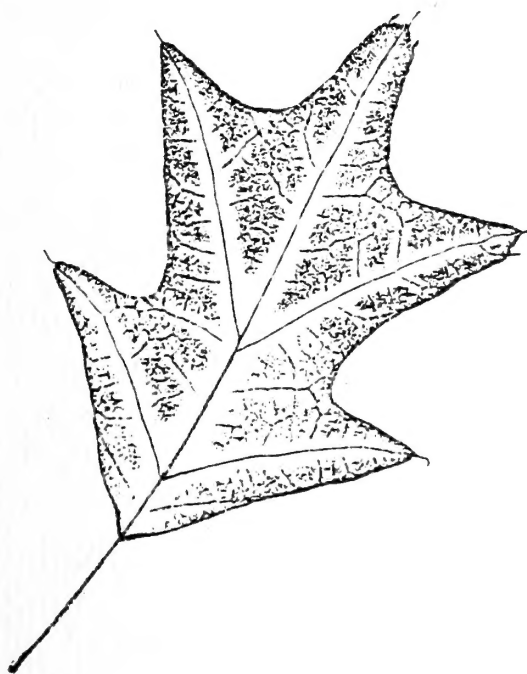
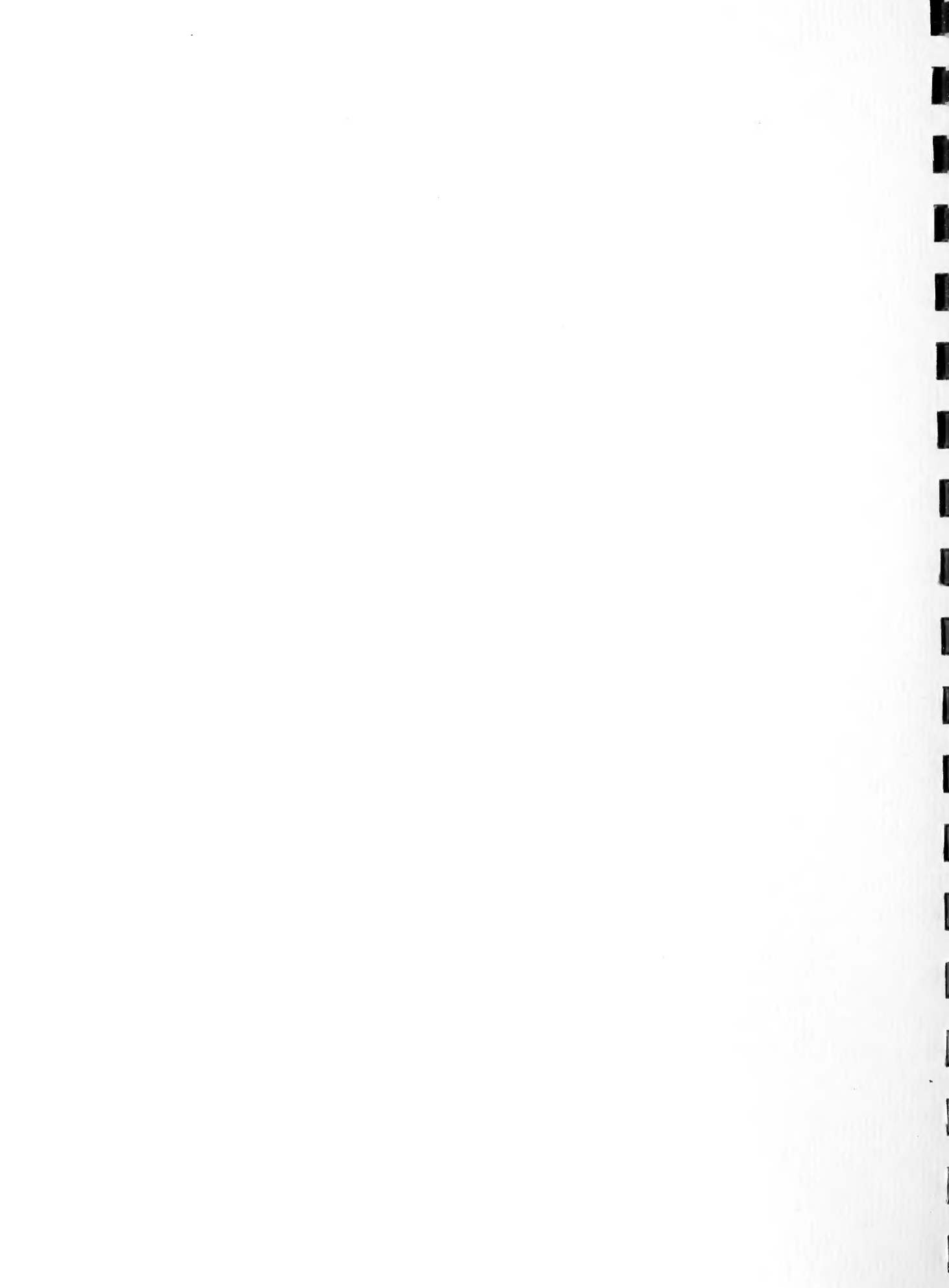


# CONCORD AREA TREES AND SHRUBS

RAY ANGELO



CONCORD FIELD STATION  
MUSEUM OF COMPARATIVE ZOOLOGY  
HARVARD UNIVERSITY



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RAY ANGELO



"These were the shrines I visited both summer and winter."  
- Thoreau

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Special acknowledgements are due to Bill Newbury for encouragement and assistance in the early phases of this work and to the late Richard J. Eaton for sharing his enthusiasm for Concord's flora with me shortly before he died and for laying the groundwork for this book with his *A Flora of Concord*. Dr. Elizabeth Shaw and Dr. David Boufford provided valuable assistance and advice in the production of this new edition. Lastly, I am very much indebted to the support of the Director of the Concord Field Station, Dr. C. Richard Taylor, from the inception of *Concord Area Trees* in 1976 to the present guide.

Fruit, flower and glossary illustrations have been taken primarily from:

*Trees of the Northern United States* by Austin C. Apgar  
*Ornamental Shrubs of the United States* by Austin C. Apgar  
*The Standard Cyclopaedia of American Horticulture* by Liberty H. Bailey  
*Blackberries of New England* by E. Brainerd & A. Peitersen  
*An Illustrated Flora of the Northern U.S. and Canada* by Nathaniel Britton & Addison Brown  
*Handbook of the Trees of New England* by Lorin Dame & Henry Brooks  
*Trees and Shrubs of Massachusetts* by George Emerson  
*Vermont Shrubs and Woody Vines* by L.R. Jones and F.V. Rand  
*Field Book of American Trees and Shrubs* by F. Schuyler Mathews  
*Field Book of American Wild Flowers* by F. Schuyler Mathews  
*Deutsche Forest Botanik* by Hermann Noerdlinger  
*Manual of the Trees of North America* by Charles S. Sargent

Some leaf outlines have been taken from:

*Handbook of the Trees of the Northeastern States and Canada*  
by Romeyn Hough  
*Our Native Trees* by Harriet Keeler  
*The Tree Book* by Julia Rogers  
*Our Trees* by Clarence Weed and Arthur Emerson

The fruit illustrations of False-spirea, Hardhack and Meadowsweet on pp. 54,86 drawn by Mary L.F. Campbell for *Winter Keys to Woody Plants of Maine* by Christopher S. Campbell, Fay Hyland, and Mary L.F. Campbell (University of Maine Press; Orono, Me., 1975) have been used with permission.

Illustrations of opposite simple leaves (p.5), alternate compound leaves (p.5), Hobblebush (p.44), Nannyberry (p.44), Witherod (p.44), Viburnum (p.44), Smooth Sumac (p.54), European & Japanese Barberry (p.63), Blueberry (p.70), Mountain-holly (p.71), Elaeagnus (p.72), Trumpet Creeper (p.88), and Bittersweet (p.92) have been adapted from *Flora of West Virginia* 2nd Ed. by P.D. Strausbaugh and Earl L. Core (West Virginia University; Morgantown, W.Va., 1970-7). Most of the illustrations from this work were drawn by William A. Lunk.

Numerous other illustrations have been adapted from a variety of sources dating from the turn of the century.

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## PREFACE

This is an informal but comprehensive guide to all distinctly woody plants growing wild in Concord, Massachusetts and neighboring townships. It is intended to serve students at Harvard's Concord Field Station, budding naturalists and interested Concord area residents.

The more than 240 species covered in this guide include nearly all the tree, shrub, and woody vine species of eastern Massachusetts that are likely to be encountered growing wild. The additional 50 or so species that would be required to be added to be absolutely complete for eastern Massachusetts are almost all rare or uncommon species that the average user is unlikely ever to encounter. The primary exceptions are INKBERRY (*Ilex glabra*), RUGOSA ROSE (*Rosa rugosa*), BEACH HEATHER (*Hudsonia spp.*), and GROUNDSEL-BUSH (*Baccharis halimifolia*), all of which are coastal shrub species. This guide should also be useful for New England as a whole since the majority of the woody species that are likely to be encountered anywhere in New England also occur in the Concord area.

A number of prostrate or semi-woody species (listed on p.107) have been excluded since most people will not recognize them as woody plants. An exception has been made for dwarf shrubs found in bogs which, therefore, are of special interest. These have been treated in a special section on p.102.

Introduced species (commonly planted in yards) that do not spread to the wild are excluded. Richard Eaton's *A Flora of Concord* (published by Harvard's Museum of Comparative Zoology, the parent institution of the Concord Field Station) has served as a starting point in deciding which species to include. My personal field experience in the Concord area over the past sixteen years and familiarity with the herbarium records upon which Mr. Eaton's work was based has resulted in some corrections to his data that are reflected in this guide.

The present work is essentially a reprinting and combination of my *Concord Area Trees* (1976) and *Concord Area Shrubs* (1978). The former has been out of print for about ten years, and our supply of the latter has just been exhausted. I have made many revisions to the text for the tree species and some revisions to the text for the shrub species. The separation of trees from shrubs, I believe, is a useful one for the amateur. Therefore, each group is treated separately, yielding some duplication.

It has been my experience that the great majority of users (casual botanists, if you will) have little patience with keys to plant species which professional botanists construct and use. Most people prefer to thumb through the illustrations to find a match. The organization of this handbook continues to favor this approach. In this spirit I have omitted the shrub flower key of *Concord Area Shrubs* and placed most of the flower illustrations at the text entries for the species.

A feature that has been added to this guide is the provision of family names in the index. Those who are interested in such plant relationships will be able to determine the family identity of any species treated in this book by using the index.

## HOW TO USE THIS GUIDE

**STEP A:** Determine the plant type and turn to the appropriate section:

TREES - p.10, SHRUBS - p.35, VINES - p.88

Special sections are provided for Blackberries, Raspberries & Dewberries (p.96); Small Bog Species (p.102), and Crabapples & Apples (p.103).

**STEP B:** Determine the type (needle-like, compound, simple) and arrangement (opposite or alternate) of the leaves. See GLOSSARY (p.108) for definitions.

**STEP C:** Based upon leaf type and arrangement classify into one of the following categories and locate the category section for the plant type using the bold headings at the top corner of the pages:



**NEEDLE-LIKE  
LEAVES**



**OPPOSITE COMPOUND  
LEAVES**



**OPPOSITE SIMPLE LEAVES**



**ALTERNATE COMPOUND  
LEAVES**



**ALTERNATE SIMPLE  
LEAVES**

**STEP D:** Thumb through the category section to find the best leaf shape match. Use the subsection headings and species descriptions to rule out alternatives.

## IDENTIFICATION NOTES

For the beginner some good advice is to learn the trees first. Start with plants that are clearly trees (taller than two meters and with a single, well-defined trunk). To the botanist the distinction between a tree and a shrub is of relatively minor importance. To the non-botanist the distinction is useful since the number of species that are trees is significantly smaller than the number of shrub species. Also, the distinctions between tree types (genera) are usually more noticeable than between shrub types (genera). Consequently it is easier to master the trees first. By doing so, the process of learning shrubs will be less confusing since tree seedlings and stump growth of trees frequently masquerade as shrubs.

Whereas the tree fruit is usually characteristic of the type (genus) to which the tree belongs, the fruit of shrubs is often not distinctive. Many different types of shrubs have similar berry-like or capsule-like fruit. Together with the fruit type the arrangement of shrub fruit is often significant in distinguishing shrub types (genera) and species.

For both trees and shrubs determination of leaf type and arrangement is usually the easiest and surest first step in identification. In determining leaf arrangement (opposite vs. alternate) strong-growing twigs (sprout growth) should be sought and spur branches (where leaves are crowded, as in birches and apple trees) should be avoided.

Perhaps one of the most difficult skills for the beginner to learn is what differences in leaf shape and texture are significant and what differences are part of the natural variation of the species. One can see some of this variation on a single plant. Before selecting a leaf to use for identification purposes look the plant over to find a typical leaf. In determining the character (shape, texture, size, etc.) of the leaf it is best to use leaves of branchlets where fruit or flowers also occur rather than leaves of sprout growth (or other sterile growth). Leaves of sterile shoots are more likely to be atypical in shape, size and other characters, sometimes markedly so. Leaf vein patterns, which are frequently significant, are clearest on the underside of the leaf.

The best strategy in the identification process is to rule out alternatives. If all alternatives are eliminated, the plant might be out of its known range or, more likely, it is an ornamental species. The latter can usually be diagnosed by the absence of seedlings of the plant in the vicinity. One or more of the books listed in the bibliography should be consulted for problem specimens.

This guide is best used in summer and autumn when leaves and flowers or fruit are present. A hand lens is not essential but is helpful sometimes to see hair, glands and resin dots.

Note: The metric system is used throughout. One meter (100 cm.) is a few inches more than a yard. A scale with divisions as fine as tenths of a centimeter (cm.) is provided on the inside back cover of this guide. These smallest divisions are millimeters (mm.).



## LEAF PRINT NOTES

The method and equipment used to produce the leaf prints in this book were in essence very simple.

Basic equipment: Glass plate, soft rubber brayer, roller (or second soft rubber brayer, the longer the better), tweezers, oil-based block printing ink.

Basic method:

1. Using the brayer, spread a dab of ink thinly onto the glass plate over an area larger than the leaf to be printed.
2. Place the leaf (underside up) in the middle of the inked area of the glass plate. Using the brayer, roll the ink onto the exposed underside as evenly as possible.
3. Remove the leaf from the inking area with the tweezers and place the leaf carefully (underside up) inside a piece of paper folded once.
4. Roll the roller once over the sandwich (roller at an angle of about 45° to the fold) on a clean part of the glass plate (or on a second glass plate). Roll from the tip of the leaf toward the stalk.
5. Remove the leaf from the paper with the tweezers. Prints will have been made of the top and underside of the leaf. Usually the underside produces the more detailed print though not infrequently the top side gives a more "artistic" print.

Notes on the method:

To continue producing good top-side prints the inking area should be rolled even using the brayer after each print. Fresh leaves give the best prints. Leaves may be kept suitably fresh for several days or longer by enclosing two or more leaves (without any folding) in a plastic sandwich bag and keeping them pressed flat inside a piece of folded cardboard. A given leaf may consistently yield mishappen prints no matter how the ink is spread. Therefore, it is best to have several alternate leaves at hand. Species with prominent veins beneath generally give the best results most easily. A leaf usually may be reprinted (or attempted) several times in succession (re-inking the leaf each time) before the print quality begins to suffer noticeably. For compound leaves, where stickiness between brayer and individual leaflets is often a problem, diluting the ink somewhat with a few drops of thinner may help.

Notes on equipment:

The piece of equipment most difficult to obtain is the roller. As indicated above, a second brayer can be used. The roller used to make the prints in this book was a gelatin roller 10" long and 1 3/8" thick taken from an old hand-operated printing press. Softness and smoothness are desirable qualities for the roller to be able to pick up details of leaf texture. The book *Nature Printing* cited among the references below describes how prints can be made using one's fingers in lieu of a roller. This requires some patience to develop the necessary skill.

The glass plate should be as flat and smooth as possible. The piece used in making the leaf prints for this book was thick and large enough not to require being clamped and provided ample working space.

The rubber brayer was 4" long. A soft rubber brayer is to be preferred in order to spread the ink more thoroughly into the texture of the leaf. The brayer can usually be obtained at an art supply shop.

Oil-based block printing ink (obtainable also at an art supply shop) was used. No more than one half of a modest-sized tube of ink was used to produce all the prints appearing in this book, including multitudinous misprints.

Rather ordinary paper will give good results (e.g., photocopy machine paper). To pick up detail, the grain of the paper simply must be fine. Glossy magazine paper is recommended by one reference.

#### References:

The method described above is derived primarily from the first reference listed below.

"Making Prints from Leaves" by David Marx in *School Arts*, September 1954.

*A Modern American Herbal* by David Marx & Chester B. Dugdale (1973); also printed in paperback under the title *Leaf Prints of American Trees and Shrubs* (1974).

*Nature Printing* by Robert W. Little (1977).

*The Leaf Book* by Ida Geary (1972); a book about Northern California plants.



# TREES

## NEEDLE-LIKE OR SCALE-LIKE LEAVES

### EASTERN HEMLOCK *Tsuga canadensis*

Flat needles 8-15 mm. long, whitened beneath, round-tipped, attached singly to twigs. Cones 1.5-2.5 cm. long. Moist woods, cool wooded slopes. Common.



HEMLOCK

## PINES: NEEDLES IN CLUSTERS OF 2-5

### WHITE PINE *Pinus strobus*

Our only tree with 5 needles per cluster. Chiefly dry woods and old fields but tolerates wet ground. Abundant.



WHITE PINE



PINE

### PITCH PINE *Pinus rigida*

Our only tree with 3 needles per cluster. Dry gravel, sandy, often barren soil. Common.



PITCH PINE

### RED PINE *Pinus resinosa*

Needles 2 per cluster, 7-17 cm. long. Upper trunk not bright orange. Cones about five cm. long. Dry woods. Uncommon except near where planted.



RED PINE

### SCOTCH PINE *Pinus sylvestris*

Needles 2 per cluster, 3-7 cm. long. Upper trunk and branches bright orange. Roadsides, fallow fields, dry open woods. Frequent escape from cultivation.



SCOTCH PINE

## LARCHES: NEEDLES NUMEROUS ON A WARTY SPUR, ALL DROPPING IN AUTUMN

### EUROPEAN LARCH *Larix decidua*

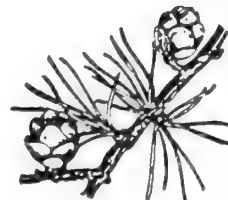
Cones with 30-50 scales. Needles 2.5-3 cm. long. Branchlets sometimes hanging down like tassels. Occasionally escapes cultivation.



EUROPEAN LARCH

### AMERICAN LARCH *Larix laricina*

Cones with fewer than 25 scales. Needles 1-2.5 cm. long. Branchlets never tassel-like. Bogs and swamps. Uncommon.



AMERICAN LARCH

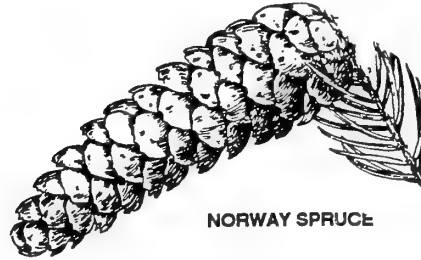
# TREES

## NEEDLE-LIKE OR SCALE-LIKE LEAVES

### SPRUCES: NEEDLES ATTACHED SINGLY, USUALLY STIFF, 4-SIDED AND POINTED

#### **NORWAY SPRUCE** *Picea abies*

Large cones 10-15 cm. long. Needles dark green. Twigs hairless, or slightly hairy (use hand lens). Branchlets of mature trees sometimes hanging down like tassels. Much planted; occasionally escapes in woods.



NORWAY SPRUCE

#### **BLACK SPRUCE** *Picea mariana*

In our area a small tree. Cones 2-3 cm. long, dull grayish brown, remaining on the tree many years. Cone scales with slightly ragged edge. Needles usually bluish green, often somewhat whitened. Twigs hairy. Lengthwise ridges of twigs flattened (use hand lens). Branchlets never tassel-like. Bogs and swamps (and edges of these). Uncommon.



BLACK & RED  
SPRUCE

#### **RED SPRUCE** *Picea rubens*

Cones 3-4 cm. long, clear or reddish brown, not persistent on the tree. Cone scales with smooth edge. Needles dark or yellowish green. Twigs hairy. Lengthwise ridges of twigs rounded as if inflated (use hand lens). Branchlets never tassel-like. In northern New England an upland tree. In our area presently known from a single swamp. Rare.

#### **WHITE SPRUCE** *Picea glauca*

Cylindrical cones 3-6 cm. long. Cone scales with smooth edge. Needles bluish-green, usually somewhat whitened. Twigs hairless (use hand lens). A few seedlings have spread from a planted stand around Pickman Pond in Bedford.



WHITE SPRUCE

# TREES NEEDLE-LIKE OR SCALE-LIKE LEAVES

## CEDARS: SCALE-LIKE LEAVES

### **RED CEDAR** *Juniperus virginiana*

Foliage sprays not flattened. Needle-like leaves occasionally present on young trees and vigorous shoots of older trees. Fruit berry-like. Pastures, fields, recent woodland. Common.

### **ATLANTIC WHITE CEDAR** *Chamaecyparis thyoides*

Foliage sprays mildly flattened. No needle-like leaves. Twigs (including foliage) less than 2 mm. wide. Cones small, globular. Wet woods, swamps, bogs. Uncommon.

### **ARBOR VITAE** *Thuja occidentalis*

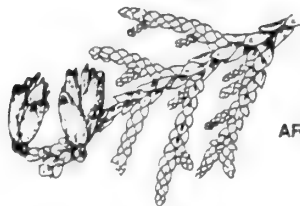
Flat, fan-like foliage sprays. No needle-like leaves. Twigs (including foliage) 2 mm. or more in width. Cones small, more or less bell-shaped. Much planted but escapes only rarely.



RED CEDAR



ATLANTIC WHITE CEDAR



ARBOR VITAE

# TREES OPPOSITE COMPOUND LEAVES

## **HORSECHESTNUT** *Aesculus hippocastanum*

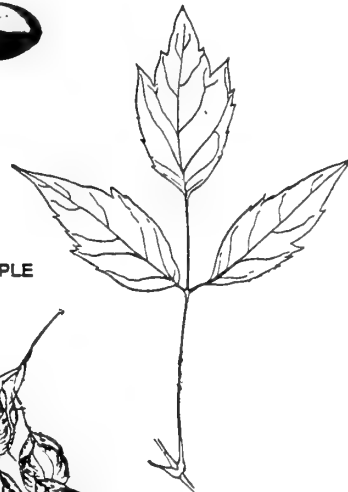
Our only tree with leaflets arranged like the spokes of a wheel. Nuts are somewhat poisonous raw. Frequently planted but escapes are rare.



HORSECHESTNUT

## **ASHLEAF MAPLE** *Acer negundo*

Leaflets mostly 3 or 5, toothed or untoothed. End leaflet often somewhat lobed. Small tree with trunk soon dividing into several parts. Fruits are typical maple keys. Roadsides, waste land. Uncommon escape.



ASHLEAF MAPLE

## **WHITE ASH** *Fraxinus americana*

Leaflets 5-9, whitish beneath, toothed or not, on distinct stalklets that are 3-15 mm. long. Twigs hairless. Fruit body (not wing) 2.5-3.5 mm. wide. Rich woods, roadsides. Common.



WHITE ASH

## **RED ASH** *Fraxinus pennsylvanica*

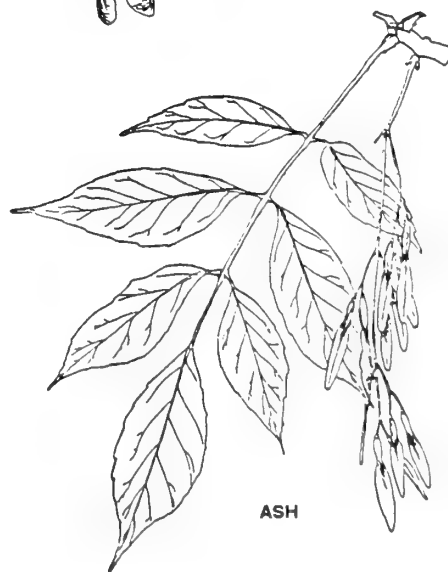
Leaflets 5-9, usually slightly toothed or wavy-edged, on short stalklets 3-6 mm. long. Twigs velvety-hairy. Fruit body (not wing) narrow (1-2.5 mm. wide) and often long. Low woods, streambanks. Uncommon.



RED & GREEN ASH

## **GREEN ASH**

A variety of *F. pennsylvanica* with hairless twigs. Leaflets green (not whitened) beneath. Fruit and habitat as in Red Ash. Uncommon.



ASH

## **BLACK ASH** *Fraxinus nigra*

Leaflets 7-11, toothed, side ones stalkless, with small tufts of rusty hair where they are attached. Fruits squarish-tipped. Twigs hairless. Swamps, streambanks, shores. Uncommon.



BLACK ASH

# TREES

## ALTERNATE COMPOUND LEAVES

### PART A: LEAVES MOSTLY WITH 11 OR MORE LEAFLETS

#### BLACK LOCUST *Robinia pseudo-acacia*

Usually thorny with paired thorns, less than 2.5 cm. long. Leaflets 7-21 with untoothed margins, 2.5-4.5 cm. long. Leaves 15-35 cm. long. Twigs smooth or slightly hairy. Fruit pods 5-15 cm. long. Flowers white. Roadsides, fencerows. Naturalized. Common.



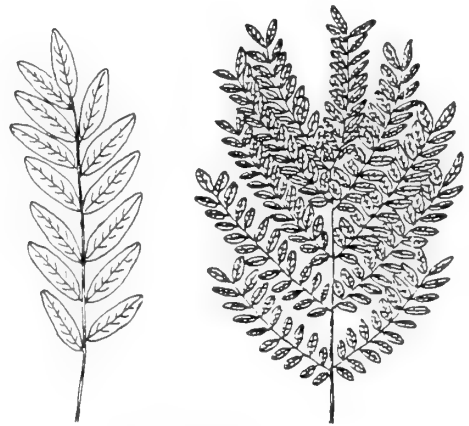
#### CLAMMY LOCUST *Robinia viscosa*

Small tree or large shrub. Similar to Black Locust but thorns (if any) are not significant; leaflets 13-25; twigs and fruit pods sticky-glandular; flowers rose-tinged. An occasional escape along roadsides.

BLACK & CLAMMY LOCUST

#### HONEY LOCUST *Gleditsia triacanthos*

Often armed with vicious, branched thorns that are frequently much longer than 3 cm. Leaves may be twice-compound with 15-30 leaflets per division. Leaflets are finely toothed, .8-3.5 cm. long. Leaves 15-30 cm. long. Fruit pods large and twisted, 20-45 cm. long. Frequently planted in cities. An occasional roadside escape.

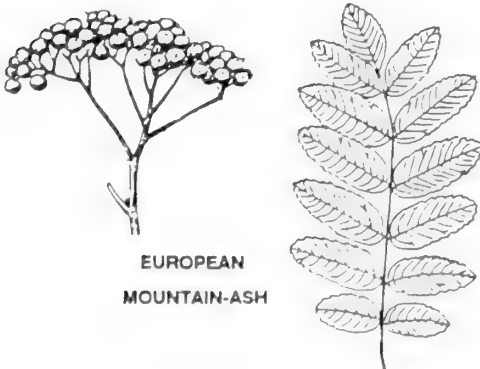


HONEY LOCUST

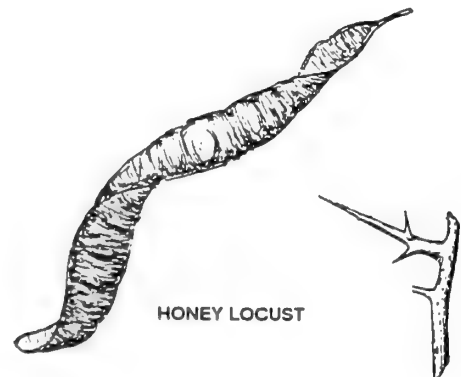
#### EUROPEAN MOUNTAIN-ASH

*Pyrus (Sorbus) aucuparia*

Small tree with loose clusters of unpalatable, berry-like fruit. Leaflets 11-17, toothed, 2-6 cm. long. Leaves mostly 9-15 cm. long. Frequently planted and occasionally escapes to roadsides, thickets, and wood borders.



EUROPEAN  
MOUNTAIN-ASH



HONEY LOCUST



# TREES ALTERNATE COMPOUND LEAVES

## PART A: LEAVES MOSTLY WITH 11 OR MORE LEAFLETS (CONT.)

### BUTTERNUT *Juglans cinerea*

Leaflets 7-19, toothed, 6-12 cm. long, attached to stalk that is densely sticky-hairy. Leaves 30-60 cm. long. Leaf scars with hairy fringe on upper margin. Fruits oblong, sticky-hairy. Kernel is sweet, edible, and very oily. Rich soil. Uncommon.



BUTTERNUT



WALNUT  
& BUTTERNUT

### BLACK WALNUT *Juglans nigra*

Leaflets 11-23, toothed, 6-12 cm. long, attached to stalk that is downy (not sticky). Leaves 30-60 cm. long. Leaf scars lacking hairy fringe on upper margin. Fruits spherical, not sticky-hairy. Kernel is sweet, edible. Hedgerows, thickets, roadsides. Occasionally escapes cultivation.



WALNUT

### TREE-OF-HEAVEN *Ailanthus altissima*

Leaflets 11-41, untoothed except for one or two pairs of teeth near leaflet base, 7-18 cm. long. Leaves 30-60 cm. long. Waste places, roadsides. Very common weed tree in cities, but presently uncommon in our area.



TREE-OF-HEAVEN



### STAGHORN SUMAC *Rhus typhina*

Leaflets 11-31, toothed, 5-12 cm. long. Leaves 30-60 cm. long. Twigs and leaf-stalks densely velvety-hairy. Fruit in dense upright clusters, covered with red hair, used for flavoring. Small tree or, usually, a shrub. Dry thickets, roadsides, open, rocky slopes. Uncommon.



STAGHORN SUMAC



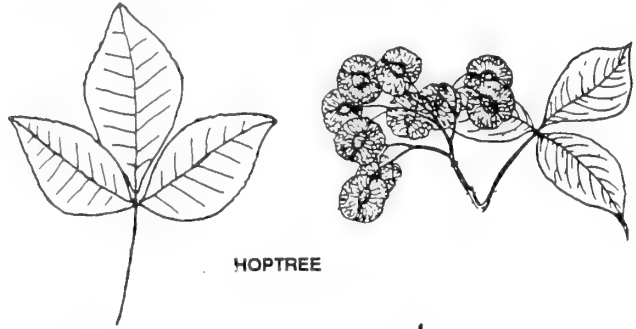
# TREES

## ALTERNATE COMPOUND LEAVES

### PART B: LEAVES MOSTLY WITH FEWER THAN 11 LEAFLETS

**HOPTREE** *Ptelea trifoliata*

Leaflets three, 6-12 cm. long, resembling Poison Ivy. Fruits wafer-like. A small tree or shrub. Thickets, edges of woods, roadsides. Uncommon escape.



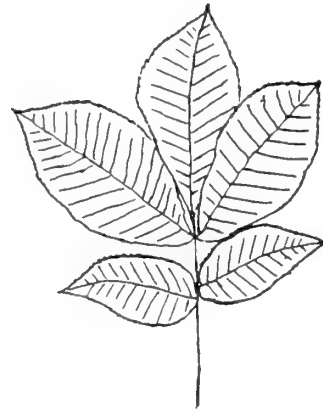
HOPTREE

**SHAGBARK HICKORY** *Carya ovata*

Leaflets 5-7 (usually 5), with tiny tufts of hair near tips of some teeth (use hand lens). End leaflet becoming 10-20 cm. long, 5-11 cm. wide. Trunk bark very shaggy (except on very young trees). Fruit 3.5-6 cm. long with thick husk (3-12 mm. thick) splitting to the base when mature. Kernel is edible. Woods, roadsides, pastures. Uncommon.



SHAGBARK  
HICKORY



SHAGBARK HICKORY

**PIGNUT HICKORY** *Carya glabra*

Leaflets 5-7 (usually 5). End leaflet 8-17 cm. long and mostly 3.5-6 cm wide. Leafstalks not red. Fruit 1.5-3.5 cm. long, dark brown, somewhat shiny. Thin husk generally splitting only partly or not at all in fall. Kernel is bitter or slightly sweet. Catkins 5-8 cm. long. Bark tight, furrowed. Considered a variety of the next species by some botanists. Dry woods, pastures, roadsides. Uncommon.



PIGNUT HICKORY



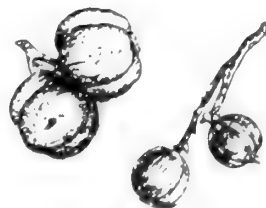
PIGNUT HICKORY

**SWEET PIGNUT HICKORY** *Carya ovalis*

Leaflets 5-7. End leaflet 8-17 cm. long and mostly 4-8 cm. wide. Leafstalks often reddened. Fruit 1.5-3.5 cm. long, light brown, dull, scaly-dotted. Thin husk usually splitting freely to base when mature. Kernel is sweet, edible. Catkins 8-17 cm. long. Bark ridged, scaly or somewhat shaggy when mature. Woods, pastures, roadsides. Common.



SWEET PIGNUT  
HICKORY



HICKORY FRUITS

# TREES ALTERNATE COMPOUND LEAVES

## PART B: LEAVES MOSTLY WITH FEWER THAN 11 LEAFLETS (CONT.)

### MOCKERNUT HICKORY *Carya tomentosa*

Leaflets 5-9, hairy beneath, larger ones 10-20 cm. long and 5-12 cm. wide. Twigs and central stalk usually hairy. Fruit 3.5-5 cm. long. Nut has disappointingly small kernel which is edible. Bark of young trees and young bark of older trees has distinctive pattern of interweaving, smooth, flat-topped ridges. Woods, pastures, roadsides. Uncommon.



MOCKERNUT HICKORY



### BITTERNUT HICKORY *Carya cordiformis*

Leaflets 5-11 (usually 7-9), somewhat hairy beneath, larger ones 8-15 cm. long and 2-5 cm. wide. Fruit about 2.5 cm. long, much ridged or winged partway along seams. Kernel is bitter. Buds with bright, yellow, powdery surface, elongate. Bark tight with shallow fissures. Various habitats from wet woods to roadsides. Rare.



BITTERNUT HICKORY

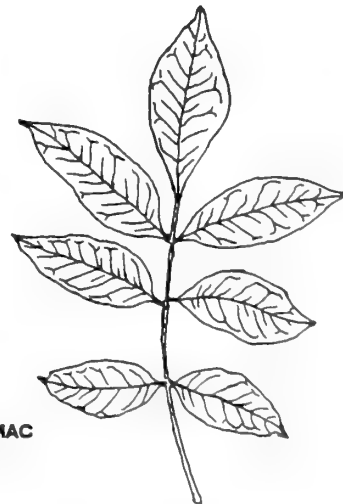


### POISON SUMAC *Rhus vernix*

Leaflets 7-13, untoothed, 4-10 cm. long. Fruit berry-like, whitish, in elongated clusters. Small tree or (usually) a shrub. All parts of plant irritate the skin of most people. Wooded swamps, bog margins, occasionally in wet woods. Common.



POISON SUMAC

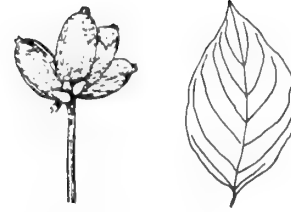


# TREES

## OPPOSITE SIMPLE LEAVES

### FLOWERING DOGWOOD *Cornus florida*

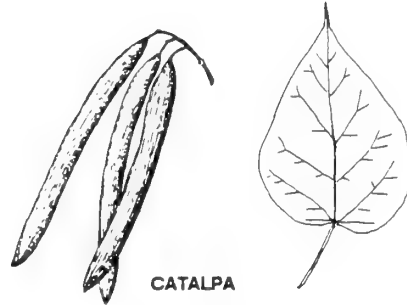
Small tree or large shrub with untoothed leaves. Side veins curving strongly, tending to parallel leaf margin. Mature bark broken into squarish blocks. Fruit red, berry-like, bitter. Frequently cultivated. Acidic woods. Uncommon.



FLOWERING DOGWOOD

### NORTHERN CATALPA *Catalpa speciosa*

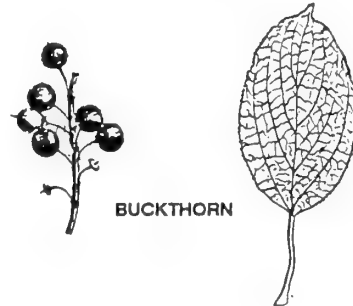
Leaves large, 15-30 cm. long, untoothed (occasionally lobed), sometimes in whorls of three. Fruit a long, narrow, bean-like pod. Roadsides, waste places. Uncommon escape.



CATALPA

### COMMON BUCKTHORN *Rhamnus cathartica*

Leaves opposite or nearly so, toothed with rounded teeth; main veins reaching strongly forward. Fruits black, berry-like, purgative. Small tree or large shrub. Thickets, roadsides. Naturalized. Common.



BUCKTHORN

**BIRCHES** *Betula spp.* - Pairs of alternate leaves crowded on spur branches give appearance of opposite arrangement. See p. 29.

### TATARIAN MAPLE *Acer tataricum*

Typical leaves unlobed, very irregularly toothed, not whitened but more or less hairy on veins beneath. Fruit mature in late summer or early autumn. Small tree or shrub. Escaped at single site in Concord.



TATARIAN MAPLE



MAPLE FRUIT

### SIBERIAN MAPLE *Acer ginnala*

Leaves typically 3-lobed with central lobe much lengthened, not whitened and essentially hairless beneath. Often a shrub. Fruit mature in late summer or early autumn. Roadsides, woods, thickets. Uncommon escape.



SIBERIAN MAPLE

### STRIPED MAPLE *Acer pensylvanicum*

Leaves large (up to 20 cm. wide), 3-lobed, and very finely toothed. Bark greenish with white stripes. A small tree. Cool, rocky woods. Rare.



STRIPED MAPLE

# TREES OPPOSITE SIMPLE LEAVES

## RED MAPLE *Acer rubrum*

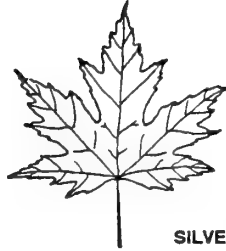
Leaves 3-5 lobed (rarely unlobed) with central lobe wide-based, undersides whitened. Fruit mature in late spring or early summer, each half 1.5-2.5 cm. long. Autumn color bright red and yellow. Wet woods, second growth areas. Abundant.



RED MAPLE

## SILVER MAPLE *Acer saccharinum*

Leaves deeply 5-lobed with central lobe narrowed at base, whitened beneath. First native tree to blossom in spring. Fruit mature in late spring, each half 4-8 cm. long. Autumn color yellow. Often planted. Riverbanks, bottomlands. Common.



SILVER MAPLE

## SYCAMORE MAPLE *Acer pseudo-platanus*

Leaves 5-lobed with lobes broader towards the tips than Red Maple. Mature bark flaky, similar to Sycamore bark. Flowers and fruit in elongated hanging clusters. Fruit maturing in midsummer or early autumn, each half 3-5 cm. long. Frequently planted, occasionally escapes.



SYCAMORE MAPLE

## MOUNTAIN MAPLE *Acer spicatum*

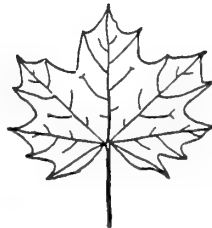
Leaves similar to Red Maple or Sycamore Maple, hairy beneath. Flowers and fruit borne on upright stalks in spike formation. Fruit maturing in late summer or autumn. Small tree or (usually) a large shrub. Introduced at a single site in Concord.



MOUNTAIN MAPLE

## NORWAY MAPLE *Acer platanoides*

Leaves lobed but with few teeth, green beneath. Leafstalk sap milky. Mature bark with many firm, narrow ridges. Autumn color bright yellow, turning late in season. Commonly planted shade tree which sometimes escapes.



NORWAY MAPLE

## SUGAR MAPLE *Acer saccharum*

Leaves lobed but with few teeth, paler beneath. Leafstalk sap not milky. Mature bark deeply furrowed or shaggy. Autumn color scarlet, orange, or yellow. In our area mainly an escape near roadside plantings.



SUGAR MAPLE

# TREES

## ALTERNATE SIMPLE LEAVES

### HAWTHORNS: THORNY TREES WITH MOSTLY UNBRANCHED THORNS

Reliable identification in this group may require examination of flowers. Leaf shapes may vary considerably on the same plant. Leaf characters used below apply primarily to mature leaves of fruiting branchlets. For problem specimens consult the illustrations and key in Seymour's *Flora of New England*.

Hawthorns in our area are found in old pastures, thickets, borders of woods and occasionally in woods. The fruits of some species are palatable and sometimes used for making jellies.

#### **SINGLE-SEED HAWTHORN** *Crataegus monogyna*

Leaves small, deeply sinused; veins running to sinuses as well as to lobes. Fruit usually with only one nutlet. Small tree, occasionally thornless, which uncommonly spreads from cultivation.



SINGLE-SEED HAWTHORN

#### **COCKSPUR THORN** *Crataegus crus-galli*

Leaf base narrow. Leaves essentially unlobed, mostly less than 3 cm. wide, glossy above. Fruit with 1-3 nutlets. Calyx lobes untoothed. Small tree. Uncommon.

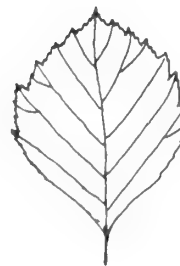


COCKSPUR THORN

#### **LONG-SPINED THORN** *Crataegus macracantha*

(or *C. succulenta* var. *macracantha*)

Leaf base narrowed. Leaves sometimes with small lobes and mostly wider than 3 cm., often glossy above. Fruit with 2-3 nutlets. Calyx lobes toothed. Small tree or stout shrub. Uncommon.



LONG-SPINED THORN

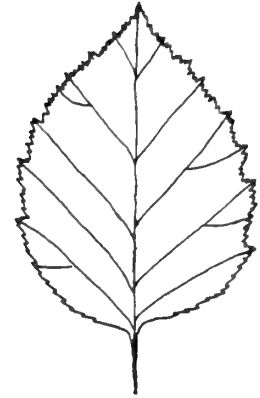


HAWTHORN

# TREES ALTERNATE SIMPLE LEAVES

**SCARLET THORN** *Crataegus coccinea*  
(including *C. pedicellata*, *C. holmesiana*,  
and *C. pringlei*)

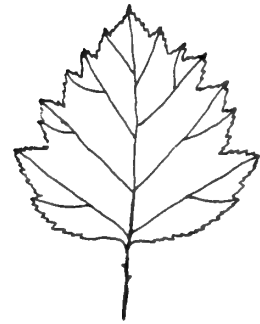
Leaf bases broadly wedge-shaped or rounded.  
Leaves lobed (but lobes sometimes small),  
with some straight hairs above (use hand  
lens), widest near middle. Calyx lobes  
toothed. Stamens with 5-10 pink or red  
heads. Small tree or stout shrub.  
Uncommon.



SCARLET THORN

**VARIABLE THORN** *Crataegus macrosperma*

Our most common hawthorn. Leaves wide-  
based with distinct lobes, generally  
widest below the middle, with some  
straight hairs above (use hand lens).  
Leafstalks sometimes with slight  
glands. Calyx lobes untoothed (or with  
only one or two pairs of teeth). Stamens  
with 5-10 red heads (rarely pink). Small  
tree, sometimes shrubby. Common.



VARIABLE THORN

**FROSTED THORN** *Crataegus pruinosa*

Fruit whitened dull red (or greenish)  
with calyx on a raised collar. Calyx lobes  
untoothed (or with only one or two pairs  
of teeth). Leaves similar to Scarlet Thorn  
but hairless above (use hand lens). Stamens  
15-20 with pink heads. Small tree or shrub.  
Rare.

# TREES

## ALTERNATE SIMPLE LEAVES

**OAKS & SYCAMORE: EVERY LEAF LOBED OR COARSELY ROUND-TOOTHED; 3-5 MAIN VEINS NOT MEETING AT LEAF BASE; THORNLESS**

**SYCAMORE** *Platanus occidentalis*

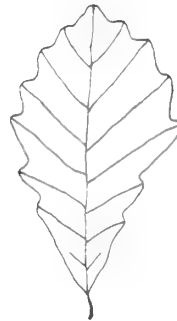
Bark on upper trunk and branches very characteristic: thin brown flakes coming off in jigsaw-puzzle-like pieces exposing whitish underbark. Ball-like heads of fruit mostly single on long stalks (introduced species with more than one per stalk). Low woods, near streams. Occasionally planted. Uncommon.



SYCAMORE

**SWAMP WHITE OAK** *Quercus bicolor*

Leaves mostly with ten or fewer pairs of shallow lobes (side veins) usually rounded, usually white-downy beneath. Acorns on long stalks (2.5-6 cm.), sometimes sweetish, edible if properly prepared. Bark flaky or ridged, sometimes deeply so. Mostly bottomlands, margins of streams, swamps. Common.

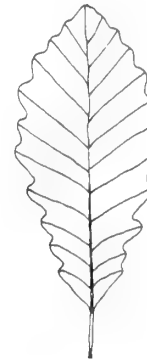


OAK

SWAMP WHITE OAK

**CHESTNUT OAK** *Quercus prinus*

Leaves mostly with 10-16 pairs of rounded "teeth" (side veins), often slightly white-hairy beneath. Acorns on stalks shorter than leafstalk, or stalkless, sometimes sweetish, edible if properly prepared. Trunk bark deeply furrowed. Dry, often rocky woods. Uncommon.



CHESTNUT OAK

**WHITE OAK** *Quercus alba*

Leaves with rounded, distinct lobes, hairless when mature. Acorns on short stalks or stalkless, sometimes sweet, edible if properly prepared. Bark usually pale and flaky. Dry woods, roadsides, pastures. Common.



WHITE OAK

**ENGLISH OAK** *Quercus robur*

Leaves similar to White Oak but lobed at base rather than tapered. Acorns on long stalks. Mature bark deeply furrowed. Infrequently planted; occasionally escapes.



ENGLISH OAK



# TREES

## ALTERNATE SIMPLE LEAVES

### SCRUB OAK *Quercus ilicifolia*

Small tree or usually a shrub. Leaves relatively small (5-12 cm. long), whitish-felted beneath, lustrous dark green above. Acorns small, about 1 cm. long, bitter. Dry, sterile scrub woods, or sandy-gravelly clearings. Common.



SCRUB OAK

### SCARLET OAK *Quercus coccinea*

Leaves with wide rounded sinuses reaching close to midrib, usually lustrous above, mostly hairless beneath, turning dark red in autumn. Leafstalk slender (mostly 1 mm. thick or less). Mature acorn cup (1.5 - 2.2 cm. across) enclosing  $\frac{1}{3}$  or more of acorn; upper scales of cup pressed together (not forming a definite fringe). Acorns bitter. Bark is somewhat intermediate between Red Oak and Black Oak. Dry woods, roadsides. Common.



SCARLET OAK



SCARLET & PIN OAK

### PIN OAK *Quercus palustris*

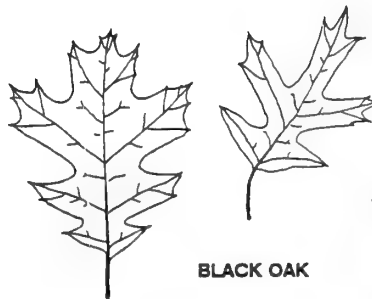
Leaves similar to Scarlet Oak, but acorn cups shallow and only 1-1.6 cm. across. Main trunk essentially straight and undivided (like a pin). Main side branches often drooping or horizontal. Frequently planted. Occasionally escapes cultivation.



PIN OAK

### BLACK OAK *Quercus velutina*

Leaves quite variable in shape, mostly 5-7 lobes, usually dark lustrous green above, somewhat hairy beneath early but becoming mostly hairless. Leafstalk thick, usually distinctly more than 1 mm. thick. Mature acorn cups (1.2-1.9 cm. across) enclosing  $\frac{1}{3}$  or more of acorn; upper scales somewhat loose, forming a rough fringe. Mature trunk bark dark, broken into short, irregular, block-like strips. Acorns bitter, inedible. Dry woods, roadsides. Abundant.



BLACK OAK



### RED OAK *Quercus rubra*

Large, shallow, saucer-like acorn cups are distinctive (1.8-3 cm. wide when mature). Leaves somewhat variable in shape, mostly 7-11 lobes with sinuses usually reaching about halfway to midrib (not more than  $\frac{3}{4}$  of the way), mostly hairless beneath. Trunk bark flat-topped ridges. Acorns bitter. Moist to dry woods, roadsides. Abundant.



RED OAK



# TREES

## ALTERNATE SIMPLE LEAVES

### SOME LEAVES LOBED SOME NOT

**SASSAFRAS** *Sassafras albidum*  
 Leaves untoothed, spicy fragrant when crushed. Fruit berry-like, unpalatable. Dry, open woods and thickets. Uncommon.



SASSAFRAS

**WHITE MULBERRY** *Morus alba*  
 Toothed leaves with 3-5 veins meeting at base, smooth above and mostly hairless beneath. Leafstalk sap milky. Fruit berry-like, dark purplish, pink or white, sweet but without flavor. Roadsides, waste lots. Uncommon.



MULBERRY

**CRABAPPLES** *Pyrus (Malus) spp.*  
 Sometimes lobed on vigorous shoots of some species. Leaves without 3-5 main veins meeting at base. See pp. 103-106.



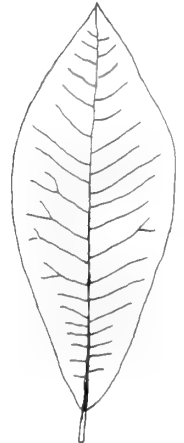
CRABAPPLE

### LEAVES UNTOOTHED AND UNLOBED

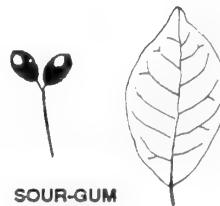
**UMBRELLA MAGNOLIA** *Magnolia tripetala*  
 Leaves very large (30-60 cm. long), crowded in an umbrella-like cluster at ends of flowering branches. Low deciduous woods. Escaped cultivation at one site in Concord.



MAGNOLIA



**SOUR-GUM (BLACK TUPELO)** *Nyssa sylvatica*  
 Leaves of flowering (fruiting) branchlets 3-15 cm. long; veins not reaching strongly forward. Fruits berry-like, sour, mostly two or three on long stalk. Mature bark blocky, often deeply fissured. Leaves turn scarlet in early autumn. Low woods, swamps, shores. Common.



SOUR-GUM

**ALTERNATELEAF DOGWOOD** *Cornus alternifolia*  
 Leaves 6-13 cm. long; main veins reaching strongly forward. Mature bark shallowly fissured. Fruit berry-like, in roundish clusters, unpalatable. Small tree or shrub. Wood borders, thickets, usually dry. Common.



DOGWOOD

**PUSSY WILLOW** *Salix discolor*  
 Leaves narrow, sometimes untoothed. See p. 26.



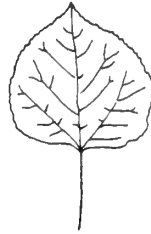
# TREES

## ALTERNATE SIMPLE LEAVES

**POPLARS: LEAVES WITH 3-5 STOUT VEINS MEETING AT LEAF BASE. LEAFSTALKS USUALLY FLATTENED AND COMPARATIVELY LONG. AT LEAST UPPER TRUNK BARK SMOOTH AND PALE (USUALLY TAN-COLORED).**

Note: Atypical leaves are not uncommon in this group, particularly late in the season after stripping of first leaves by insects.

**QUAKING ASPEN** *Populus tremuloides*  
 Leaves fine-toothed (sometimes obscurely) with 20-40 teeth on each margin. Lower bark usually pale-smooth as well. Name derives from leaves which flutter at the least breeze. A short-lived weed tree. Dry, open woods, recent clearings, poor soil. Common.



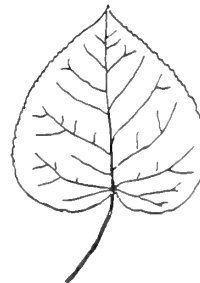
QUAKING ASPEN

**BIGTOOTH ASPEN** *Populus grandidentata*  
 Leaves coarse-toothed with 5-15 teeth on each margin, densely hairy at first, becoming hairless in maturity. Most of bark pale-smooth. Dry, open woods, recent clearings. Common.



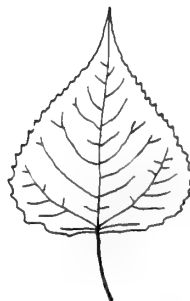
BIGTOOTH ASPEN

**BALM-OF-GILEAD** *Populus X gileadensis*  
 Leafstalks usually rounded. Leaves fine-toothed (3-4 teeth per cm.), somewhat hairy beneath especially on midrib and principal veins; young ones fragrant when crushed. Roadsides. Rare escape.



BALM-OF-GILEAD

**COMMON COTTONWOOD** *Populus deltoides*  
 Leaves somewhat triangular, coarse-toothed; leaf tip tapered. Leafstalk with small glands at leaf base. Mature bark gray, ridged or scaly. Woods, river bottomlands, roadsides. Uncommon escape.



COTTONWOOD



ASPEN



COTTONWOOD

**WHITE POPLAR** *Populus alba*  
 Leaves irregularly very coarse-toothed or lobed, white-hairy beneath, very dark green above. Leafstalk usually rounded. Occasionally escapes cultivation.



WHITE POPLAR

# TREES

## ALTERNATE SIMPLE LEAVES

**WILLOWS: LEAVES USUALLY VERY NARROW. LEAFSTALKS USUALLY QUITE SHORT. LEAFY GROWTHS (STIPULES) OFTEN PRESENT ON TWIGS AT BASE OF LEAFSTALKS. BUDS COVERED BY SINGLE SCALE (USUALLY VISIBLE FROM MIDSUMMER ON; EARLIER LOOK FOR DEAD BUDS).**

### **BLACK WILLOW** *Salix nigra*

Leaves pure green beneath, .5-1.5 cm. wide, usually 10-14 times as long as wide, fine-toothed. Leaf teeth gland-tipped. Leafstalks without glands. Leafy stipules often prominent. Twigs becoming hairless. Tree or shrub with flaky, dark brown to blackish bark. Riverbanks, meadows, pond shores, occasionally swamps and low, damp ground. Common.



### **PUSSY WILLOW** *Salix discolor*

Our only wild, tree-like willow blossoming before the appearance of leaves. Leaves sometimes nearly untoothed, 2-4 times as long as wide, whitened and becoming hairless beneath, green above. Leafstalks without glands. Tree or shrub. Damp situations. Common.



BLACK WILLOW



PUSSY WILLOW

### **SHINING WILLOW** *Salix lucida*

Mature leaves not distinctly whitened beneath, 5-17 cm. long, 1.5-5 cm. wide, mostly with long-tapered tips. Leafstalk with glands near base. Small tree or large shrub. Meadows, shores, low ground, swamps. Rare.



SHINING WILLOW



WILLOW FRUIT

# TREES

## ALTERNATE SIMPLE LEAVES

### WHITE WILLOW *Salix alba*

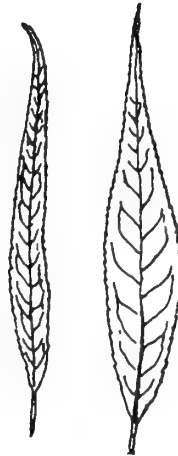
Leaves 4-6 times as long as wide, usually whitened and silky beneath, fine-toothed (7-12 teeth per cm.), 1-2.5 cm. wide. Leafstalk may bear small glands at leaf base. Branchlets droop somewhat but not conspicuously. Medium-sized or large tree. Frequently planted. An uncommon escape in low ground and along riverbanks.



WHITE WILLOW

### WEeping WILLOW *Salix babylonica*

Mature leaves whitened beneath, mostly more than 6 times as long as wide, mostly with less than 8 short teeth per cm., .5-2 cm. wide. Leafstalk may bear small glands at leaf base. Branchlets conspicuously hanging. Medium-sized or large tree. Frequently planted. Rarely escapes cultivation to low ground.



WEeping WILLOW

### CRACK WILLOW *Salix fragilis*

Branchlets very brittle at base (breaking off easily). Mature leaves pale beneath, mostly with less than 8 prominent teeth per cm., 1.5-3 cm. wide. Leafstalks may bear small glands at leaf base. Medium-sized or large tree. Uncommon escape to shores and swamps.



CRACK WILLOW

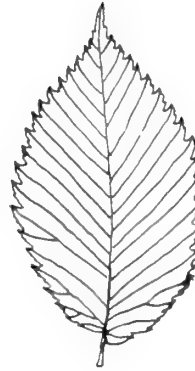
# TREES

## ALTERNATE SIMPLE LEAVES

**ELMS: LEAVES DOUBLE-TOOTHED, WITH UNEVEN, ROUNDED LEAF BASES. OFTEN SANDPAPERY ABOVE.**

### **AMERICAN ELM** *Ulmus americana*

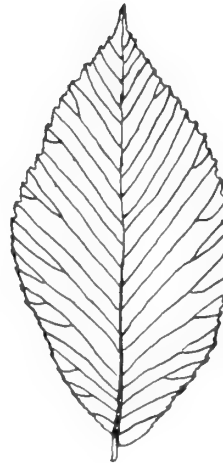
When growing in the open, vase-shaped form of tree is distinctive. Leaves deeply coarse-toothed; main side veins fork a few times at most. Fruit wafer-like, fringed along the edge. Rich soils, especially along streams, roadsides. Common (most often as young trees because of Dutch Elm disease).



AMERICAN ELM

### **SLIPPERY ELM** *Ulmus rubra*

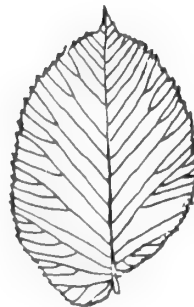
Leaves 10-20 cm. long, shallowly toothed, hairy beneath (especially on veins); main side veins frequently forked. Twigs sandpapery rough. Fruit wafer-like, hairy at center, not fringed along edge. Common name derives from slimy inner bark. Rich woods, bluffs. Rare.



SLIPPERY ELM

### **WYCH ELM** *Ulmus glabra*

Leaves mostly 8-16 cm. long, prominently toothed, sometimes slightly 3-lobed toward tip; main side veins frequently forked. Twigs hairy. Fruit wafer-like, hairless, not fringed along edge, comparatively large (1.5 cm. or more in width). Rarely escapes cultivation to roadsides.



WYCH ELM



ELM FRUIT

# TREES

## ALTERNATE SIMPLE LEAVES

**BIRCHES: UPPER TRUNK BARK MARKED BY NUMEROUS CROSS-STREAKS, SOMETIMES PEELING IN PAPERY CURLS. MAIN SIDE VEINS GENERALLY RUNNING DIRECTLY TO LEAF EDGE. SPUR BRANCHES TWO-LEAVED.**

**GRAY BIRCH** *Betula populifolia*

A shrub-like weed tree. Typical mature bark dingy white, often not peeling. Leaves hairless, often shiny, with tail-like tip and straight-cut (or nearly so) leaf base. Male catkins (or catkin buds) mostly solitary or occasionally in 2's. Dry to wet soils, especially old fields and roadsides. Common.



GRAY BIRCH



MALE CATKINS



FEMALE CATKINS

**PAPER BIRCH** *Betula papyrifera*

Mature trunk bark usually clear white, often peeling. Bark of saplings and young branches brown. Leaves broadly wedge-based or round-based, usually with some tufts of hair beneath in leaf vein angles. Male catkins (or catkin buds) mostly in clusters of 2-3. Mostly north-facing wooded slopes, rich woods. Common.



PAPER BIRCH

**EUROPEAN WEeping BIRCH** *Betula pendula*

Mature bark white, more or less peeling. Young bark brown. Branchlets hanging. Leaves generally smaller than two preceding species (3-7 cm. long on fruiting branchlets). Leaf bases wedge-shaped or straight-cut. Twigs hairless. Male catkins clustered 1-3. Escapes cultivation rarely.



EUROPEAN WEeping BIRCH

**RIVER BIRCH** *Betula nigra*

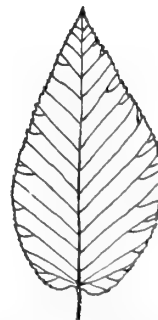
Young bark reddish brown to whitish cinnamon, much peeling and shaggy. Mature trunk bark dark and furrowed. Leaves broadly wedge-based. Twigs hairy. Stream borders. Uncommon.



RIVER BIRCH

**BLACK BIRCH** *Betula lenta*

Bark dark brown, usually not peeling, furrowed when mature. Broken twigs very wintergreen fragrant. Mostly rich, well-drained (dryish) woods. Common.



BLACK & YELLOW BIRCH

**YELLOW BIRCH** *Betula alleghaniensis*

Young bark yellowish- or silver-gray (often drab) and peeling. Broken twigs somewhat wintergreen fragrant. Rich moist woods or swamps. Uncommon.

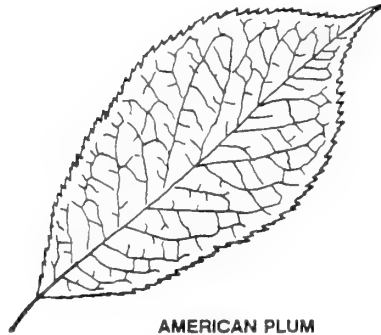
# TREES

## ALTERNATE SIMPLE LEAVES

**CHERRIES & PLUMS: LEAFSTALKS AND LEAF TEETH USUALLY BEARING GLANDS. MAIN SIDE VEINS GENERALLY NOT REACHING LEAF TEETH. UPPER TRUNK BARK OFTEN MARKED WITH CROSS-STREAKS. FRUIT WITH 1 SEED.**

### AMERICAN PLUM *Prunus americana*

Fruit (flowers) not in elongated clusters. Leaf teeth sharp and not bearing glands. Leafstalk glands sometimes present. Spur branches often spiny and sharp. Mature fruit more or less spherical, about 2.5 cm. long, with a groove or line running from base to tip, red or yellow, juicy, usually a bit sour but edible. Often a shrub. Thickets, roadsides, wood borders. Uncommon.



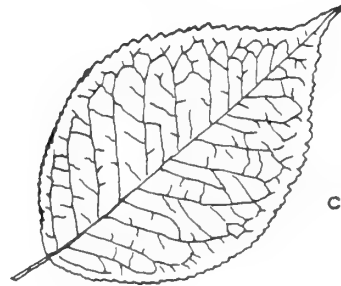
AMERICAN PLUM



PLUM

### CANADA PLUM *Prunus nigra*

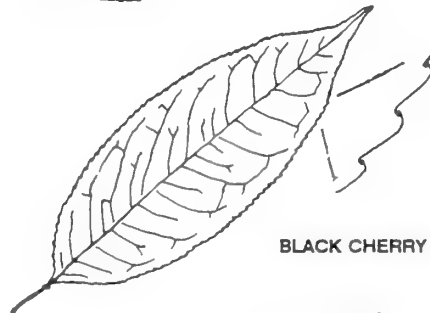
Fruit (flowers) not in elongated clusters. Leaf teeth rounded. Spur branches often spiny sharp. Mature fruit oblong, 2.5 cm. long, with a groove or line running from base to tip, orange-red to yellowish, edible. A small tree or shrub. Thickets, fencerows, wood borders. Rare.



CANADA PLUM

### BLACK CHERRY *Prunus serotina*

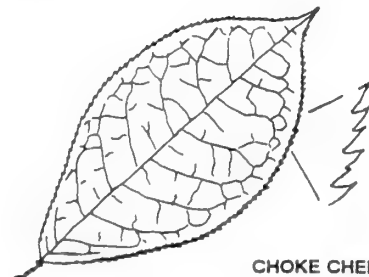
Fruit (flowers) in elongated clusters. Leaf teeth blunt. Leaves often with midrib hairy beneath; tips not abruptly tapered. Dark purple or black cherries have bitter-sweet pulp, edible when fully ripe. Woods, roadsides. Abundant.



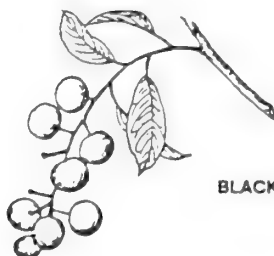
BLACK CHERRY

### CHOKE CHERRY *Prunus virginiana*

Fruit (flowers) in elongated clusters. Leaf teeth sharp. Leaves with mostly hairless midribs; tips abruptly tapered. Purplish red or pale yellow fruit is tart, scarcely palatable raw, but used in jellies and pies. Usually a shrub, occasionally a small tree. Roadsides, thickets, wood borders. Common.



CHOKE CHERRY



BLACK & CHOKE CHERRIES



# TREES ALTERNATE SIMPLE LEAVES

## **PIN (FIRE) CHERRY** *Prunus pensylvanica*

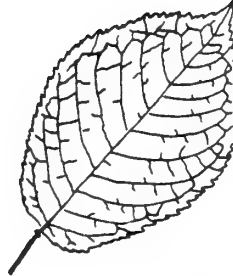
Fruit (flowers) not in elongated clusters.  
Leaves finely toothed (10-18 teeth per cm.),  
hairless or nearly so beneath. Mature fruit  
small, only 5-7 mm. thick, red, without a  
groove or line from base to tip, edible and  
used in jellies. A small tree or shrub. Dry,  
open woods, roadsides, recent burns. Common.



PIN CHERRY

## **SWEET CHERRY** *Prunus avium*

Fruit (flowers) not in elongated clusters.  
Leaves more coarsely toothed (5-10 teeth per  
cm.), hairy on veins beneath, inclined to  
droop, up to 15 cm. long. Mature fruit 1.5-2.5  
cm. thick, variable in color, without a  
groove or line from base to tip, sweetish  
and edible. Old house sites, roadsides,  
woods. Uncommon escape.



SWEET & SOUR  
CHERRIES

## **SOUR CHERRY** *Prunus cerasus*

Fruit (flowers) not in elongated clusters.  
Leaves more coarsely toothed (5-10 teeth per  
cm.), hairless, more or less erect, up to  
10 cm. long. Mature fruit 1.5-2.5 cm. thick,  
red, without a groove or line from base to  
tip, sour. Roadsides, thickets. Rare escape.



CHERRY

# TREES

## ALTERNATE SIMPLE LEAVES

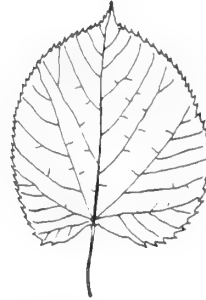
### MISCELLANEOUS SPECIES (ALL LEAVES TOOTHED, UNLOBED)

#### PART A: 3-5 MAIN VEINS MEETING AT LEAF BASE

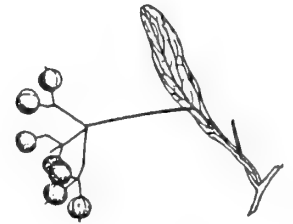
##### AMERICAN LINDEN (BASSWOOD)

*Tilia americana*

Leaves large (on fruiting branchlets mostly 7-20 cm. long), hairless beneath; leaf tips abruptly tapered; teeth slender-tipped. Leafstalks 3-5 cm. long. Rich woods, river-banks. Sometimes planted. Uncommon.



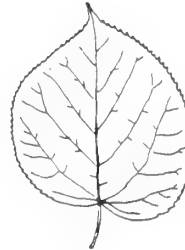
AMERICAN LINDEN



LINDEN

##### EUROPEAN LINDEN *Tilia europaea*

Leaves on fruiting branchlet mostly 5-10 cm. long, hairless beneath; leaf tips abruptly tapered; teeth short-pointed. Leafstalks 3-5 cm. long. Lower branches usually drooping. Sometimes escapes from roadside plantings.



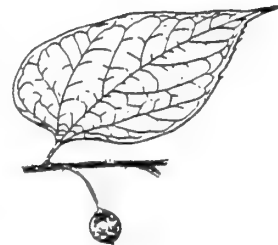
EUROPEAN LINDEN

##### AMERICAN HACKBERRY *Celtis occidentalis*

Leaf tips gradually tapered. Leafstalks 1-1.5 cm. long. Mature bark often with corky warts or ridges. Fruit berry-like, edible. Open places, wood borders, roadsides. Rare.



HACKBERRY



# TREES

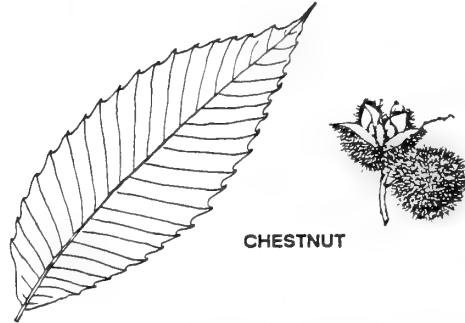
## ALTERNATE SIMPLE LEAVES

### MISCELLANEOUS SPECIES (ALL LEAVES TOOTHED, UNLOBED)

#### PART B: MAIN SIDE VEINS (3-5 NOT MEETING AT BASE) PROMINENT, RUNNING DIRECTLY TO LEAF EDGE

##### **AMERICAN CHESTNUT** *Castanea dentata*

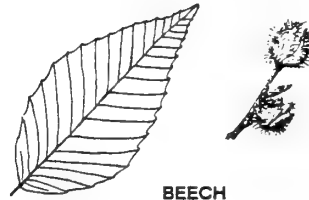
Leaves coarsely single-toothed, long (13-23 cm.). Leaf teeth sharp and prominent. Dry, gravelly, mostly acid soil. Once abundant, now common as sprouts from roots and stumps of blight victims. Occasionally maturing enough to bear fruit before dying.



CHESTNUT

##### **AMERICAN BEECH** *Fagus grandifolia*

Leaves coarsely and distinctly single-toothed, 6-12 cm. long, mostly with 12-16 pairs of side veins (introduced species with 9 or fewer and with indistinct teeth). Smooth, gray bark often subjected to initials carving. Rich woods. Uncommon.



BEECH

##### **IRONWOOD (AMERICAN HORNBEAM)**

*Carpinus caroliniana*

Small tree or shrub with distinctive smooth, sinewy-muscular-like bark. Leaves double-toothed, main veins seldom fork. Wood very hard and tough, used (at least formerly) for axe handles. Low or wet woods, stream banks. Uncommon.



IRONWOOD

##### **HOP-HORNBEAM** *Ostrya virginiana*

Mature bark scaly or shreddy with rectangular scales; young bark brown, resembling cherry or birch. Leaves double-toothed; main veins frequently fork. Wood very hard and tough, used (at least formerly) for axe handles. Woods, mostly rich and dry. Uncommon.



HOP-HORNBEAM

# TREES

## ALTERNATE SIMPLE LEAVES

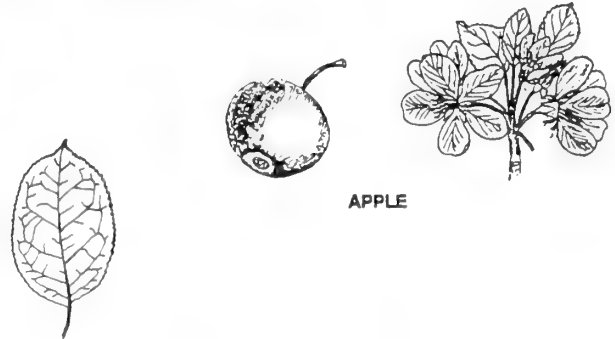
### MISCELLANEOUS SPECIES (ALL LEAVES TOOTHED, UNLOBED)

#### PART C: MAIN SIDE VEINS (3-5 NOT MEETING AT BASE) NOT RUNNING DIRECTLY TO LEAF EDGE.

APPLE, PEAR, CRABAPPLES: FRUIT (FLOWER) CLUSTERS NOT TREE-LIKE; STALKS JOINED NEAR ONE POINT.

**COMMON APPLE** *Pyrus malus* (*Malus pumila*)

Leaves single-toothed, hairy beneath, 4.5-10 cm. long; leaf teeth rounded. Branches with many spur branches. Fruit of wild trees usually small and often "crippled". Roadsides, old pastures, wood borders. Uncommon escape.



APPLE

**COMMON PEAR** *Pyrus communis*

Leaves single-toothed, hairless beneath, 2-8 cm. long; leaf teeth rounded. Spur branches often spiny. Fruit of wild trees usually small (seldom longer than 5 cm.), greenish, rather dry and gritty. Rarely escapes cultivation.

APPLE & PEAR



PEAR

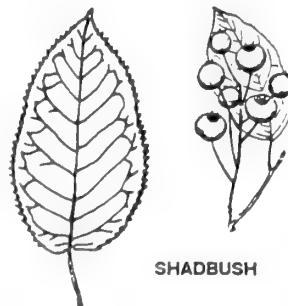
**CRABAPPLES** *Pyrus* (*Malus*) *spp.*

Leaves mostly with fewer than 8 main side vein pairs. Fruits mostly less than 3 cm. thick. See pp. 103-106.

**SHADBUSHES: FLOWERS (FRUIT) ARRANGED (OUR SPECIES) IN TREE-LIKE CLUSTERS. TRUNK BARK USUALLY SMOOTH WITH INTER-LACING STRIPES OR RIDGES. SMALL TREES OR SHRUBS. OUR SPECIES WITH 9 OR MORE SIDE VEIN PAIRS.**

**SMOOTH SHADBUSH** *Amelanchier laevis*

Leaves hairless beneath (nearly so at flowering time) with reddish or purplish cast in spring; teeth with sinuses sometimes rounded. Fruit dark purplish, juicy, sweet. Open woods, thickets, roadsides. Uncommon.



SHADBUSH

**DOWNY SHADBUSH** *Amelanchier arborea*

Leaves hairy beneath at flowering time and remaining somewhat hairy near base and on stalk; teeth long and wide-spreading. Fruit reddish-purple, dry, tasteless. Dry, often rich, woods, thickets. Rare.

# SHRUBS NEEDLE-LIKE LEAVES

## **AMERICAN YEW** *Taxus canadensis*

Needles flat and pointed. Fruit fleshy, cup-like, red; pulp edible; seeds poisonous. Low shrub, usually less than 1 meter high (rarely tree-like and up to 2 meters high). Cool, moist woods. Rare.

## **COMMON JUNIPER** *Juniperus communis*

Needles 3-sided, in whorls of 3. Fruit berry-like, bluish, used for flavoring. Common form usually less than 1 meter high and known as Ground Juniper (var. *depressa*). Tree form rare. Dry pastures, open rocky woods, roadside banks. Common.



JUNIPER



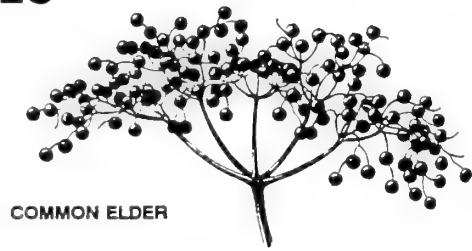
YEW

# SHRUBS

## OPPOSITE COMPOUND LEAVES

### COMMON ELDER *Sambucus canadensis*

Leaves with 5-11 leaflets. Fruit (flowers) in flattish or broadly rounded clusters. Berry-like fruit purple-black, bitter-tasting, used in wine, jelly, etc. New growth scarcely woody. Moist thickets, wet woods, swamps, meadows, roadsides. Common.



COMMON ELDER

### RED-BERRIED ELDER *Sambucus pubens*

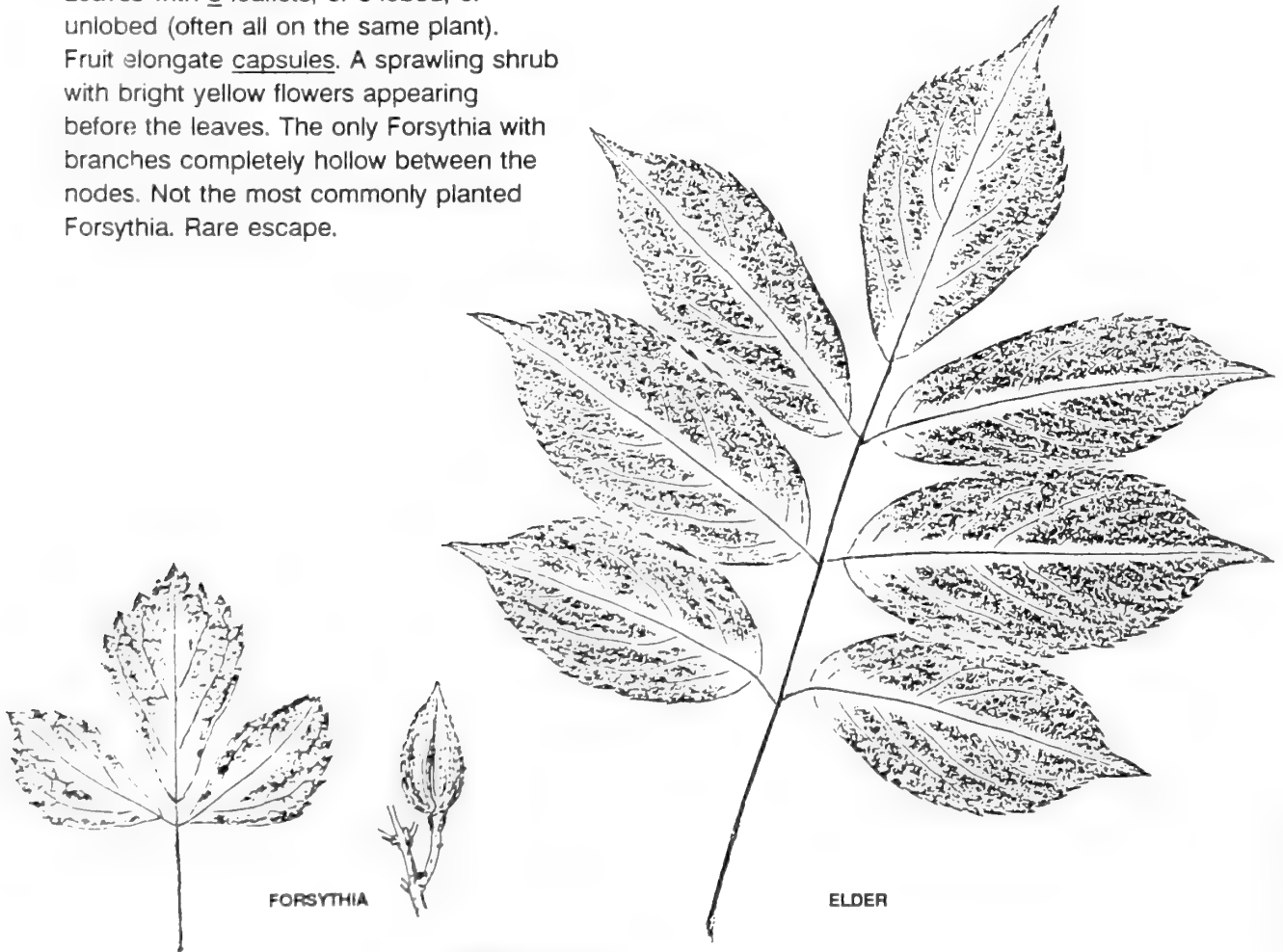
Leaves with 5-7 leaflets. Fruit (flowers) in cone-shaped clusters. Berry-like fruit red (rarely whitish or yellow), unpalatable. Woods, hillsides. Rare.



RED-BERRIED ELDER

### WEeping FORSYTHIA *Forsythia suspensa*

Leaves with 3 leaflets, or 3-lobed, or unlobed (often all on the same plant). Fruit elongate capsules. A sprawling shrub with bright yellow flowers appearing before the leaves. The only Forsythia with branches completely hollow between the nodes. Not the most commonly planted Forsythia. Rare escape.



FORSYTHIA

ELDER

(PRINTS FULL SIZE)

# SHRUBS OPPOSITE LOBED LEAVES

Note: Maples generally have much longer leafstalks than the following two maple-like Viburnums.

**MAPLELEAF VIBURNUM** *Viburnum acerifolium*

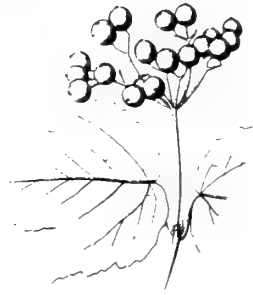
Leaves 3-lobed (occasional leaf unlobed).  
Leafstalks hairy, glandless. Berry-like  
fruit purple-black or red, unpalatable.  
Dry or rocky woods. Common.



MAPLELEAF VIBURNUM

**CRANBERRY VIBURNUM** *Viburnum opulus*  
including *V. trilobum*

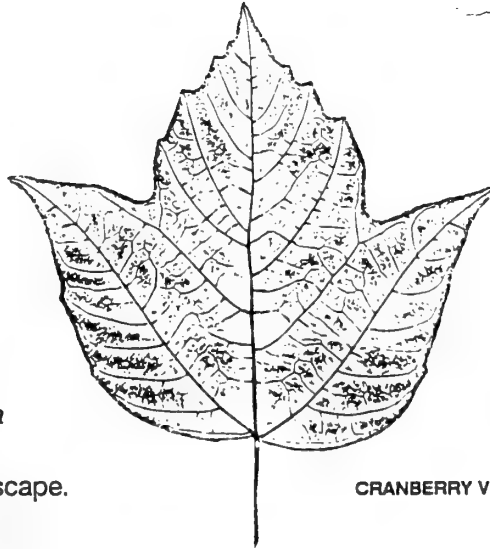
Leaves 3-lobed (some leaves unlobed).  
Leafstalks hairless and with glands.  
Berry-like fruit red, with tart flavor,  
used in preserves and jelly. Cool woods,  
moist thickets, shores, roadsides.  
Uncommon.



VIBURNUM

**SIBERIAN MAPLE** *Acer ginnala*

Leaves 3-lobed (occasional leaf unlobed)  
with central lobe much lengthened. Maple  
keys maturing in late summer or early  
autumn. Sometimes a small tree. Road-  
sides, woods, thickets. Uncommon escape.



CRANBERRY VIBURNUM

**MOUNTAIN MAPLE** *Acer spicatum*

Leaves 3-5 lobed. Sometimes a small tree.  
Introduced at a single site in Concord.  
See p. 19.

**WEeping FORSYTHIA** *Forsythia suspensa*

Leaves sometimes 3-lobed, but also may  
be unlobed or compound (3 leaflets). Rare escape.

**COMMON SNOWBERRY** *Symphoricarpos albus*

Leaves sometimes irregularly round-lobed  
but usually are unlobed. Berry-like  
fruit white. Rare escape. See p. 42.



(PRINTS 2/3 SIZE)

SNOWBERRY



FORSYTHIA



SIBERIAN MAPLE



# SHRUBS OPPOSITE WHORLED LEAVES

LEAVES OFTEN 3 OR MORE AT A NODE

**SHEEP LAUREL** *Kalmia angustifolia*

Leaves 2-6 cm. long, untoothed, evergreen. Fruit globular capsules. Small shrub up to about 1 meter high. Mostly acid soils in the open (scrub woods, old fields, bogs, etc.). Common.



SHEEP LAUREL

**BUTTONBUSH** *Cephalanthus occidentalis*

Leaves 6-15 cm. long, untoothed. Fruit (flowers) in dense, spherical heads. Large spreading shrub. Riverbanks, pond shores, swamps. Common.

SHEEP LAUREL

**SHRUBBY ST. JOHN'S-WORT**

*Hypericum spathulatum*

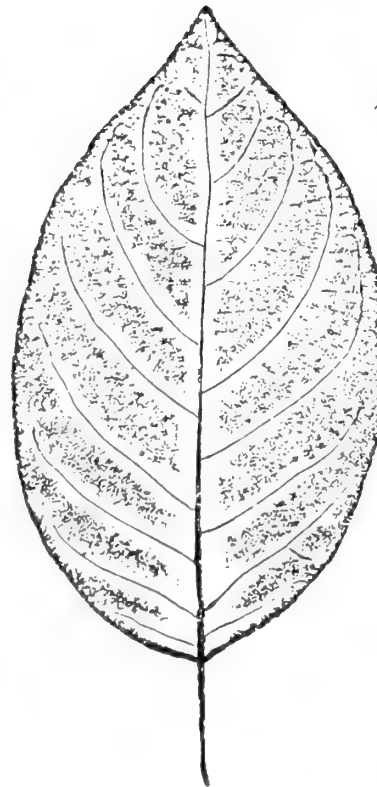
Leaves mostly 3-7 cm. long, untoothed; two larger leaves often with smaller leaves attached at same node. Fruit elongated capsules. Fields, roadsides. Rare escape.



BUTTONBUSH

**PANICLE HYDRANGEA** *Hydrangea paniculata*

Toothed leaves, occasionally in whorls of 3. Rare escape. See p. 46.



BUTTONBUSH

**MOUNTAIN LAUREL** *Kalmia latifolia*

Dark green, leathery-evergreen, untoothed leaves sometimes in whorls, but mostly alternate. See p. 74.



SHRUBBY ST. JOHN'S-WORT



BUTTONBUSH

(PRINTS FULL SIZE)

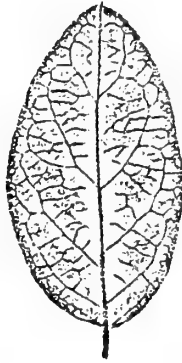


# SHRUBS OPPOSITE UNTOOTHED LEAVES

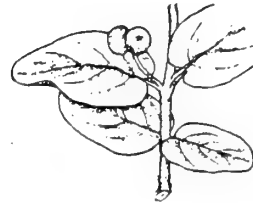
**HONEYSUCKLES (IN PART): BERRY-LIKE FRUIT (FLOWERS)  
IN PAIRS (OR "BERRIES" 2-EYED) AT ENDS OF STALKS.  
"BERRIES" USUALLY RED, BITTER. BUNDLE SCARS 3.**

**MORROW HONEYSUCKLE** *Lonicera morrowi*

Leaves hairy beneath. Fruit (flower) stalks somewhat short (.5-1.5 cm. long) and hairy. Flowers white turning yellow. Roadsides, thickets, low woods. Abundantly naturalized.



MORROW HONEYSUCKLE



HONEYSUCKLE

**BELLE HONEYSUCKLE** *Lonicera X bella*

Leaves sparsely hairy or hairless beneath. Fruit (flower) stalks somewhat short (.5-1.5 cm. long) and sparsely hairy or hairless. Flowers pink turning yellow. A hybrid between preceding and following species. Roadsides, thickets. Uncommon escape.



HONEYSUCKLE

**TATARIAN HONEYSUCKLE** *Lonicera tatarica*

Leaves hairless beneath. Fruit (flower) stalks somewhat long (1.5-2 cm. long) and hairless. Flowers pink or white, not turning yellow. Roadsides, thickets. Uncommon escape.



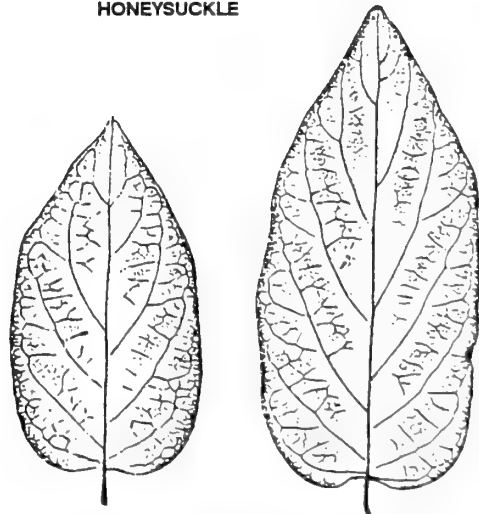
EUROPEAN FLY  
HONEYSUCKLE

**[EUROPEAN FLY HONEYSUCKLE** *Lonicera xylosteum*

Flowers 2-lipped. An escape reported from scattered New England localities, possibly in our area.]

**[MOUNTAIN FLY HONEYSUCKLE** *Lonicera villosa*

"Berries" blue; pairs united into 2-eyed "berries". Swamps, bogs. Recorded in Sherborn, possibly in our area.]



BELLE & TATARIAN HONEYSUCKLE

(PRINTS FULL SIZE)



2-EYED BERRY

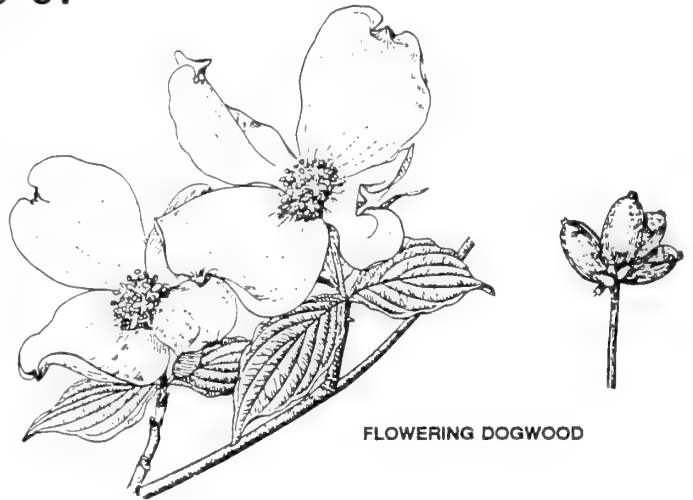
# SHRUBS

## OPPOSITE UNTOOTHED LEAVES

**DOGWOODS (IN PART): MAIN LEAF VEINS REACHING FORWARD. BERRY-LIKE FRUIT USUALLY WHITE OR BLUE, BITTER. BUNDLE SCARS 3.**

**FLOWERING DOGWOOD** *Cornus florida*

"Berries" in a tight bunch, becoming red (occasionally yellow). Flowers with large, petal-like bracts. A large shrub or small tree. Acidic woods. Uncommon.



FLOWERING DOGWOOD

**GRAY DOGWOOD** *Cornus racemosa*

Fruit (flowers) in more or less cone-like clusters, not flattish or broadly rounded. Leaves narrow (1-4 cm. wide). "Berries" white, usually on red stalks. Thickets, openings. Common.

**SILKY DOGWOOD** *Cornus amomum*

Branchlet pith brown or grayish. Leaves green (or rusty with brownish hairs) beneath. "Berries" blue or bluish-white. Form with leaves wedge-based and pale beneath often treated as separate species (*C. obliqua*). Damp (occasionally dry) thickets, shores, river meadows. Common.



GRAY DOGWOOD

**RED-OSIER DOGWOOD** *Cornus stolonifera*

Branchlet pith white. New branchlets and twigs deep red. Leaves with 5-7 pairs of main side veins and pale beneath. "Berries" whitish (occasionally with blue flush). Shores, damp thickets. Uncommon.

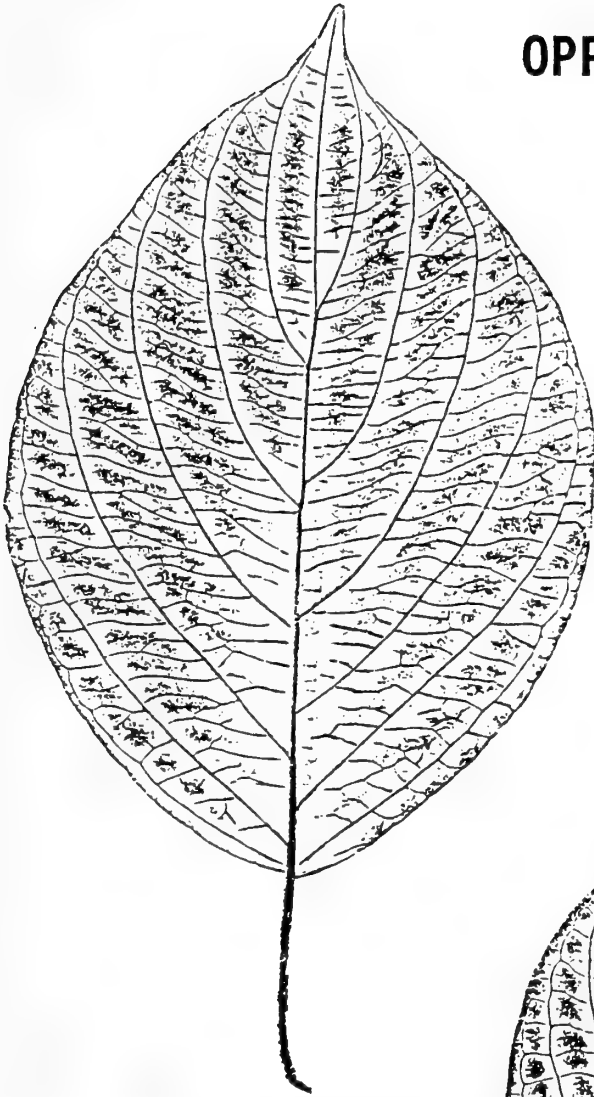
**ROUNDLEAF DOGWOOD** *Cornus stolonifera*

Branchlet pith white. New branchlets greenish, usually blotched with purple. Leaves with 6-9 pairs of main side veins, sometimes nearly round. "Berries" light blue (rarely white). Rich wood borders, thickets in sweet soil. Uncommon.



SILKY, RED-OSIER, & ROUNDLEAF DOGWOOD

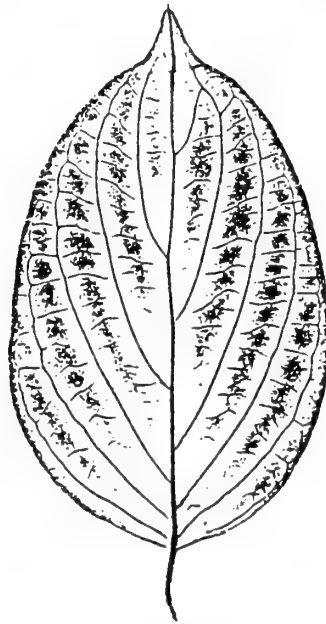
# SHRUBS OPPOSITE UNTOOTHED LEAVES



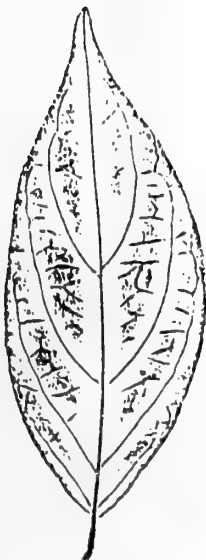
ROUNDLEAF DOGWOOD



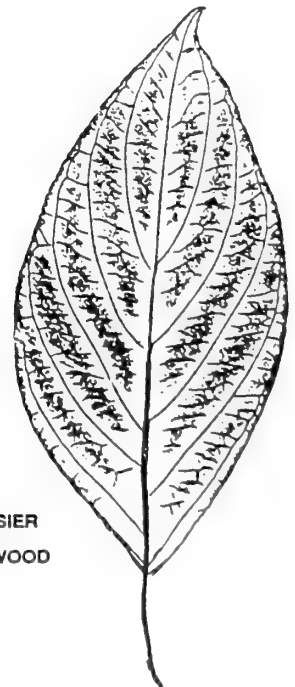
FLOWERING DOGWOOD



SILKY DOGWOOD



GRAY  
DOGWOOD



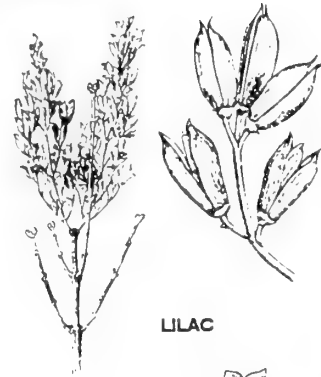
RED-OSIER  
DOGWOOD

(PRINTS FULL SIZE)

# SHRUBS OPPOSITE UNTOOTHED LEAVES

## MISCELLANEOUS SPECIES.

**COMMON LILAC** *Syringa vulgaris*  
Leaves more or less heart-shaped. Flowers in cone-shaped clusters. Fruit elongate capsules. Near former dwellings, roadsides. Uncommon escape.



LILAC

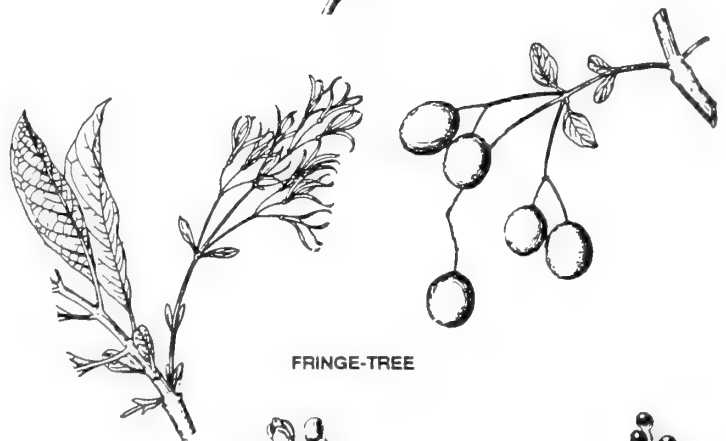
**WHITE FRINGE-TREE** *Chionanthus virginicus*  
Leaves 8-20 cm. long. Berry-like fruit purple or dark blue, 1-1.8 cm. long; edibility unknown. Large shrub or small tree. Thickets, roadsides. Rare escape.



LILAC

**COMMON SNOWBERRY** *Symphoricarpos albus*  
Leaves 1-5 cm. long, occasionally irregularly lobed. Berry-like fruit white, inedible. Near former dwellings, roadsides. Rare escape.

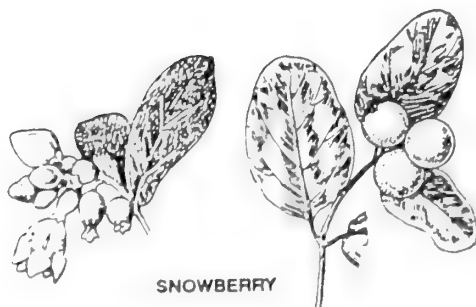
**EUROPEAN PRIVET** *Ligustrum vulgare*  
Leaves 3-6 cm. long. Berry-like fruit black, 6-8 mm. long, somewhat poisonous. Often planted for hedges. Sometimes escapes to thickets and roadsides.



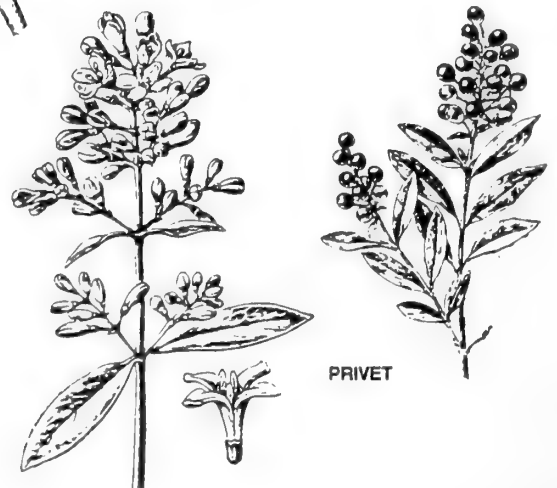
FRINGE-TREE

**WITHEROD** *Viburnum cassinoides*  
Sometimes with untoothed leaves. Bundle scars 3. See p. 44.

**PALE LAUREL** *Kalmia polifolia*  
Small bog shrub. See p. 102.

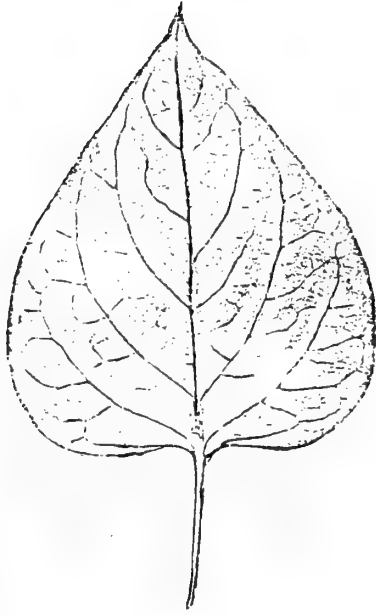


SNOWBERRY

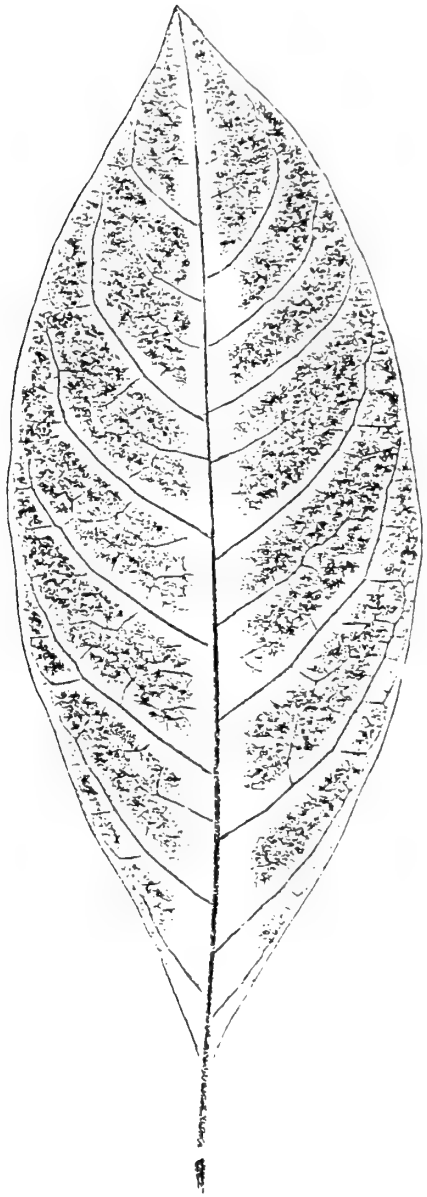


PRIVET

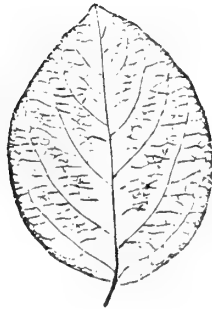
# SHRUBS OPPOSITE UNTOOTHED LEAVES



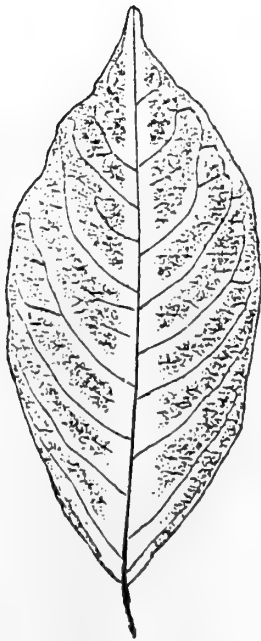
LILAC



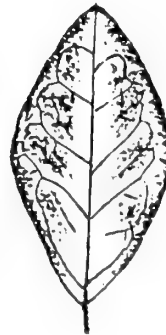
FRINGE-TREE



SNOWBERRY



WITHEROD



PRIVET

(PRINTS FULL SIZE)

# SHRUBS OPPOSITE TOOTHED LEAVES

**VIBURNUMS (IN PART): FRUIT CLUSTERS OF 1-SEEDED "BERRIES". FLOWERS 5-PETALED, FORMING BROAD CLUSTERS.**

**NORTHERN ARROWWOOD** *Viburnum recognitum*

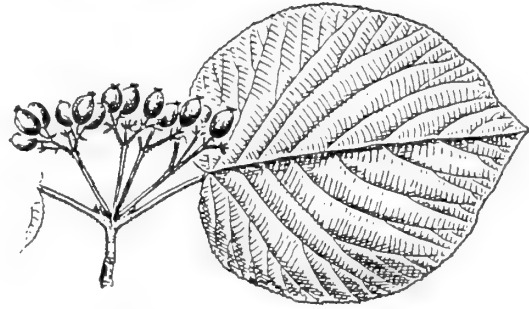
Leaf teeth large. Main side veins prominent, running directly to leaf edge. "Berries" blue, dry and "puckery". Damp thickets, borders of woods (occasionally in woods). Common.



ARROWWOOD

**HOBBLEBUSH** *Viburnum alnifolium*

Leaves large (10-20 cm. long) and nearly as wide as long, fine-toothed. Fruit (flower) clusters essentially stalkless. "Berries" red turning nearly to black, edible when thoroughly ripe. Woods. Rare.



HOBBLEBUSH

**NANNYBERRY** *Viburnum lentago*

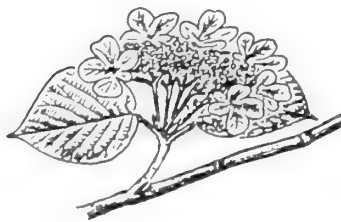
Leafstalks warty-edged. Leaves sharply fine-toothed. Fruit (flower) clusters essentially stalkless. "Berries" dark blue, edible. Occasionally a small tree. Borders of woods, moist thickets, roadsides. Uncommon.



NANNYBERRY

**WITHEROD** *Viburnum cassinoides*

Often toothed and untoothed leaves on same plant. Leaf teeth not sharp or large. Fruit (flower) clusters on stalks. "Berries" turning dark blue, covered with bloom, edible when fully ripe. Thickets, swamps, borders of woods. Common.

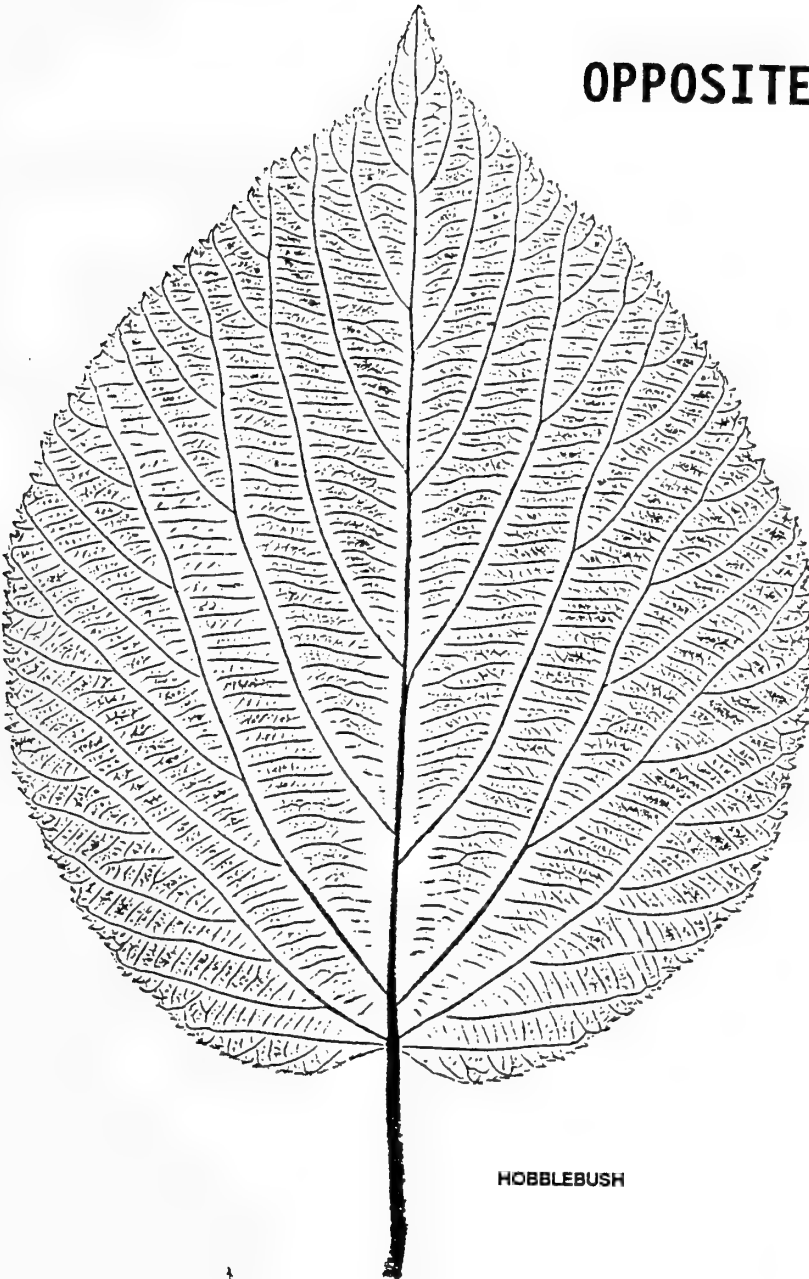


VIBURNUM FLOWERS

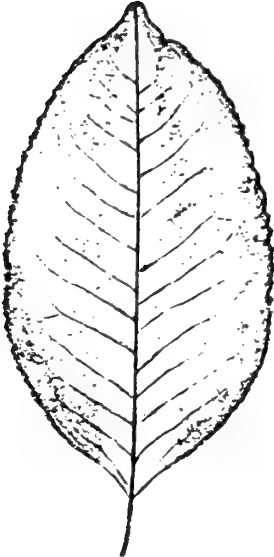


WITHEROD

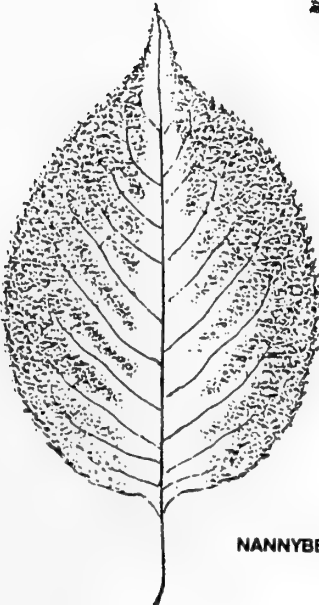
# SHRUBS OPPOSITE TOOTHED LEAVES



HOBBLEBUSH



WITHEROD



NANNYBERRY



ARROWWOOD

(PRINTS FULL SIZE)

# SHRUBS OPPOSITE TOOTHED LEAVES

MISCELLANEOUS SPECIES: FRUIT CAPSULE-LIKE. OPPOSING  
LEAF SCARS CONNECTED BY LINES.

**COMMON BUSH-HONEYSUCKLE** *Diervilla lonicera*

Leaves with long-tapered tips. Fruit (flowers) mostly in 3's. Fruit long-pointed capsules. Low shrub up to 1 meter high. Dry, open woods, roadsides. Uncommon.



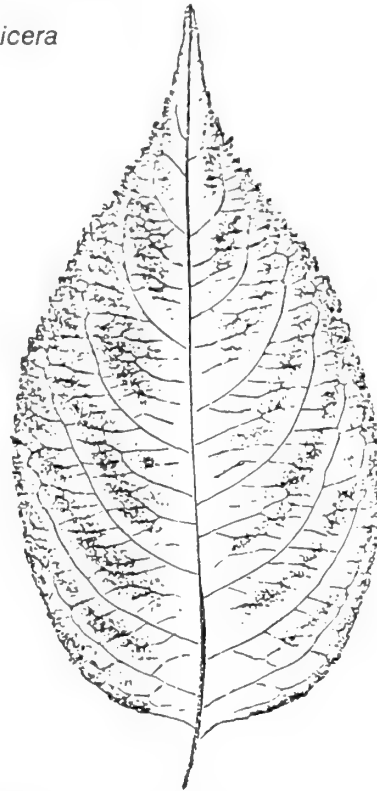
**PANICLE HYDRANGEA**

*Hydrangea paniculata*

Leaves hairy on veins beneath. Flowers in showy, cone-shaped clusters appearing in late summer. Fruit small capsules. Sometimes a small tree. Wet woods. Rare escape.

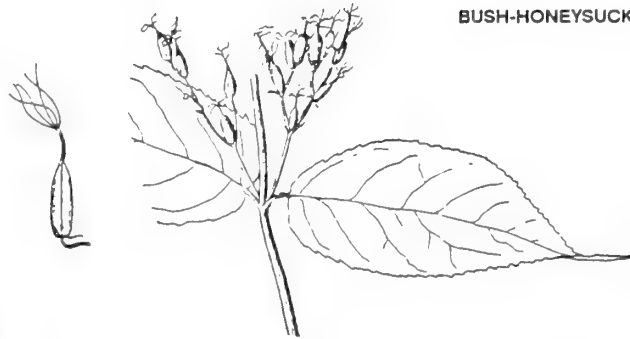
**[MOCK-ORANGES** *Philadelphus spp.*

Leaves coarse-toothed, with main veins reaching strongly towards tip. Fruit a 4-valved capsule. A few species might escape in our area though none are yet recorded; often persistent near old house sites.]



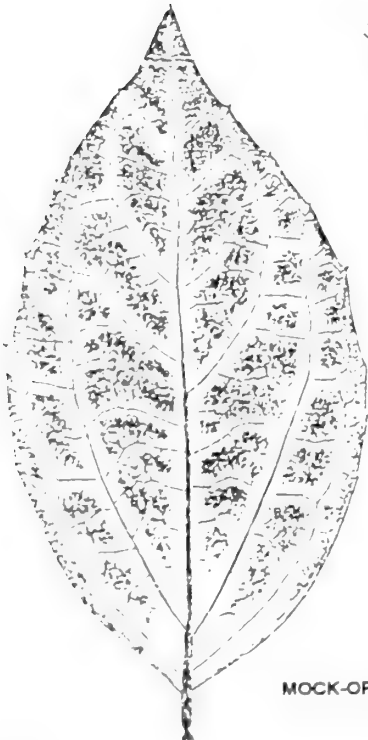
BUSH-HONEYSUCKLE

BUSH-HONEYSUCKLE



BUSH-HONEYSUCKLE

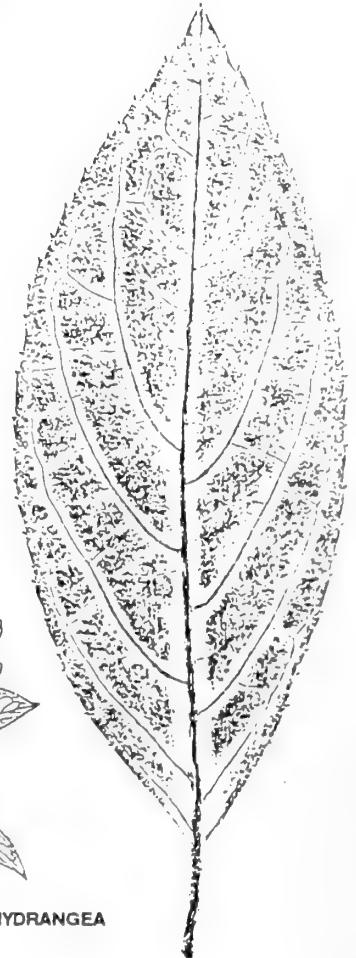
(PRINTS  
FULL SIZE)



MOCK-ORANGE



HYDRANGEA  
CAPSULE



HYDRANGEA

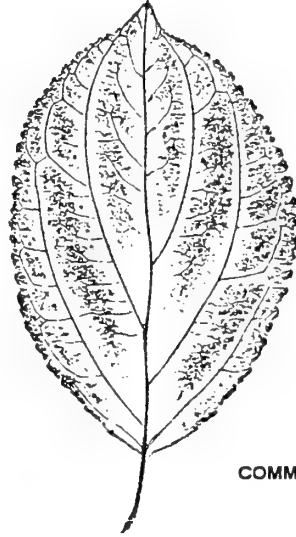


# SHRUBS OPPOSITE TOOTHED LEAVES

**MISCELLANEOUS SPECIES: FRUIT IF BERRY-LIKE, NOT 1-SEEDED. OPPOSING LEAF SCARS NOT CONNECTED BY LINES.**

**COMMON BUCKTHORN** *Rhamnus cathartica*

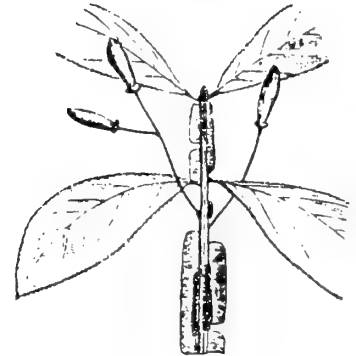
Leaves essentially but not quite opposite; main veins reaching strongly forward. "Berries" black, 3-4 seeded, nauseous and purgative. Often a small tree. Naturalized in thickets and roadsides. Common.



COMMON BUCKTHORN

**WINGED EUONYMUS** *Euonymus alatus*

Twigs and branchlets usually with corky wings. Leafstalks very short (1-3 mm. long). Fruit orange and red on long stalks, somewhat poisonous. Roadsides, woods. An occasional escape.



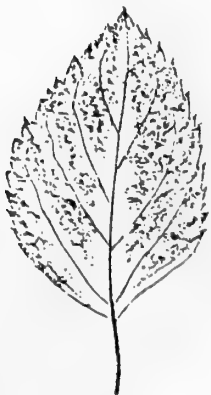
WINGED EUONYMUS

**EUROPEAN EUONYMUS** *Euonymus europaeus*

Leafstalks 6-12 mm. long. Leaves hairless. Fruit fleshy, pink to red, 4-lobed, on a long stalk, somewhat poisonous. Flowers usually in clusters of 3-5. Sometimes a small tree. Roadsides, waste places. An occasional escape.

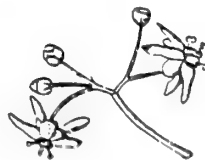
**WEeping FORSYTHIA** *Forsythia suspensa*

Usually also with some 3-lobed and 3-compound leaves. Fruit elongate capsules. Rare escape. See p. 36.



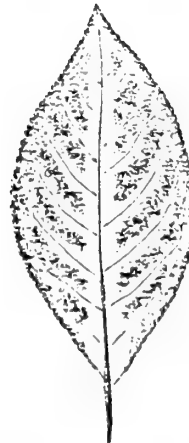
(PRINTS  
FULL SIZE)

FORSYTHIA



**PURPLE-OSIER WILLOW** *Salix purpurea*

Usually with alternate leaves at least on sprout growth. Buds with single scale. Occasional escape. See p. 64.



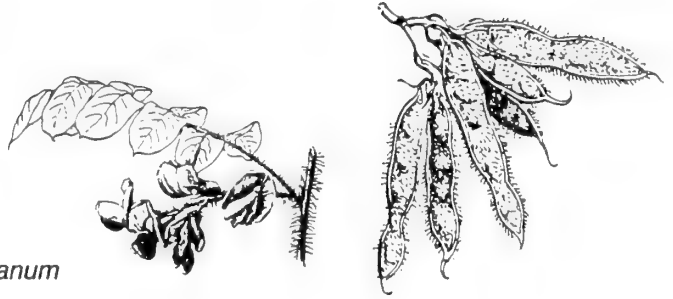
EUROPEAN EUONYMUS



# SHRUBS ALTERNATE COMPOUND LEAVES

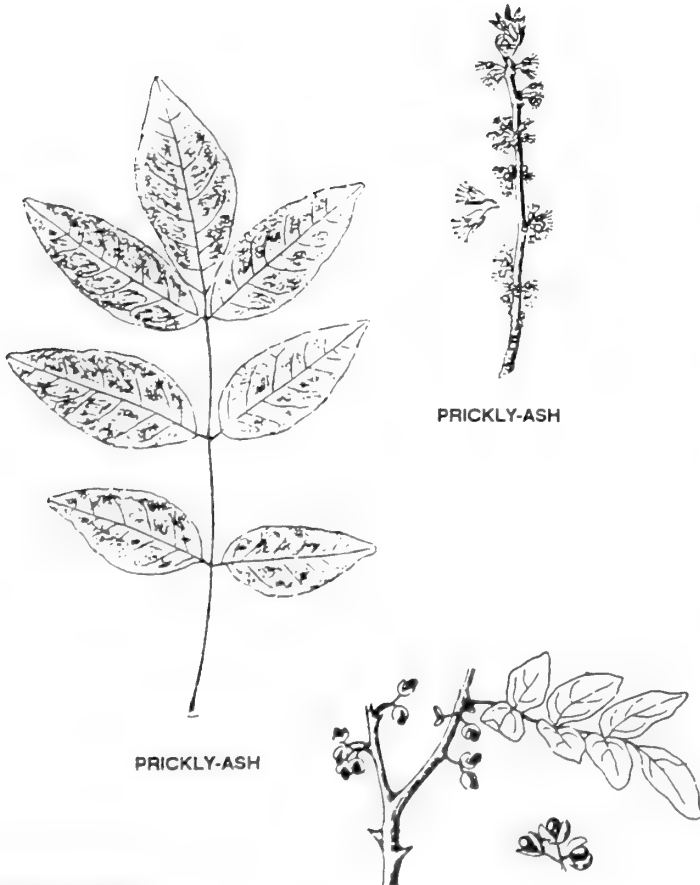
## SHRUBS THORNY OR BRISTLY; LEAVES UNTOOTHED OR OBSCURELY TOOTHED

**BRISTLY LOCUST** *Robinia hispida*  
Twigs bristly. Leaflets 7-13, untoothed,  
bristle-tipped. Fruit bristly pods.  
Roadsides, dry slopes. Uncommon escape.



BRISTLY LOCUST

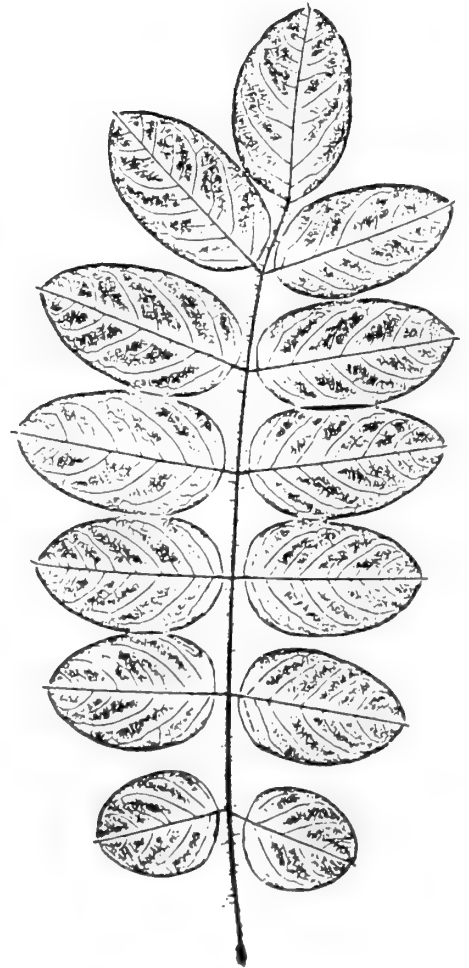
**COMMON PRICKLY-ASH** *Zanthoxylum americanum*  
Stems with paired prickles. Leaflets  
5-11, aromatic when crushed. Fruit small,  
1-2 seeded pods (without bristles).  
Occasionally a small tree. Rich woods,  
rocky pastures, stream banks. Rare  
escape.



PRICKLY-ASH

PRICKLY-ASH

PRICKLY-ASH



BRISTLY LOCUST

(PRINTS 2/3 SIZE)

# SHRUBS ALTERNATE COMPOUND LEAVES

## LEAFLETS 3; SHRUBS THORNLESS AND WITHOUT BRISTLES

### HOPTREE *Ptelea trifoliata*

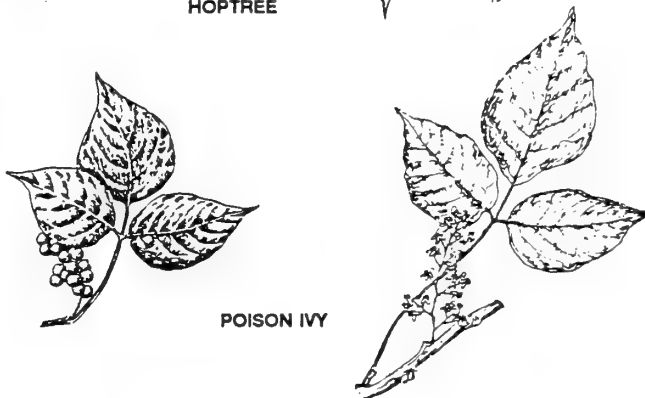
End leaflet very short-stalked. Fruits wafer-like. Sometimes a small tree. Thickets, edges of woods, roadsides. Uncommon escape.



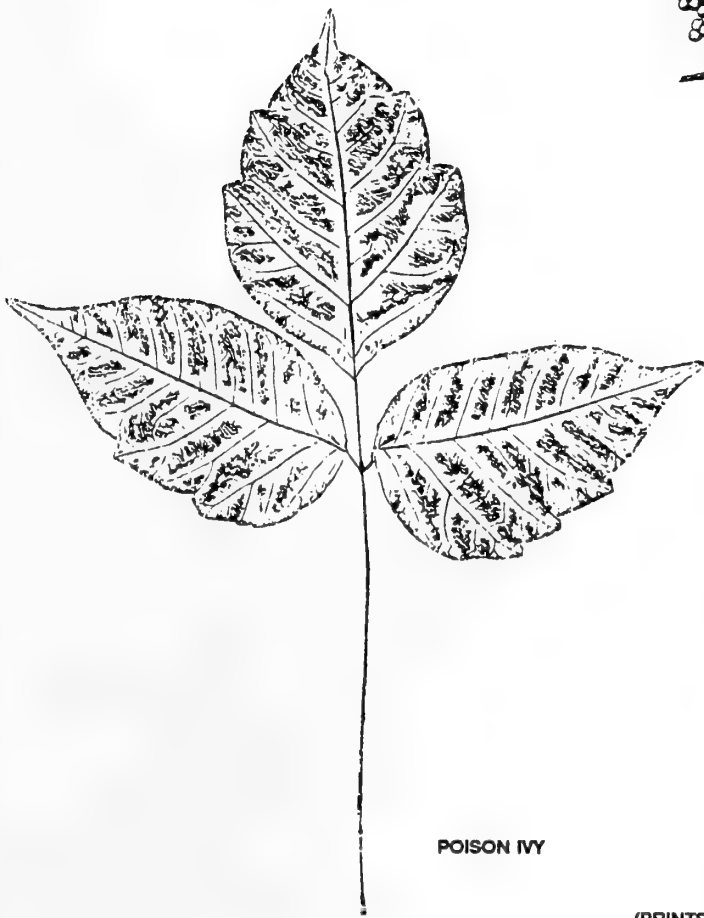
HOPTREE

### POISON IVY *Rhus radicans*

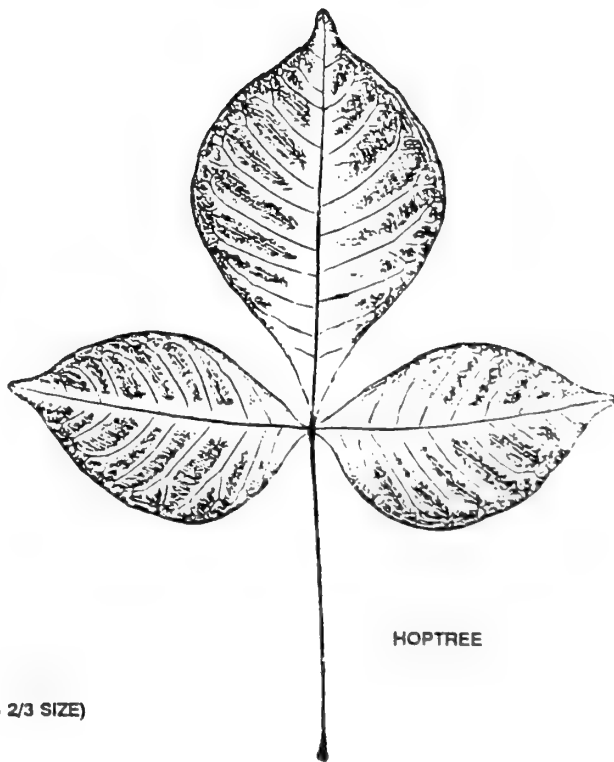
End leaflet stalked (longer than stalks of side leaflets). Berry-like fruit whitish. All parts of this plant irritate the skin of most people. Often a trailing or climbing plant. Dry or damp open woods, thickets, roadsides, fencerows. Very common.



POISON IVY



POISON IVY



HOPTREE

(PRINTS 2/3 SIZE)

# SHRUBS

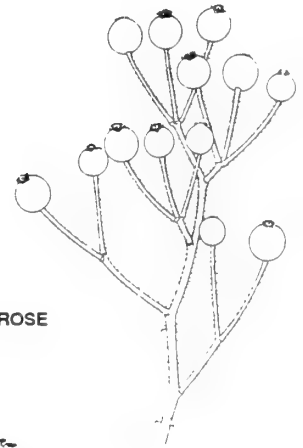
## ALTERNATE COMPOUND LEAVES

**ROSES: SHRUBS THORNY; LEAFLETS TOOTHED; LEAFSTALK BASE WITH "WINGS". FRUIT BERRY-LIKE, SOMETIMES BRISTLY.**

**MULTIFLORA ROSE** *Rosa multiflora*  
 Leafstalk "wings" feathery or comb-like.  
 Fruit (flowers) many per cluster. Flowers small (2-4 cm. across), mostly white.  
 Naturalized along roadsides, borders of woods, thickets, clearings. Common.



MULTIFLORA ROSE



**SWEET-BRIER** *Rosa eglanteria*  
 Leaflets glandular, often nearly round-shaped, aromatic when crushed. Flowers 3-5 cm. across. Thickets, clearings, roadsides. Uncommon escape.



(PRINTS  
 FULL SIZE)

**SHINING ROSE** *Rosa nitida*  
 New stems densely bristly with bristles usually purplish or reddish. Leafstalk "wings" wide, not curled under. Leaflets fine-toothed, shiny dark green above, mostly only 4-12 mm. wide on flowering (fruiting) shoots. Swamps, meadows, bogs, pond shores. Common.

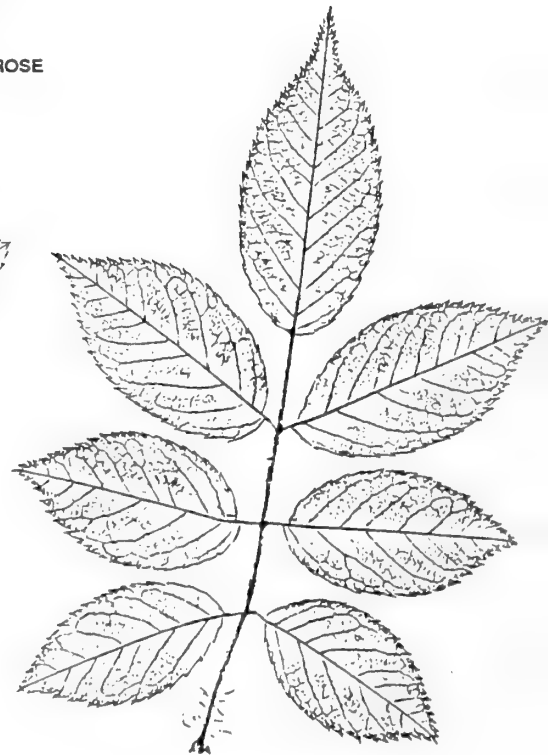
MULTIFLORA ROSE



SWEET-BRIER



SHINING ROSE

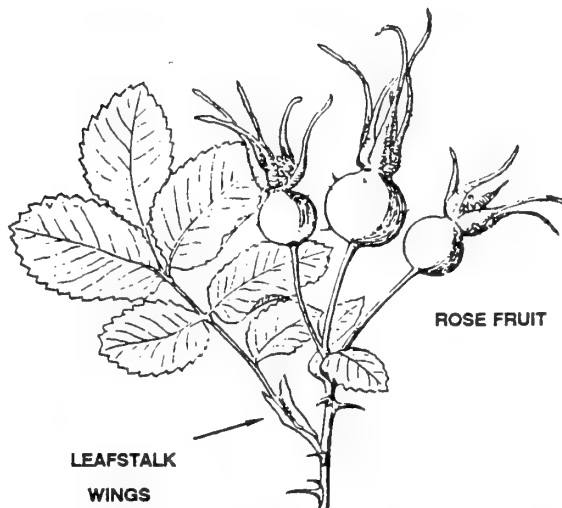


MULTIFLORA ROSE

# SHRUBS ALTERNATE COMPOUND LEAVES

## SWAMP ROSE *Rosa palustris*

Leafstalk "wings" narrow, curled under  
Leaflets quite fine-toothed, dull green  
above. Prickles stout-based. Swamps, wet  
meadows, shores. Common.



ROSE FRUIT

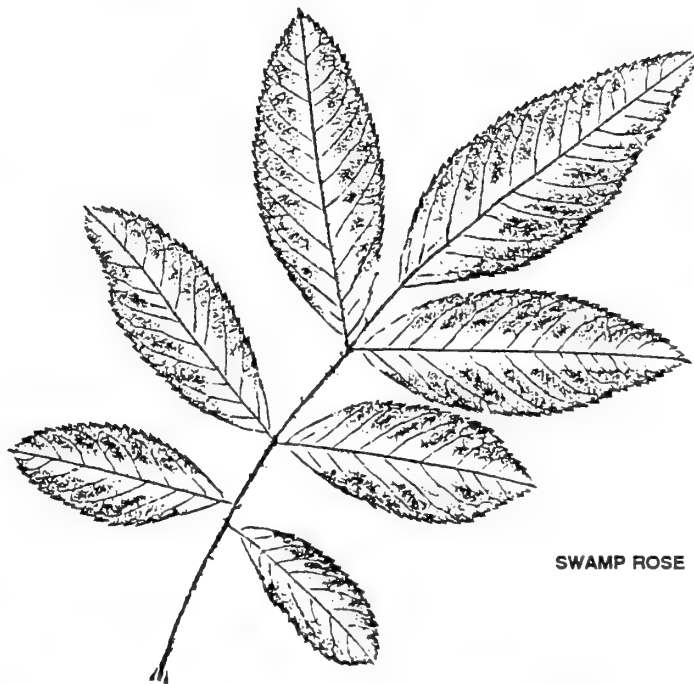
LEAFSTALK  
WINGS

## PASTURE ROSE *Rosa carolina*

Leafstalk "wings" narrow, sometimes  
curled under. Prickles needle-like.  
Leaflets coarse-toothed, dull or only  
slightly shiny above. Fruit (flowers)  
mostly solitary. A low (less than 1 meter  
high) and slender (less than 8 mm. thick  
at base) shrub. Dry sandy, rocky or open  
habitats, or thin woods. Common.

## VIRGINIA ROSE *Rosa virginiana*

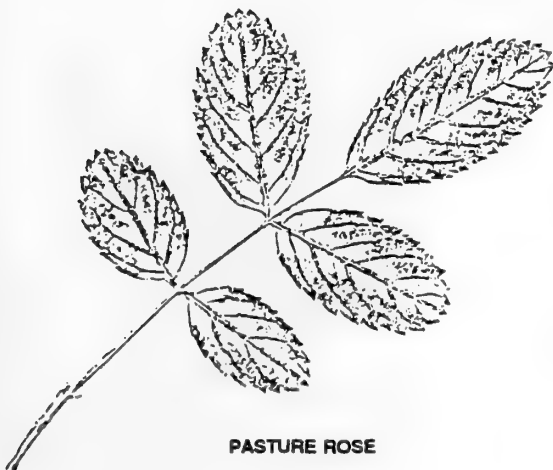
Leafstalk "wings" wide-spreading, not  
curled under. New stems with broad-  
based, straight or curved prickles, not  
densely bristly, sometimes prickless.  
Leaflets usually shiny above. Fruit  
(flowers) mostly solitary. Meadows,  
damp to dry thickets, roadsides,  
clearings. Common.



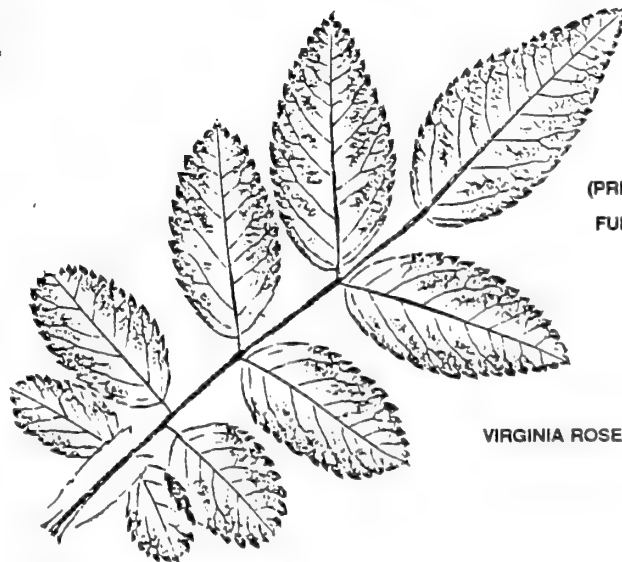
SWAMP ROSE

## BLACKBERRIES, RASPBERRIES, DEWBERRIES *Rubus* spp.

Leaflets 3-5. Thorny or bristly. Not  
truly woody. See p. 96.



PASTURE ROSE



(PRINTS  
FULL SIZE)

VIRGINIA ROSE

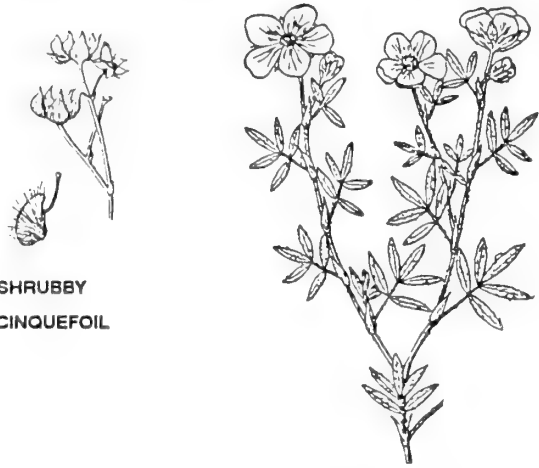
# SHRUBS

## ALTERNATE COMPOUND LEAVES

SHRUBS THORNLESS, WITHOUT BRISTLES. LEAFLETS MORE THAN 3, UNTOOTHED OR WITH A FEW COARSE TEETH.

### SHRUBBY CINQUEFOIL *Potentilla fruticosa*

Leaflets mostly 5-7 and quite small (1-3 cm. long, 2-9 mm. wide). Fruits small, dry, hairy. Open ground, old pastures, meadows, usually in sweet soil. Rare.



SHRUBBY  
CINQUEFOIL

SHRUBBY CINQUEFOIL

### POISON SUMAC *Rhus vernix*

Leaflets 7-13, 4-10 cm. long. Fruit (flowers) in elongated clusters. Berry-like fruit whitish. Sometimes a small tree. All parts of this plant irritate the skin of most people. Wooded swamps, bog margins, occasionally in wet woods. Common.



POISON SUMAC

### SHINING SUMAC *Rhus copallina*

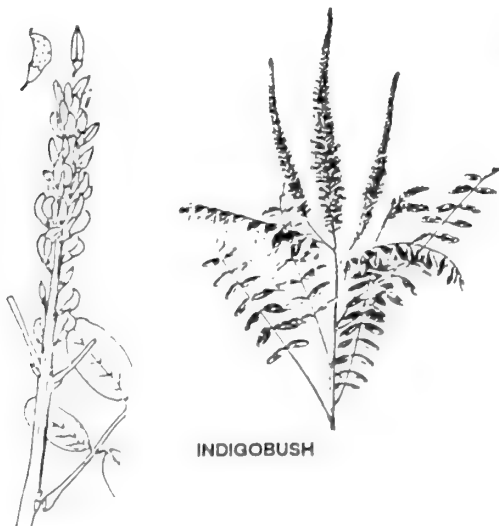
Leaflets 11-23, 4-10 cm. long., sometimes with some teeth towards the tips, shiny above. Midrib of the compound leaves winged. Fruit (flowers) in more or less cone-like clusters. Berry-like fruit red, hairy, used for flavoring. Dry fields, roadsides, openings in dry woods. Uncommon.



SHINING SUMAC

### INDIGOBUSH *Amorpha fruticosa*

Leaflets 13-35 (or more), small (1-6 cm. long). Fruit (flowers) in erect, elongated clusters. Fruit small resin-dotted pods. Roadsides, thickets, waste land. Uncommon escape.



INDIGOBUSH

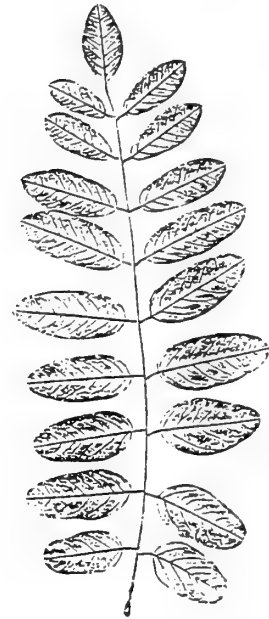


SHINING SUMAC

# SHRUBS ALTERNATE COMPOUND LEAVES



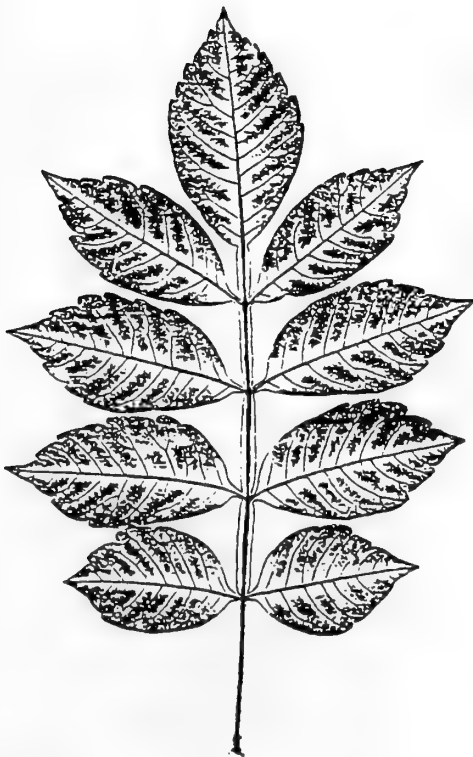
POISON SUMAC



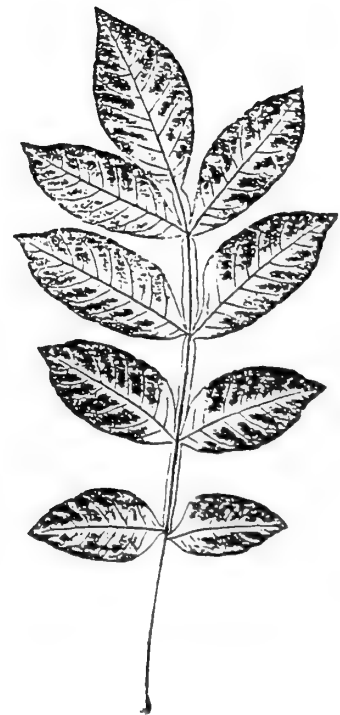
INDIGOBUSH



SHRUBBY CINQUEFOIL



SHINING SUMAC



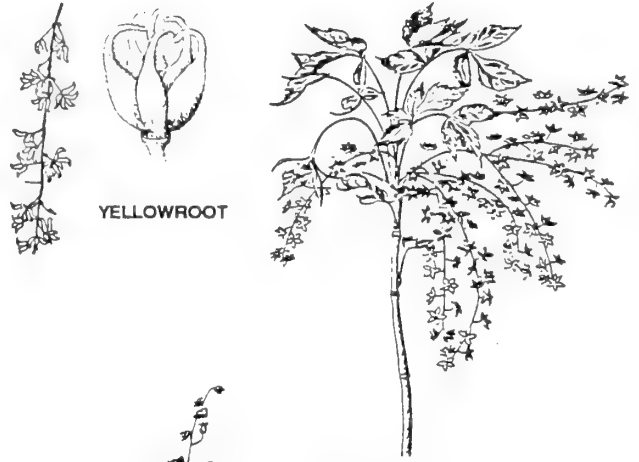
SHINING SUMAC

(PRINTS 1/3 TO 1/2  
SIZE EXCEPT CINQUEFOIL  
FULL SIZE)

# SHRUBS ALTERNATE COMPOUND LEAVES

SHRUBS THORNLESS, WITHOUT BRISTLES. LEAFLETS MORE THAN 3, MANY- (OR DEEPLY SHARP-) TOOTHED.

**YELLOWROOT** *Xanthorhiza simplicissima*  
Leaflets usually 5-7, deeply sharp-toothed, often lobed, 3-7 cm. long. Fruit (flowers) in stringy, drooping clusters. Fruit small capsules. A low shrub (up to .6 meters high). Moist ground. Rare escape.



YELLOWROOT

YELLOWROOT

**FALSE-SPIREA** *Sorbaria sorbifolia*  
Leaflets 13-23, finely double-toothed, 5-10 cm. long. Fruit (flowers) in erect, cone-like clusters. Fruit small capsules. Roadsides, waste land. Uncommon escape.



FALSE-SPIREA

**STAGHORN SUMAC** *Rhus typhina*  
Twigs and leafstalks densely velvety-hairy. Leaflets 11-31, 5-12 cm. long. Fruit in dense, cone-shaped clusters. Berry-like fruit red, velvety-hairy, used for flavoring. Sometimes a small tree. Dry thickets, roadsides, open rocky slopes. Uncommon.



**SMOOTH SUMAC** *Rhus glabra*  
Like Staghorn Sumac but twigs and leafstalks hairless. Berry-like fruit not quite so fuzzy, also used for flavoring. Fruit clusters not so compact. Dry fields, roadsides. Common.



SMOOTH SUMAC



SUMAC



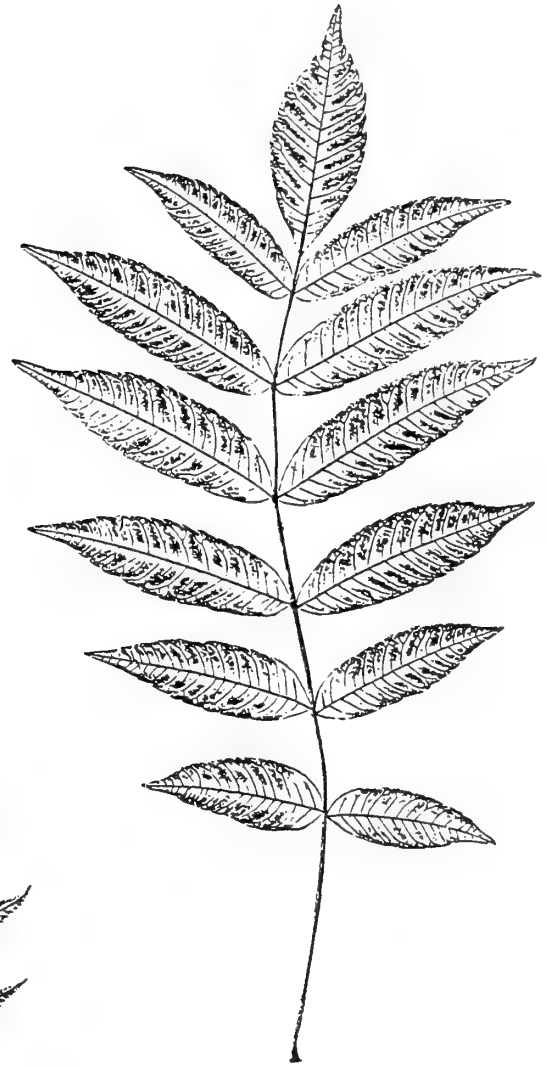
STAGHORN SUMAC



# SHRUBS ALTERNATE COMPOUND LEAVES



YELLOWROOT



STAGHORN & SMOOTH SUMAC



FALSE-SPIREA

(PRINTS 1/3 TO 1/2 SIZE)

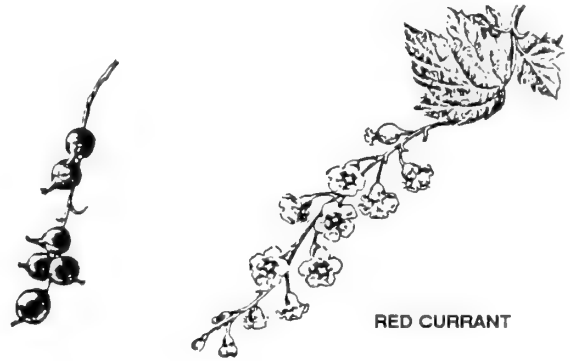
# SHRUBS

## ALTERNATE SIMPLE LEAVES

### LEAVES FAN-LOBED (3-5 VEINS MEETING AT LEAF BASE)

#### GARDEN RED CURRANT *Ribes sativum*

Leaves mostly heart-shaped at base, not resin-dotted. Fruit (flowers) in elongated clusters. Flowers cup-shaped, not tubular. Berries red, hairless, edible. Open woods, thickets. Uncommon escape.



CURRENT FRUIT

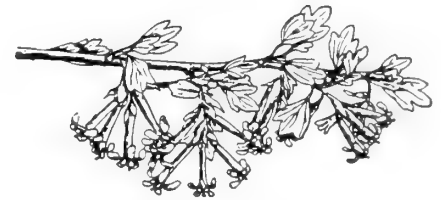
RED CURRANT

#### BUFFALO CURRANT *Ribes odoratum*

Leaves wedge-based or straight-cut at base, not resin-dotted. Fruit (flowers) in elongated clusters. Flowers tubular. Berries black or yellow, tasteless. Old house sites, moist open ground. Occasionally escapes cultivation.



BLACK CURRANT



BUFFALO CURRANT

#### AMERICAN BLACK CURRANT

*Ribes americanum*

Leaves with yellow resin dots beneath. Fruit (flowers) in elongated clusters with persistent bracts longer than individual fruit (flower) stalks. Berries black, somewhat musky in flavor but used in pies. Wet thickets. Rare.

#### FRAGRANT THIMBLEBERRY

*Rubus odoratus*

Leafstalk and twigs sticky-hairy. Leaves large, mostly 10-30 cm. wide. Flowers showy, 3-6 cm. wide. Fruit similar to raspberry, but dry and tasteless. Thickets, borders of woods, roadsides. Rare escape.



THIMBLEBERRY



#### NINEBARK *Physocarpus opulifolius*

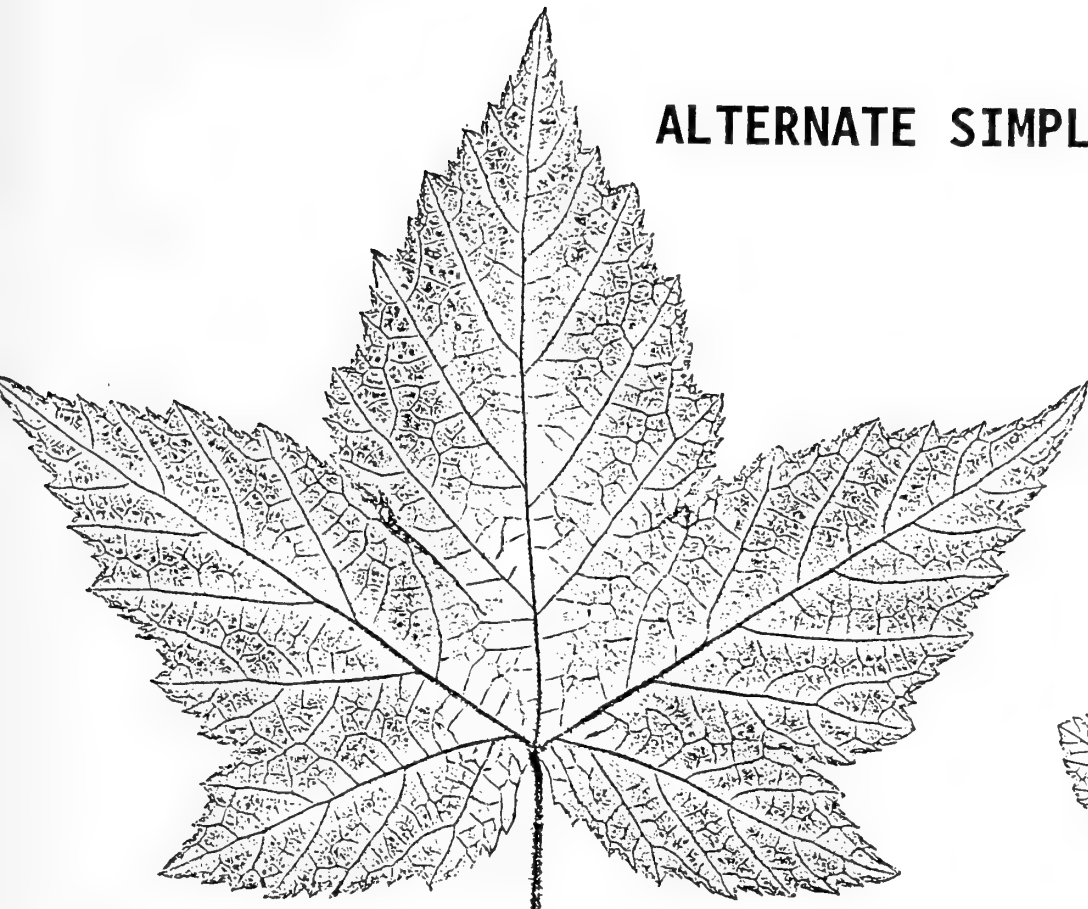
Leaves somewhat 3-lobed. Fruit (flowers) bunched in rounded clusters. Fruit reddish purple or brown papery capsule. Roadsides, old house sites. Rare escape.



NINEBARK



# SHRUBS ALTERNATE SIMPLE LEAVES



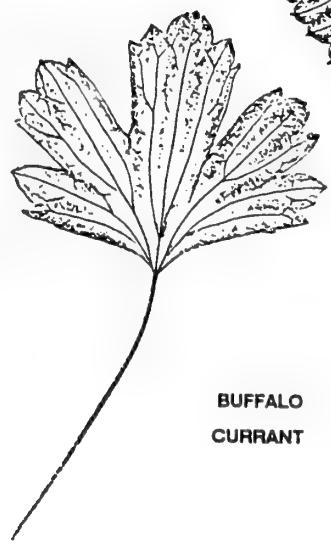
THIMBLEBERRY



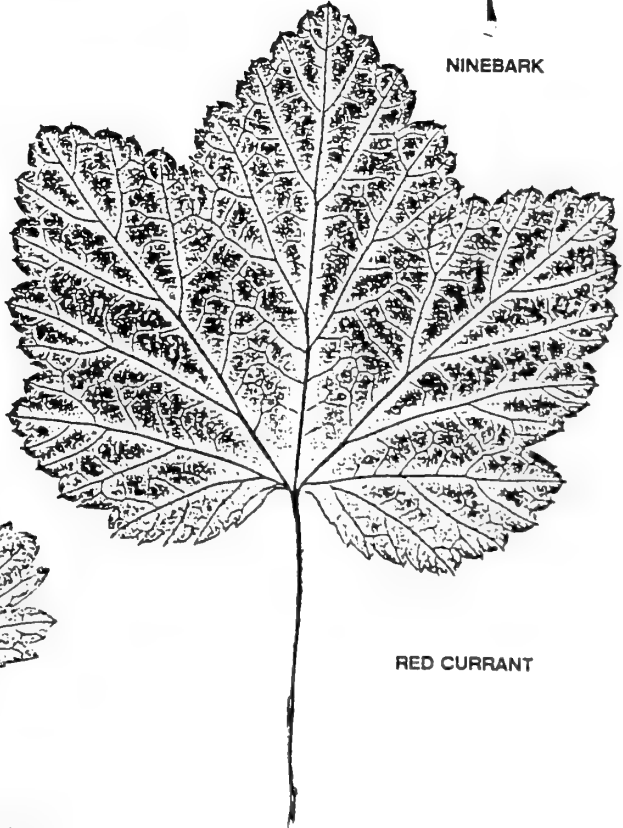
NINEBARK



BLACK CURRANT



BUFFALO  
CURRANT



RED CURRANT

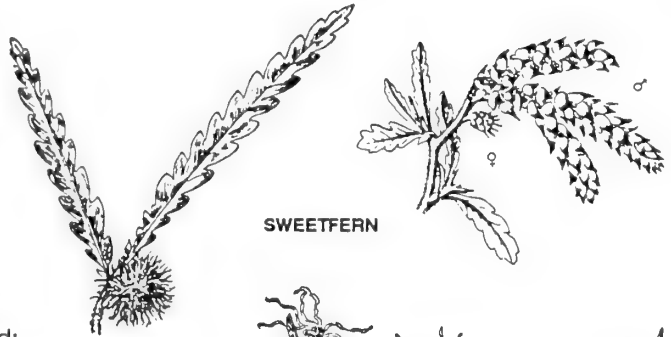
(PRINTS FULL SIZE)

# SHRUBS

## ALTERNATE SIMPLE LEAVES

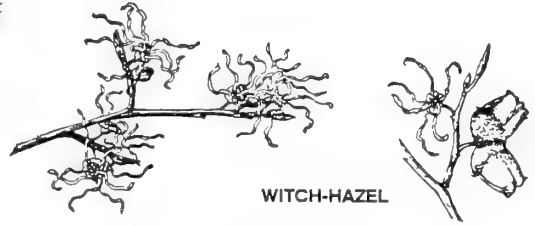
### LEAVES LOBED OR SCALLOPED, NOT FAN-LOBED; FRUIT NOT BERRY-LIKE

**SWEETFERN** *Comptonia peregrina*  
Fernlike shrub with narrow distinctively scalloped, aromatic leaves. Fruit burr-like. Dry, sterile soil, clearings, scrub land, gravel banks. Common.



SWEETFERN

**WITCH-HAZEL** *Hamamelis virginiana*  
Leaves broad, scalloped or mildly lobed; leaf bases uneven. Flowers autumnal, stringy, yellow. Fruit capsule bursts expelling seeds. Dry or moist woods, clearings. Common.



WITCH-HAZEL

Note: Distinguish the following two oak species from seedlings of similar tree species by the presence of fruit (flowers) on the shrub species. Tree species are generally not fertile until a height greater than 4 meters is attained. Also, the leaves and leafstalks of the shrub species are smaller.

**SCRUB OAK** *Quercus ilicifolia*  
Leaves with bristle-tipped lobes, whitish-felted beneath, dark green above. Acorns small, about 1 cm. long, bitter. Sometimes a small tree. Dry, sterile scrub woods, sandy-gravelly clearings. Common.



OAK

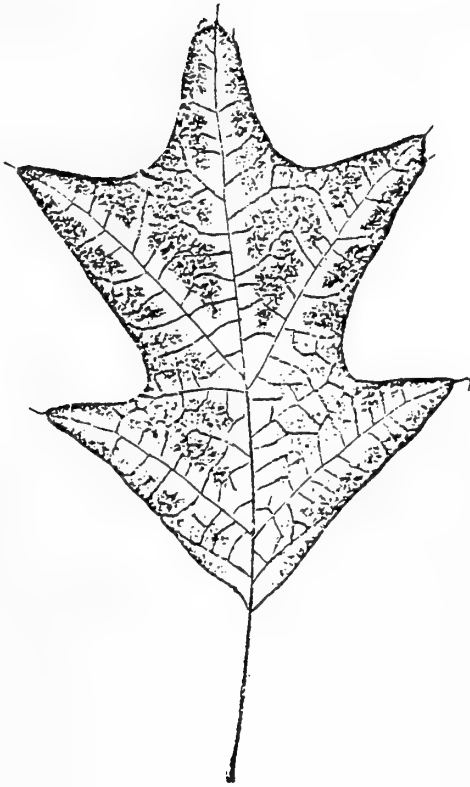
**DWARF CHINQUAPIN OAK** *Quercus prinoides*  
Leaves with 3-8 shallow lobes or coarse teeth on each margin, not bristle-toothed, evenly taper-based. Acorns 1-1.5 cm. long, edible. Dry, sterile woods, gravel plains. Uncommon.



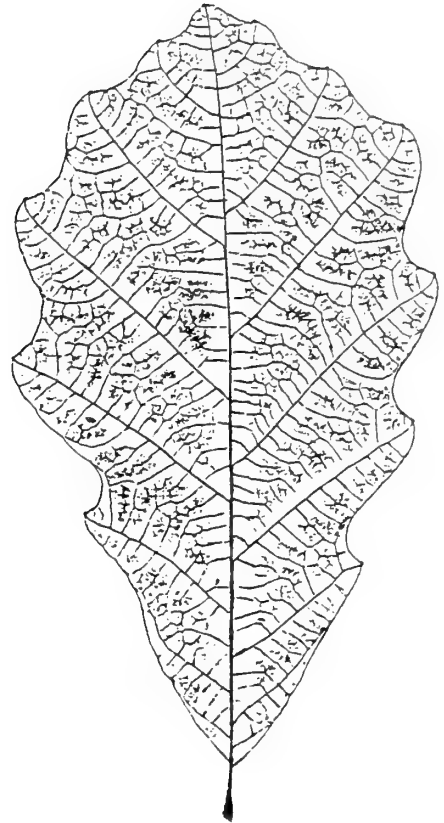
**SPECKLED ALDER** *Alnus rugosa*  
Leaves fine-toothed, sometimes mildly lobed. See p. 82.

**CRABAPPLES** *Pyrus (Malus) spp.*  
Seedlings of some species with some lobed leaves. Leaves fine-toothed. See p. 103.

# SHRUBS ALTERNATE SIMPLE LEAVES



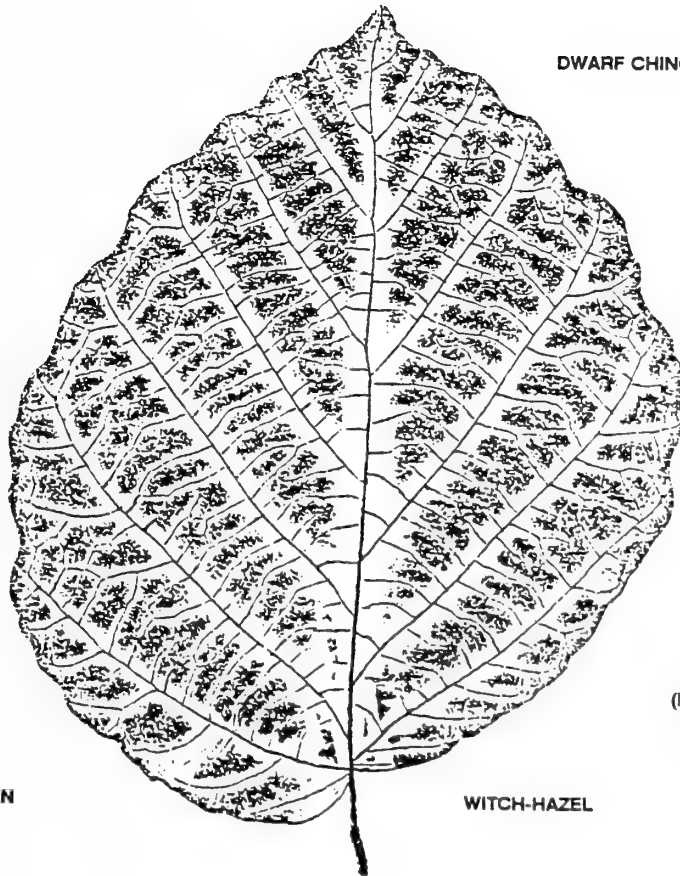
SCRUB OAK



DWARF CHINQUAPIN OAK



SWEETFERN



WITCH-HAZEL

(PRINTS FULL  
SIZE)

# SHRUBS

## ALTERNATE SIMPLE LEAVES

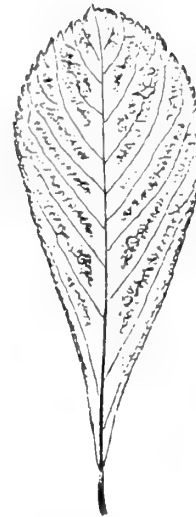
### HAWTHORNS: THORNY WITH THORNS MOSTLY UNBRANCHED AND MOSTLY LONGER THAN 2 CM. LEAVES TOOTHED OR LOBED.

Reliable identification in this group may require examination of flowers. Leaf shapes may vary considerably on the same plant. Leaf characters used below apply primarily to mature leaves of fruiting branchlets. For problem specimens consult the illustrations and key in Seymour's *Flora of New England*.

Hawthorns in our area are found in old pastures, thickets, borders of woods and occasionally in woods. The fruits of some species are palatable and sometimes used for making jellies.

#### COCKSPUR THORN *Crataegus crus-galli*

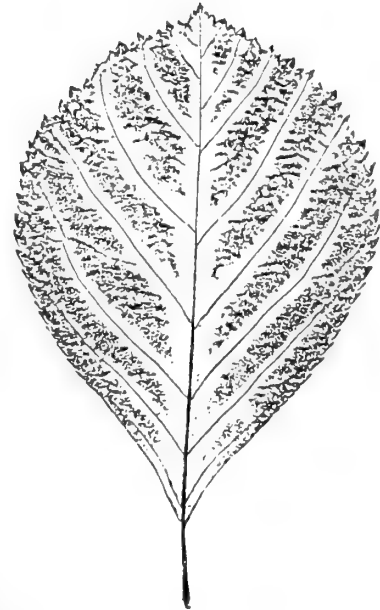
Leaf base narrow. Leaves essentially unlobed, mostly less than 3 cm. wide, glossy above. Fruit with 1-3 nutlets. Calyx lobes untoothed. Usually a tree. Uncommon.



(PRINTS FULL SIZE)

#### LONG-SPINED THORN *Crataegus macracantha* (or *C. succulenta* var. *macracantha*)

Leaf base narrowed. Leaves sometimes with small lobes, mostly wider than 3 cm., often glossy above. Fruit with 2-3 nutlets. Calyx lobes toothed. Sometimes a small tree. Uncommon.



COCKSPUR THORN

#### ROUNDLEAF THORN *Crataegus chrysocarpa* including *C. dodgei*

Leaves wedge-based, distinctly lobed, sometimes nearly circular in shape. Leafstalks glandular only near leaf base. Flowerstalks hairy. Flower clusters with conspicuously glandular bracts at first. Stamens with white or yellow heads. Calyx lobes toothed. Sometimes a tree. Uncommon.



LONG-SPINED THORN



HAWTHORN



HAWTHORN

ROUNDLEAF  
THORN

# SHRUBS ALTERNATE SIMPLE LEAVES

## **ALLEGHENY THORN** *Crataegus intricata*

Leaves gradually or abruptly narrowed at broad base. Leafstalks with glands along length. Flowerstalks essentially hairless. Flower clusters nearly unbranched, with conspicuous glandular bracts. Stamen heads white or pale yellow (rarely pink). Fruit usually oblong. Uncommon.

## **SCARLET THORN** *Crataegus coccinea* including *C. pedicellata*, *C. holmesiana*, and *C. pringlei*

Leaf bases broadly wedge-based or rounded. Leaves lobed (but lobes sometimes small), widest near middle, with some straight hairs above (use hand lens). Calyx lobes toothed. Stamens 5-10 with pink or red heads. Often a tree. Uncommon.

## **VARIABLE THORN** *Crataegus macrosperma*

Our most common hawthorn. Leaves wide-based with distinct lobes, generally widest below the middle, with some straight hairs above (use hand lens). Leafstalks sometimes with slight glands. Calyx lobes untoothed (or with only one or two pairs of teeth). Flower clusters without glandular bracts. Flowerstalks hairless. Stamens 5-10 with red (rarely pink) heads. Often a tree. Common.

## **FROSTED THORN** *Crataegus pruinosa*

Fruit whitened dull red (or greenish) with calyx on a raised collar. Calyx lobes untoothed (or with only one or two pairs of teeth). Leaves similar to Scarlet Thorn but hairless above (use hand lens). Stamens 15-20 with pink heads. Small tree or shrub. Rare.

**(LEAF ILLUSTRATIONS ON NEXT PAGE)**

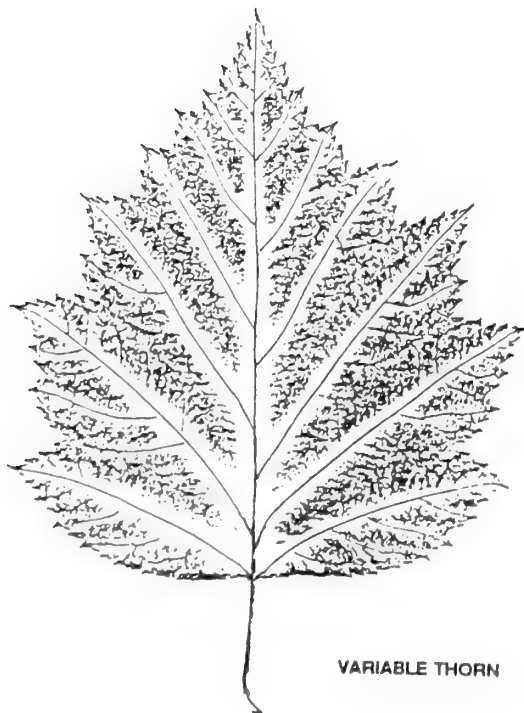
# SHRUBS ALTERNATE SIMPLE LEAVES



ALLEGHENY THORN



SCARLET THORN



VARIABLE THORN

(PRINTS FULL SIZE)

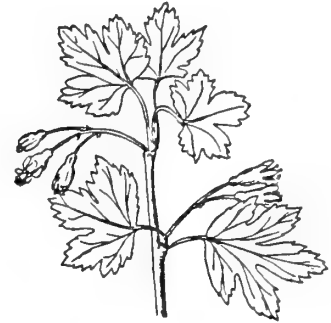


# SHRUBS ALTERNATE SIMPLE LEAVES

## THORNY SHRUBS; THORNS SMALL (LESS THAN 2 CM.) OR BRANCHED

### SMOOTH GOOSEBERRY *Ribes hirtellum*

Leaves lobed with 3-5 main veins meeting at the base. Usually sparsely thorny. Berries purplish to blackish, used in preserves. Rocky or swampy woods and clearings. Uncommon.



GOOSEBERRY

### EUROPEAN BARBERRY *Berberis vulgaris*

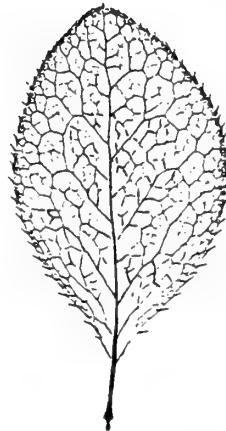
Mature leaves bristle-toothed. Thorns branched. Fruit (flowers) in elongated clusters. Berries red or purple, edible, tart. Pastures, roadsides. Naturalized. Common.

### JAPANESE BARBERRY *Berberis thunbergii*

Leaves untoothed. Berries red, perhaps too tart to eat raw. Moist, low woods, old orchards, pastures. Common escape.

### AUTUMN ELAEAGNUS *Elaeagnus umbellata*

Leaves untoothed and silvery beneath. Sometimes thorny. See p. 72.



SMOOTH GOOSEBERRY

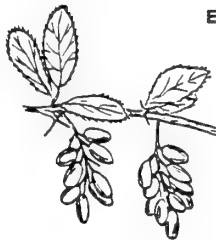
### COMMON MATRIMONY-VINE *Lycium halimifolium*

Leaves untoothed, 2-6 cm. long. Sprawling shrub often sparingly thorny. See p. 71.

EUROPEAN BARBERRY

### AMERICAN PLUM *Prunus americana*

Leaves sharply fine-toothed. Fruit red or yellow, 2-3 cm. thick. Spur branches often thornlike. See p. 78.



EUROPEAN BARBERRY

### COMMON BUCKTHORN *Rhamnus cathartica*

Leaves nearly opposite in arrangement. Usually somewhat spiny. See p. 47.



JAPANESE BARBERRY

(PRINTS FULL SIZE)



# SHRUBS

## ALTERNATE SIMPLE LEAVES

**WILLOWS:** BUDS COVERED BY SINGLE SCALE (IN LATE SPRING OR EARLY SUMMER LOOK FOR WINTER KILLED BUDS). LEAVES USUALLY NARROW. LEAFY GROWTH (STIPULES) OFTEN PRESENT ON TWIG AT BASE OF LEAFSTALKS. FRUIT ELONGATE CAPSULES IN DENSE CLUSTERS.

**PURPLE-OSIER WILLOW** *Salix purpurea*

Leaves, flower (fruit) clusters often nearly opposite in arrangement. Alternate leaf arrangement clearest on sprout growth. Leaves minutely toothed or untoothed, 1-2 cm. wide, often purple-tinged. Stipules absent. Rare escape.



STIPULES

**WAND WILLOW** *Salix rigida*  
(*S. eriocephala*)

Leaf bases typically somewhat heart-shaped or broadly rounded. Stipules usually present and large (5-15 mm. long). Larger leaves 1.5-3.5 cm. wide, 3-6 times as long as wide, distinctly fine-toothed. Expanding leaves often purplish or reddish tipped. Fruit capsules hairless. Low thickets, shores. Common.



WILLOW FRUIT



WILLOW GALL

**BLACK WILLOW** *Salix nigra*

Leaves pure green beneath, mostly .5-1.5 cm. wide, usually 10-14 times as long as wide, fine-toothed. Stipules often prominent. Often a tree. Shores, meadows, occasionally swamps and low damp ground. Common.

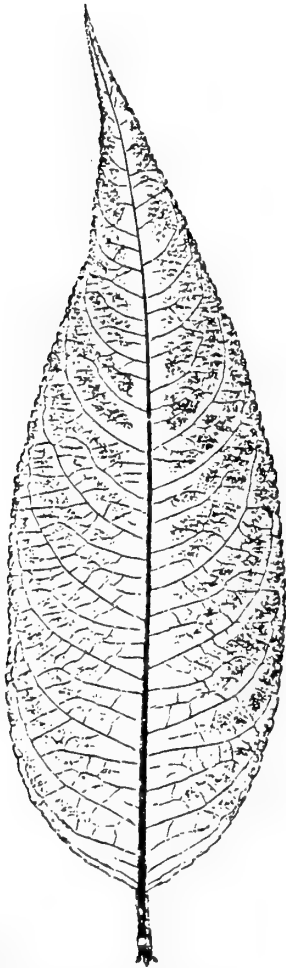
**SHINING WILLOW** *Salix lucida*

Leafstalk with distinct glands near leaf base. Leaves not whitened beneath, fine-toothed, 1.5-5 cm. wide, often with long-tapered tips. Sometimes a tree. Shores, meadows, swamps. low ground. Rare.

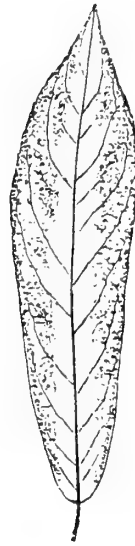


WILLOW FLOWERS

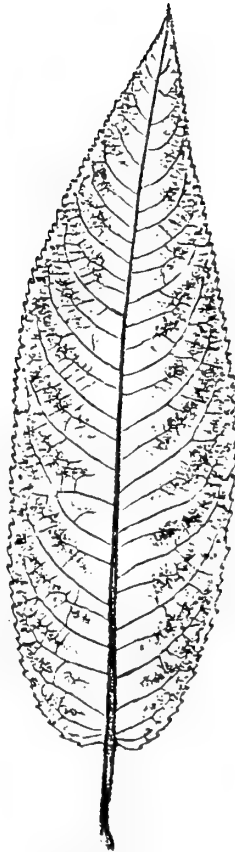
# SHRUBS ALTERNATE SIMPLE LEAVES



SHINING WILLOW



PURPLE-OSIER WILLOW



WAND WILLOW



BLACK WILLOW

(PRINTS FULL SIZE)

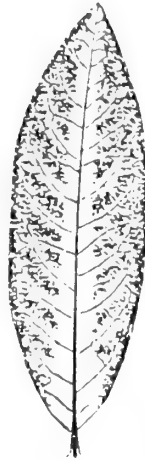
(WILLOWS CONTINUED ON NEXT PAGE)

# SHRUBS ALTERNATE SIMPLE LEAVES

## WILLOWS (CONT.): SPECIES WITH LEAVES WHITENED BENEATH

### BOG WILLOW *Salix pedicellaris*

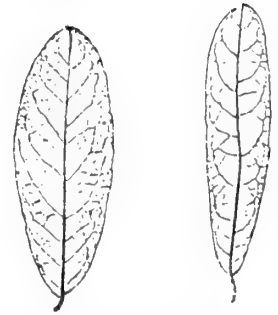
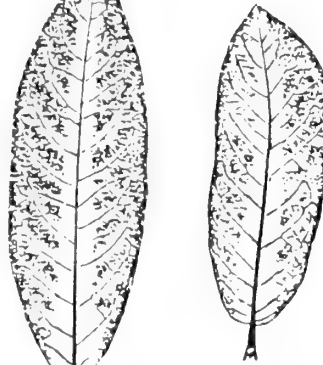
Leaves untoothed, hairless, 5 cm. or less in length. Low shrub less than 1 meter high, spreading by underground stems. Stipules absent. Meadows, bogs, low acid ground. Uncommon.



BOG WILLOW

### DWARF GRAY WILLOW *Salix tristis* (or *S. humilis* var. *microphylla*)

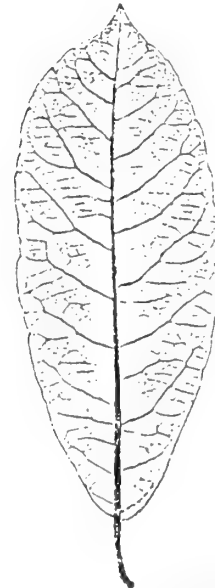
Leaves mostly untoothed, hairy beneath, .5-1.5 cm. wide, 1.5-5 cm. long. Stipules absent or very small. Low shrub 1 meter high or less. Dry thickets, sterile ground, roadsides. Uncommon.



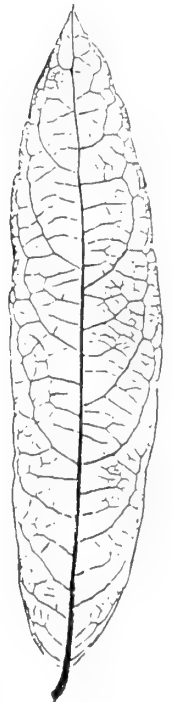
DWARF GRAY WILLOW

### PRAIRIE WILLOW *Salix humilis*

Leaves obscurely coarse-toothed or untoothed, hairy and moderately veiny beneath, mostly 1-2.5 cm. wide and mostly 3-5 times as long as wide. Leaf-stalks rarely longer than 1 cm. Flowers blooming well before appearance of leaves. Male (with stamens) catkins .7-1.5 cm. long. Fruiting catkins 1.5-4 cm. long. Dry thickets, sterile ground. Common.

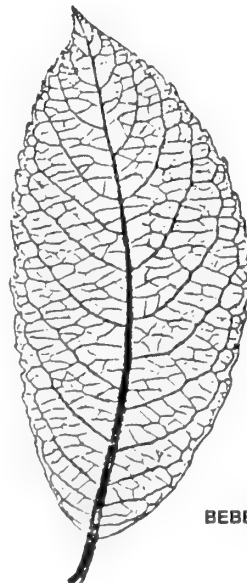


PRAIRIE WILLOW

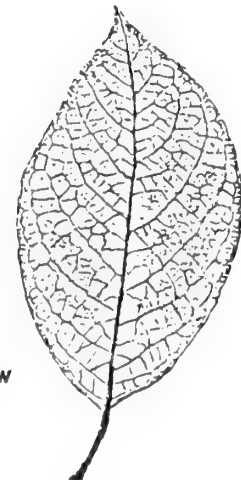


### BEBB WILLOW *Salix bebbiana*

Leaves usually quite wrinkled-veiny beneath, coarse-toothed or untoothed, hairy or somewhat hairless beneath, 1-3.5 cm. wide, mostly 2-3.5 times as long as wide. Stipules small or absent. Flowers opening with appearance of new leaves. Moist or dry thickets, meadows, roadsides. Common.



BEBB WILLOW

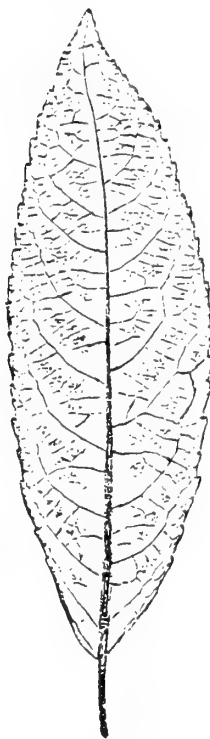


(PRINTS FULL SIZE)

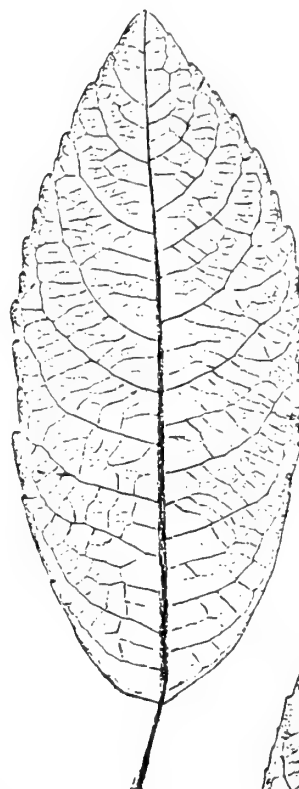
# SHRUBS ALTERNATE SIMPLE LEAVES

## **PUSSY WILLOW** *Salix discolor*

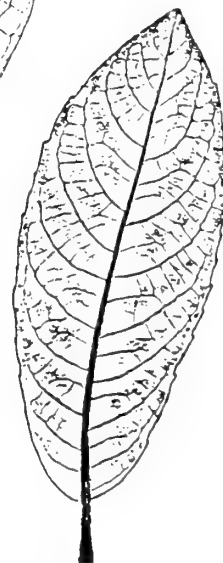
Leaves coarsely toothed to nearly untoothed, 1-5 cm. wide, mostly 3-4 times as long as wide. Leafstalks often 1 cm. long or more. Stipules usually evident. Flowers blooming well before appearance of leaves. Male (with stamens) catkins 2-3.5 cm. long. Fruit catkins 4-7 cm. long. Sometimes a small tree. Low acid ground, meadows, wet situations. Common.



PUSSY  
WILLOW



PUSSY  
WILLOW



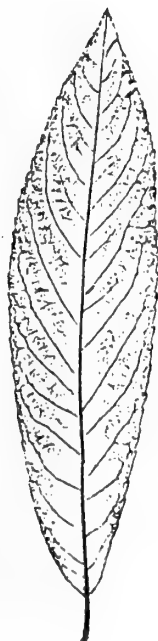
PUSSY WILLOW

## **SLENDER WILLOW** *Salix petiolaris* (or *S. gracilis*)

Leaves 5-9 times as long as wide, up to 2 cm. wide, fine-toothed (or nearly untoothed in an uncommon form). Twigs hairless or becoming so. Branchlets not brittle-based. Stipules essentially absent. Swamps, bogs, low ground, meadows, river thickets. Common.

## **SILKY WILLOW** *Salix sericea*

Leaves shiny beneath with silky hairs, 3-6 times as long as wide, 1-2.5 cm. wide, fine-toothed. Branchlets brittle-based. Twigs hairless or becoming so. Stipules distinct but shedding. Riverbanks, low thickets, brook meadows. Uncommon.



SILKY WILLOW



SLENDER WILLOW

(PRINTS FULL SIZE)

Note: Seedlings of the tree species Weeping Willow and White Willow are very unlikely to be encountered and confused with the above shrub species.

Purple-osier, Dwarf Gray, Prairie, Pussy and Silky Willows flower before the appearance of leaves and exhibit the characteristic "pussies" of spring.

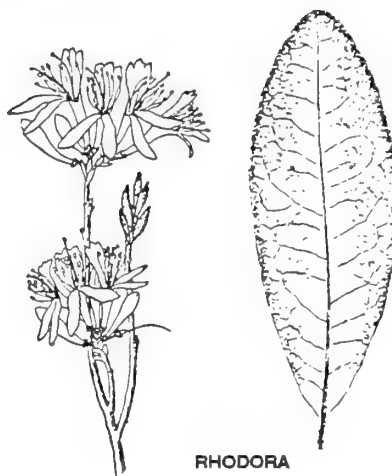
# SHRUBS

## ALTERNATE SIMPLE LEAVES

**AZALEAS:** LEAVES FRINGED WITH TINY HAIRS OR BRISTLES, UNTOOTHED (OR MINUTELY FINE-TOOTHED), CLUSTERED NEAR TWIG TIPS. FRUIT (FLOWERS) ALSO CLUSTERED AT TWIG TIPS. FRUIT ELONGATE CAPSULES.

**RHODORA** *Rhododendron canadense*

Leaves dull or bluish green above, more or less hairy beneath, 2-6 cm. long. Capsules .7-1.5 cm. long, whitened, somewhat hairy with few if any glandular hairs. Flowers with 10 stamens, appearing before or with the new leaves. Branches reaching strongly upward. Peaty shores, bogs, swamps, low, moist, open, acid soil. Uncommon.



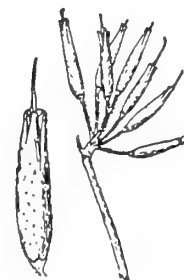
RHODORA

**SWAMP AZALEA** *Rhododendron viscosum*

Leaves hairless beneath except for bristly midrib. Capsules 1-2 cm. long, bristly. Flowers with 5 stamens, typically white with a small amount of pink, blossoming no earlier than June (after the leaves appear), spicy-fragrant. Bogs, pond shores, swampy thickets, edges of damp clearings. Common.



SWAMP AZALEA



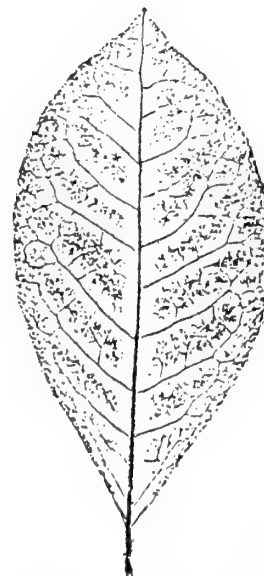
AZALEA  
FRUIT



AZALEA  
LEAVES

**ROSEHELL AZALEA** *Rhododendron prinophyllum* (or *R. roseum*)

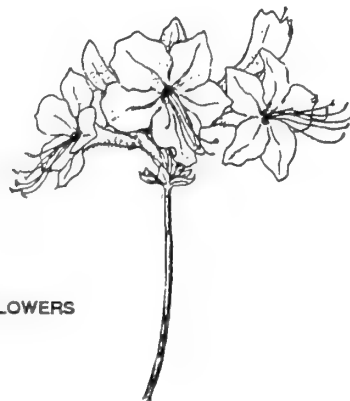
Leaves dull above, gray-hairy beneath, mostly 5-8 cm. long. Capsules 1.5-2 cm. long, glandular-bristly. Flowers with 5 stamens, appearing with the new leaves, fragrant. Moist or dry woods, damp thickets. Rare.



ROSEHELL AZALEA

**[PINXTER-FLOWER** *Rhododendron periclymenoides* (or *R. nudiflorum*)

Like the preceding but flowers essentially odorless, appearing before the leaves. Leaves hairless beneath except for bristly midrib. Capsules bristly but essentially glandless. Recorded in adjacent counties to the west and south in bogs and wet woods.]



AZALEA FLOWERS

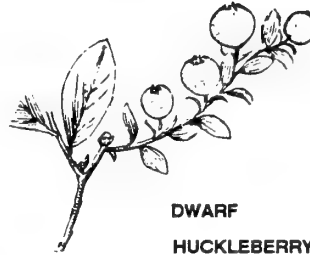
(PRINTS FULL SIZE)

# SHRUBS ALTERNATE SIMPLE LEAVES

**HUCKLEBERRIES: LEAVES UNTOOTHED, RESIN-DOTTED BENEATH (HAND LENS WILL PROVE HELPFUL). LEAFSTALKS VERY SHORT. BERRY-LIKE FRUIT WITH 10 NUTLETS.**

**DWARF HUCKLEBERRY** *Gaylussacia dumosa*

Leaves dark green, shiny above, 5 cm. or less in length, with tiny-pointed tips. Fruit (flowers) in elongated, leafy clusters. "Berries" glandular-hairy, tasteless. Bogs, swamps. Rare.



DWARF  
HUCKLEBERRY

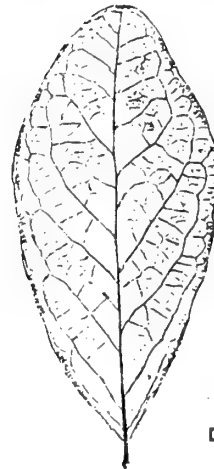


DWARF HUCKLEBERRY

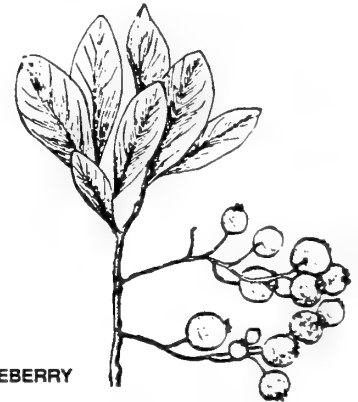


**DANGLEBERRY** *Gaylussacia frondosa*

Leaves pale, resin-dotted beneath only. Fruit (flowers) on long stalks mostly 1-2.5 cm. long. "Berries" dark blue with pale bloom, edible. Bogs, moist woods, thickets. Common.



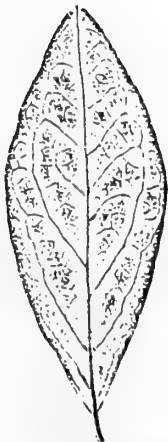
DANGLEBERRY



**BLACK HUCKLEBERRY** *Gaylussacia baccata*

Small shrub 1 meter high or less. Leaves with resin dots above and below. Fruit (flowers) short-stalked in short clusters. "Berries" black, edible. Woods, thickets, clearings. Abundant.

(PRINTS  
FULL SIZE)



BLACK HUCKLEBERRY



BLACK HUCKLEBERRY



DANGLEBERRY

Note: Untoothed Bayberry leaves might be mistaken for Huckleberry since they are resin-dotted, but they are very spicy-fragrant when crushed, unlike Huckleberry.

# SHRUBS

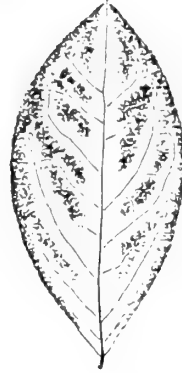
## ALTERNATE SIMPLE LEAVES

**BLUEBERRIES: LEAVES UNTOOTHED OR VERY FINE-TOOTHED, TYPICALLY ARRANGED IN SPRAYS OF INCREASING LEAF SIZE. LEAFSTALKS VERY SHORT. BERRY-LIKE FRUIT CROWN-TIPPED, MANY-SEEDED, EDIBLE.**

### BLACK Highbush Blueberry

*Vaccinium atrococcum*

Leaves hairy beneath, untoothed, usually dark green above. Flowers opening before appearance of leaves. "Berries" polished black (or occasionally whitish), 5-8 mm. thick. Shrub up to 3 meters high. Bogs, swamps, shores, low woods. Common.



HIGHBUSH  
BLUEBERRY



BLUEBERRY

### COMMON Highbush Blueberry

*Vaccinium corymbosum*

Leaves untoothed or very finely toothed, sometimes hairy-fringed, hairless (or hairy along main veins) beneath. "Berries" blue to blue-black, with bloom, 6-12 mm. thick. Shrub up to 3 meters high. Bogs, swamps, shores, low woods. Common.



BLUEBERRY

### DRYLAND Blueberry

*Vaccinium vacillans*

Leaves untoothed or finely toothed, pale green above, hairless, up to 5 cm. long and 3.5 cm. wide, typically somewhat roundish. "Berries" dark blue, with bloom, very sweet. Shrub less than 1 meter high. Dry, often sterile, open woods and clearings, old pastures. Common.



DRYLAND BLUEBERRY

### LOWBUSH Blueberry

*Vaccinium angustifolium* var. *laevifolium*

Leaves very finely toothed, small (1.5-3.5 cm. long) and narrow (8-15 mm. wide). "Berries" usually blue and with bloom, sweet. Shrub less than .6 meters high, often growing in crowded colonies. Dry, rocky or sandy soil, woods, or damp peaty open places. Abundant.



LOWBUSH BLUEBERRY

(PRINTS FULL SIZE)



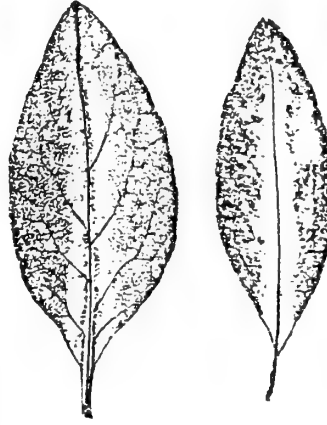
# SHRUBS ALTERNATE SIMPLE LEAVES

## MISCELLANEOUS SPECIES: LEAVES UNTOOTHED (OR OBSCURELY TOOTHED). FRUIT BERRY-LIKE.

### COMMON MATRIMONY-VINE

*Lycium halimifolium*

Sprawling shrub, often sparingly thorny. Leaves usually somewhat narrow. Fruit (flower) stalks 1-2.3 cm. long. Berries orange-red or scarlet, many-seeded, 1-2 cm. long, somewhat oblong, edible but possibly not palatable. Roadsides, waste places. Rare escape.



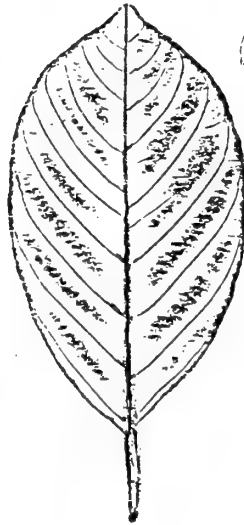
MATRIMONY-VINE



MATRIMONY-VINE

### GLOSSY BUCKTHORN *Rhamnus frangula*

Leaves with prominent side veins (mostly 8-10 pairs). Mature bark usually speckled. Fruit (flower) stalks .8-1.2 cm. long. "Berries" red turning nearly to black, 2-seeded, inedible. Rarely a small tree. Roadsides, thickets, woods, swamps. Abundantly naturalized.



GLOSSY BUCKTHORN



GLOSSY  
BUCKTHORN

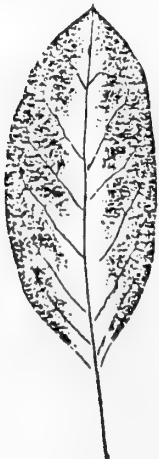


MATRIMONY-VINE

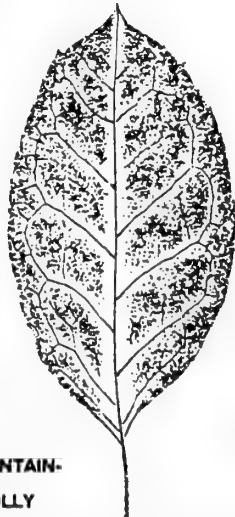
### MOUNTAIN-HOLLY

*Nemopanthus mucronatus*

Leaves often with tiny-pointed tips. Fruit (flower) stalks 1-3 cm. long. "Berries" red or pale yellow, 4-5 nutlets, edible but possibly not palatable. Bogs, swamps, pond margins. Uncommon.



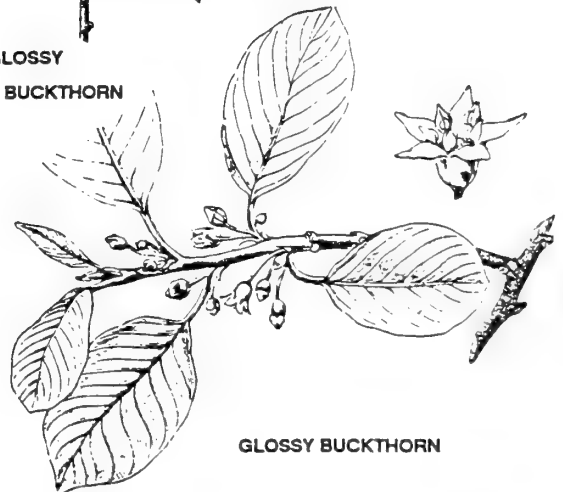
MOUNTAIN-  
HOLLY



(PRINTS  
FULL SIZE)



MOUNTAIN-  
HOLLY



GLOSSY BUCKTHORN

(CONTINUED ON NEXT PAGE)

# SHRUBS

## ALTERNATE SIMPLE LEAVES

### MISCELLANEOUS SPECIES (CONT.): LEAVES UNTOOTHED. FRUIT BERRY-LIKE.

#### AUTUMN ELAEAGNUS

*Elaeagnus umbellata*

Leaves silvery beneath. "Berries" becoming red, juicy, edible. Often somewhat thorny. Thickets, roadsides. Occasional escape.



ELAEAGNUS



ELAEAGNUS

#### COMMON SPICEBUSH

*Lindera benzoin*

Leaves spicy-fragrant when crushed, 7-12 cm. long. "Berries" oblong red or yellow, 1-seeded, spicy. Damp woods, brooksides. Common.



SPICEBUSH



SPICEBUSH

#### ALTERNATELEAF DOGWOOD

*Cornus alternifolia*

Leaves with veins reaching strongly forward; arrangement of leaves sometimes almost opposite. Fruit (flowers) in broad clusters. "Berries" blue-black (or occasionally yellow), bitter. Sometimes a small tree. Wood borders, thickets (usually dry). Common.



DOGWOOD



DOGWOOD

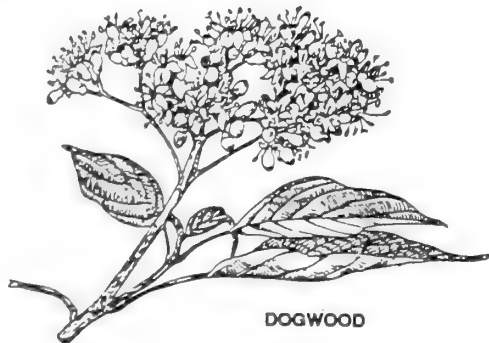
#### EARLY DAPHNE

*Daphne mezereum*

Leaves taper-based. Fruit (flowers) stalkless, in lateral clusters along branchlets. "Berries" red, 1-seeded, poisonous. Small shrub 1 meter high or less. Thickets, roadsides, old lime quarries. Rare escape.



DAPHNE



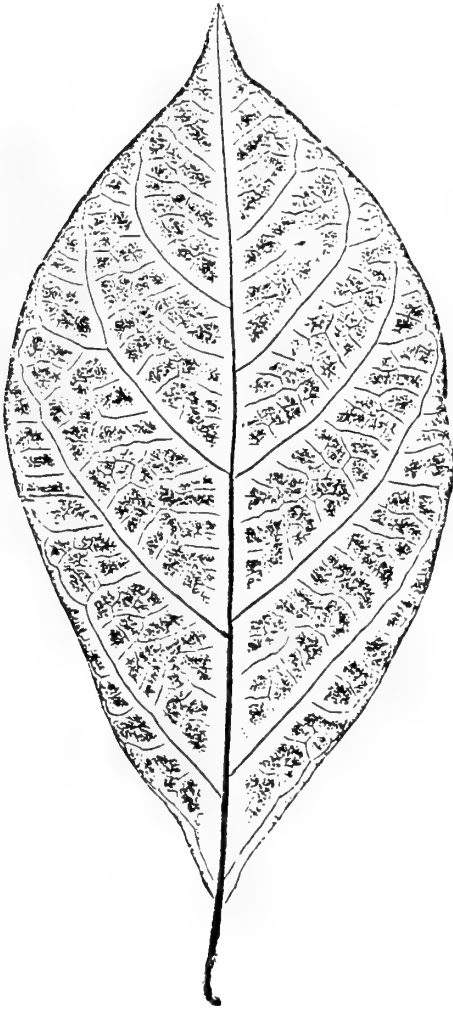
DAPHNE



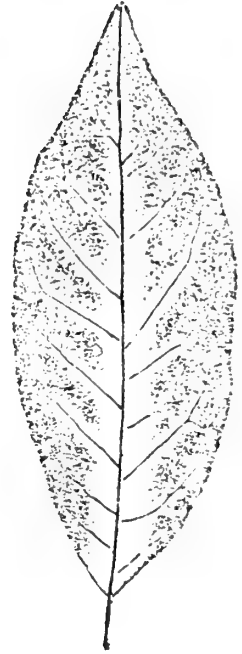
DAPHNE

# SHRUBS ALTERNATE SIMPLE LEAVES

(PRINTS FULL SIZE)



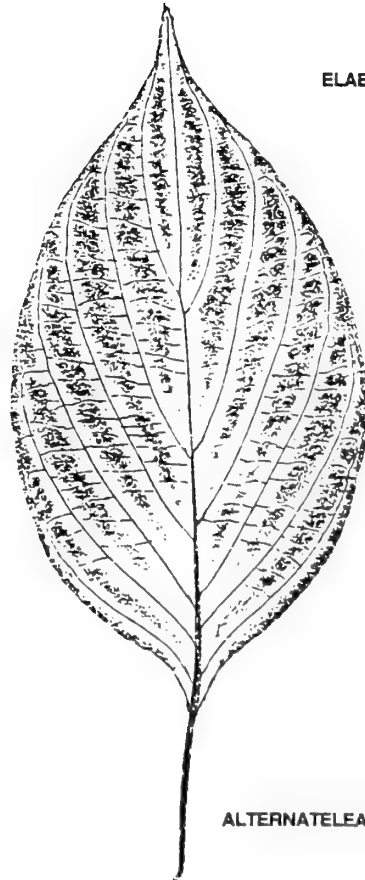
SPICEBUSH



ELEAGNUS



DAPHNE



ALTERNATELEAF DOGWOOD

# SHRUBS

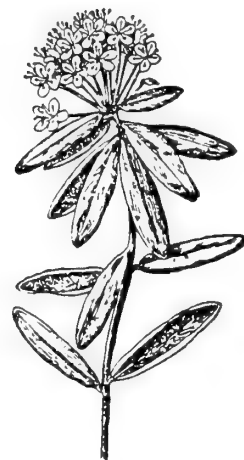
## ALTERNATE SIMPLE LEAVES

**MISCELLANEOUS SPECIES: LEAVES UNTOOTHED (OR  
OBSCURELY FINE-TOOTHED). FRUIT NOT BERRY-LIKE.  
LEAVES LEATHERY EVERGREEN.**

**LABRADOR TEA** *Ledum groenlandicum*  
Leaves 2-5 cm. long, white or rusty woolly  
beneath, fragrant when crushed; margins  
curled under. Fruit elongate capsules.  
Small shrub 1 meter high or less. Bogs,  
peaty swamps. Rare.



LABRADOR TEA



LABRADOR TEA

**SWEETBAY MAGNOLIA** *Magnolia virginiana*  
Leaves 8-15 cm. long, whitened and  
hairless beneath. Fruits in cone-like  
clusters, 3-5 cm. long. Swamps, low  
woods. Rare escape.

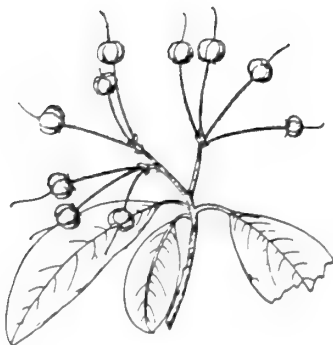


MAGNOLIA

**MOUNTAIN LAUREL** *Kalmia latifolia*  
Leaves 5-10 cm. long, sometimes arranged  
in irregular whorls, hairless and not  
whitened beneath. Fruit spherical capsules.  
Woods, clearings, rocky banks on acid soil;  
also frequently planted. Uncommon.



MAGNOLIA

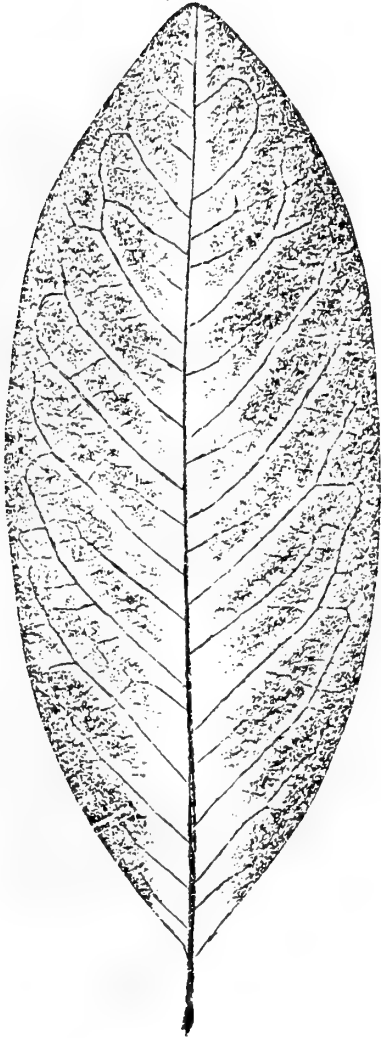


MOUNTAIN LAUREL



MOUNTAIN LAUREL

# SHRUBS ALTERNATE SIMPLE LEAVES

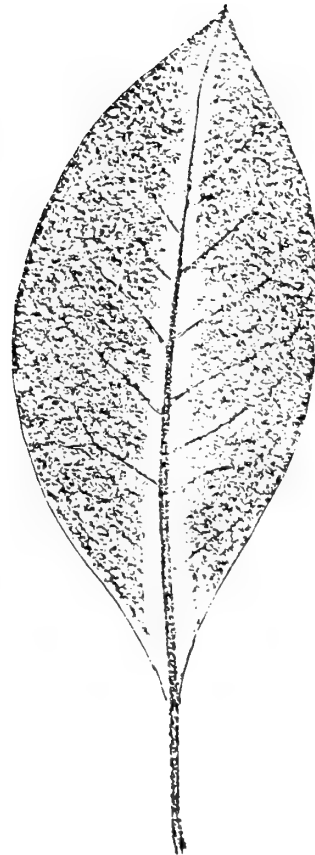


SWEETBAY MAGNOLIA

(PRINTS FULL SIZE)



LABRADOR TEA



MOUNTAIN LAUREL

(CONTINUED ON NEXT PAGE)

# SHRUBS

## ALTERNATE SIMPLE LEAVES

### MISCELLANEOUS SPECIES (CONT.): LEAVES UNTOOTHED (OR OBSCURELY FINE-TOOTHED). FRUIT NOT BERRY-LIKE.

#### DYER'S GREENWEED *Genista tinctoria*

Leaves 1-2.5 cm. long, hairy-fringed, practically stalkless. Fruit bean-like pods. Small shrub 1 meter high or less. Dry fields, roadsides. Rare escape.



GREENWEED



GREENWEED

#### LEATHERLEAF *Chamaedaphne calyculata*

Leaves 2.5-5 cm. long, scaly-dotted beneath. Fruit (flowers) in elongated, leafy clusters. Fruit spherical capsules. Small shrub 1 meter high or less. Swamps, bogs, pond shores, peaty river meadows. Common.



LEATHERLEAF

#### MALEBERRY *Lyonia ligustrina*

Leaves 3-7 cm. long, resembling blueberry leaves but with a much finer meshed network of veins beneath (not visible in leaf print). Fruit (flowers) forming tree-like clusters. Fruit spherical capsules. Moist thickets, bogs, peaty swamps. Common.



LEATHERLEAF

#### JAPANESE KNOTWEED

*Polygonum cuspidatum*

Leaf with unique shape. Fruit tiny wafers in stringy clusters. This is not woody but will commonly be mistaken for a shrub. Roadsides, waste areas. Naturalized. Common.

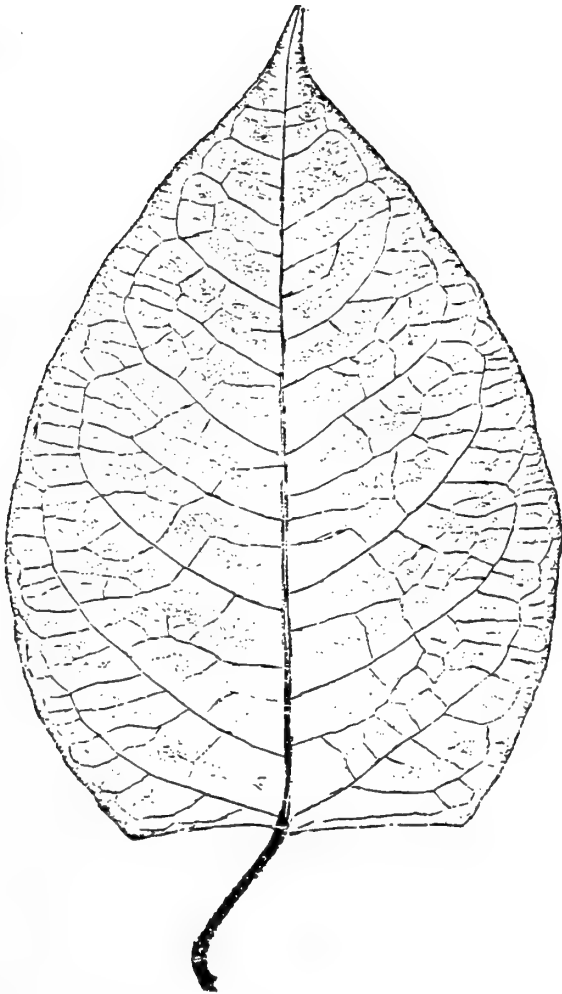


MALEBERRY



MALEBERRY

# SHRUBS ALTERNATE SIMPLE LEAVES



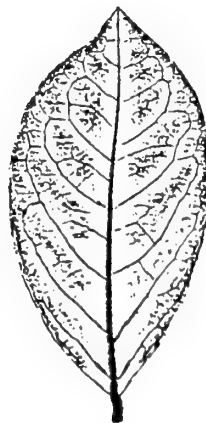
JAPANESE KNOTWEED



GREENWEED



LEATHERLEAF



MALEBERRY

(PRINTS FULL SIZE)

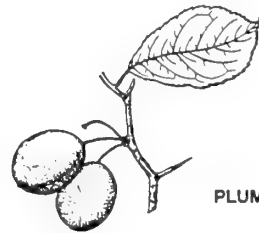
# SHRUBS

## ALTERNATE SIMPLE LEAVES

**CHERRIES & PLUMS: LEAVES TOOTHED, MAIN SIDE VEINS NOT RUNNING DIRECTLY TO LEAF EDGE. LEAFSTALKS OFTEN BEARING GLANDS NEAR LEAF BASE. FRUIT WITH SINGLE SEED. PLUM FRUIT SLIGHTLY LINED OR FURROWED LENGTHWISE; CHERRY FRUIT NOT LINED.**

**BEACH PLUM** *Prunus maritima*

Leaves 3-6 cm. long, soft-hairy beneath.  
Fruit 1.3-2.5 cm. thick, purple or bluish (occasionally yellowish), sweetish, edible.  
Sandy soil, roadsides. Rare (mostly as escape).



PLUM

**AMERICAN PLUM** *Prunus americana*

Leaves 5-12 cm. long. Fruit red to yellow, 2-3 cm. thick, sour but edible. Spur branches often spiny. Sometimes a small tree. Thickets, roadsides, wood borders. Uncommon.



PLUM & CHERRY

**CHOKE CHERRY** *Prunus virginiana*

Leaves sharp-toothed, 5-12 cm. long. Fruit (flowers) in elongated clusters. Fruit pulp scarcely palatable but used in jellies and pies. Roadsides, thickets, borders of woods. Common.



CHOKE CHERRY

**APPALACHIAN SAND CHERRY**

*Prunus susquehanae*

Small shrub less than 1 meter high. Leaves sparsely or not toothed along bottom third, 2-3 cm. wide, hairless. Fruit 1-1.5 cm. thick; pulp edible. Sandy or open acid situations, dry woods. Uncommon.



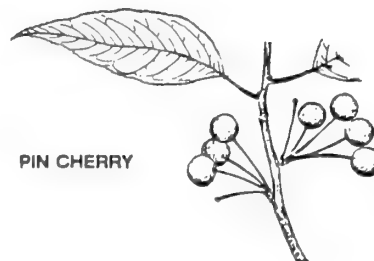
SAND CHERRY



CHOKE CHERRY

**PIN (FIRE) CHERRY** *Prunus pensylvanica*

Leaves finely toothed, with tapered or gradually narrowed tips. Fruit small, 5-7 mm. thick, red; pulp edible. Often a small tree. Roadsides, recent burns, dry, open woods. Common.

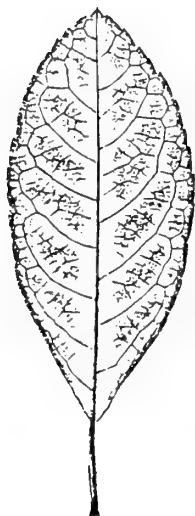


PIN CHERRY

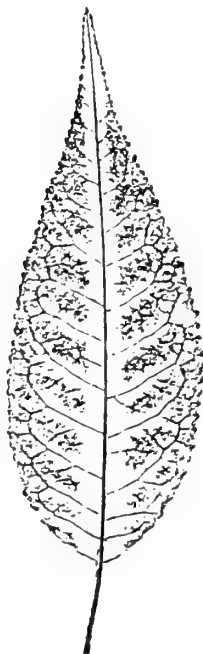


# SHRUBS ALTERNATE SIMPLE LEAVES

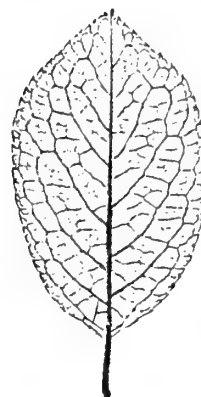
(PRINTS FULL SIZE)



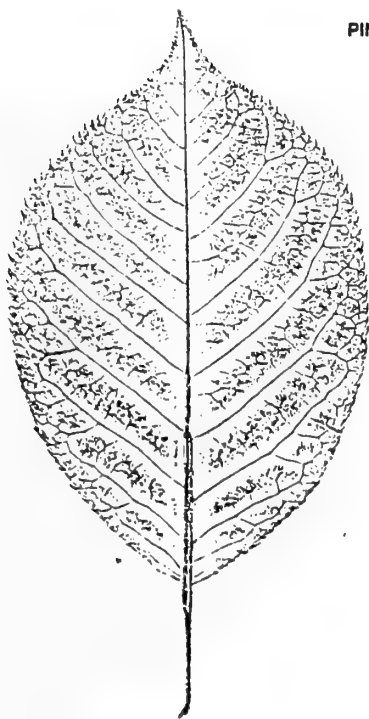
SAND CHERRY



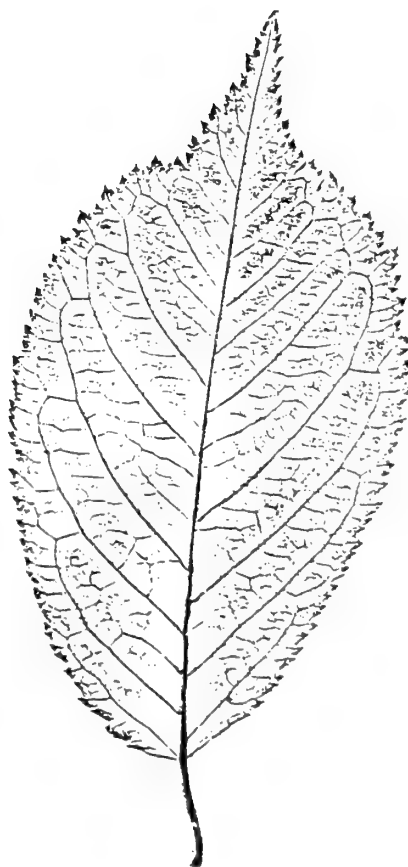
PIN CHERRY



BEACH PLUM



CHOKE CHERRY



AMERICAN PLUM

# SHRUBS

## ALTERNATE SIMPLE LEAVES

**SHADBUSHES: LEAVES TOOTHED, WITH ROUNDED OR HEART-SHAPED BASES. LEAFSTALKS WELL DEVELOPED. BARK OF LARGER SPECIMENS OFTEN WITH INTERLACING STRIPES. FRUIT BERRY-LIKE, IN TREE-LIKE CLUSTERS, 10-SEEDED, EDIBLE.**

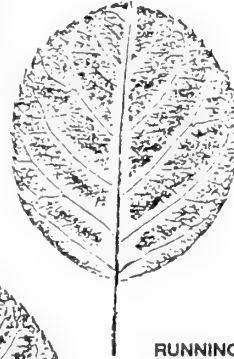
### **RUNNING SHADBUSH**

*Amelanchier stolonifera*

Leaves becoming hairless, sometimes almost circular, mostly with only 5-7 pairs of main side veins. Small upright shrub up to 1.5 meters high, forming colonies by underground runners. Dry, sterile, open ground. Uncommon.



RUNNING  
SHADBUSH



RUNNING  
SHADBUSH

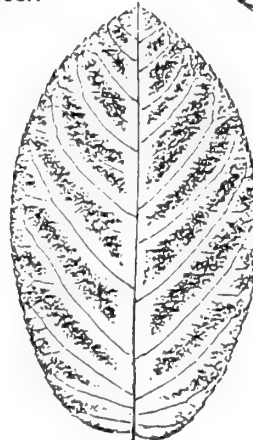


SHADBUSH

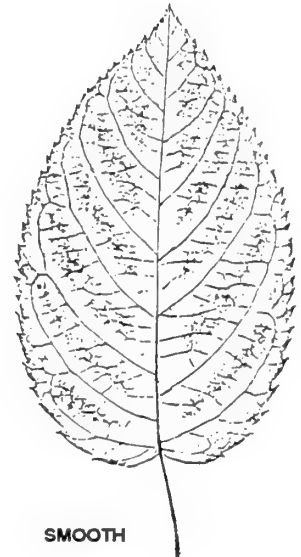
### **THICKET SHADBUSH**

*Amelanchier canadensis*

Leaves often blunt-tipped, very hairy beneath at flowering time but becoming mostly hairless, rounded (not distinctly heart-shaped) at base. Flower petals only 6-10 mm. long. Thickets, shores, swampy or low open places. Common.



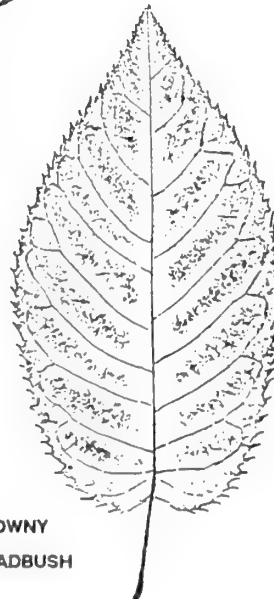
THICKET  
SHADBUSH



SMOOTH  
SHADBUSH

### **SMOOTH SHADBUSH** *Amelanchier laevis*

Leaves with short-tapered tips, hairless beneath (nearly so at flowering time), rounded or somewhat heart-shaped at base. New leaves often with reddish or purplish cast. Flower petals 1-2 cm. long. Sometimes a small tree. Open woods, thickets, roadsides. Uncommon.



DOWNY  
SHADBUSH



SHADBUSH

(PRINTS FULL SIZE)

# SHRUBS ALTERNATE SIMPLE LEAVES

## MISCELLANEOUS SPECIES: LEAVES TOOTHED. FRUIT BERRY-LIKE OR FLESHY (NOT 1-SEEDED).

### COMMON BUCKTHORN *Rhamnus cathartica*

Leaves nearly opposite in arrangement (except on sprout growth). Main veins reaching strongly forward. See p. 47.



COMMON  
BUCKTHORN



BUCKTHORN

### CHOKEBERRY *Aronia arbutifolia* (or *Pyrus melanocarpa* + *P. floribunda*)

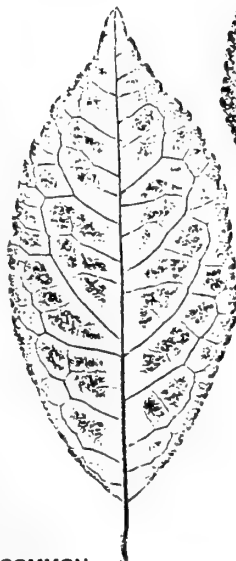
Leaves with small dark glands on midrib above. Fruit (flowers) in stalked clusters. Berry-like fruit red or black, puckery, used in jellies. Thickets, wet woods, bogs. Common.



CHOKEBERRY

### COMMON WINTERBERRY *Ilex verticillata*

Leaves sharply toothed, turning brown or dark in autumn. Flowers mostly in groups of 3 or more. Calyx lobes fringed even in fruit. "Berries" red (rarely yellow) on stalks 2-4 mm. long, somewhat poisonous. Swamps, wet woods, meadow thickets, pond margins. Common.



COMMON  
WINTERBERRY



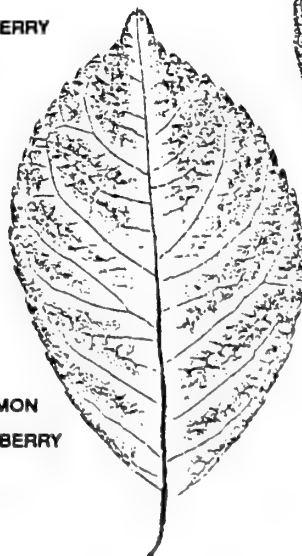
CHOKE-  
BERRY



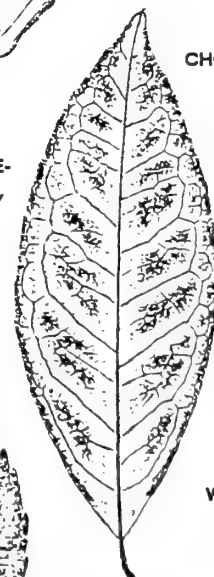
CHOKEBERRY

### SMOOTH WINTERBERRY *Ilex laevigata*

Leaves obscurely toothed, shiny above, turning yellow in autumn. Flowers in groups of 1-2. Calyx lobes not or scarcely fringed. "Berries" orange-red on stalks 4-6 mm. long, somewhat poisonous. Swamps, wet woods. Uncommon.



COMMON  
WINTERBERRY



SMOOTH  
WINTERBERRY



WINTERBERRY

### CRABAPPLES *Pyrus (Malus) spp.*

Fruit of our species on well developed stalks that are joined near a single point. See p. 103.

### MOUNTAIN-HOLLY *Nemopanthus mucronata*

Leaves sometimes sparsely toothed. See p. 71.



WINTERBERRY

(PRINTS FULL SIZE)

# SHRUBS

## ALTERNATE SIMPLE LEAVES

**MISCELLANEOUS SPECIES: LEAVES TOOTHED. FRUIT NOT BERRY-LIKE. MAIN SIDE VEINS PROMINENT AND RUNNING DIRECTLY TO LEAF EDGE.**

### AMERICAN HAZELNUT

*Corylus americana*

Leaves roundish, heart-shaped at base. Twigs and leafstalks usually glandular-hairy. Fruit husk ruffled; nuts edible. Woods, thickets, borders of woods. Common.



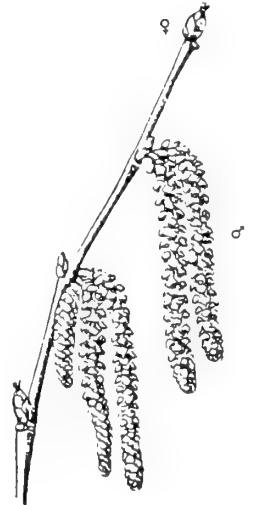
AMERICAN HAZELNUT

### BEAKED HAZELNUT *Corylus cornuta*

Leaves typically less round than preceding species, heart-shaped at base. Twigs and leafstalk not glandular. Fruit husk with long beak; nut edible. Woods, thickets, borders of woods. Common.



BEAKED HAZELNUT



HAZELNUT

### SPECKLED ALDER *Alnus rugosa*

Leaves widest at or below middle, often wavy-margined or irregularly double-toothed, broadly wedge-based or rounded at leaf base. Bark with whitish, narrow, horizontal speckles. Fruit cone-like, persistent. Swamps, stream borders, pond shores, marshes, low ground. Common.



ALDER

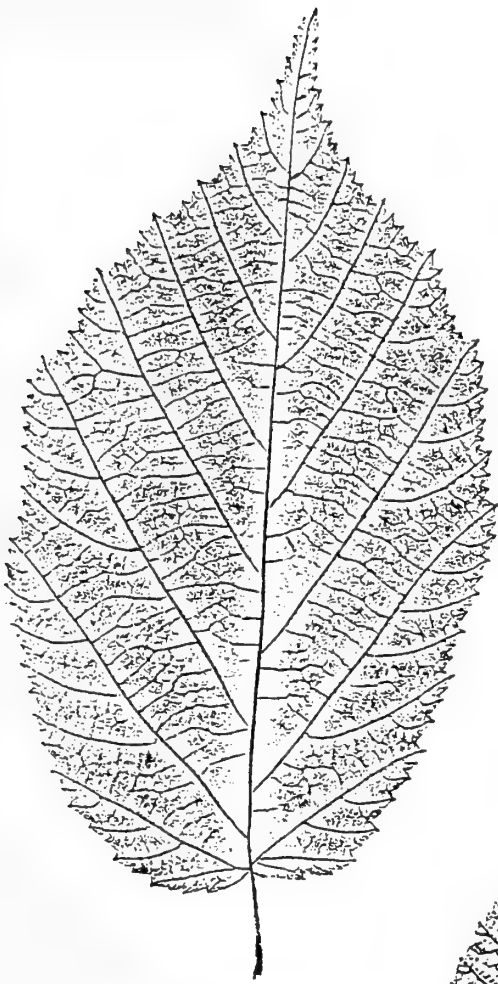


ALDER

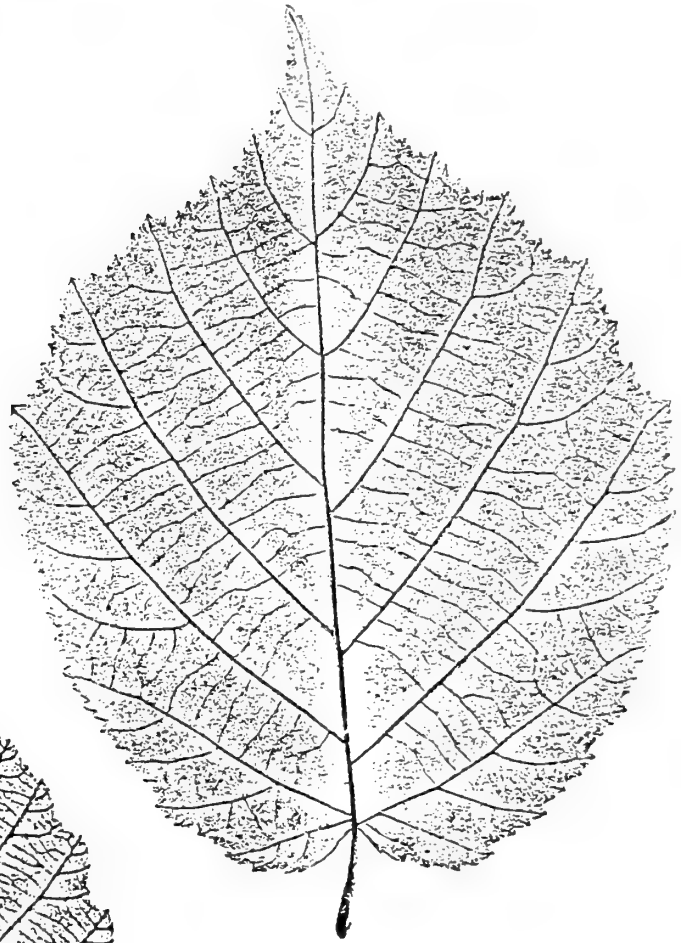
### SMOOTH ALDER *Alnus serrulata*

Leaves widest at or above middle, nearly evenly single-toothed, only rarely much wavy-margined, wedge-based (often broadly). Bark somewhat speckled or essentially unspeckled. Fruit cone-like, persistent. Swamps, stream borders, pond shores, marshes, low ground. Common.

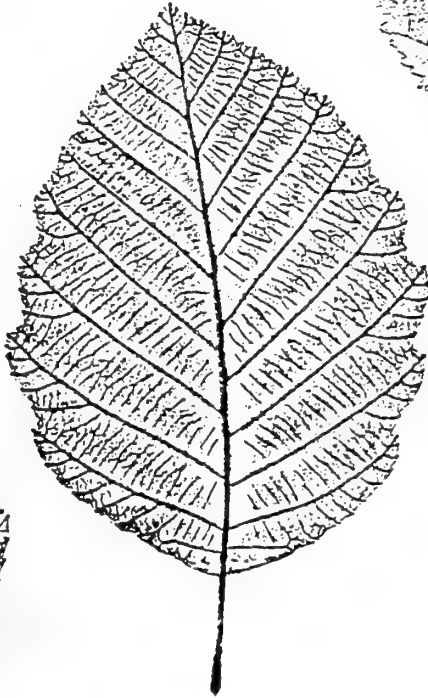
# SHRUBS ALTERNATE SIMPLE LEAVES



BEAKED HAZELNUT



AMERICAN HAZELNUT

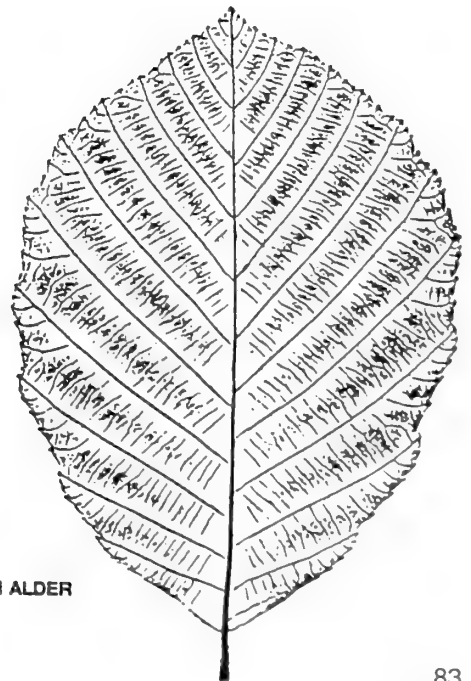


SPECKLED ALDER

(PRINTS FULL SIZE)



SMOOTH ALDER



SMOOTH ALDER

# SHRUBS

## ALTERNATE SIMPLE LEAVES

MISCELLANEOUS SPECIES: LEAVES TOOTHED; LEAFSTALKS SHORT (LESS THAN 1.5 CM. LONG). FRUIT NOT FLESHY.

**NEW JERSEY TEA** *Ceanothus americanus*

Leaves with 3 main veins meeting at base and reaching strongly forward. Fruit 3-lobed capsules. Small shrub up to 1 meter high. Dry, sterile, scrub woods. Uncommon.



NEW JERSEY TEA



NEW JERSEY TEA

**SWEET GALE** *Myrica gale*

Leaves narrow, taper-based, aromatic when crushed, coarse-toothed mostly towards tip. Fruit cone-like. Pond margins, shallow water, peat bogs. Common.



SWEET GALE



SWEET GALE

**BAYBERRY** *Myrica pensylvanica*

Leaves taper-based, aromatic when crushed, few-toothed (or occasionally untoothed). Fruit globular, whitish, wax-coated nutlets. Dry or wet, sterile soil, thickets. Uncommon.



BAYBERRY



**SWEET PEPPERBUSH** *Clethra alnifolia*

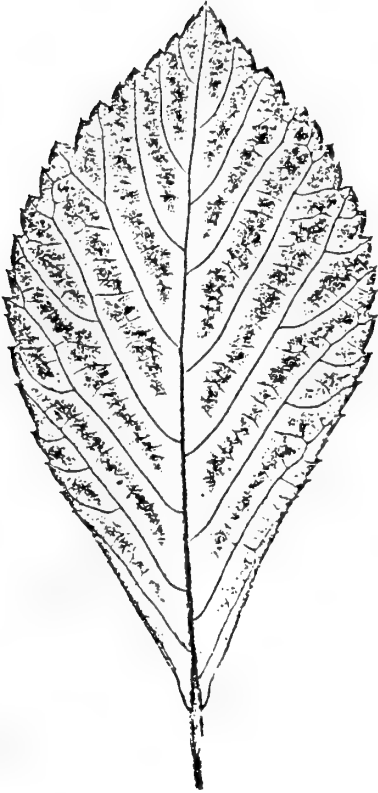
Leaves with main side veins extending to leaf edge or nearly so. Fruit (flowers) in upright, wand-like clusters. Fruit spherical capsules. Low to swampy woods and thickets. Common.



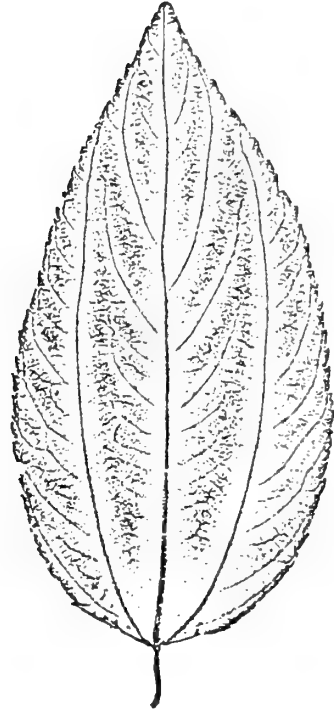
PEPPERBUSH



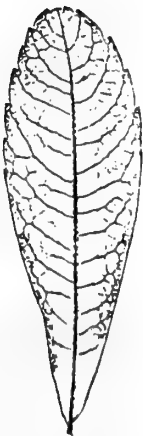
SHRUBS  
ALTERNATE SIMPLE LEAVES



PEPPERBUSH

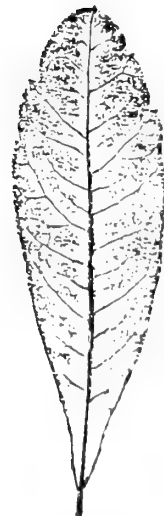


NEW JERSEY TEA



SWEET GALE

(PRINTS FULL SIZE)



BAYBERRY

(CONTINUED ON NEXT PAGE)

# SHRUBS

## ALTERNATE SIMPLE LEAVES

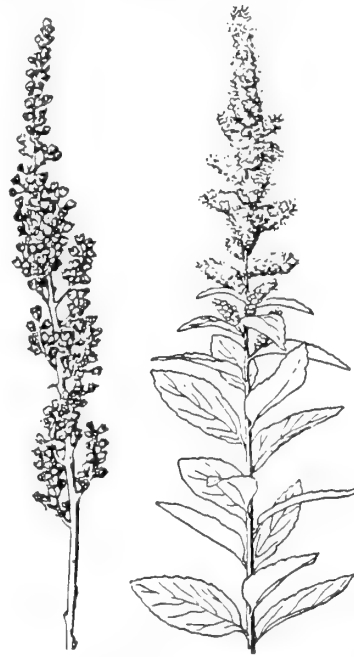
### MISCELLANEOUS SPECIES: LEAVES TOOTHED; LEAFSTALKS SHORT (LESS THAN 1.5 CM.). FRUIT NOT FLESHY. (CONT.)

**HARDHACK** *Spiraea tomentosa*

Leaves small (3-5 cm. long), woolly beneath, very short-stalked. Fruit (flowers) in narrow, spire-like clusters. Fruit tiny, dry, felted. Dry or wet acid soil in the open. Common.



HARDHACK



HARDHACK

**BROADLEAF MEADOWSWEET**

*Spiraea latifolia*

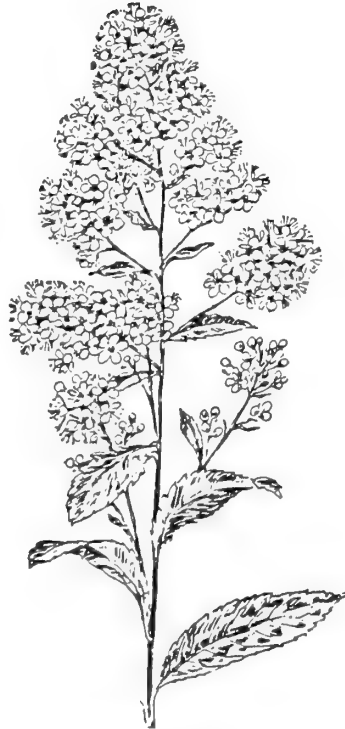
Leaves coarsely (often doubly) toothed, hairless or nearly so beneath. Fruit (flowers) in somewhat loose, pyramidal clusters. Fruit tiny, dry, hairless. Dry or (usually) moist soil in the open. Common.



MEADOWSWEET

**SWAMP SWEETBELLS** *Leucothoe racemosa*

Leaves finely toothed; leafstalks short (1-5 mm. long). Fruit (flowers) in elongated clusters. Flower clusters one-sided. Fruit somewhat spherical capsules. Pond shores, moist thickets, cedar swamps, bogs. Rare.



MEADOWSWEET

**MALEBERRY** *Lyonia ligustrina*

Leaves obscurely fine-toothed. Fruit (flowers) in tree-like clusters. See p. 76.



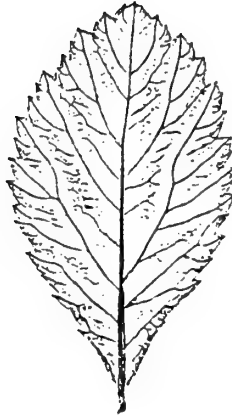
SWAMP SWEETBELLS



SWAMP SWEETBELLS



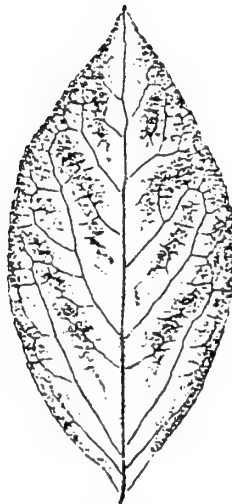
# SHRUBS ALTERNATE SIMPLE LEAVES



MEADOWSWEET



HARDHACK



SWAMP SWEETBELLS

(PRINTS FULL SIZE)

# VINES OPPOSITE LEAVES

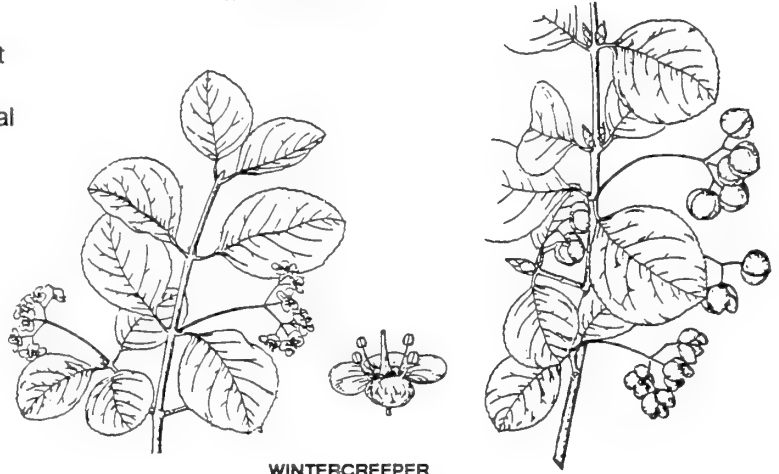
**TRUMPET CREEPER** *Campsis radicans*  
Leaves compound with 9-11 toothed leaflets. Flowers showy, reddish-orange (occasionally yellowish). Fruits cigar-shaped pods, 10-20 cm. long. Roadsides, thickets. Occasional escape.



TRUMPET CREEPER

**COMMON WINTERCREEPER**  
*Euonymus fortunei*

Leaves simple, small, toothed, leathery-evergreen. Flowers greenish white. Fruit pinkish or orange, fleshy, somewhat poisonous. Roadside woods. Occasional escape.



WINTERCREEPER

**TRUMPET HONEYSUCKLE**  
*Lonicera sempervirens*

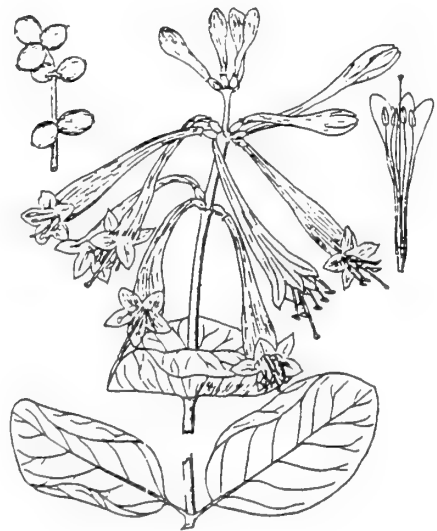
Leaves simple, untoothed; uppermost pairs near flowers (fruit) united at base. Twigs hairless or nearly so. Flowers red (rarely orange to yellow). "Berries" red, bitter. Woods, thickets. Uncommon.

**JAPANESE HONEYSUCKLE**  
*Lonicera japonica*

Leaves simple, untoothed. Twigs hairy. Flowers white turning yellow. "Berries" black, bitter. Thickets, borders of woods, roadsides. Uncommon escape.



JAPANESE HONEYSUCKLE



TRUMPET HONEYSUCKLE

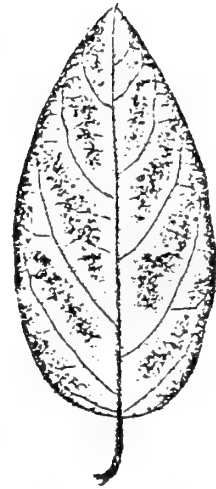
# VINES OPPOSITE LEAVES



TRUMPET CREEPER



WINTERCREEPER



JAPANESE HONEYSUCKLE



TRUMPET HONEYSUCKLE

(PRINTS FULL SIZE)

# VINES

## ALTERNATE COMPOUND LEAVES

### POISON IVY *Rhus radicans*

Leaves with 3 leaflets. "Berries" whitish.  
All parts of this plant irritate the skin  
of most people. Climbing on trees, stone  
walls, fences, or trailing, especially  
along roadsides. Common.



POISON IVY



POISON IVY

### VIRGINIA CREEPER

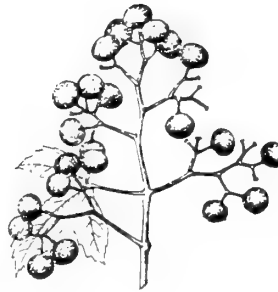
*Parthenocissus quinquefolia*

Leaves mostly with 5 toothed leaflets.  
Tendrils tipped with adhesive disks.  
Fruit (flower) cluster with a central  
axis. Berries bluish-black, 5-7 mm.  
thick, poisonous. Climbing on trees,  
walls, fences or trailing in woods  
and on rocky banks. Common.

### THICKET CREEPER

*Parthenocissus vitacea*

Leaves mostly with 5 toothed leaflets.  
Tendrils with very few or no adhesive  
disks. Fruit (flower) cluster forked  
(without evident central axis). Berries  
bluish-black, 8-10 mm. thick, poisonous.  
Trailing or slightly climbing in woods,  
thickets, along banks. Uncommon.



VIRGINIA CREEPER

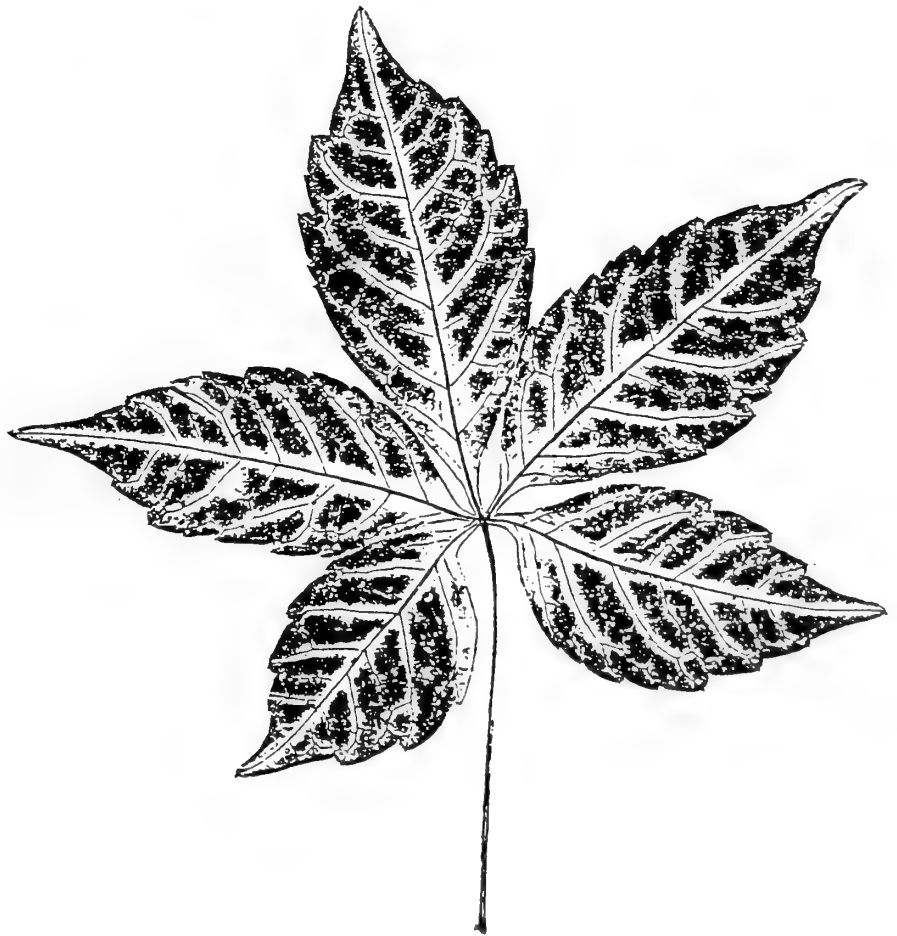


THICKET CREEPER

# VINES ALTERNATE COMPOUND LEAVES



POISON IVY



(PRINTS 3/4 SIZE)

VIRGINIA & THICKET CREEPER

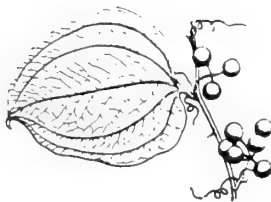
# VINES

## ALTERNATE SIMPLE LEAVES

### COMMON GREENBRIER

*Smilax rotundifolia*

Leaves untoothed (or minutely jagged).  
Stems thorny. Berries blue-black, edible  
though possibly not palatable. Low, moist  
thickets and woods (especially near  
shores). Common.



GREENBRIER

### BITTER NIGHTSHADE

*Solanum dulcamara*

Leaves untoothed, lobed or unlobed.  
Berries red, somewhat poisonous.  
Thickets, clearings, and moist soil  
near dwellings. Naturalized. Common.



NIGHTSHADE



NIGHTSHADE

### AMERICAN BITTERSWEET

*Celastrus scandens*

Leaves toothed and unlobed. Flower (fruit)  
clusters at ends of branchlets with  
numerous flowers (fruits) in each cluster.  
Fruit yellow-orange on outside, opening to  
reveal red, berry-like interior, somewhat  
poisonous. Thickets, stone walls, woods,  
roadsides. Formerly common, now apparently  
rare.

### ASIAN BITTERSWEET

*Celastrus orbiculatus*

Similar to American Bittersweet but flowers  
(fruits) 2-4 per cluster along sides of  
branchlets where leaves are attached.  
Naturalized in same habitats as the native  
species, sometimes covering entire trees.  
Common, often locally abundant.



AMERICAN BITTERSWEET

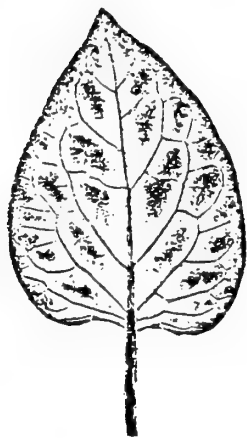


AMERICAN BITTERSWEET

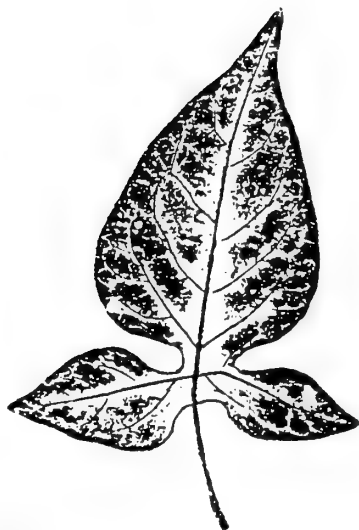


ASIAN BITTERSWEET

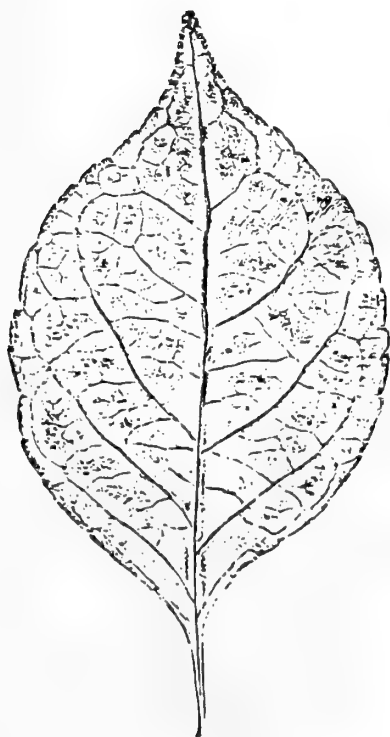
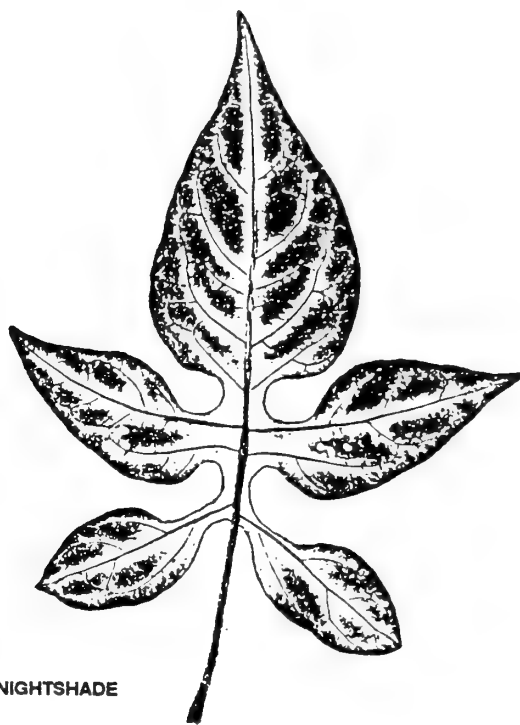
# VINES ALTERNATE SIMPLE LEAVES



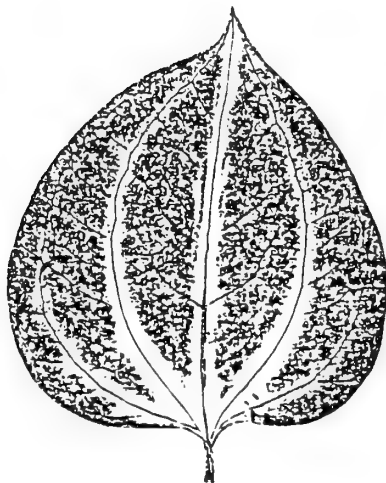
BITTER NIGHTSHADE



BITTER NIGHTSHADE

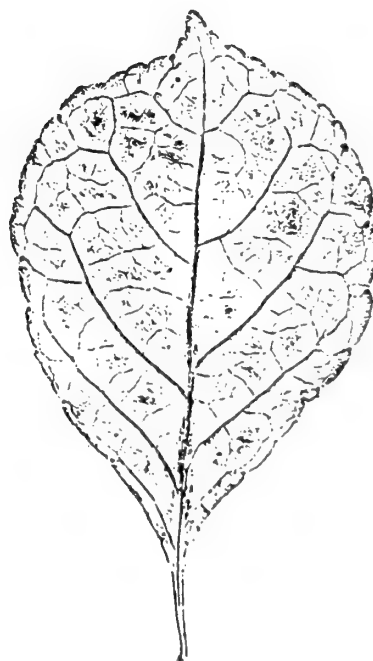


BITTERSWEET



GREENBRIER

(PRINTS FULL SIZE)



BITTERSWEET

(CONTINUED ON NEXT PAGE)

# VINES

## ALTERNATE SIMPLE LEAVES

GRAPES & AMPELOPSIS: VINES CLIMBING BY TENDRILS.  
LEAVES TOOTHED AND USUALLY LOBED.

### AMUR AMPELOPSIS

*Ampelopsis brevipedunculata*

Leaves 3-lobed. Bark speckled, tight (not peeling or shredding). Stem pith white. Berries becoming bright blue (rarely whitish), edibility unknown. Roadsides, thickets. Occasional escape.



AMPELOPSIS

### RIVERBANK GRAPE *Vitis riparia*

Leaves with large coarse teeth (often long-tapered), becoming mostly hairless beneath and not whitened. Grapes 8-12 mm. thick, with much bloom, sour. Rich thickets, roadsides, moist woods, shaded riverbanks. Uncommon.

### FOX GRAPE *Vitis labrusca*

Leaves permanently densely rusty or whitish felted beneath, shallow toothed, usually shallowly 3-lobed (occasionally unlobed). Tendrils or fruit (flower) clusters opposite at least 3-7 consecutive leaves. Grapes 15-25 mm. thick, becoming sweetish. A parent of the Concord Grape and most other American cultivated grapes. Roadsides, woods, thickets. Abundant.



GRAPE

### SUMMER GRAPE *Vitis aestivalis*

Leaves with patchy or cobwebby, somewhat persistent, rusty hair beneath. Tendrils or fruit (flower) clusters missing each third leaf. Grapes 5-12 mm. thick, black, with a thin bloom, variable in sweetness. Open woods, thickets, roadsides. Uncommon.



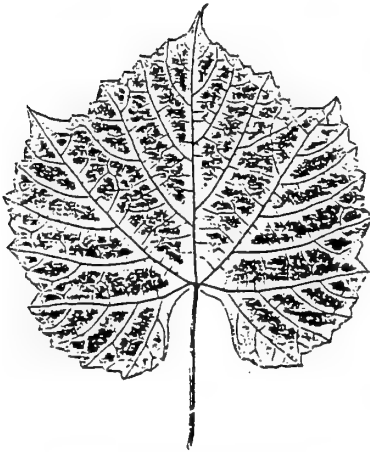
# VINES ALTERNATE SIMPLE LEAVES



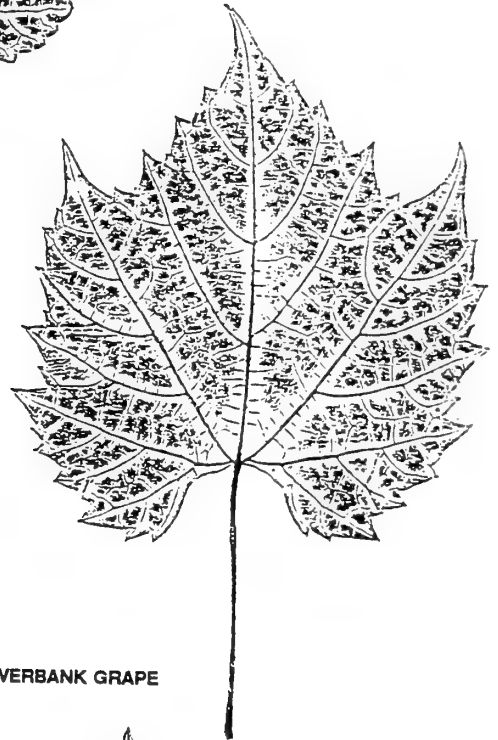
AMPELOPSIS



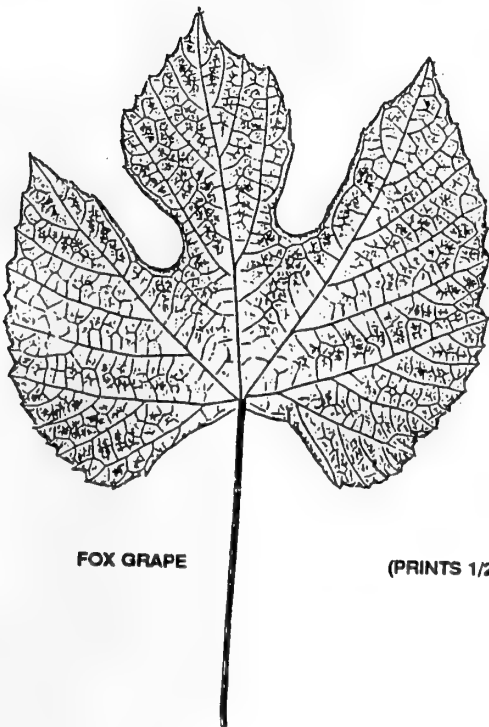
AMPELOPSIS



SUMMER GRAPE

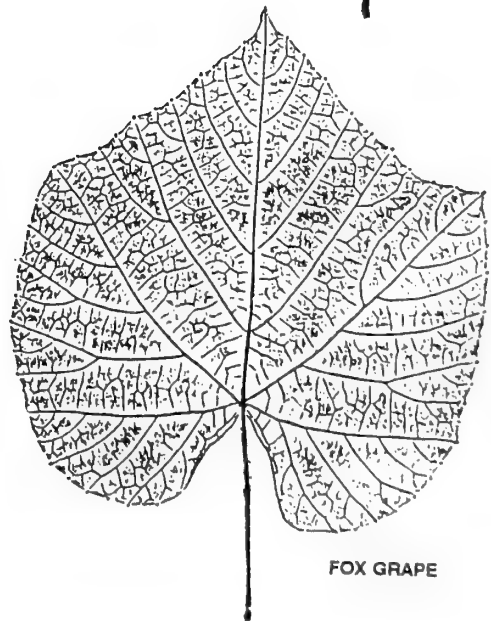


RIVERBANK GRAPE



FOX GRAPE

(PRINTS 1/2 TO 2/3 SIZE)



FOX GRAPE

# BLACKBERRIES, RASPBERRIES, & DEWBERRIES

THORNY OR BRISTLY PLANTS WITH SLIGHTLY WOODY STEMS OF ONE, TWO OR THREE YEARS DURATION. LEAVES ALTERNATE, COMPOUND WITH 3-5 LEAFLETS. "BERRIES" EDIBLE.

Many species in this group are quite variable and not infrequently hybridize. For a detailed treatment of New England's Blackberries and Dewberries see the work of A. Hodgdon and F. Steele in vol. 68 of *Rhodora* (1966) pp. 474-513. For information on New England hybrids in this group see the work of the same authors in vol. 72 of *Rhodora* (1970) pp. 240-257, 547.

## RASPBERRIES: LEAFLETS WHITE BENEATH. RIPE "BERRIES" LEAVING A SMALL WHITE KNOB BEHIND WHEN PICKED.

Note: Feather-compound vs. fan-compound is illustrated by the leaf prints of 5-leaflet leaves of Red Raspberry vs. Black Raspberry.

### RED RASPBERRY *Rubus idaeus*

Those leaves with 5 leaflets, feather-compound; 3-leaflet leaves often tending toward this form by lobes on end leaflet. Calyx often bristly. "Berries" red when ripe. Thickets, clearings, roadsides, old pastures. Common.

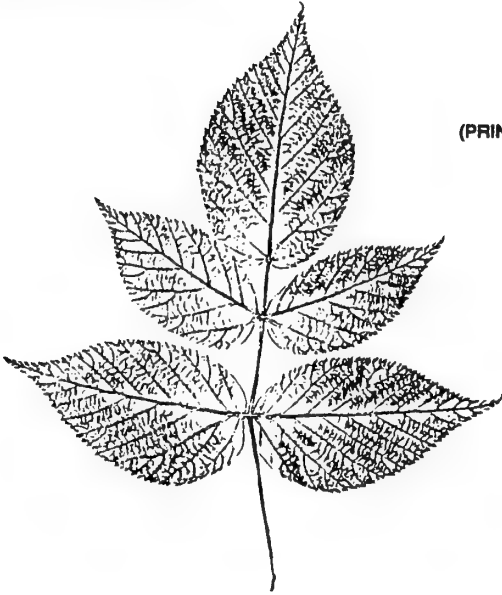
### BLACK RASPBERRY *Rubus occidentalis*

Those leaves with 5 leaflets, fan-compound; 3-leaflet leaves often tending toward this form by lobes on side leaflets. Calyx not (or scarcely) bristly. "Berries" dark purple when ripe. Clearings, rich thickets, borders of woods. Common.

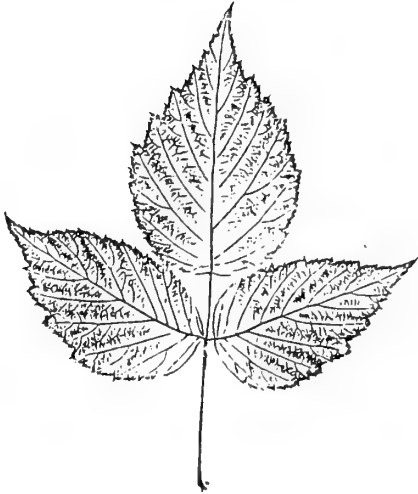


# BLACKBERRIES, RASPBERRIES, & DEWBERRIES

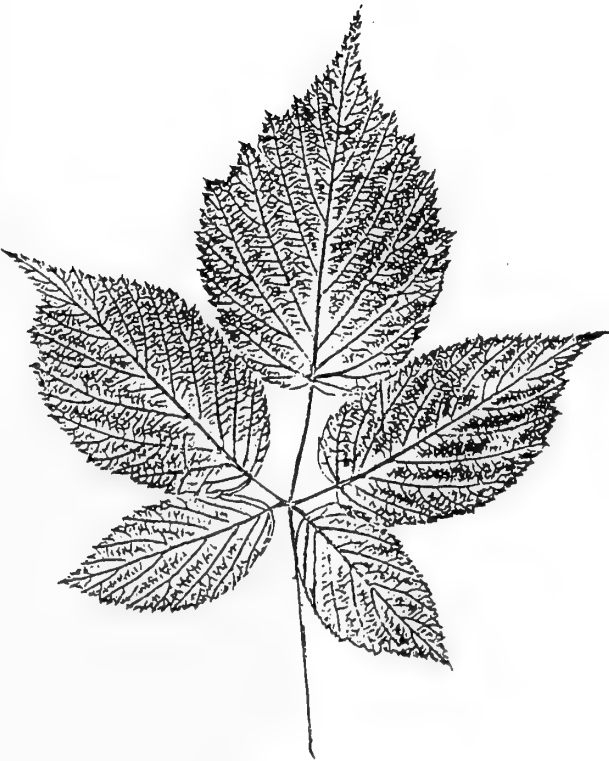
(PRINTS 1/2 SIZE)



RED RASPBERRY



RED RASPBERRY



BLACK RASPBERRY



BLACK RASPBERRY

# BLACKBERRIES, RASPBERRIES, & DEWBERRIES

**DEWBERRIES & BRAMBLES: STEMS TRAILING OR TENDING TO TRAIL (LOW ARCHING); LEAVES OF FIRST YEAR (NON-FRUITING, NON-FLOWERING) STEMS MOSTLY WITH 3 LEAFLETS.**

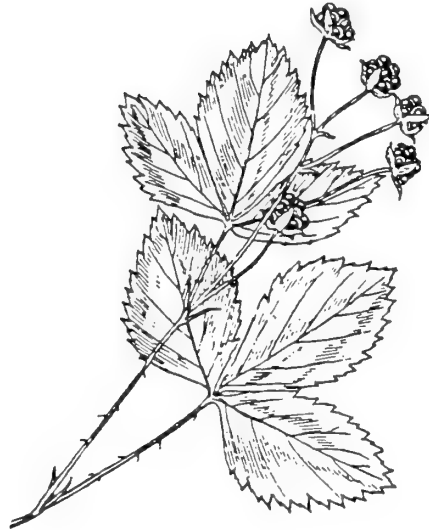
**SWAMP DEWBERRY** *Rubus hispidus*  
Leaflets small (mostly 3.5-5 cm. long), often dark green and leathery. Stems bristly, without strong prickles. Fruit (flowers) 4-10 per cluster. \*Berries\* of poor quality. Moist open woods, moist or dry open soil. Common.

**ENSLER BRAMBLE** *Rubus enslenii*  
Stems very slender, .5-2.5 mm. thick (mostly 1-2 mm.). Fruit (flowers) mostly 1-2 per cluster on nearly erect stalks. \*Berries\* often of good quality. Dryish woods (mostly oak-hickory), ledges and rocky openings. Uncommon.

**NORTHERN DEWBERRY** *Rubus flagellaris*  
Leaves hairless or nearly so beneath. Stems 1.5-4 mm. thick. Fruit (flowers) 1-5 per cluster on nearly erect stalks; uppermost stalks of cluster 1-2 cm. long. \*Berries\* often of good quality. Fields, sandy areas, roadsides, ledges. Common.

**JAYSMITH DEWBERRY** *Rubus jaysmithii*  
Like the preceding species but leaves hairy beneath. Similar habitats. Uncommon or rare.

**ARCHING BRAMBLE** *Rubus recurvicaulis*  
Sometimes high trailing, forming a dome. Likely to have more 5-leaflet leaves than above species. Fruit (flowers) 1-12 per cluster (mostly 2-8) on stalks not erect; uppermost stalks of cluster .5-1 cm. long. Stems 2-4 mm. thick. \*Berries\* poor to good in quality. Pastures, fields, roadsides, railroad banks. Rare.



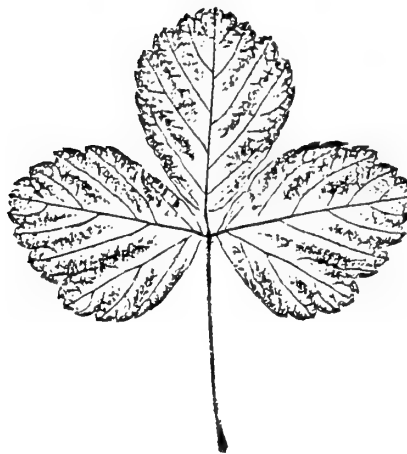
DEWBERRY & BRAMBLE



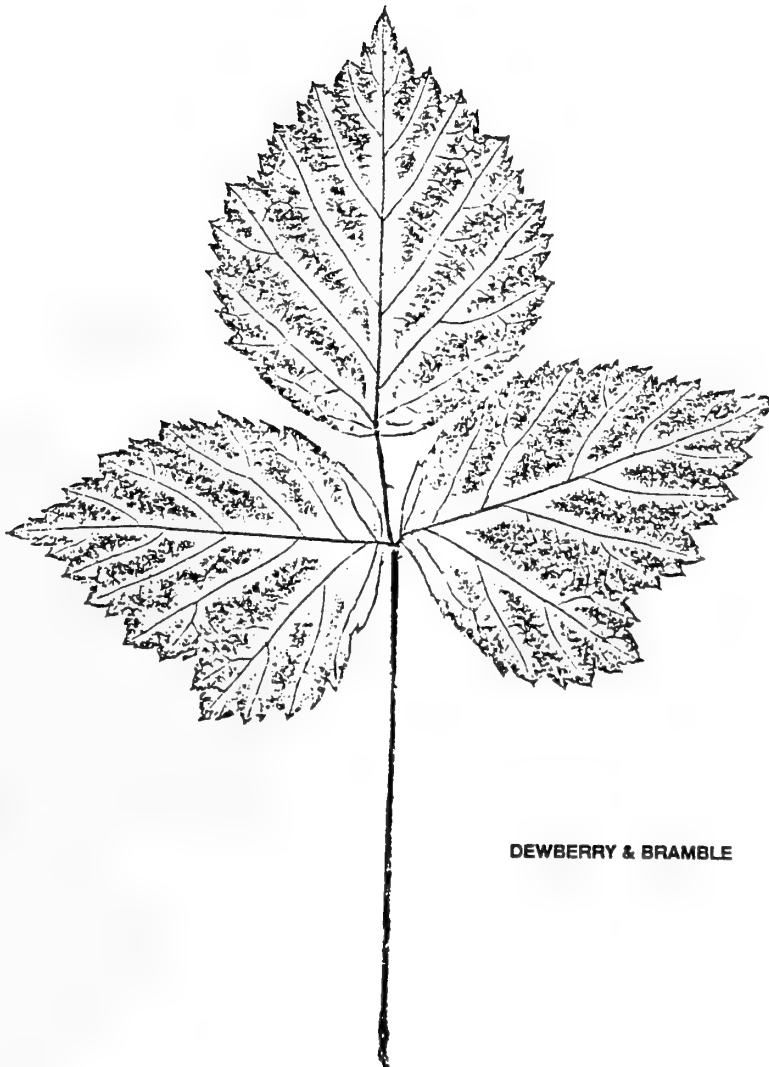
DEWBERRY & BRAMBLE

# BLACKBERRIES, RASPBERRIES, & DEWBERRIES

(PRINTS FULL SIZE)



SWAMP DEWBERRY



DEWBERRY & BRAMBLE

# BLACKBERRIES, RASPBERRIES, & DEWBERRIES

**BLACKBERRIES: ERECT OR ARCHING STEMS; LEAVES OF FIRST YEAR (NON-FRUITING, NON-FLOWERING) STEMS WITH 5 (OCCASIONALLY 3) LEAFLETS.**

**BRISTLY BLACKBERRY** *Rubus setosus*

Leaves hairless beneath. First year stems with very many soft bristles. "Berries" dryish. River bottomlands, damp thickets, grassy swamps. Uncommon.

**VERMONT BLACKBERRY**

*Rubus vermontanus*

Leaves essentially hairless beneath. Stems very prickly with stiff, needle-like prickles 2-4 mm. long. "Berries" poor to fair in quality. Sterile fields, thickets. Rare.

**ALLEGHENY BLACKBERRY**

*Rubus allegheniensis*

Leaves velvety beneath. Stalk of fruit (flower) clusters hairy and with numerous stalked glands. Mature plants mostly 1-2 meters high. "Berries" of good quality. Roadsides, old fields, cut over woods. Common.

**BIGELOW BLACKBERRY**

*Rubus semisetosus*

Like Vermont Blackberry but leaves clearly hairy or velvety beneath. Mature plant less than 1 meter high. "Berries" undeveloped or poor in quality. Thickets, open fields. Rare.

**PENNSYLVANIA BLACKBERRY**

*Rubus pensilvanicus*

Stems with about 2 or fewer prickles per cm. Prickles mostly 2-4 mm. long. Stalks of fruit (flower) cluster hairy, essentially glandless, with mostly 1-2 leafy bracts. Mature plants mostly 1-2 meters high. "Berries" fair to good. Thickets, roadsides, swamps, woods. Common.



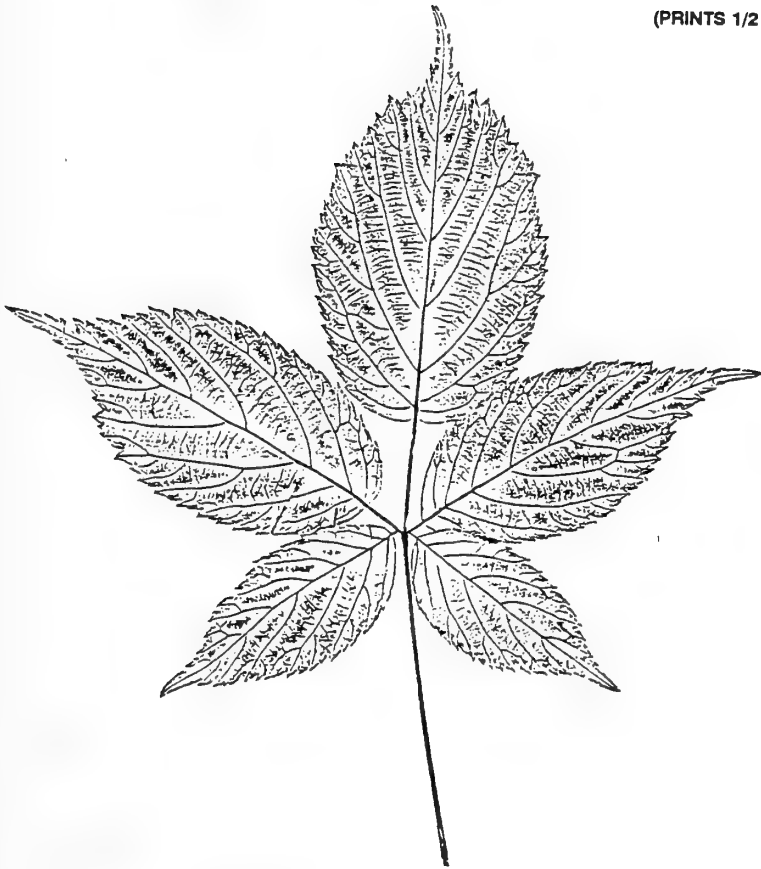
BLACKBERRY



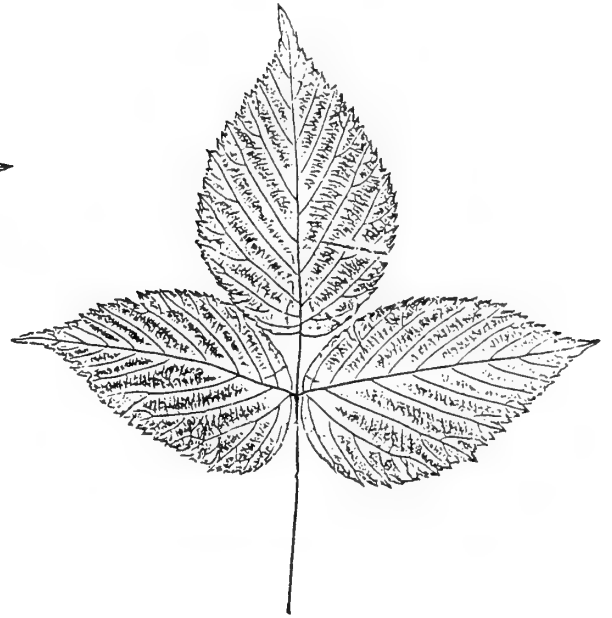
BLACKBERRY

# BLACKBERRIES, RASPBERRIES, & DEWBERRIES

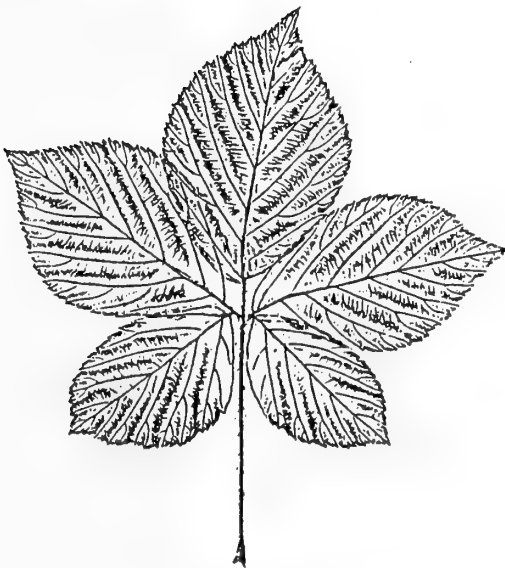
(PRINTS 1/2 SIZE)



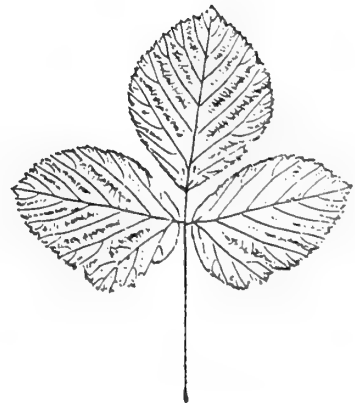
BLACKBERRY



BLACKBERRY



BRISTLY BLACKBERRY



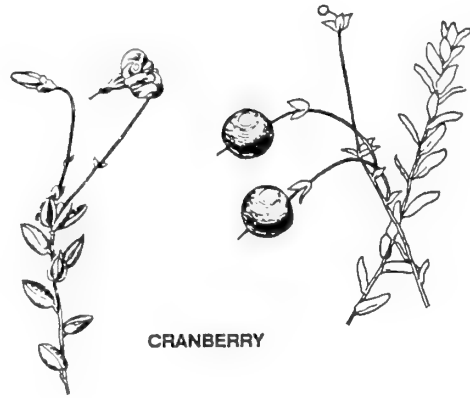
BRISTLY BLACKBERRY

# SMALL BOG SPECIES (ALL WITH UNTOOTHED LEAVES.)

## SMALL CRANBERRY

*Vaccinium oxycoccus*

Trailing plant with tiny, narrow alternate leaves (3-10 mm. long, 1-3 mm. wide) pointed at the tips. "Berries" .5-1.0 cm. thick, becoming red, sour. Uncommon.



CRANBERRY



SMALL CRANBERRY

## LARGE CRANBERRY

*Vaccinium macrocarpon*

Trailing plant with tiny, oblong alternate leaves (6-14 mm. long, 2-6.5 mm. wide) with blunt or rounded tips. "Berries" 1-2 cm. thick, becoming red, sour. Also found in swamps and on wet shores. Common.



LARGE CRANBERRY

## PALE LAUREL *Kalmia polifolia*

Straggling plant with narrow, opposite leaves 1-3.5 cm. long. Twigs 2-edged. Fruit globular capsules. Uncommon.



PALE LAUREL

## DOWNY BOG-ROSEMARY

*Andromeda glaucophylla*

Upright plant with narrow, alternate leaves 2-5 cm. long. Twigs not 2-edged. Fruit somewhat globular capsules. Uncommon.



BOG-ROSEMARY



BOG-ROSEMARY



PALE LAUREL

(PRINTS FULL SIZE)



# CRABAPPLES & APPLES

**THORNLESS TREES (OCCASIONALLY SHRUBS) WITH ALTERNATE SIMPLE LEAVES. FRUIT (FLOWERS) IN CLUSTERS WHERE STALKS ARE ATTACHED NEAR SAME POINT. FRUIT FLESHY, MORE OR LESS SPHERICAL, WITH 2-5 CELLS CONTAINING 2 SEEDS PER CELL; SOMETIMES USED IN JELLIES.**

Note: The species treated below are potential or known escapes. These include many (but by no means all) of the more commonly planted species. Escapes tend to occur along roadsides, borders of woods and in thickets.

## KEY TO SPECIES (USING MATURE FRUIT AND FOLIAGE)

Fruit large (2 cm. or more thick); calyx persistent

Leaves of shoots somewhat lobed; fruit greenish: **WILD SWEET CRABAPPLE**

Leaves not lobed

Leaf teeth sharp; calyx forming a short tube at end of fruit: **CHINESE APPLE**

Leaf teeth incurved; calyx impressed at end of fruit: **COMMON APPLE & varieties**

Fruit small (about 1.5 cm. or less thick); calyx shedding

Leaves of shoots deeply lobed; fruit quite small, 6-8 mm. thick, red or brownish yellow:

**TORINGO CRABAPPLE**

Leaves not deeply lobed

Fruit quite small, 6-8 mm. thick, yellow or red; leaves sharp-toothed, some with a slight, sharp lobe: **JAPANESE FLOWERING CRABAPPLE**

Fruit 8-15 mm. thick

Leafstalks 2-5 cm. long; fruit red or yellow: **SIBERIAN CRABAPPLE**

Leafstalks 1-3 cm. long; fruit usually greenish yellow with red cheek:

**TEA CRABAPPLE**

For additional possibilities see hybrid species at end of species descriptions on p. 106.

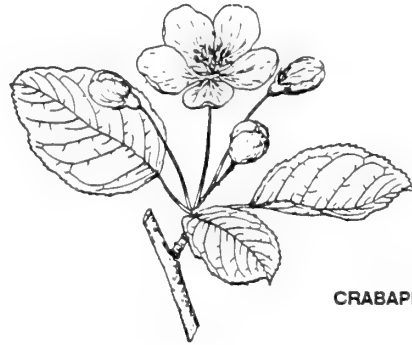
**(CONTINUED ON NEXT PAGE)**

# CRABAPPLES & APPLES

## WILD SWEET CRABAPPLE

*Pyrus (Malus) coronaria*

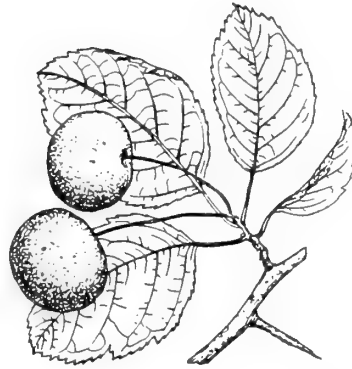
Leaves of shoots somewhat lobed. Flowers 3-4 cm. across, white to pinkish, fragrant; stamen heads red. Fruit about 3 cm. thick, greenish; calyx persistent. Small tree. Native in New York state but not recorded as an escape in New England.



CRABAPPLE

## CHINESE APPLE *Pyrus (Malus) prunifolia*

Leaves sharply toothed. Flowers about 3 cm. across, white (sometimes pinkish). Fruit about 2 cm. thick, yellow or red, with a persistent beak-like calyx at end. Small tree. From Eurasia. Occasional escape.



WILD SWEET CRABAPPLE

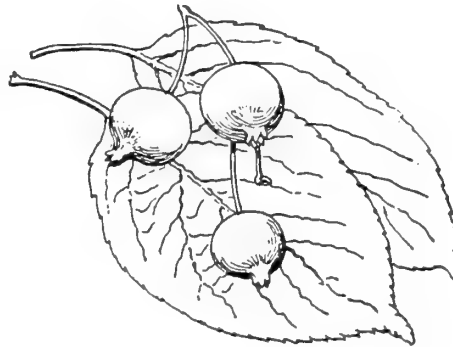
## COMMON APPLE *Pyrus malus (Malus pumila)*

Leaves with rounded teeth, hairy beneath. Flowers pinkish-white on woolly stalks. Fruit 2 cm. or more in thickness, indented at base and at end; calyx persistent. Small tree. From Eurasia. Uncommon escape.

## TORINGO CRABAPPLE

*Pyrus (Malus) sieboldii*

Leaves deeply lobed on shoots. Flowers about 2 cm. across, pink becoming white. Fruit 6-8 mm. thick, red or brownish yellow; calyx shedding. Small tree or shrub. From Asia. Uncommon escape becoming naturalized.

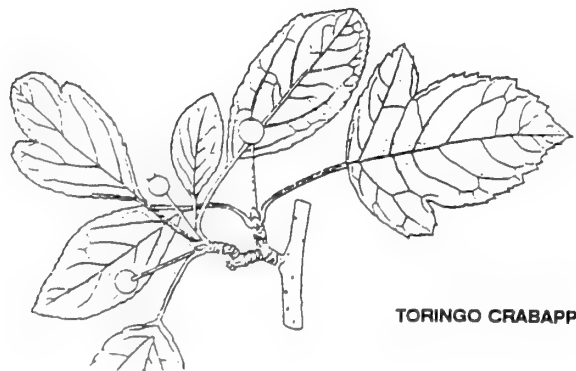


CHINESE APPLE

## JAPANESE FLOWERING CRABAPPLE

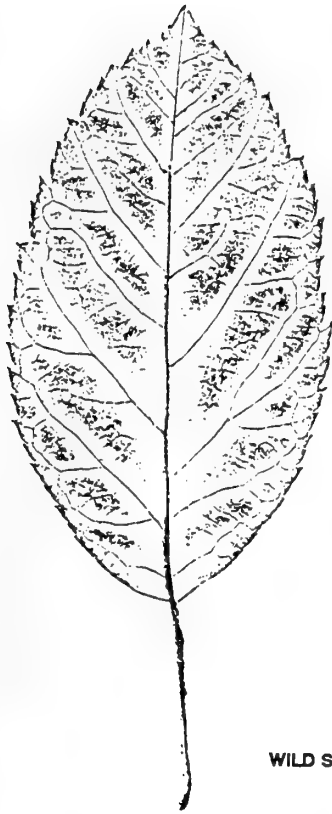
*Pyrus (Malus) floribunda*

Leaves sharply toothed with occasional sharp, slight lobes on shoots. Flowers abundant, pink changing to nearly white, 2.5-3 cm. across. Fruit 6-8 mm. thick, yellow to red; calyx shedding. Small tree of mound-like habit. From Asia. Not recorded as an escape.

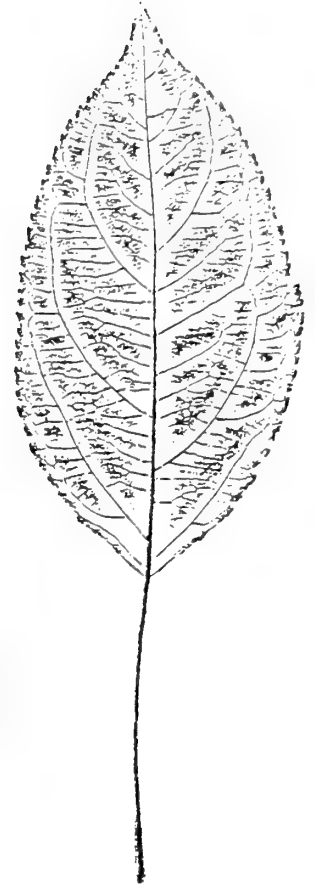


TORINGO CRABAPPLE

# CRABAPPLES & APPLES



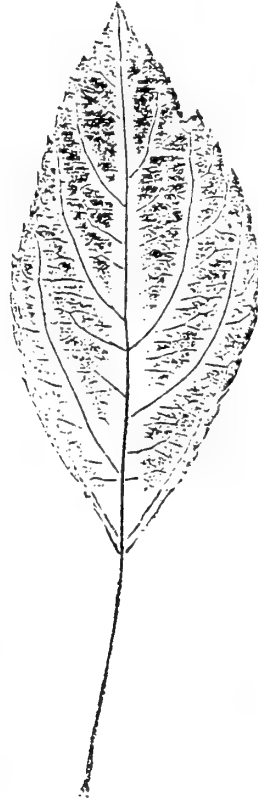
WILD SWEET CRABAPPLE



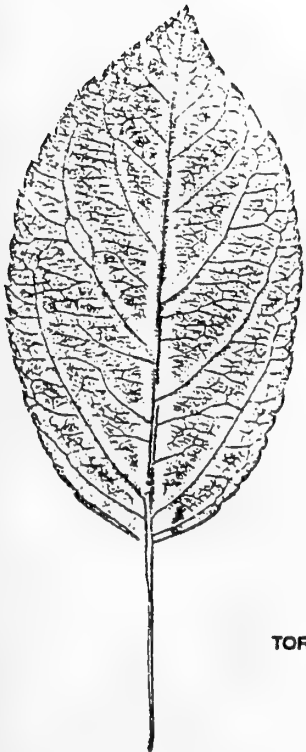
CHINESE APPLE



TORINGO CRABAPPLE



JAPANESE  
FLOWERING  
CRABAPPLE



TORINGO CRABAPPLE



COMMON APPLE

(PRINTS FULL SIZE)

(CONTINUED ON NEXT PAGE)

# CRABAPPLES & APPLES

## SIBERIAN CRABAPPLE

*Pyrus (Malus) baccata*

Twigs hairless. Leafstalks 2-5 cm. long. Flowers 3-3.5 cm. across, white. Fruit 8-10 mm. thick, red or yellow; calyx shedding. Small tree. From Asia. Recorded escape in Lexington, Mass.

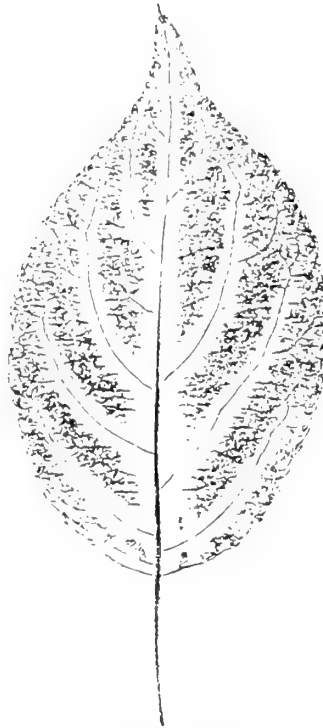


SIBERIAN CRABAPPLE

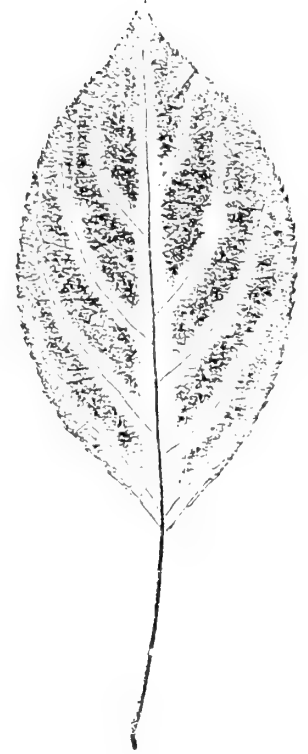
## TEA CRABAPPLE

*Pyrus (Malus) hupehensis*

Leaves firm-textured. Leafstalks 1-3 cm. long. Flowers 3.5-4 cm. across, white or pinkish, fragrant. Fruit about 1 cm. thick, usually greenish yellow with red cheek. Small tree. From Asia. Not recorded as an escape.



TEA CRABAPPLE



SIBERIAN CRABAPPLE

## HYBRIDS:

### MAGDEBURGE APPLE

*P. malus (M. pumila) X P. (M.) spectabilis*

Like Common Apple but calyx lobes of flower shorter than calyx tube; flowers with more than 5 petals. Fruit yellowish, without indentation at base (at fruit stalk). Reported escape in Concord, Mass.

### ARNOLD CRABAPPLE

*P. (M.) floribunda X P. (M.) baccata*

Like Japanese Flowering Crabapple but flowers larger (up to 5 cm. across) and fruit larger (about 1 cm. thick). Reported escape in Concord, Mass.

### DWARF APPLE *Pyrus (Malus) micromalus*

= *P. (M.) spectabilis X ?*

Leafstalks 2-3 cm. long. Flowers pink, about 4 cm. across. Fruit 1-1.5 cm. thick, with indentation at base; calyx persistent or shedding. From Asia. Not recorded as an escape.



DWARF APPLE

(PRINTS FULL SIZE)

## LIST OF EXCLUDED SEMI-WOODY OR PROSTRATE SPECIES (RECORDED IN CONCORD AREA):

*Aralia hispida* BRISTLY SARSAPARILLA  
*Arceuthobium pusillum* DWARF MISTLETOE  
*Arctostaphylos uva-ursi* COMMON BEARBERRY  
*Artemisia absinthum* WORMWOOD  
*Artemisia frigida* PRAIRIE SAGEWORT  
*Calluna vulgaris* SCOTCH HEATHER  
*Chimaphila maculata* STRIPED PIPSISSEWA  
*Chimaphila umbellata* COMMON PIPSISSEWA  
*Chiogenes hispidula* CREEPING PEARLBERRY  
*Clematis virginiana* VIRGIN'S BOWER  
*Decodon verticillatus* SWAMP LOOSESTRIFE  
*Epigaea repens* TRAILING ARBUTUS  
*Gaultheria procumbens* CHECKERBERRY  
*Helianthemum bicknellii* BICKNELL FROSTWEED  
*Helianthemum canadense* COMMON FROSTWEED  
*Linnaea borealis* TWINFLOWER  
*Mitchella repens* PARTRIDGEBERRY  
*Potentilla palustris* MARSH CINQUEFOIL  
*Vinca minor* COMMON PERWINKLE

## LIST OF COMMONLY PLANTED SPECIES NOT KNOWN TO HAVE ESCAPED IN OUR AREA (AN INCOMPLETE LIST):

**TREES:** EUROPEAN BEECH (including PURPLE or COPPER variety), EUROPEAN WHITE BIRCH, JAPANESE WEeping CHERRY, KANZAN CHERRY, KENTUCKY COFFEETREE, CORKTREE, most CRABAPPLES, KOUSA DOGWOOD, SIBERIAN ELM, BALSAM FIR, DOUGLAS FIR, GINKGO, SWEET GUM, AMERICAN HOLLY, KATSURA TREE, PERSIAN LILAC, CHINESE MAGNOLIA, CUCUMBER MAGNOLIA, SAUCER MAGNOLIA, STAR MAGNOLIA, JAPANESE MAPLE, PAGODA TREE, CALLERY PEAR, AUSTRIAN PINE, LONDON PLANETREE, LOMBARDY POPLAR, REDBUD, SMOKETREE, BLUE SPRUCE, TAMARISK, WASHINGTON THORN, TULIP-TREE, GOAT WILLOW, YELLOWWOOD.

**SHRUBS:** FLOWERING ALMOND, FLAME AZALEA, JAPANESE AZALEA, BEAUTYBUSH, AMERICAN BLADDERNUT, BOXWOOD, CORNELIAN "CHERRY", COTONEASTERS, DEUTZIA, FIRETHORN, ERECT FORSYTHIA, OREGON GRAPE, BLACK JETBEAD, JAPANESE LILAC, JAPANESE PIERIS, QUINCE, CATAWBA RHODODENDRON, RUGOSA ROSE (& innumerable cultivated ROSES), SHRUBALTHEA (ROSE-OF-SHARON), BRIDALWREATH SPIREA, THUNBERG SPIREA, KOREANSPICE VIBURNUM, WEIGELA, CHINESE WITCH-HAZEL, ENGLISH YEW.

**VINES:** BOSTON IVY, ENGLISH IVY, DUTCHMAN'S PIPE, CHINESE WISTERIA.

Note: Viertel's *Trees, Shrubs, and Vines* (see 'Bibliography') is recommended as an easy-to-use, illustrated, relatively comprehensive identification book for ornamental species (excluding "evergreens").

# GLOSSARY

**ALTERNATE (LEAVES, BUDS, LEAF SCARS):** Arranged singly at intervals along twigs; not opposite.



ALTERNATE LEAVES

**BARK (YOUNG VS. MATURE):**

**YOUNG BARK** is that of young trees or that of the upper trunk and branches of mature trees.

**MATURE BARK** is that of the lower trunk of mature trees.

**BRACT:** A modified leaf, usually very small.



BRACTS

**BRANCHED THORNS:** Thorns which themselves have thorns, buds or leaves growing on them.



BRANCHED THORNS

**BRANCHLET:** The youngest and smallest part of a branch except for the current year's growth (see **TWIG**).

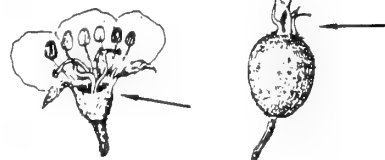


BUDS

**BUD:** Undeveloped twigs, leaves and flowers.

**BUNDLE SCAR:** See **SCAR**.

**CALYX:** The flower cup, consisting of a circle of modified leaves (lobes) which become the end formation on fleshy fruits.



CALYX

**CAPSULE:** A dry fruit containing more than one seed.

**CATKIN:** A cluster of tiny, petal-less flowers usually of one sex, often long and drooping.



CATKINS

**COMPOUND LEAF:** A leaf composed of several leaflets each of which resembles a leaf. Compound leaves can be recognized when some "leaves" appear to be growing directly from the ends of twigs. These are actually leaflets at the end of the compound leafstalks, since a true twig will not end directly in a simple leaf. See **LEAFLET**.



COMPOUND LEAF

**DOUBLE-TOOTHED (LEAF EDGE):**  
Some teeth bearing smaller teeth.



DOUBLE TEETH

**ESCAPE:** A species not native to the area (introduced) that reproduces in the wild without human aid and that is persistent.

**GLAND:** A small knob or wart that is a normal part of the plant, sometimes at the end of a tiny stalk or at the tips of leaf teeth.



GLANDS

**HYBRID:** The offspring of two different species.

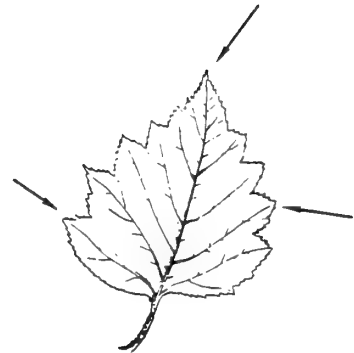
**LEAFLET:** One of the leaflike parts of a compound leaf. Leaflets are attached to budless, essentially non-woody stalks; whereas true leaves are attached to woody twigs that bear buds and upon which leaf scars are formed.



LEAFLETS

**LEAF SCAR:** See SCAR.

**LOBE:** A place in the outline of a leaf that sticks out (more than a tooth).



LOBES

**MIDRIB:** The central vein of a leaf.



MIDRIB

**NATURALIZED:** A species not native to the area (introduced) that has reproduced so readily in the wild as to appear to be part the native flora.

**OPPOSITE (LEAVES, BUDS, LEAF SCARS):** In opposing pairs (two at a node).



OPPOSITE LEAVES

**SCAR (LEAF, BUNDLE):** The mark left on a twig after a leaf has fallen is a **LEAF SCAR**. The tiny marks within a leaf scar made by the arteries of the fallen stalks are **BUNDLE SCARS**.



LEAF SCARS



BUNDLE SCARS

**SHRUB:** A woody plant usually no higher than 5 meters and usually with several or many stems that are not more than 10 cm. thick.

**SIMPLE (LEAF):** Not divided into parts (leaflets); not compound.

**SINUS:** The indentation in the outline of a leaf between lobes or between teeth.

**SPUR BRANCH:** A very short branchlet; often stubby and crowded with leaves but sometimes narrow and sharp.

**STAMEN:** The male part of a flower; usually consisting of a stalk with a pollen-bearing head.

**STIPULE:** A growth on the twig at the base of a leafstalk, usually small and in pairs, sometimes leafy.

**STYLE:** An extension of the ovary arising from the very center of a flower. A "female stamen", so to speak, but not shedding pollen.

**TREE:** A woody plant usually with a single main trunk and generally growing more than 6 meters tall.

**TWICE-COMPOUND:** Type of compound leaf whose leaflets themselves are compound.

**TWIG:** The end subdivision of a branch; the current year's growth.



SINUSES



STAMENS



SPUR BRANCHES



STYLE



STIPULE



TWICE-COMPOUND LEAF



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The original title *New England Trees in Winter* is more appropriate. Good photos of bark and fruit (also photos of twigs and entire trees). Detailed descriptions; similar species compared. New England distribution data taken from book by Lorin Dame and Henry Brooks (see below). Treats some ornamentals.

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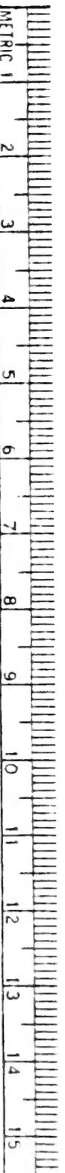
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## NOTES





Numbered divisions are centimeters (cm.)

Smallest divisions are millimeters (mm.)

(1 cm. = 10 mm.)

