Leaf Key to Common Trees in Maryland

Bulletin 238
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 must 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

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
I. **I. J. 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
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
14. *Robinia pseudacacia*
  Black Locust

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

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

16. *Aralia spinosa*
  Devil's Walkingstick

17. *Gymnocladus dioicus*
  Kentucky Coffee Tree

18. *Albizia julibrissin*
  Mimosa
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 soulangiana*  
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
30. *Quercus imbricaria*  
Shingle Oak

31. *Quercus phellos*  
Willow Oak

32. *Cercis canadensis*  
Redbud

33. *Ginkgo biloba*  
Ginkgo
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

44. *Ulmus pumila*
Siberian Elm

45. *Ulmus americana*
American Elm

46. *Ulmus rubra*
Slippery Elm
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
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
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
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
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. *Craetaegus 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

90. Fraxinus pennsylvanica
Red Ash

91. Fraxinus pennsylvanica lanceolata
Green Ash

92. Fraxinus americana
White Ash

93. Acer negundo
Box Elder
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
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
107. Pinus strobus  
White Pine

108. Pinus griffithi  
Himalayan Pine

109. Pinus resinosa  
Red Pine

110. Pinus nigra  
Austrian Pine

111. Pinus taeda  
Loblolly Pine

112. Pinus rigida  
Pitch Pine

113. Pinus virginiana  
Virginia Pine

114. Pinus sylvestris  
Scotch Pine
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 Needle-like
127. Chamaecyparis obtusa
Hinoki False-cypress

128. Thuja occidentalis
Eastern Arbor-vitae

129. Thuja orientalis
Oriental Arbor-vitae

130. Juniperus virginiana
Red Cedar

mature foliage
juvenile