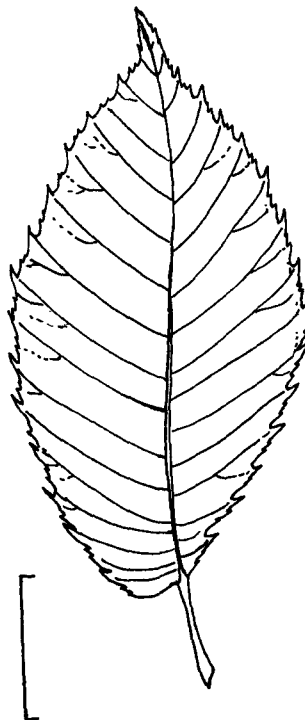
41. *Tilia americana*
Basswood



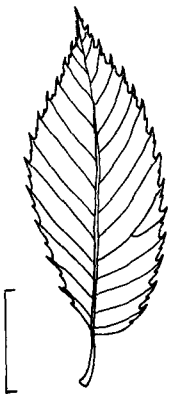
42. *Hamamelis virginiana*
Witch-hazel



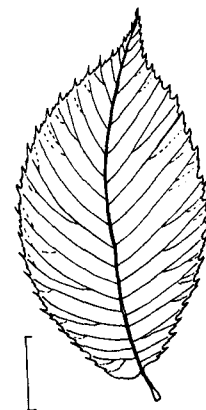
43. *Celtis occidentalis*
Hackberry



45. *Ulmus americana*
American Elm

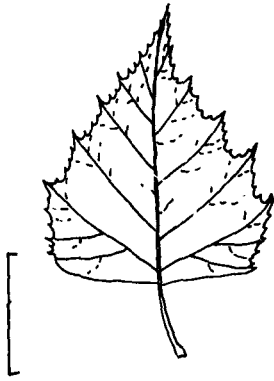


44. *Ulmus pumila*
Siberian Elm

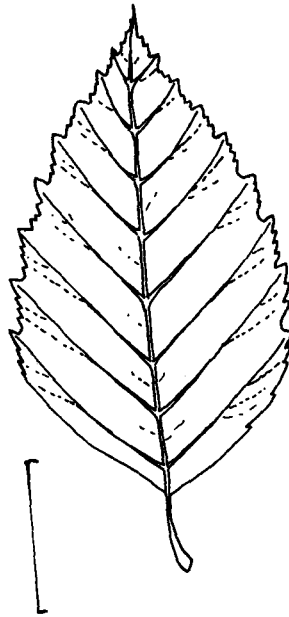


46. *Ulmus rubra*
Slippery Elm

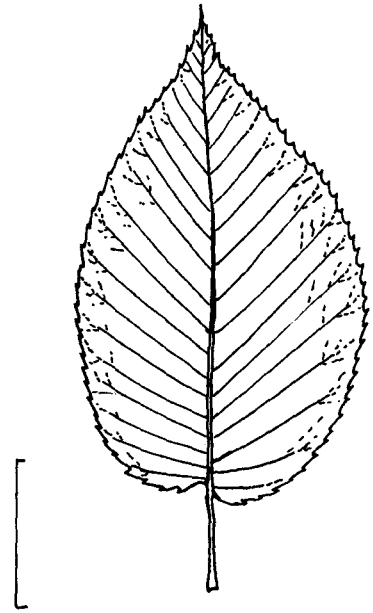
Alternate, Simple, Toothed



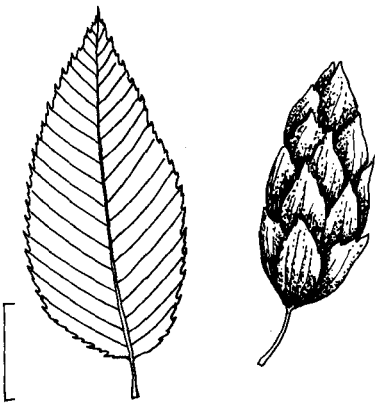
47. *Betula verrucosa*
Weeping Birch



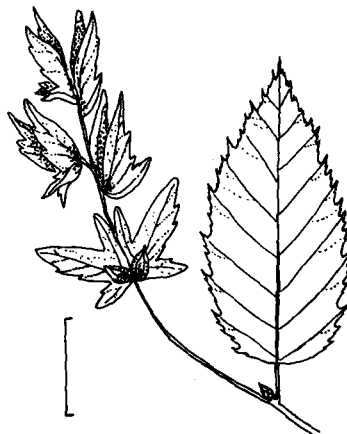
48. *Betula nigra*
River Birch



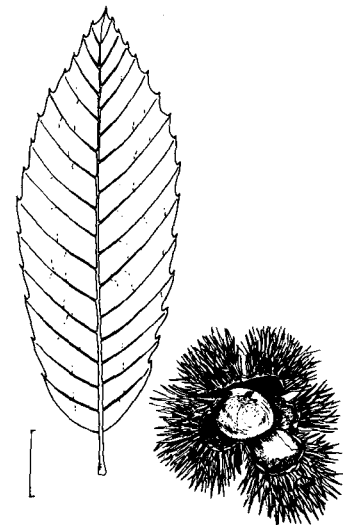
49. *Betula lenta*
Sweet Birch



50. *Ostrya virginiana*
Hop Hornbeam

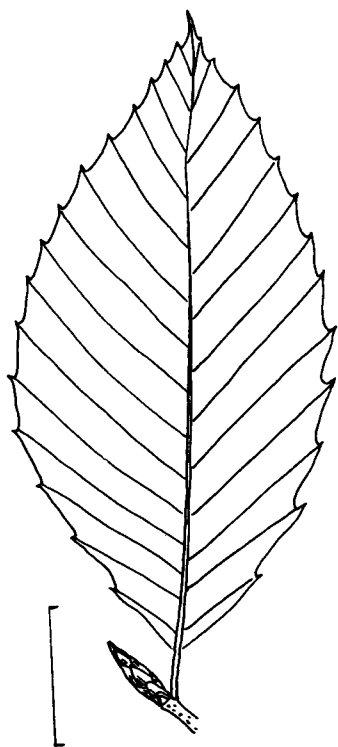


51. *Carpinus caroliniana*
Ironwood

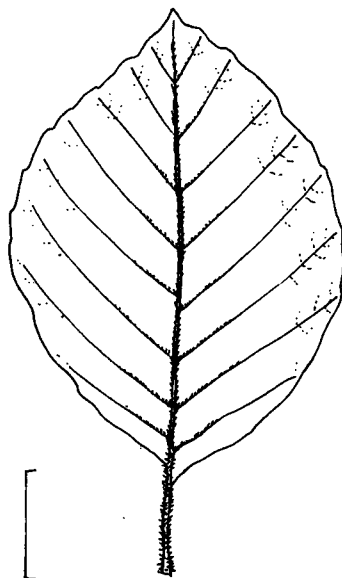


52. *Castanea mollissima*
Chinese Chestnut

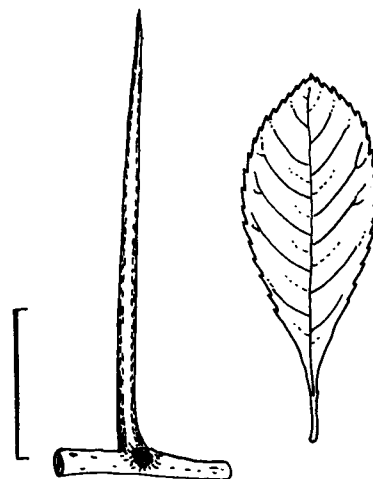
Alternate, Simple, Toothed



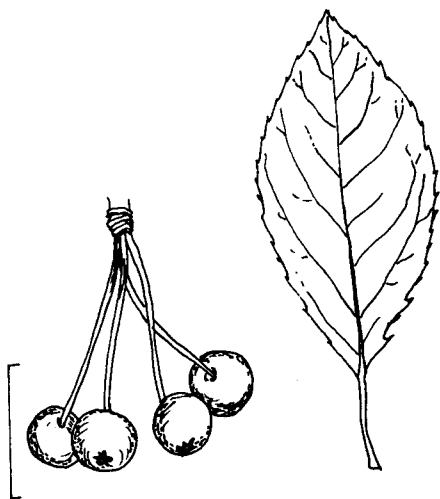
53. *Fagus grandifolia*
American Beech



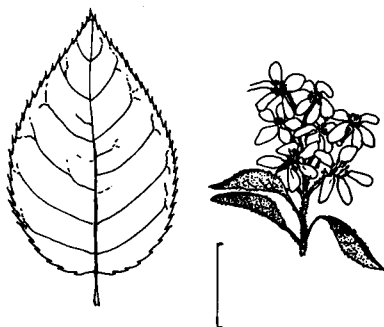
54. *Fagus sylvatica* 'Atropunicea'
European Purple Beech



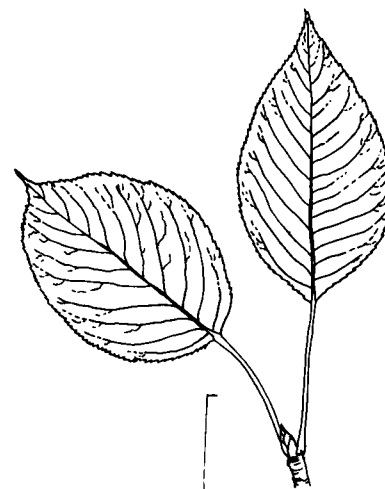
55. *Crataegus crus-galli*
Cockspur Hawthorn



56. *Malus floribunda*
Japanese Flowering Crabapple

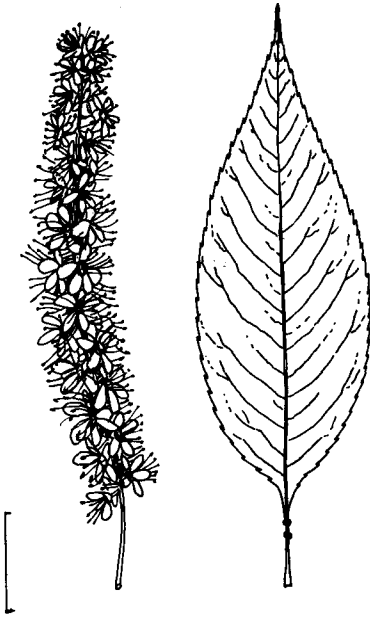


57. *Amelanchier canadensis*
Serviceberry or Shadbush

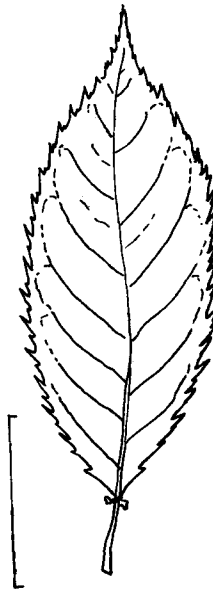


58. *Pyrus communis*
Common Pear

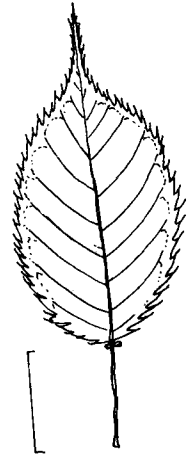
Alternate, Simple, Toothed



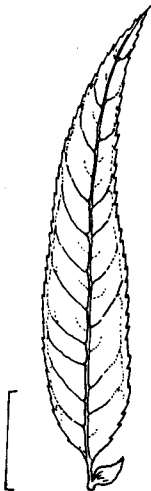
59. *Prunus serotina*
Black Cherry



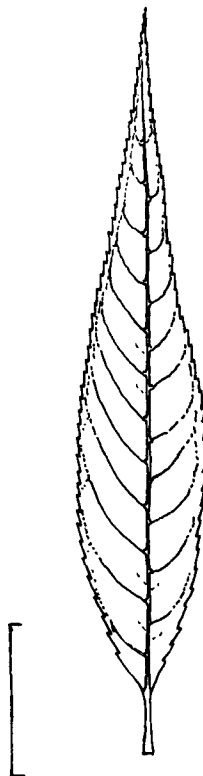
60. *Prunus subhirtella* 'Pendula'
Weeping Cherry



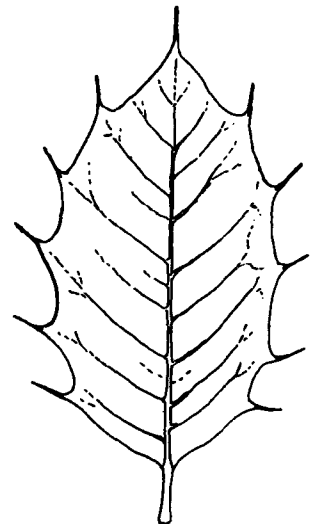
61. *Prunus serrulata*
Japanese Flowering Cherry



62. *Salix nigra*
Black Willow

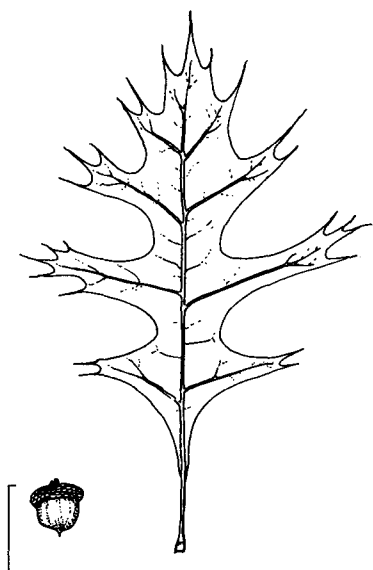


63. *Salix babylonica*
Weeping Willow

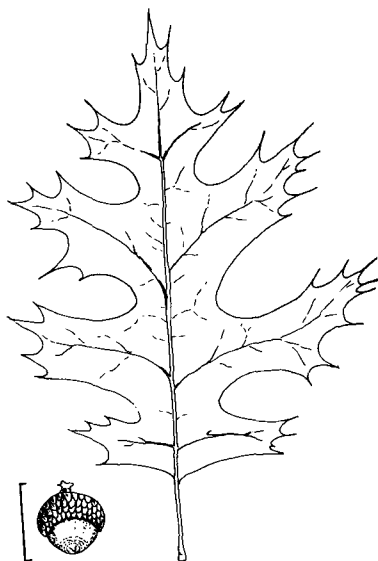


64. *Ilex opaca*
American Holly

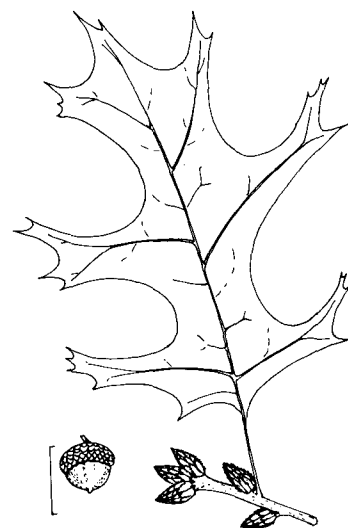
Alternate, Simple, Lobed



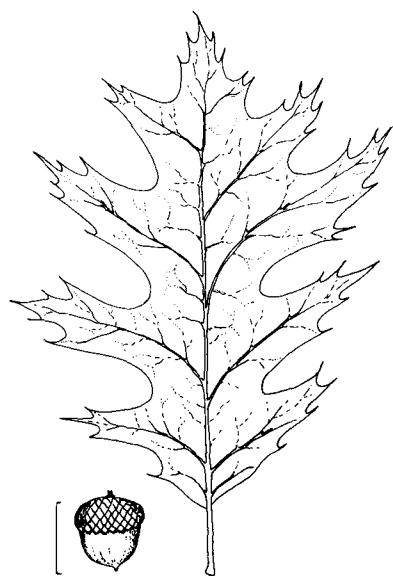
65. *Quercus palustris*
Pin Oak



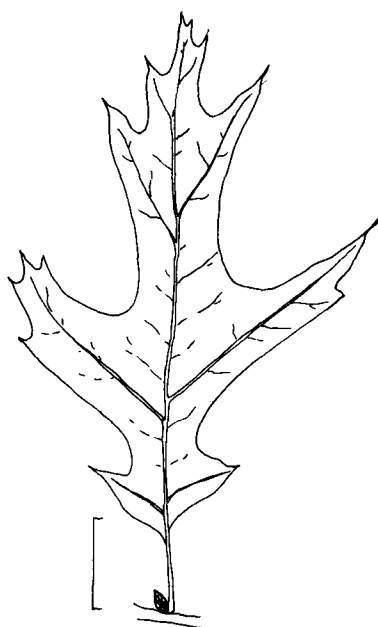
66. *Quercus coccinea*
Scarlet Oak



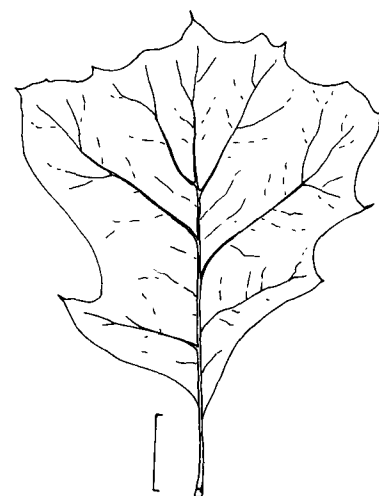
67. *Quercus velutina*
Black Oak



68. *Quercus borealis*
Red Oak

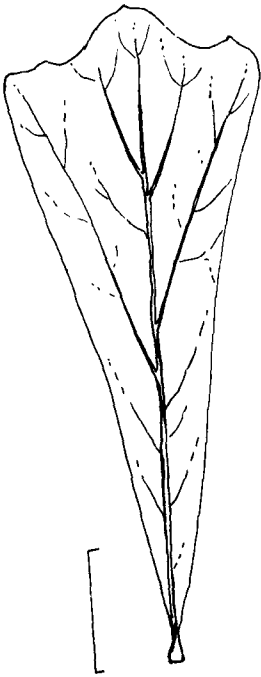


69. *Quercus falcata*
Southern Red Oak

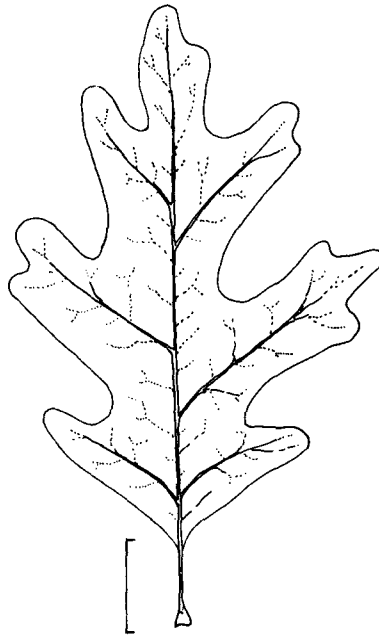


70. *Quercus marilandica*
Blackjack Oak

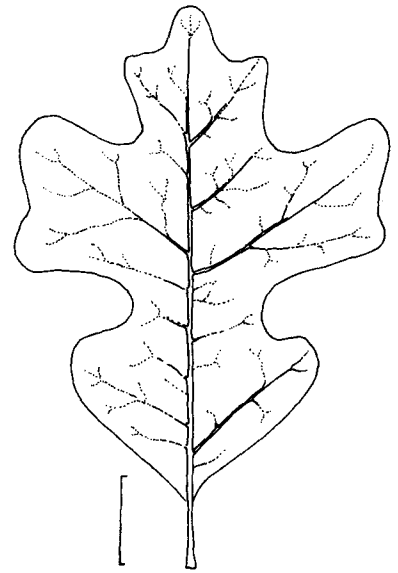
Alternate, Simple, Lobed



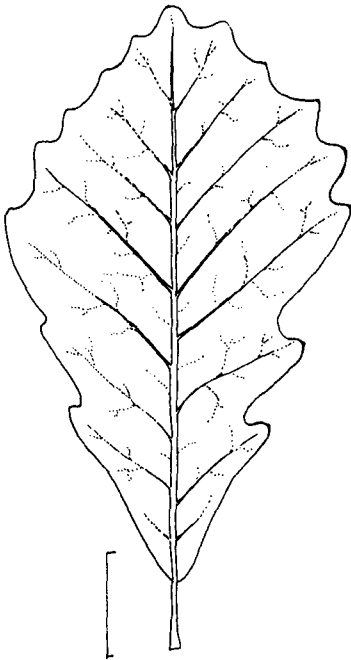
71. *Quercus nigra*
Water Oak



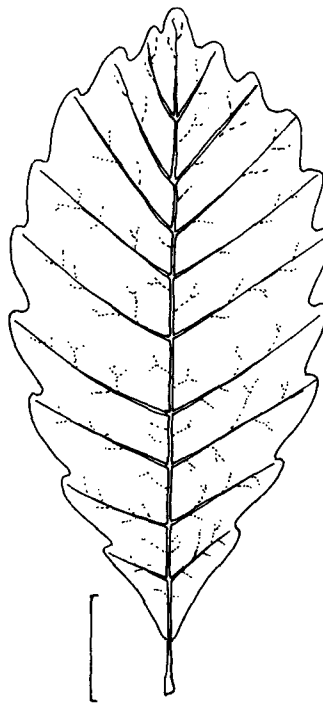
72. *Quercus alba*
White Oak



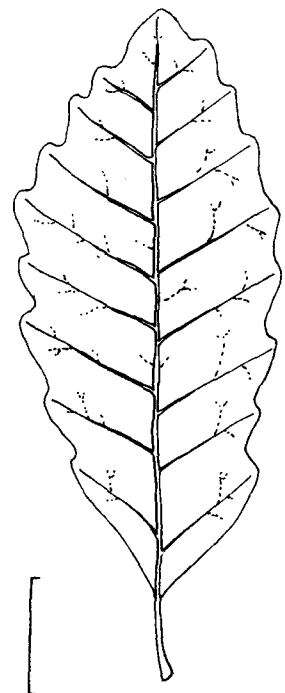
73. *Quercus stellata*
Post Oak



74. *Quercus bicolor*
Swamp White Oak

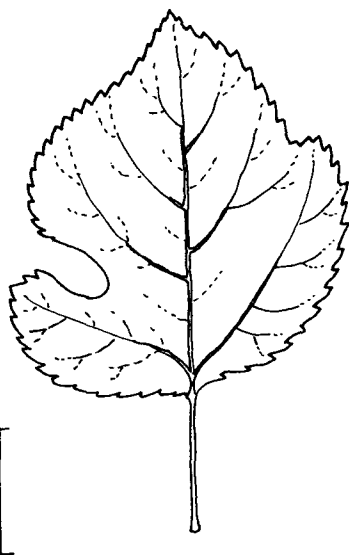


75. *Quercus michauxii*
Swamp Chestnut Oak

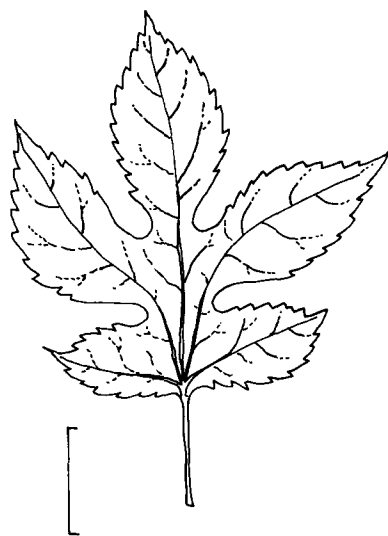


76. *Quercus prinus*
Chestnut Oak

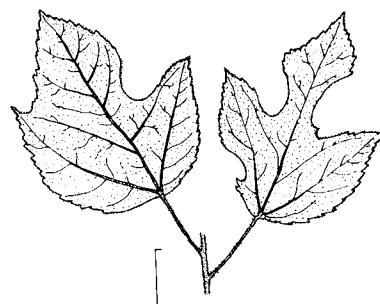
Alternate, Simple, Lobed



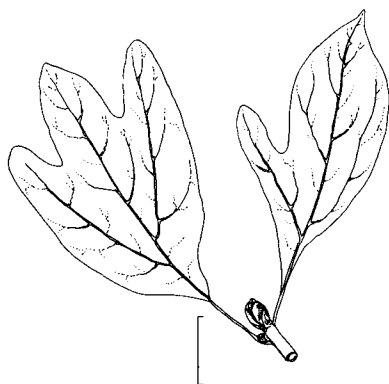
77. *Morus alba*
White Mulberry



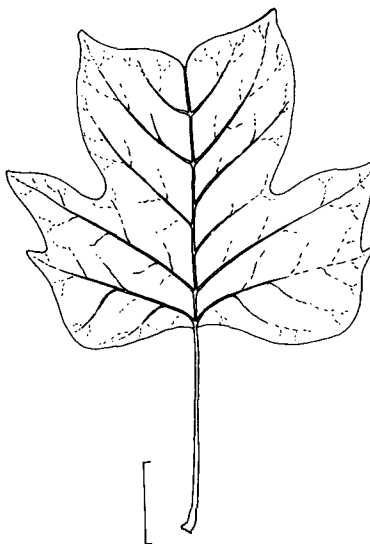
78. *Morus rubra*
Red Mulberry



79. *Broussonetia papyrifera*
Paper Mulberry



80. *Sassafras albidum*
Sassafras

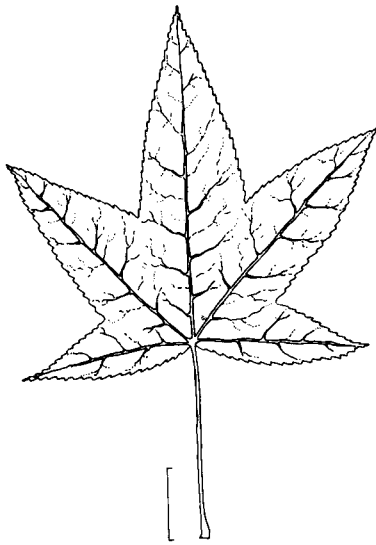


81. *Liriodendron tulipifera*
Tulip Tree or Yellow Poplar

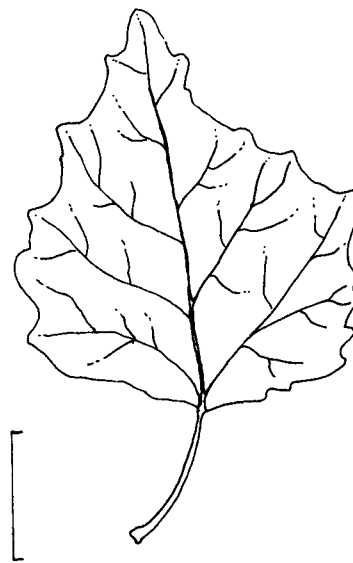


82. *Platanus occidentalis*
Sycamore

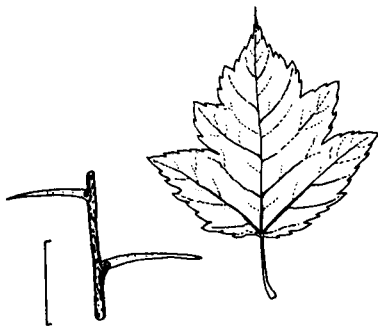
Alternate, Simple, Lobed



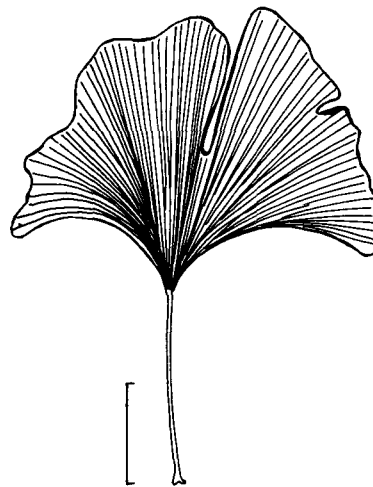
83. *Liquidambar styraciflua*
Sweet Gum



84. *Populus alba*
White Poplar

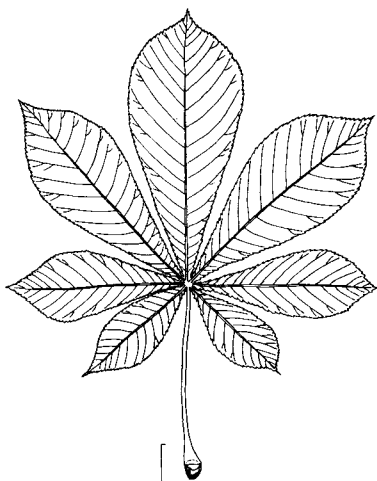


85. *Crataegus phaenopyrum*
Washington Hawthorn

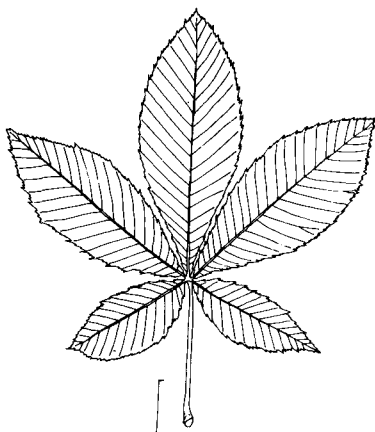


86. *Ginkgo biloba*
Ginkgo

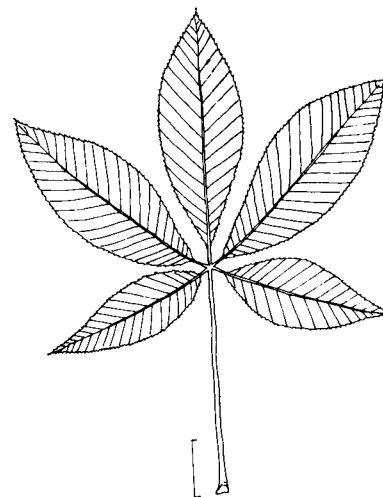
Opposite, Compound



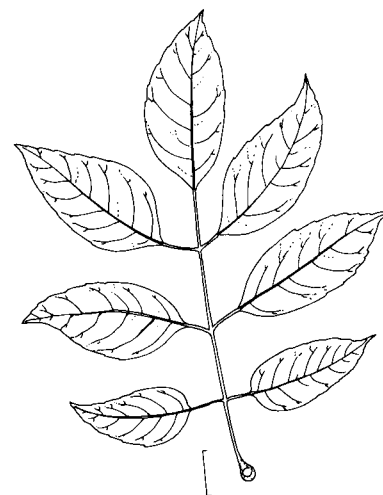
87. *Aesculus hippocastanum*
Horse Chestnut



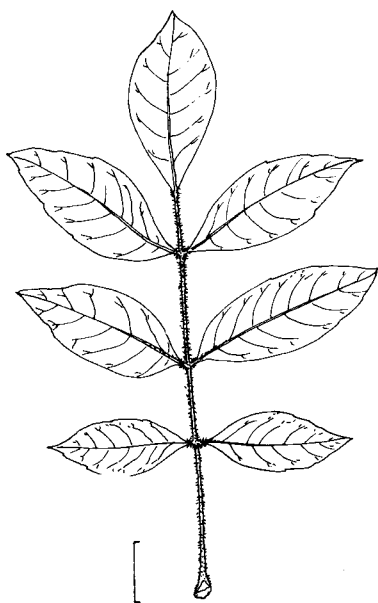
88. *Aesculus carnea*
Pink Horse Chestnut



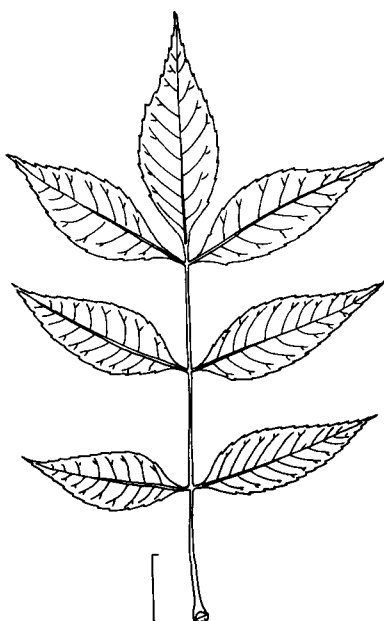
89. *Aesculus octandra*
Yellow Buckeye



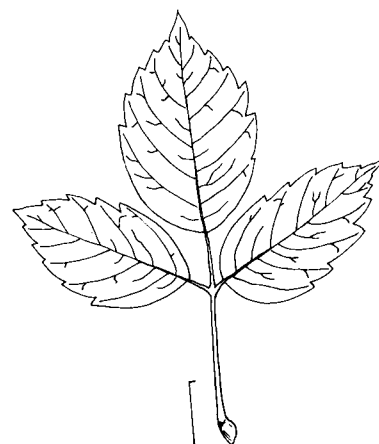
92. *Fraxinus americana*
White Ash



90. *Fraxinus pennsylvanica*
Red Ash

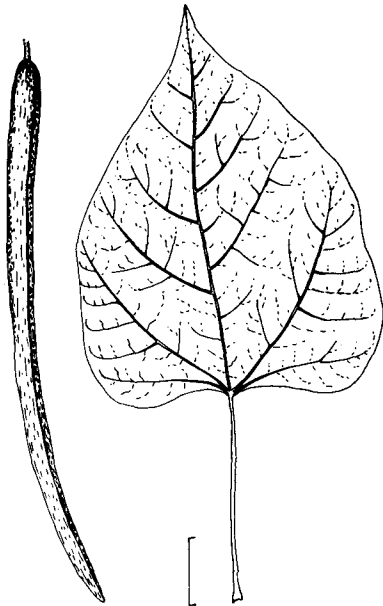


91. *Fraxinus pennsylvanica lanceolata*
Green Ash

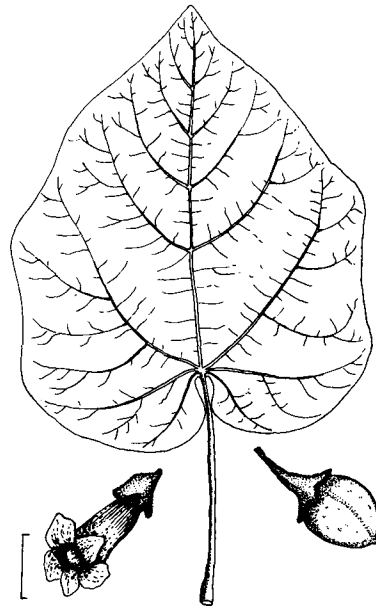


93. *Acer negundo*
Box Elder

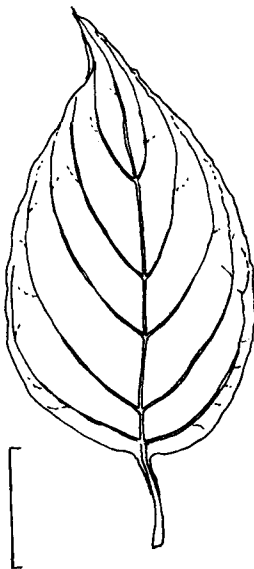
Opposite, Simple, Entire



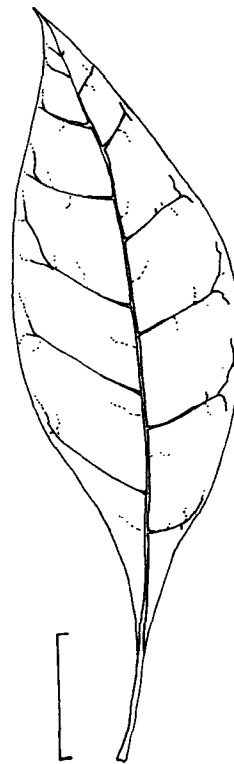
94. *Catalpa bignonioides*
Catalpa



95. *Paulownia tomentosa*
Paulownia

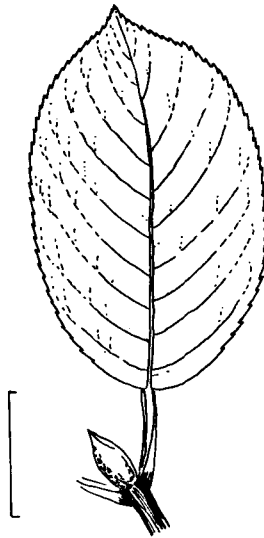


96. *Cornus florida*
Flowering Dogwood



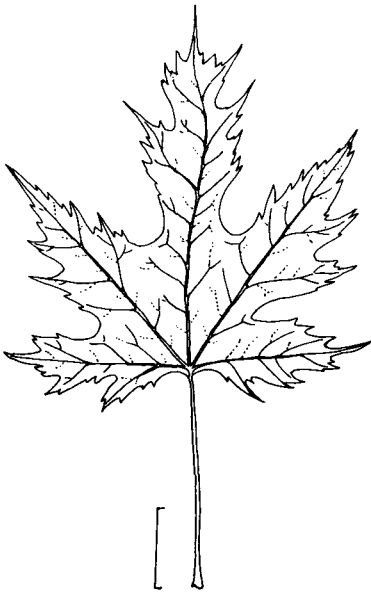
97. *Chionanthus virginicus*
Fringe Tree

Opposite, Simple, Toothed

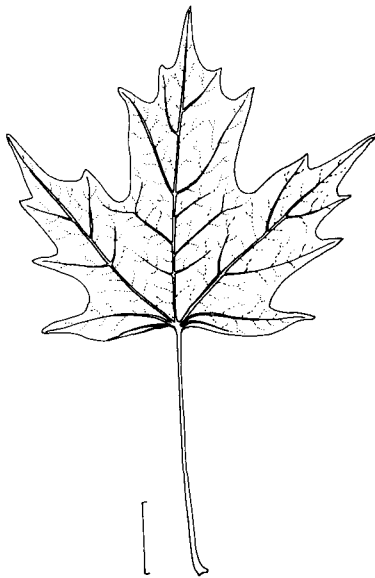


98. *Viburnum prunifolium*
Blackhaw

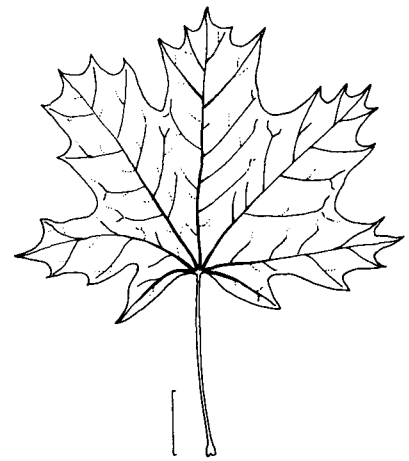
Opposite, Simple, Lobed



99. *Acer saccharinum*
Silver Maple

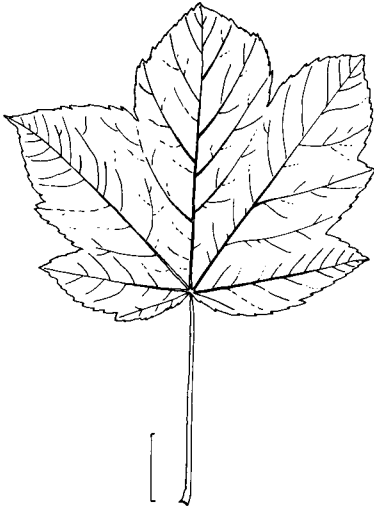


100. *Acer saccharum*
Sugar Maple

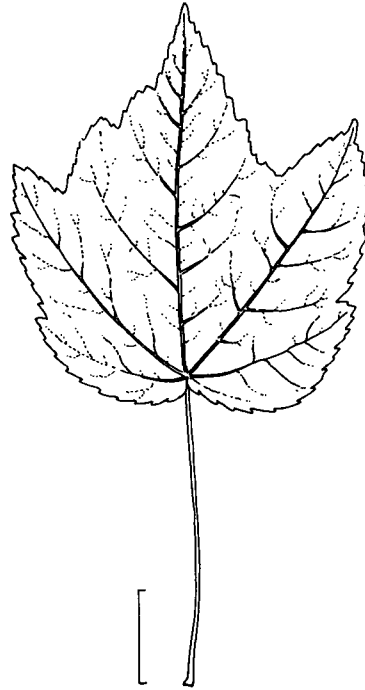


101. *Acer platanoides*
Norway Maple

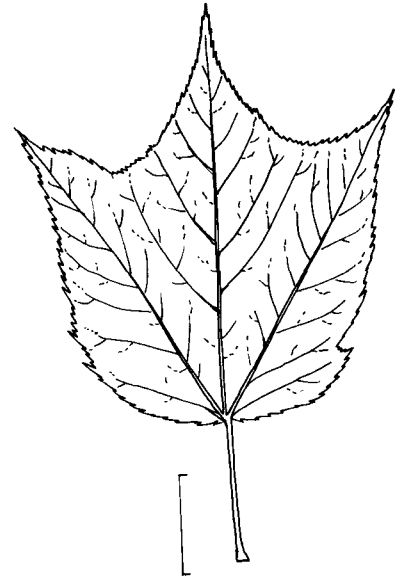
Opposite, Simple, Lobed



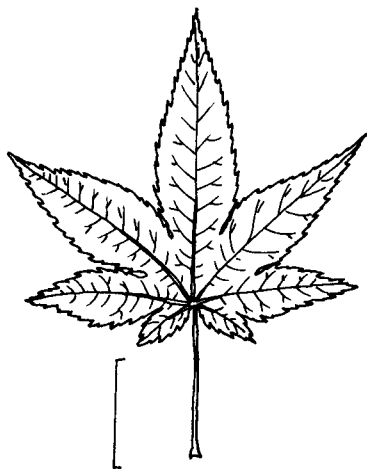
102. *Acer pseudoplatanus*
Sycamore Maple



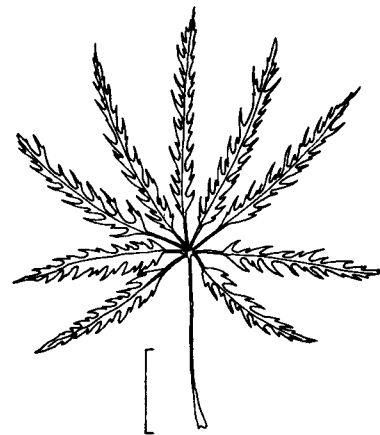
103. *Acer rubrum*
Red Maple



104. *Acer pensylvanicum*
Striped Maple

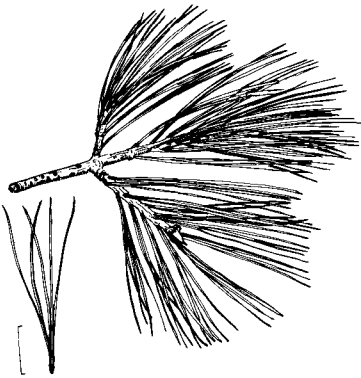


105. *Acer palmatum*
Japanese Maple

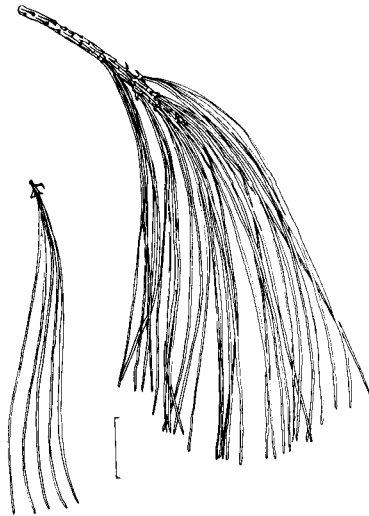


106. *Acer palmatum* 'Dissectum'
Cutleaf Japanese Maple

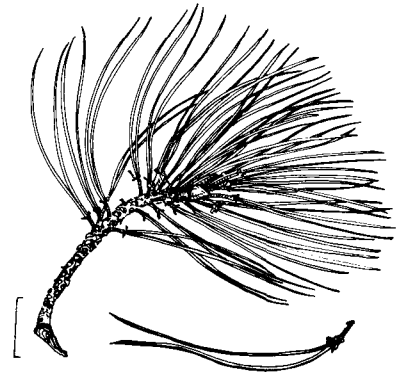
Leaves Needle-like



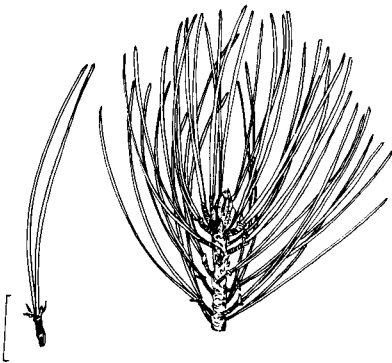
107. *Pinus strobus*
White Pine



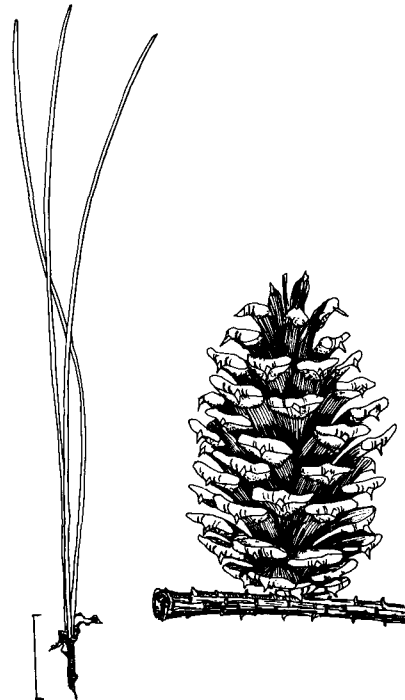
108. *Pinus griffithii*
Himalayan Pine



109. *Pinus resinosa*
Red Pine



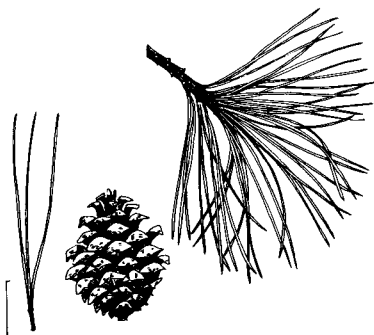
110. *Pinus nigra*
Austrian Pine



111. *Pinus taeda*
Loblolly Pine



113. *Pinus virginiana*
Virginia Pine

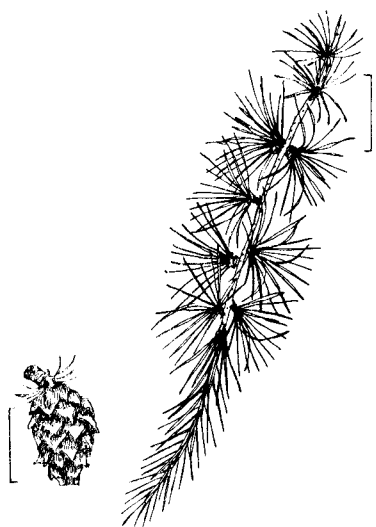


112. *Pinus rigida*
Pitch Pine

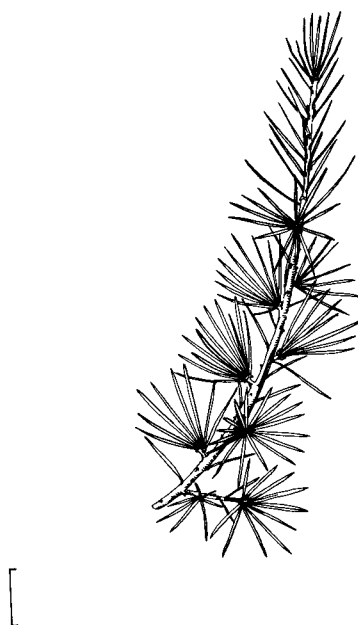


114. *Pinus sylvestris*
Scotch Pine

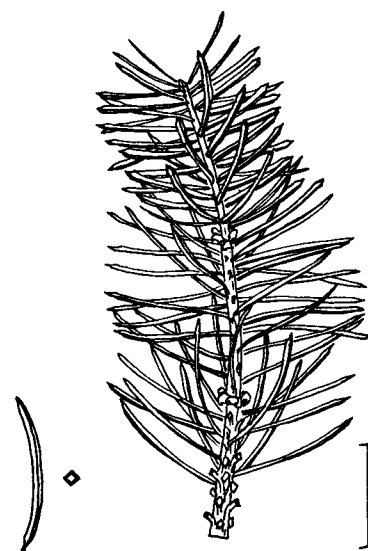
Leaves Needle-like



115. *Larix decidua*
European Larch



116. *Cedrus deodara*
Deodar Cedar



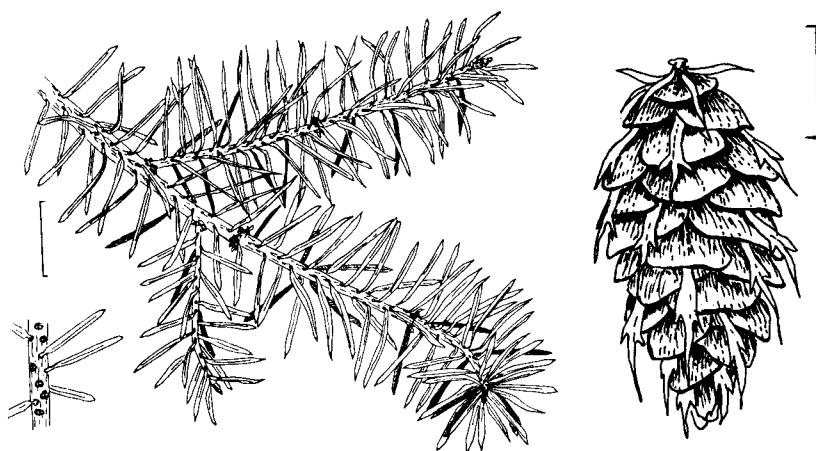
117. *Picea pungens*
Blue Spruce



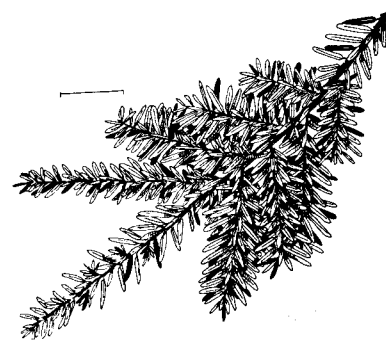
118. *Picea abies*
Norway Spruce



119. *Abies nordmanniana*
Nordmann Fir

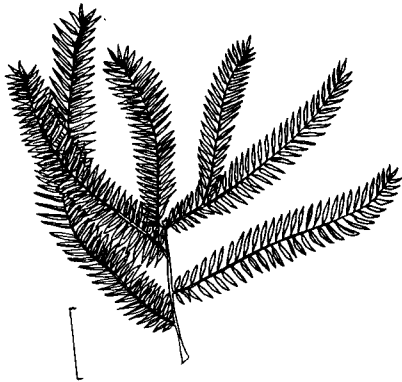


120. *Pseudotsuga menziesii*
Douglas Fir

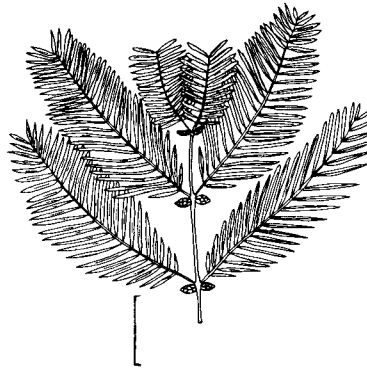


121. *Tsuga canadensis*
Hemlock

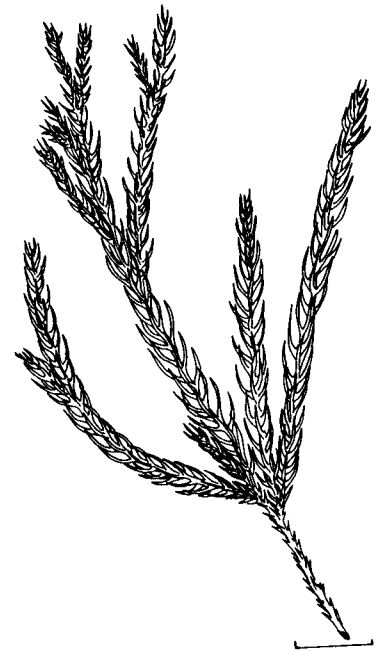
Leaves Needle-like



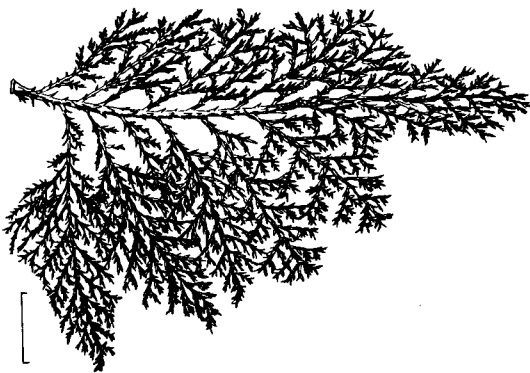
122. *Taxodium distichum*
Bald Cypress



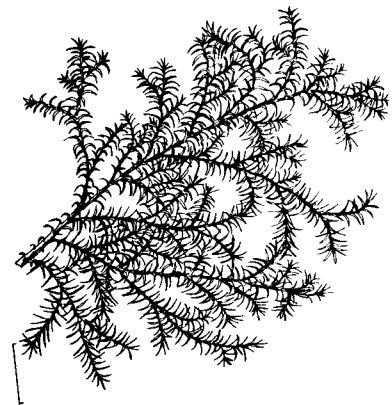
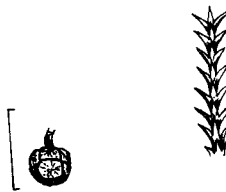
123. *Metasequoia glyptostroboides*
Dawn Redwood



124. *Cryptomeria japonica*
Cryptomeria

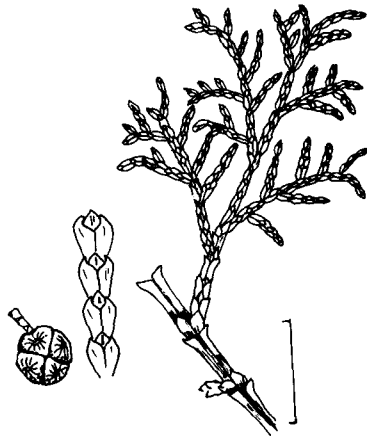


125. *Chamaecyparis pisifera*
'Plumosa'
Plume False-cypress

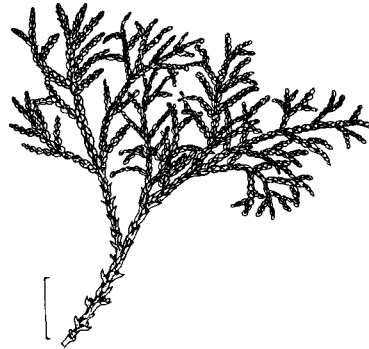


126. *Chamaecyparis pisifera* 'Squarrosa'
Moss False-cypress

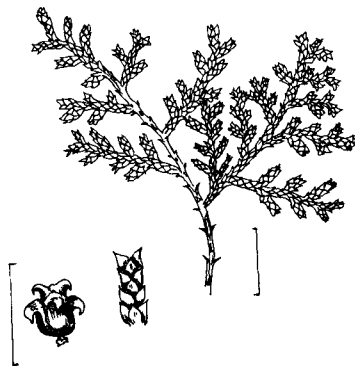
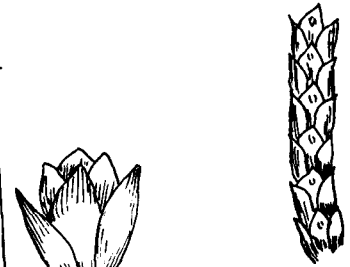
Leaves Scale-like



127. *Chamaecyparis obtusa*
Hinoki False-cypress



128. *Thuja occidentalis*
Eastern Arbor-vitae



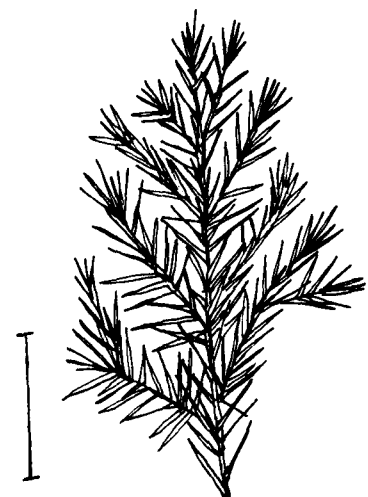
129. *Thuja orientalis*
Oriental Arbor-vitae



mature foliage



130. *Juniperus virginiana*
Red Cedar



juvenile

