



Common Native Shrubs and Woody Vines of Virginia



Virginia Department of Forestry
900 Natural Resources Drive, Suite 800
Charlottesville, Virginia 22903
Phone: (434) 977-6555
www.dof.virginia.gov

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Identification Guide

Virginia Department of Forestry
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Camp Woods & Wildlife



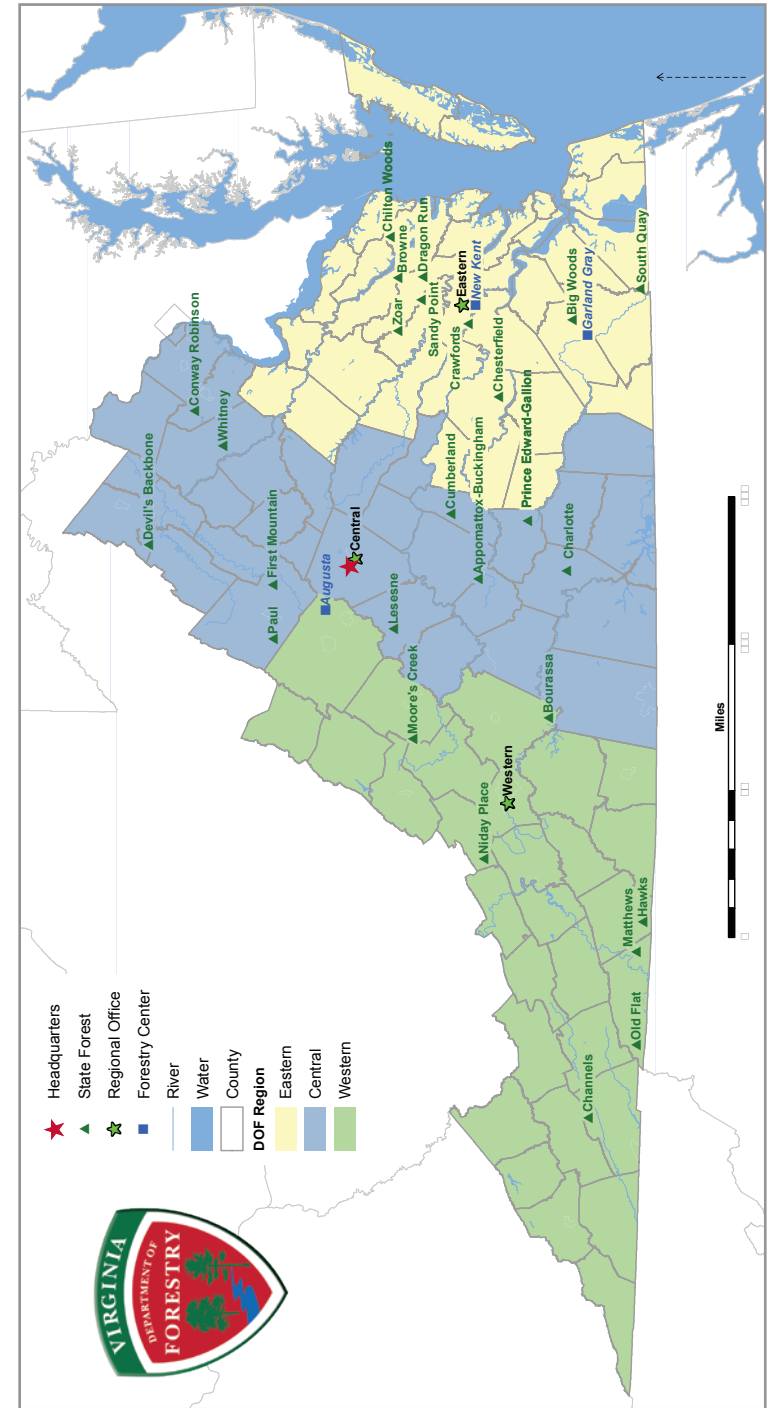
Each summer, Camp Woods & Wildlife introduces teens to our state's forest resources and their management. The camp is sponsored by the Virginia Department of Forestry, in cooperation with other agencies, organizations and businesses. Sponsorships allow all campers to participate at a minimal personal cost.

Camp is designed for students with an interest in natural resource conservation who may want to explore forestry and other natural resource careers. This

hands-on, field-oriented experience takes place at Holiday Lake 4-H Educational Center, located in the 20,000-acre Appomattox-Buckingham State Forest. The working forest provides a vast outdoor classroom for interactive learning, with instruction from professional foresters, biologists and other resource specialists. Subjects include forest ecology and management; timber harvesting and reforestation; tree identification and measurement; wildlife management and habitat improvement, and environmental protection. Additional activities include demonstrations, exploratory sessions and competitions.

Applications for Camp Woods & Wildlife are accepted each year beginning in January. For more information, visit the Virginia Department of Forestry's website:

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Foreword

Thank you for your purchase of the most up-to-date and accurate edition of the Common Native Shrubs and Woody Vines of Virginia ever published. Through the hard work of many dedicated employees of the Virginia Department of Forestry and the important contributions of others outside the Agency, this book has been revised to make it more useful for everyone who is interested in correctly identifying the most common shrubs and woody vines growing in the Commonwealth of Virginia. Because of their efforts, you now have the best tool for proper, basic identification.

To enhance your experience with this book, a key is included that will enable you to quickly identify the woody vine or shrub species and reduce the amount of time you spend searching the guide. And we've included information on Virginia's State Forests, where you can walk or hike the trails to see many of the species highlighted in the book.

Throughout the development of this edition of the Shrub and Vine ID book, our focus was always on you – the end user. I trust you will agree that the resulting Common Native Shrubs and Woody Vines of Virginia book more than meets your needs, and that it serves to further inspire your interest in and love of Virginia's forests.

- Your Virginia State Forester



Cranberry
Vaccinium macrocarpon

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Writing and Keys:

Ellen Powell – Virginia Department of Forestry

Layout and Design:

Janet Muncy – Virginia Department of Forestry

Species Illustrations:

Rachel Figley – originally published in *Shrubs and Vines of New Jersey*

Betty Gatewood and Diana McFarland – Virginia Master Naturalists

Ellen Powell – Virginia Department of Forestry

Juliette Watts – USDA Forest Service, Northeastern Area

Planning:

Ruth Douglas, Mary Lee Epps, Tana Herndon, Ellen Powell, Donna Ware and Tim Williams

Editing:

Janet Muncy – Virginia Department of Forestry

John Campbell – former Virginia Department of Forestry

Content Review:

Mike Aherron, Justin Barnes, Rob Farrell, Joe Lehnen, Jim McGlone, Zach Olinger, John Pemberton, Rich Reuse, Joe Rossetti, and Tom Snoddy – Virginia Department of Forestry

Dennis Anderson, Chris Asaro, Gerald Crowell, Erik Filep, Toni Norieka, Will Shoup, and Gale Washburn – former Virginia Department of Forestry

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Contents

Foreword	1
Acknowledgements	2
Virginia’s Forest Resources	7
The Future Depends On You	8
How to Use This Book	9
Identification of Shrubs and Woody Vines	10
Parts, Types and Positions of Leaves.....	11
Types of Leaf Margins	12
Leaf Placement.....	12
Keys to Common Native Shrubs and Woody Vines of Virginia	13
NATIVE SHRUBS	20
Elderberry	20
Maple-leaf Viburnum.....	21
Arrowwood.....	22
Possum-haw	23
Blackhaw	24
Sumac.....	25
Inkberry.....	26
Winterberry Holly	27
Devil’s Walking Stick.....	28
Groundsel-tree.....	29
Marsh-elder.....	30
Hazel Alder	31
American Hazelnut	32
Coralberry	33
Strawberry Bush	34
Sweet Pepperbush	35
Silky Dogwood.....	36
Sweetbells	37
Huckleberry.....	38
Mountain Laurel.....	39
Coastal Dog-Hobble	40
Maleberry.....	41

Contents, continued

Minniebush	42
Mountain Andromeda.....	43
Great Rhododendron	44
Wild Azalea	45
Blueberry	46
Appalachian Gooseberry	47
Witch-Hazel	48
Wild Hydrangea	49
St. John's Wort.....	50
Virginia Sweetspire	51
Beautyberry	52
Spicebush	53
Wax Myrtle	54
Fringetree	55
Yellowroot	56
Carolina Buckthorn	57
New Jersey Tea	58
Red Chokeberry.....	59
Hawthorn	60
Ninebark	61
Chickasaw Plum	62
Choke Cherry.....	63
Pasture Rose	64
Blackberry.....	65
Black Raspberry	66
Steeplebush.....	67
Buttonbush.....	68
Bladdernut	69
Sweetleaf	70
Leatherwood	71
NATIVE WOODY VINES	72
Poison Ivy	72
Dutchman's Pipe.....	73
Trumpet Creeper.....	74
Cross-Vine	75

Contents, continued

Coral Honeysuckle.....	76
American Bittersweet.....	77
Carolina Jessamine	78
Climbing Hydrangea	79
Common Moonseed	80
Virgin's Bower	81
Supplejack	82
Virginia Creeper.....	83
Wild Grape.....	84
Greenbrier.....	85
NON-NATIVE INVASIVE SPECIES	86
Japanese Honeysuckle.....	87
Bush Honeysuckles	88
Oriental Bittersweet	89
Winged Burning Bush.....	90
Autumn Olive	91
Kudzu*	92
Chinese Privet	93
Multiflora Rose.....	94
Wineberry	95
Porcelainberry.....	96
Project Learning Tree (PLT).....	97
Virginia Master Naturalist Program	97
Glossary	98
Virginia's State Forests.....	102
Things to Do on State Forests	102
Virginia's State Nurseries	106
Bibliography	107
Other Resources.....	107
Index	108
Notes.....	116
Virginia Department of Forestry Contacts	120

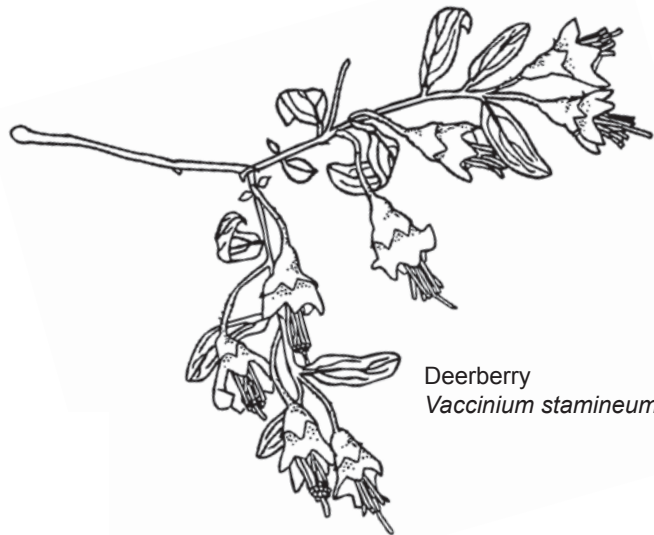
Virginia's Forest Resources

Forests cover nearly two thirds of Virginia, and they are truly our “common wealth.” Forests provide us with environmental, economic and cultural benefits that improve our quality of life. Forests filter our water, clean our air, moderate our climate, provide wildlife habitat, protect and enhance the soil, and offer recreational opportunities. They are scenic places for observing nature and renewing the spirit. Forests also provide thousands of products we use daily, such as lumber and paper, and thousands of jobs for our citizens.

A forest is much more than trees. It is an ecological system made up of all the organisms that inhabit it – from trees to mosses, and from birds to bacteria. All are interdependent, and the interactions among the living components of the forest and the physical environment keep a forest productive and self-sustaining for many years. Virginia has been called an “ecological crossroads,” as both southern and northern ecosystems are found here. From the Cumberland Plateau to the Eastern Shore, an impressive array of plant and animal species inhabit a tremendous diversity of natural communities.

Forests are constantly changing. Sometimes the changes are swift, as a result of fire, ice, wind or timber harvest. At other times, the changes stretch across many years. Nearly all of the natural forests in Virginia have been extensively modified by human activities over hundreds of years. Most of the Piedmont and Coastal Plain forests were cleared for agricultural use in Colonial times. The mountains were cut over for charcoal, lumber and salvage of diseased trees through the early 1900s. Many sites were harvested or cleared several times for farms or pasture, then later abandoned, to be reforested over several generations. Nowadays, forests are much more likely to be managed with an eye toward the future. The Virginia Department of Forestry encourages landowners to manage their forests in a responsible and sustainable manner.

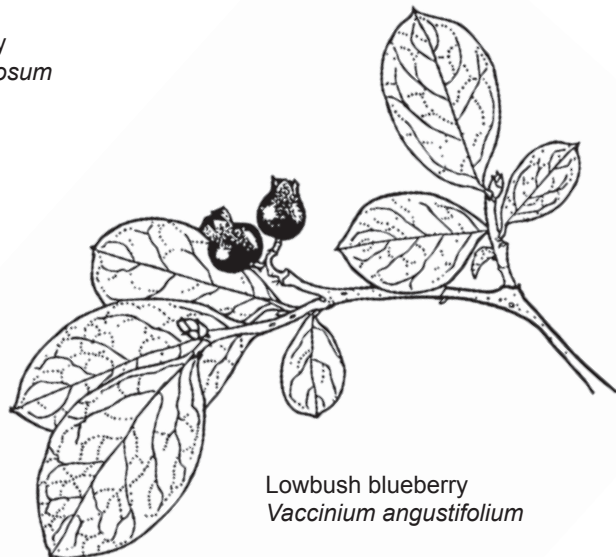
The greatest threat to our forests is the conversion of forestlands to other uses. Rapid population growth places a demand on our shrinking forest landbase. Virginia has lost more than a half million acres of forestland since 1977, mainly through conversion to home sites, shopping centers, roads and other developments; the loss of forestland is projected to continue. When forests are managed responsibly, harvesting of trees improves forest health or makes way for a new, young forest. In contrast, when land is developed, it will probably never be forested again. Land-use changes cause fragmentation of large parcels of land, as they are broken into smaller blocks for houses, roads and other non-forest uses. Fragmentation limits the options for forest management because the land units are smaller. It threatens those wildlife species that need sizable habitat free of constant disturbance and human competition. Forestland loss and fragmentation also threaten the scenic beauty of Virginia's natural landscape, which delights residents and attracts millions of tourists each year. Conserving the state's forest landbase is a major focus of the Virginia Department of Forestry.



Deerberry
Vaccinium stamineum



Highbush blueberry
Vaccinium corymbosum



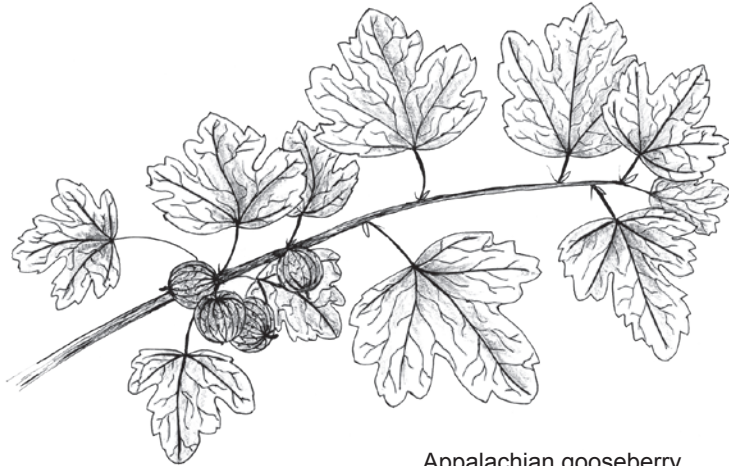
Lowbush blueberry
Vaccinium angustifolium

The Future Depends On You

Whether or not you own forestland, you use forest products, enjoy outdoor activities, depend on clean water and fresh air, and view wildlife. Here are some things you can do to help Virginia's forests:

- ▲ Learn as much as you can about natural resource issues.
- ▲ Shop responsibly; use resources wisely, and recycle.
- ▲ Support organizations that work to conserve and sustain forests and related resources.
- ▲ Encourage land-use planning and conservation easements.
- ▲ Promote sustainable management to maintain Virginia's working landscapes.
- ▲ Teach others about the value of our forests.

For more information about Virginia's forests, visit the Virginia Department of Forestry's website: www.dof.virginia.gov



Appalachian gooseberry
Ribes rotundifolium

How to Use This Book

This book describes the most common native shrubs and woody vines found in Virginia. **Woody plants** are those that develop hard tissue, especially in their stems, and they have parts surviving above ground for multiple years. A **shrub** is usually defined as a woody plant with multiple stems and a mature height of 15 feet or less. There is some "gray area" in separating small trees from tall shrubs. A **vine** is a plant whose stem is not erect, but that climbs or scrambles usually with support from other objects.

The following plants are not included in this book:

- ▲ species that are **not** frequently found or that are very localized in occurrence
- ▲ species generally listed in the literature as trees, and/or already covered in *Common Native Trees of Virginia*
- ▲ annual or perennial non-woody vines (with the exception of one perennial species that was included because of its abundant growth habit and the woody appearance of dead stems)
- ▲ non-native species, whether naturalized or common in the nursery trade, with the exception of the 10 most troublesome invasive species. (These are covered in their own special section.)

This book is intended to be a beginning tool for identification, rather than a comprehensive listing or technical manual. Therefore, non-technical descriptions have been used whenever possible. For those who wish to learn more technical terms or clarify definitions, a glossary is included.

The basic keys provide a quick identification tool, minimizing the time spent searching for an unknown shrub or vine. Species descriptions are good for general reference, but individual plants may vary within a species. For example, height at maturity may vary a great deal because of growing site, plant health, genetics, competition and other factors. Some more complete resources for identification are listed in the bibliography, and numerous other books and computer resources are available to enhance your study. At the back of this book, you can also find a list of State Forests and other places to study shrubs and vines.

In this text, one of the accepted common names is the primary heading for each species, with additional common names listed below it. The scientific name, which is consistent worldwide and most useful for true identification, is listed in the format of the International Code of Botanical Nomenclature: genus, species and author citation. The ranges listed refer to the areas of the state where the plant is most common: Coastal Plain, Piedmont and Mountains (one of the three mountain regions); however, it is possible to find almost any plant, or even a small local population, outside the usual range.

All images utilized in this book are not to scale. Close-up images of small flowers, twigs, fruit, etc. are provided for some species to aid in identification.

Identification of Shrubs and Woody Vines

Many characteristics can be used to identify shrubs and vines. These include overall size and shape of the plant; size, shape and arrangement of leaves; texture, color and shape of twigs and buds; color and texture of bark, and characteristics of fruit and flowers. Knowing the plant's natural range and typical growing sites can also be helpful. Most people use a combination of several characteristics to identify shrubs and vines.

When leaves are present, they are the most commonly used feature in identification. Leaves are either deciduous (shed annually) or evergreen (remaining on the plant for one or more years). Most of Virginia's native shrubs and vines are deciduous, with some notable exceptions.

When a shrub or vine has shed its leaves, identification can be more difficult. You must then rely on the bark, twigs and buds, and any fruit or flower parts remaining on the plant to make identification. Knowing these characteristics will help you identify plants during the late fall, winter and early spring months.

A scientific key is a useful tool for identifying shrubs and vines. The keys in this book are dichotomous, meaning the user has two choices at each step, and they are written for plants that are in leaf. Careful observation is important, and a hand lens can sometimes be useful. It is most helpful to use a key in the field, where you can easily see features, such as the bark and the growing site. If you need to identify a plant and you don't have the key with you, take good notes or make sketches so that you can remember important features later.

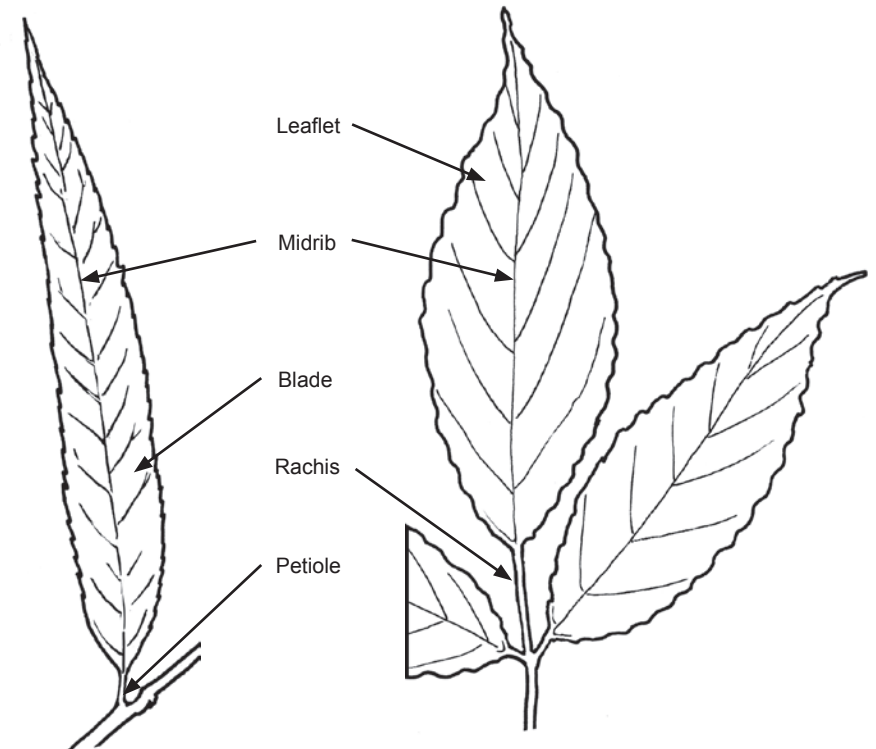
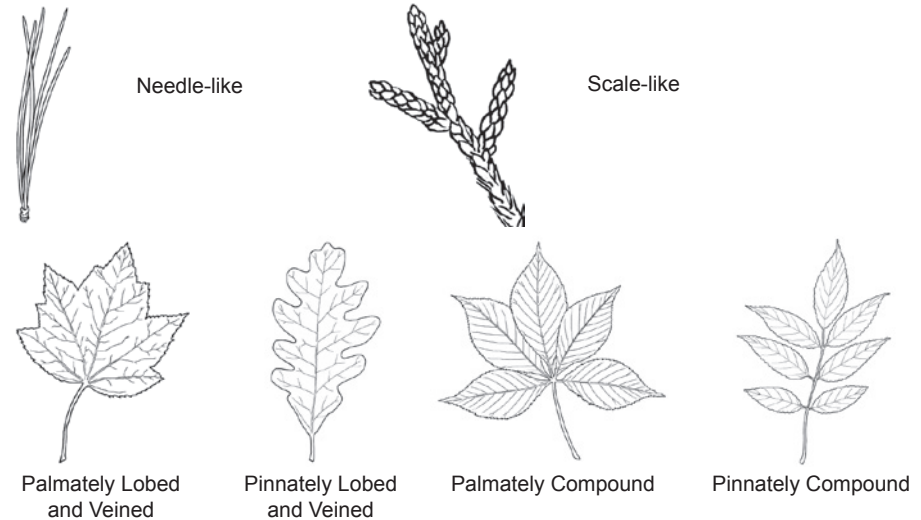
To use a key, always start with number one. Read both statements and choose the one that best fits your plant. Each choice you make will direct you to another numbered pair of statements. Continue to follow the numbers until you arrive at the name of a species. Once you have the name, go to the page listed to see a picture and learn more information.

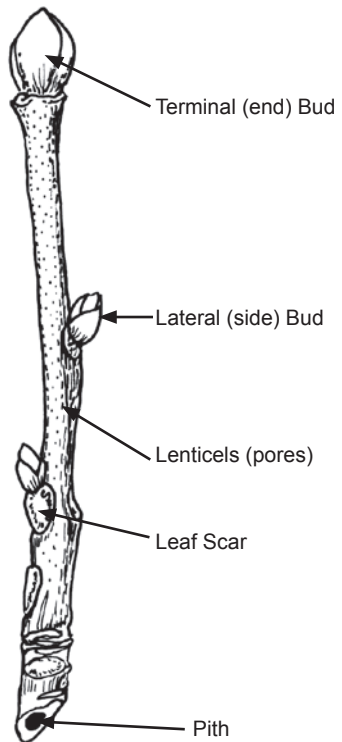
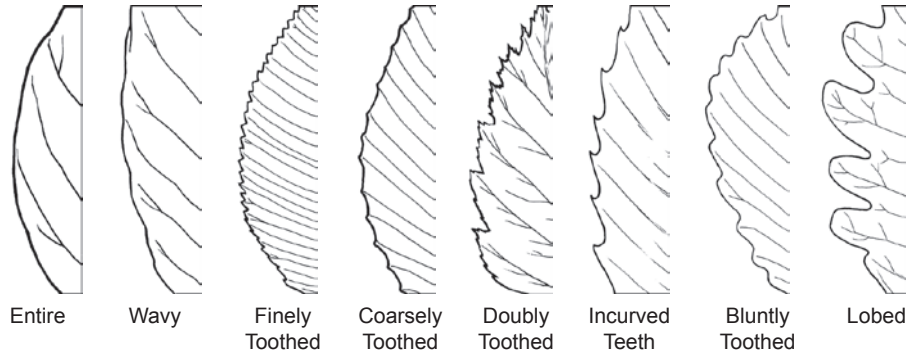
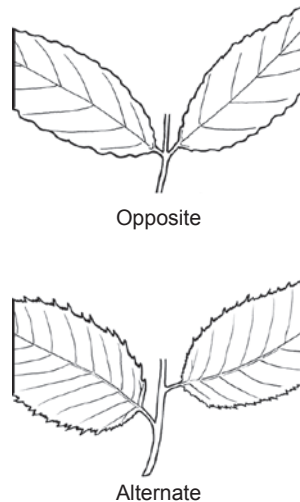
No key is perfect. The creation of a key, especially a less technical one, is somewhat subjective, and individual shrubs or vines may vary from the standard. If you don't get a correct identification with a key, try again, as it is possible to make an incorrect choice at some stage in the process. If the species simply will not "key out," it may be a non-native or less common species not covered in this book, or it may actually be a young tree rather than a shrub. You can find a more comprehensive key in some botany textbooks, or try the interactive online key at <http://dendro.cnre.vt.edu/>.

The following illustrations show some of the characteristics you will need to observe as you use the key. In addition, the glossary at the back of this book should define any confusing or technical terms.

Identification of Trees, continued

Parts, Types and Positions of Leaves



*Identification of Trees, continued***Types of Leaf Margins****Leaf Placement****KEY TO SHRUBS AND WOODY VINES****Keys to Common Native Shrubs and Woody Vines of Virginia**

To use these keys successfully, you will need to start with a plant that has its leaves. Look closely at details, using a hand lens if needed. It may help to review the basic terms below, then refer to the glossary for additional terms you don't know.

If the plant is a vine, use the Key to Woody Vines; if it is a shrub, use the Key to Shrubs. To use a key, always start with number one. Read both a and b, choose the one that best describes your plant, and go to the number where your choice directs you. Continue reading choices and following the numbers until you reach the name of a plant. Turn to the page indicated and compare the picture and description to verify its identity.

Caution: Poison ivy usually occurs as a vine, but sometimes as a low shrub. If your plant has alternate compound leaves in groups of three, do not touch the plant while examining it, until you are sure it is not poison ivy!

Basic Terms

Opposite: Leaves attached directly across from each other on the stem

Alternate: Leaves arranged diagonal to each other along the stem

Simple: Leaf that has one part, or blade (no matter how complicated the shape)

Compound: Leaf that has multiple parts, or leaflets, attached to a slender, stem-like structure

Lobe: Part of a leaf that protrudes from the main outline, like fingers from a hand

Teeth: Pointed or rounded notches along a leaf edge

Key to Shrubs

1. a. Leaves are attached directly opposite each other on the stem – go to 2.
b. Leaves alternate with each other along the stem – go to 20.
2. a. Leaves are compound (having multiple parts) – go to 3.
b. Leaves are simple (having one part) – go to 4.
3. a. Most leaves with 3 to 5 leaflets; fruit an inflated capsule – Bladdernut, p. 69.
b. Most leaves with 5 to 11 leaflets; fruit berry-like – Elderberry, p. 20.
4. a. Leaf edges have teeth (of any size) – go to 5.
b. Leaf edges are smooth or wavy – go to 12.
5. a. Leaves lobed – Maple-leaf Viburnum, p. 21.
b. Leaves not lobed – go to 6.

KEY TO SHRUBS AND WOODY VINES

6. a. Leaf has 3 main veins from the base; shrub is near a coastal wetland – Marsh-elder, p. 30.
b. Leaf has one central vein from its base – go to 7.
7. a. Leaf edges have fairly large, widely-spaced teeth (like a saw blade); leaf veins very prominent – Arrowwood, p. 22.
b. Leaf edges have small to medium teeth (like a steak knife) – go to 8.
8. a. Most leaves more than 3 inches long, broadly oval (length less than 2 times width); teeth small to medium – go to 9.
b. Most leaves less than 3 inches long, narrowly oval (length more than 2 times width); teeth very tiny – go to 10.
9. a. Leaves 4 to 10 inches long, base rounded to heart-shaped, upper surface not fuzzy – Wild Hydrangea, p. 49.
b. Leaves 3 to 5 inches long, both surfaces fuzzy, smell of rotten oranges when crushed; berries bright purple – Beautyberry, p. 52.
10. a. Stems with wing-like projections – INVASIVE Winged Burning Bush, p. 90.
b. Stems not winged – go to 11.
11. a. Stems green; fruit a splitting capsule with red seeds – Strawberry Bush, p. 34.
b. Stems not green; flowers in showy clusters; fruit berry-like – Blackhaw, p. 24.
12. a. Leaf veins curving to run parallel to leaf edges; torn leaf edges show tiny white threads – Silky Dogwood, p. 36.
b. Leaf veins branched but not curving to parallel the edges; no white threads when leaf is torn – go to 13.
13. a. Most leaves more than 3 inches long – go to 14.
b. Most leaves less than 3 inches long – go to 17.
14. a. Flowers and fruit in 1-inch round balls; leaves may be whorled on stem – Buttonbush, p. 68.
b. Fruit berry-like, in pairs or clusters – go to 15.
15. a. Flowers tubular with strap-like petals; fruit in pairs – INVASIVE Bush Honeysuckle species, p. 88.
b. Flowers and fruit in clusters – go to 16.
16. a. Flowers in flat-topped clusters; leaf edges may be wavy – Possum-haw, p. 23.
b. Flowers in drooping, feathery clusters – Fringetree, p. 55.
17. a. Leaves have tiny translucent dots when held up to light; smaller leaves may be clustered at leaf bases – St. John's Wort, p. 50.
b. Leaves do not have translucent dots – go to 18.

KEY TO SHRUBS AND WOODY VINES

18. a. Flowers tubular with strap-like petals; fruit in pairs – INVASIVE Bush Honeysuckle species, p. 88.
b. Flowers small; fruit and flowers in clusters – go to 19.
19. a. Shrub less than 5 feet tall; berries bright coral, pink or purple – Coralberry, p. 33.
b. Shrub may be quite tall; berries dark purple to black – INVASIVE Chinese privet, p. 93.
20. a. Leaves are compound (having multiple parts) – go to 21.
b. Leaves are simple (having one part) – go to 29.
21. a. Most leaves divided only once – go to 22.
b. Leaves divided 2 or 3 times, with many small leaflets – Devil's Walking Stick, p. 28.
22. a. Most leaves with 3 to 7 leaflets – go to 23.
b. Most leaves with 7 or more leaflets; plant not thorny – Sumac species, p. 25.
23. a. Stems prickly – go to 24.
b. Stems not prickly – go to 28.
24. a. Most leaves with 3 to 5 leaflets; fruit berry-like and juicy – go to 25.
b. Most leaves with 5 or more leaflets; fruit hard, like tiny apples with fringed tops – go to 27.
25. a. Fruit separates cleanly from its leafy base – go to 26.
b. Fruit does not separate cleanly from its leafy base – Blackberry species, p. 65.
26. a. Stems with widely spaced prickles; fruit black when ripe – Black Raspberry, p. 66.
b. Stems covered with red bristly prickles; fruit red when ripe – INVASIVE Wineberry, p. 95.
27. a. Flowers pink; flowers and fruits single or in small groups – Pasture Rose, p. 64.
b. Flowers white, flowers and fruits in large clusters – INVASIVE Multiflora Rose, p. 94.
28. a. Leaflets 3 to 5, leaves may be divided twice; fruits tiny, bean-shaped, in starlike clusters – Yellowroot, p. 56.
b. Leaflets 3; fruits berry-like, green to white – Poison Ivy, p. 72.
29. a. Leaves lobed – go to 30.
b. Leaves not lobed – go to 32.
30. a. Plant may be prickly; fruit berry- or apple-like – go to 31.
b. Plant not prickly; fruit pod-like – Ninebark, p. 61.

KEY TO SHRUBS AND WOODY VINES

31. a. Small shrub to 5 feet tall; fruit berry-like; leaves with resin dots – Appalachian Gooseberry, p. 47.
b. Dense or tree-like shrub; fruit hard, resembling tiny apples – Hawthorn species, p. 60.
32. a. Leaves thick and leathery; may have a waxy appearance – go to 33.
b. Leaves thin, or somewhat thickened with deeply impressed veins, but not truly leathery – go to 38.
33. a. Leaves up to 10 inches long, often with edges rolled under; flowers 5-petaled, in showy clusters – Great Rhododendron, p. 44.
b. Leaves 6 inches long or less – go to 34.
34. a. Leaves with slight green apple smell when crushed – Sweetleaf, p. 70.
b. Leaves without a noticeable smell when crushed – go to 35.
35. a. Leaves toothed, either on all edges or outer edges – go to 36.
b. Leave not toothed; white flowers in showy clusters; fruit in open clusters – Mountain Laurel, p. 39.
36. a. Plant growing naturally in coastal plain, usually near wetlands – go to 37.
b. Plant growing naturally in mountains, usually in dry soils – Mountain Andromeda, p. 43.
37. a. Leaves toothed on outer edges only; flowers tiny; fruit black and berry-like – Inkberry, p. 26.
b. Leaves toothed or with tiny hairs along all edges; flowers bell-shaped; fruit capsules in clusters – Coastal Dog-hobble, p. 40.
38. a. All leaf edges smooth to wavy (but may have tiny hairs) – go to 39.
b. At least some leaf edges toothed (fine to large teeth) – go to 48.
39. a. Leaves with strong lemony smell when crushed – Spicebush, p. 53.
b. Leaves do not smell lemony – go to 40.
40. a. Leaves covered with silvery scales, especially on lower surfaces – INVASIVE Autumn Olive, p. 91.
b. Leaves without silvery scales – go to 41.
41. a. Leaf edges so wavy as to appear almost like rounded teeth – WitchHazel, p. 48.
b. Leaf edges smooth or only slightly wavy (may have tiny hairs) – go to 42.
42. a. Leaves with sharply pointed white tips and very hairy, especially on the midvein – Minniebush, p. 42.
b. Leaves without white tips; may or may not be fuzzy – go to 43.

KEY TO SHRUBS AND WOODY VINES

43. a. Leaf veins very straight and evenly spaced, curving slightly toward tip as they reach the edge – Carolina Buckthorn, p. 57.
b. Leaf veins not as described in 43a – go to 44.
44. a. Leaves with sticky dots below, leaving a yellow mark when rubbed on paper – Huckleberry species, p. 38.
b. Leaves without sticky dots – go to 45.
45. a. Twigs very flexible but hard to break, with obvious swollen joints – Leatherwood, p. 71.
b. Twigs not as described in 45a – go to 46.
46. a. Leaves clustered at branch tips; fruits are oblong hairy capsules – Wild Azalea, p. 45.
b. Leaves spread along stems; fruits are not as described in 46a – go to 47.
47. a. Fruit a round, hard capsule splitting into pieces – Maleberry, p. 41.
b. Fruit berry-like – Blueberry species, p. 46.
48. a. Plant with thorns; fruit resembling tiny apples – Hawthorn species, p. 60.
b. Plant without thorns – go to 49.
49. a. Leaves with 3 main veins from the base – New Jersey Tea, p. 58.
b. Leaves with one main vein from base – go to 50.
50. a. Leaves with straight, evenly-spaced side veins – go to 51.
b. Leaves with branching, unevenly spaced side veins – go to 52.
51. a. Fruits like tiny pine cones; leaf edges wavy; plant growing near water – Hazel Alder, p. 31.
b. Fruits berry-like; twig with bitter almond smell when broken – Carolina Buckthorn, p. 57.
52. a. Leaves doubly toothed, appearing jagged; leaf stems bristly; fruit a nut – American Hazelnut, p. 32.
b. Leaves singly toothed – go to 53.
53. a. Leaf edges toothed only along outer third to half of edge – go to 54.
b. Leaf edges toothed along whole edge, or untoothed only near leaf base – go to 55.
54. a. Leaves with few teeth, strongly fragrant when rubbed; fruit hard and berry-like – Wax Myrtle, p. 54.
b. Leaves not fragrant; fruits with feathery plumes – Groundsel-tree, p. 29.
55. a. Leaves somewhat thickened and coarsely toothed – Steeplebush, p. 67.
b. Leaves finely or only slightly toothed; may be thin or somewhat thickened – go to 56.

KEY TO SHRUBS AND WOODY VINES

56. a. Leaves with sharply pointed white tips and very hairy, especially on the midvein – Minniebush, p. 42.
b. Leaves without white tips – go to 57.
57. a. Fruit berry-like – go to 58.
b. Fruit dry, capsule-like – go to 62.
58. a. Fruit blue, black, or greenish when ripe; flowers urn - or bell-shaped – Blueberry species, p. 46.
b. Fruit yellow, red, or purple when ripe; flowers not urn-or bell-shaped – go to 59.
59. a. Fruits juicy when ripe – go to 60.
b. Fruits fairly firm and red when ripe – go to 61.
60. a. Fruits small, on a spike, red to purple when ripe – Choke Cherry, p. 63.
b. Fruits up to 1/2 inch across, yellow to red when ripe – Chickasaw Plum, p. 62.
61. a. Leaves with dark hairs on upper surface midvein – Red Chokeberry, p. 59.
b. Leaves without dark hairs on upper surface midvein – Winterberry Holly, p. 27.
62. a. Flowers bell- or urn-shaped – go to 63.
b. Flowers not bell- or urn-shaped – go to 64.
63. a. Flowers and fruits in clusters; capsules round, with pale ribs, splitting when ripe – Maleberry, p. 41.
b. Flowers and fruits hanging from long, curved spikes – Sweetbells, p. 37.
64. a. Flowers fragrant, blooming in late summer; flowers and fruit on upright spikes – Sweet Pepperbush, p. 35.
b. Flowers not fragrant, blooming in spring; flowers and fruit on arching spikes; stems may be red – Virginia Sweetspire, p. 51.

Key to Woody Vines

1. a. Leaves are opposite each other on the stem – go to 2.
b. Leaves alternate with each other along stem – go to 8.
2. a. Leaves are simple (having one part) – go to 3.
b. Leaves are compound (having multiple parts) – go to 6.
3. a. Vine clings by threadlike aerial roots, leaf edges sometimes toothed, fruits in large clusters – Climbing Hydrangea, p. 79.
b. Vine has no aerial roots, leaf edges smooth, fruits single or in small groups – go to 4.
4. a. Last pair of leaves below each flower cluster is fused into an oval – Coral Honeysuckle, p. 76.
b. No leaves are fused together – go to 5.

KEY TO SHRUBS AND WOODY VINES

5. a. Leaves mostly lance-shaped, flowers bright yellow and trumpet-like – Carolina Jessamine, p. 78.
b. Leaves mostly oval or sometimes lobed, flowers white to pale yellow – INVASIVE Japanese Honeysuckle, p. 87.
6. a. Leaves have 2 leaflets, ending in a tendril – Cross-Vine, p. 75.
b. Leaves have more than 2 leaflets – go to 7.
7. a. Leaves have mostly 7 to 11 leaflets; flowers orange; fruits pod-like – Trumpet Creeper, p. 74.
b. Leaves have 3 to 5 leaflets; flowers small and white; fruits tiny with feathery plumes – Virgin's Bower, p. 81.
8. a. Leaves are simple – go to 9.
b. Leaves are compound – go to 17.
9. a. Leaves have several main veins curving to run parallel to edge – Greenbrier, p. 85.
b. Main leaf veins not curving to parallel leaf edges – go to 10.
10. a. Leaf edges smooth – go to 11.
b. Leaf edges finely to coarsely toothed – go to 13
11. a. Leaves generally rounded to heart-shaped – go to 12.
b. Leaves elliptical, with very straight veins – Supplejack, p. 82.
12. a. Leaf stem attached to bottom surface of leaf, not base; leaves may have slight lobes – Common Moonseed, p. 80.
b. Leaf stem attached at edge of leaf base; leaves not lobed – Dutchman's Pipe, p. 73.
13. a. Leaves generally rounded to heart-shaped, sometimes lobed – go to 14.
b. Leaves elliptical, with very straight veins – Supplejack, p. 82.
14. a. Leaves rounded to oval with a pointed tip, edges finely toothed – go to 15.
b. Leaves basically heart-shaped or lobed, with moderately coarse teeth – go to 16.
15. a. Flower and fruit cluster at stem tips only – American Bittersweet, p. 77.
b. Flower and fruit clusters from leaf bases all along stems – INVASIVE Oriental Bittersweet, p. 89.
16. a. Bark shredding on older stems, fruits juicy – Wild Grape, p. 84.
b. Bark never shredding, fruits dry and hard – INVASIVE Porcelainberry, p. 96.
17. a. Leaves have 3 leaflets – go to 18.
b. Leaves have 5 leaflets – Virginia Creeper, p. 83.
18. a. Vine clings by threadlike aerial roots; fruit berry-like – Poison Ivy, p. 72.
b. Vine does not have aerial roots; fruit pod-like – INVASIVE Kudzu, p. 92.

NATIVE SHRUBS

NATIVE SHRUBS

Elderberry

Sambucus canadensis L.

Form: Large shrub with multiple stems, or small tree up to 12 feet tall

Common Range: Coastal Plain, Piedmont, Mountains

Habitat: Moist fields and woodlands, edges, streamsides, ditches, disturbed areas

Leaves: Opposite, pinnately compound, 6 to 11 inches long, with 5 to 11 elliptical leaflets; leaflet edges toothed, bottom leaflets often 3-lobed; dark green above and much paler below

Flowers: Small, white, in dense, flat-topped clusters up to 8 inches across; appearing in summer

Fruit: Berry-like, purple-black, very juicy, ¼ inch across, in flat-topped clusters; ripening in late summer

Bark: Smooth and brown with obvious warts, becoming shallowly furrowed and rough with age

Twigs: Thick, silvery- to yellow-gray with obvious, warty bumps; pith large and white; buds very small, red-brown and pointed; end buds usually not present

Did You Know? A related species, red elderberry (*Sambucus racemosa*) is common at higher elevations in the mountains. The fruits of both species are a good food source for many birds and mammals. The ripe fruits are often used locally to make jelly and wine.



Illustrated by Rachel Figley

NATIVE SHRUBS

Maple-leaf Viburnum

Viburnum acerifolium L.

Form: Upright shrub to 5 feet tall, spreading by root sprouts and often forming dense clumps

Common Range: Coastal Plain, Piedmont, Mountains

Habitat: Upland forests

Leaves: Opposite, simple, mostly three-lobed (maple-like) or occasionally unlobed, 3 to 4 inches long, fuzzy, palmately veined with sunken veins giving a slightly wrinkled look; edges coarsely toothed

Flowers: Small, white, 5-petaled, in flat-topped clusters 1½ to 3 inches across; appearing in early summer

Fruit: Berry-like, round, ¼ inch across, red turning purple to black when ripe, in flat-topped clusters; ripening in fall

Bark: Smooth and grayish brown

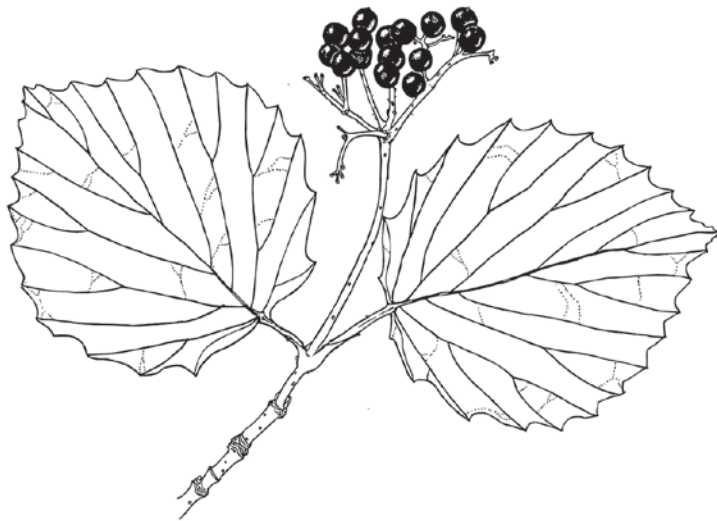
Twigs: Slender, velvety-gray; buds egg-shaped and stalked, with 4 dark purple scales

Did You Know? Like all of our native Viburnums, this shrub's fruits are eaten by many birds and small mammals. The flowers attract pollinators such as bees and butterflies.



Illustrated by Rachel Figley

NATIVE SHRUBS

Arrowwood*Viburnum dentatum* L.**Form:** Multi-stemmed shrub to 10 feet tall, with arching branches forming a rounded crown**Common Range:** Coastal Plain, Piedmont, Mountains**Habitat:** Moist to dry woods, floodplains, swamps, stream banks**Leaves:** Opposite, simple, oval to elliptical, 1½ to 3½ inches long; edges coarsely toothed; shiny dark green above, paler with star-like tufts of fuzz below**Flowers:** Small, white, 5-petaled, in flat-topped clusters 2 to 4 inches across; appearing in late spring**Fruit:** Bluish black, oval, berry-like, ⅓ inch long, in clusters; ripening in early fall**Bark:** Gray to grayish brown, smooth at first, becoming finely scaly with age**Twigs:** Slender, ridged and angled, smooth or slightly velvety; buds ¼ inch, green to brown, with several scales**Did You Know?** Native Americans once used the straight young stems to make arrows.

Illustrated by Rachel Figley

NATIVE SHRUBS

Possum-haw

(Southern Wild Raisin)

Viburnum nudum L.**Form:** Large shrub or small tree to 20 feet tall, with a spreading, round crown**Common Range:** Coastal Plain, Piedmont**Habitat:** Acidic soils of bottomland forests, swamps and other wetlands**Leaves:** Opposite, simple, elliptical, 3 to 5 inches long, somewhat thick and leathery; edges wavy or smooth; shiny green above and paler below; leaf stem rust-colored**Flowers:** Small, creamy white, 5-petaled, in long-stemmed, flat-topped, spreading clusters; appearing in spring**Fruit:** Oval, berry-like, ½ inch long, at first pink but later ripening to dark blue, in hanging clusters; ripening in fall and often remaining through winter**Bark:** Gray-brown and smooth or with a few raised warty pores**Twigs:** Slender, reddish brown, shiny; buds duckbill shaped, slender and up to ½ inch long, scruffy pinkish brown; flower buds similar but swollen**Did You Know?** A similar species, northern wild raisin or withe-rod (*Viburnum cassinoides*) is occasionally found in the mountains.

Illustrated by Juliette Watts

NATIVE SHRUBS

Blackhaw

Viburnum prunifolium L.

Form: Large shrub or small tree to 20 feet tall, with a twisted trunk and stiff, arching branches

Common Range: Coastal Plain, Piedmont, Mountains

Habitat: Variable and widespread; woodlands, edges and open areas

Leaves: Opposite, simple, elliptical, 1 to 3 inches long; edges very finely toothed; dark green above and paler below; leaf stems and sometimes leaf edges reddish

Flowers: Small, white, 5-petaled, in attractive, dense, slightly rounded 2- to 4-inch clusters; appearing in mid-spring

Fruit: Dark blue, elliptical, berry-like, often with a whitish "bloom," ¼ inch long, in hanging clusters; ripening in late summer but often remaining as shriveled, raisin-like fruits into winter

Bark: Gray-brown and breaking up into small square plates, like alligator skin

Twigs: Moderately stout and stiff looking, gray-brown to reddish brown, with many opposite short twigs giving a "fish-bone" appearance; buds duckbill shaped, narrowly oval, pinkish brown and leathery; flower buds similar but swollen

Did You Know? Two similar and possibly hybridizing species are nannyberry (*Viburnum lentago*) in parts of the mountains and rusty blackhaw (*Viburnum rufidulum*) in the Coastal Plain.



Illustrated by Ellen Powell

NATIVE SHRUBS

Sumac

Rhus L. (multiple species)

Form: Shrubs, some up to 25 feet tall, with short trunks and spreading branches

Common Range: Coastal Plain, Piedmont, Mountains (varies by species)

Habitat: Mostly dry sandy or rocky forests, edges, roadsides and clearings

Leaves: Alternate, pinnately compound, 12 to 24 inches long with 7 to 31 lance-shaped leaflets, depending on species (except *Rhus aromatica*, with leaves 3 to 5 inches long and only 3 oval leaflets)

Flowers: Males and females may be on the same or different plants; small, greenish-yellow, in large, often pyramid-shaped (rounded in *Rhus aromatica*) clusters at branch ends; appearing mid- to late summer

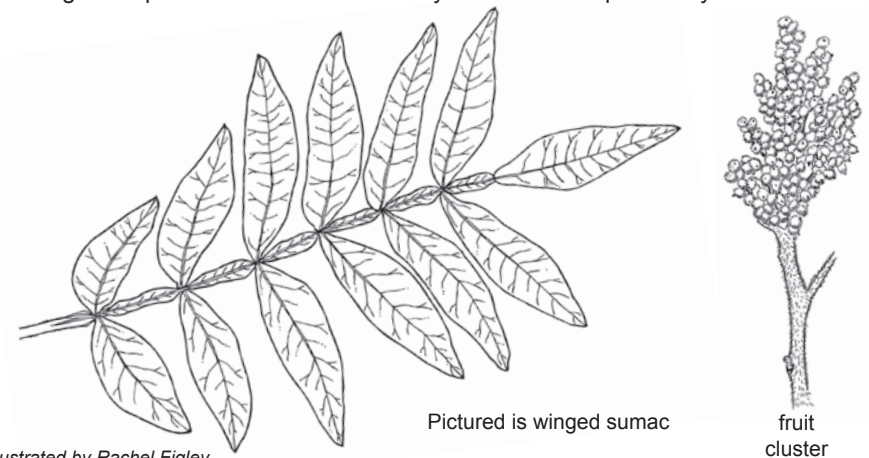
Fruit: Round, red, fuzzy, berry-like, ⅛ to ¼ inch across, in dense, erect or drooping clusters; maturing in fall and often remaining on the plant through winter

Bark: Light brown to gray, with lighter pores; smooth when young, becoming scaly with age

Twigs: Slender to very stout, depending on species; some species quite fuzzy; buds small, rounded and fuzzy, often almost encircled by leaf scars

Did You Know? The four common sumac species each have distinguishing characteristics.

The leaves of smooth sumac (*Rhus glabra*) and staghorn sumac (*Rhus typhina*) are similar, with many neatly toothed leaflets, but, smooth sumac has non-fuzzy twigs and leaf stems, while staghorn has very thick, fuzzy twigs that resemble deer antlers in velvet. Shining or winged sumac (*Rhus copallinum*) has shiny, smooth-edged leaflets with wings along the leaf stems. Aromatic sumac (*Rhus aromatica*) is low-growing, with fragrant 3-parted leaves that are easily confused with poison ivy.



Illustrated by Rachel Figley

NATIVE SHRUBS

Inkberry

(Gallberry)

Ilex glabra (L.) A. Gray

Form: Evergreen shrub to 10 feet tall, often growing in clusters

Common Range: Coastal Plain

Habitat: Wet forests, swamps, low areas between dunes

Leaves: Evergreen; alternate, simple, leathery, 1 to 2½ inches long, oblong to oval; edges smooth or toothed on outer half; shiny and dark green above, lighter and dull below

Flowers: Males and females on separate plants; small, greenish white and not very noticeable; appearing in late spring

Fruit: Round, berry-like, ⅓ inch across, nearly black, shiny; ripening in fall and often remaining on the plant into the following spring

Bark: Smooth, dark greenish brown

Twigs: Slender, green the first year; turning gray later, with ridges or lines; buds small and green

Did You Know? In the deep South, inkberry is prized for the strongly flavored honey which bees make from its nectar.



Illustrated by Rachel Figley

NATIVE SHRUBS

Winterberry Holly

Ilex verticillata (L.) A. Gray

Form: Large, multi-stemmed shrub to 15 feet tall

Common Range: Coastal Plain, Piedmont, Mountains

Habitat: Swamps, moist woods, pond edges

Leaves: Alternate, simple, lance- to egg-shaped, 2 to 3 inches long; edges toothed; smooth and green above, paler and usually fuzzy below

Flowers: Males and females on separate plants; greenish-white, with 5 to 7 petals, on stalks, usually in clusters; appearing in spring

Fruit: Round, berry-like, ¼ inch across, reddish-orange to red, in clusters of 2 to 4; ripening in fall but often remaining on the plant through winter

Bark: Thin, smooth and grayish brown

Twigs: Slender, gray, with scattered light pores; buds small; leaf scars small, with one bundle scar; may have tiny, black thorn-like structures on either side of the leaf scar

Did You Know? There are several other deciduous hollies in Virginia. Possum haw (*Ilex decidua*) is a related species common in the Coastal Plain, while mountain holly (*Ilex montana*) is common in the mountain regions. Both of these species resemble winterberry but are often more tree-like.



Illustrated by Rachel Figley

NATIVE SHRUBS

Devil's Walking Stick

Aralia spinosa L.

Form: Shrub or small tree up to 30 feet tall, often unbranched; may form thickets

Common Range: Coastal Plain, Piedmont

Habitat: Forest edges, fencerows, roadsides, streamsides, clearings

Leaves: Alternate, twice or occasionally thrice-pinnately compound, up to 5 feet long; leaflets 2 to 4 inches long, with toothed edges; leaf stem with scattered prickles; leaflets green to blue-green above and paler below

Flowers: White and quite small, on 12 to 18 inch clusters at the ends of branches; appearing in late summer

Fruit: Round, fleshy, berry-like, purple to black, ¼ inch long, in large clusters on pink-red stems; ripening in late summer and early fall

Bark: Gray-brown, spiny except on very large stems, which may have shallow furrows

Twigs: Very stout and spiny, gray to straw colored, with slender U-shaped leaf scars that encircle half the stem; buds relatively small, egg-shaped, with very few scales

Did You Know? The berries are eaten by many songbirds and other wildlife, including black bears. The common name comes from the prickly main stem, which is often the perfect diameter for a walking stick.



Illustrated by Juliette Watts and Rachel Figley

NATIVE SHRUBS

Groundsel-tree

(Groundsel-bush, High-tide Bush)

Baccharis halimifolia L.

Form: Upright, branchy shrub to 15 feet tall, often forming thickets

Common Range: Coastal Plain

Habitat: Tidal swamps, salt marshes and dune scrublands; also roadsides, ditches and other disturbed areas

Leaves: Tardily deciduous; alternate, 1 to 2½ inches long; simple; oval, oblong or nearly diamond-shaped; edges smooth near base, coarsely toothed along outer half; leaves from upper crown and near ends of twig often lacking teeth; shiny green above, paler and may be sticky below

Flowers: Males and females on separate plants; ¼ to ½ inch long; in clusters at branch tips, females with feathery white (some purple) tufts in late summer; males yellower and not fuzzy

Fruit: Small, brown, tipped with long feathery white bristles (dandelion-like); appearing in large numbers in early fall, giving the plant an overall silvery look

Bark: Gray, reddish brown, developing interlaced furrows and flat-topped ridges

Twigs: Slender, green and angular; may be sticky

Did You Know? This shrub is tolerant of salt spray, giving it the local nickname saltbush in parts of coastal Virginia. It has become an invasive species in Australia, where it was introduced.



Illustrated by Rachel Figley

NATIVE SHRUBS

Marsh-elder

Iva frutescens L.

Form: Multi-stemmed shrub to 8 feet tall

Common Range: Coastal Plain

Habitat: Tidal swamps, salt marshes, dune ponds and dune scrublands

Leaves: Tardily deciduous to nearly evergreen; opposite, simple, thickened, lance-shaped with 3 main veins; edges toothed

Flowers: Small and green, remaining mostly covered by leafy bracts, on 4 inch spikes; appearing in summer

Fruit: Tiny, flattened, dry, purplish to dark brown

Bark: Gray-brown and smooth

Twigs: Slender, somewhat angular, at first green but becoming gray-brown, with slender leaf scars that completely encircle the twig; buds very small and wedge-shaped

Did You Know? Although its flowers are almost unnoticeable, marsh-elder is part of the very large sunflower family. It is one of the few shrubs that grows in salt marshes, a harsh environment for most other shrubs.



Illustrated by Rachel Figley

NATIVE SHRUBS

Hazel Alder

(Smooth Alder)

Alnus serrulata (Aiton) Willdenow

Form: Large multi-stemmed shrub or small tree, to 15 feet tall, often forming thickets

Common Range: Coastal Plain, Piedmont, Mountains

Habitat: Stream edges, swamps and other wetlands

Leaves: Alternate, simple, oval, 2 to 4 inches long; edges finely toothed and wavy; dark green above, paler and fuzzy below

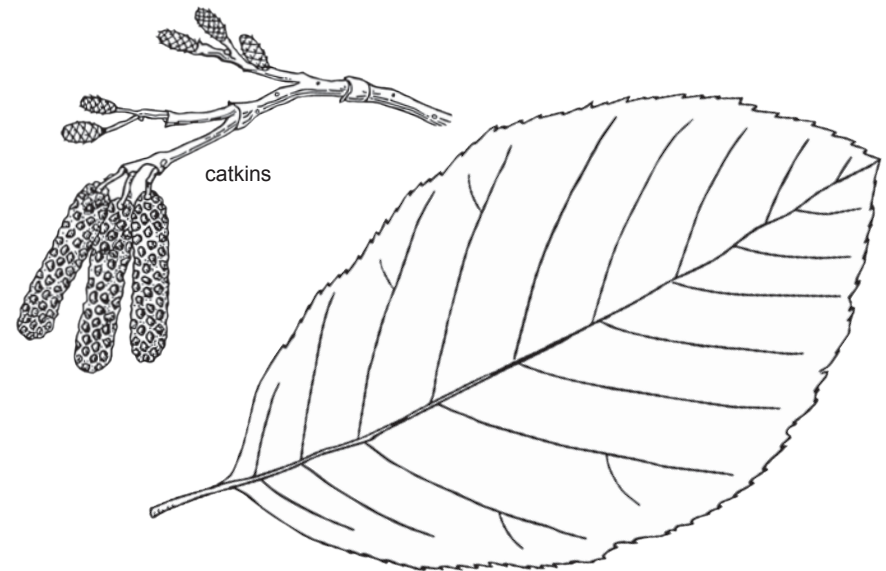
Flowers: Males and females both form as catkins in fall, but open in early spring; males greenish brown, 1 to 1½ inches; females ½ inch long, reddish, cone-like

Fruit: Woody, cone-like catkin, ½ inch long, dark brown with each scale enclosing a tiny, winged seed; ripening in fall and remaining on plant for a long time

Bark: Thin, gray to brown and smooth; trunk fluted or “muscular”

Twigs: Reddish brown with gray fuzz; pith 3-angled; buds stalked, plump, with 2 to 3 red-purple scales, resembling a match head.

Did You Know? Alder hosts nitrogen-fixing bacteria in its roots, meaning it can convert nitrogen from the air into a form plants can use. Its stems and bark are a favorite food of beavers.



Illustrated by Rachel Figley

NATIVE SHRUBS

American Hazelnut

(American Filbert)

Corylus americana Walter

Form: Medium shrub to 12 feet tall, often forming clumps

Common Range: Coastal Plain, Piedmont, Mountains

Habitat: Upland forests, well-drained floodplains, old fields

Leaves: Alternate, simple, 2½ to 5 inches long, broadly oval with a heart-shaped or rounded base; edges doubly toothed; dark green above and paler below; leaf stem has stiff hairs

Flowers: Males in 1 to 3 inch light brown catkins, in clusters of 2 or 3 near branch tips, opening before leaves; females in short gray-brown buds with bright red thread-like structures sticking out

Fruit: Edible brown nuts, ½ inch across, enclosed in a hairy, leaf-like husk with ragged edges; husk at first green, ripening to brown in late summer

Bark: Light grayish brown and smooth, later developing a slight criss-cross netted pattern

Twigs: Slender, zigzag, light brown, with many stiff, reddish hairs; buds blunt, small, two-toned, with scales light grayish brown near tip and darker brown near base

Did You Know? A related species, beaked hazelnut (*Corylus cornuta*), is common in the mountains. Its nut husk has a long “beak” that makes it look like a gourd.



Illustrated by Rachel Figley

NATIVE SHRUBS

Coralberry

(Buckbrush, Indian Currant, Devil's Shoestring)

Symphoricarpos orbiculatus Moench

Form: Small shrub to 5 feet tall, with arching branches

Common Range: Coastal Plain, Piedmont, Mountains

Habitat: Upland forests, well-drained floodplains, old fields

Leaves: Opposite, simple, oval, velvety, 1 to 1½ inches long; edges smooth; dull green to blue-green above and paler below

Flowers: Small, bell shaped, yellowish white tinged with purple, in short, dense clusters in leaf axils and at twig ends; appearing in mid to late summer

Fruit: Round, berry-like, bright pink to purple, ¼ inch across with some smaller, in clusters; maturing in fall and persisting into winter

Bark: Brown and finely shredded

Twigs: Slender; brownish green when young, later darkening to reddish brown with very fine peeling strips; scales present where new branches emerge; bundle scars single

Did You Know? This native shrub spreads rapidly in disturbed areas, providing food and cover for wildlife, native bees and other insects.



Illustrated by Juliette Watts

NATIVE SHRUBS

Strawberry Bush

(Hearts a'bustin')

Euonymus americanus L.

Form: Loose, sprawling small shrub, 2 to 6 feet tall, spreading by root suckers

Common Range: Coastal Plain, Piedmont

Habitat: Variable, from dry upland forests to low flatwoods and swamp edges

Leaves: Opposite, simple, oval to elliptical, 2 to 4 inches long; edges finely toothed; bright green above and slightly paler below

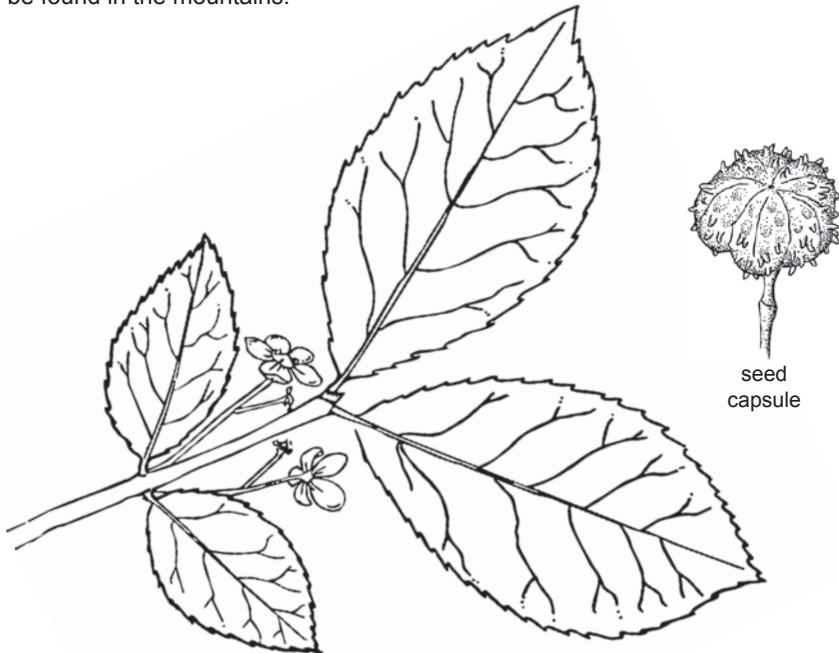
Flowers: ⅓ inch across with 5 greenish-purple petals, in clusters; appearing in late spring

Fruit: Unique, 4-parted capsules which split in fall into orange-red berry-like arils surrounded by pink or purple "husks"

Bark: Green, but darker and with splits on older stems

Twigs: Slender, square and green; end buds reddish orange, ¼ inch long, pointed

Did You Know? Strawberry Bush is a favorite food of deer and is often grazed down to just a few shoots. A related species, eastern wahoo (*Euonymus atropurpureus*), can be found in the mountains.



Illustrated by Rachel Figley

NATIVE SHRUBS

Sweet Pepperbush

Clethra alnifolia L.

Form: Medium shrub 3 to 10 feet tall, often forming thickets

Common Range: Coastal Plain

Habitat: Low wet woods, acidic uplands, swamps, damp sandy areas

Leaves: Alternate, simple, oval, 2 to 3½ inches long; edges finely toothed; shiny dark green above and paler below

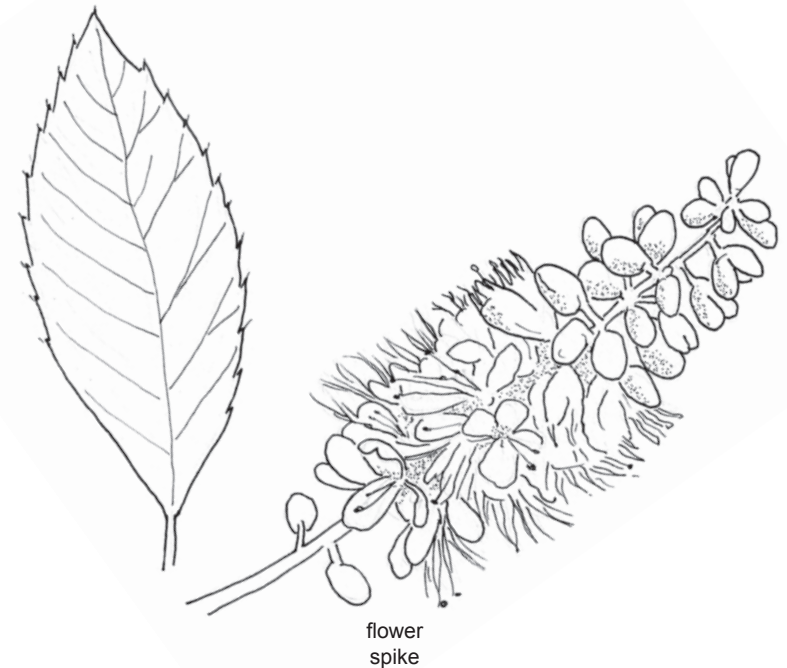
Flowers: Small, white, in dense clusters on erect 3 to 6 inch spikes at branch tips; blooming in mid to late summer

Fruit: Dry brown capsules in long clusters, remaining on plant through the winter

Bark: Grayish, separating into loose strips on older stems

Twigs: Slender and scruffy brown; buds with loose scales, the end bud much larger than side buds; leaf scars with one bundle scar

Did You Know? The strongly fragrant flowers attract bees and other nectar feeders. A related species, mountain pepperbush (*Clethra acuminata*), can be found in acidic woods of southwestern Virginia.



Illustrated by Diana McFarland

NATIVE SHRUBS

Silky Dogwood

Cornus amomum P. Miller

Form: Small to medium sized, multi-stemmed shrub up to 10 feet tall; branches may bend down and root in wet soil, forming colonies

Common Range: Coastal Plain, Piedmont, Mountains

Habitat: Swamps, stream banks and other wet areas

Leaves: Opposite, simple, oval, 2 to 4 inches long, with veins curving to run parallel to leaf edges; edges smooth; green above and paler below

Flowers: Small, white, in flat-topped clusters 2 inches across; appearing in late spring and early summer

Fruit: Berry-like, bluish white, ¼ inch across, in flat-topped clusters; maturing in late summer

Bark: At first red-purple (but may be green tinged); later turning brown with shallow fissures

Twigs: Red-purple (may be green-tinged), with silky gray hairs; buds narrow, pointed, hairy and close to the stem

Did You Know? Several other species of shrub dogwood are common in Virginia: alternate-leaf dogwood (*Cornus alternifolia*) and gray dogwood (*Cornus racemosa*) in the mountains, and swamp dogwood (*Cornus stricta*) in the Coastal Plain. Like the state tree, flowering dogwood (*Cornus florida*), all produce berry-like fruits that are eaten by many songbirds.



flower cluster

Illustrated by Rachel Figley

NATIVE SHRUBS

Sweetbells

(Swamp Dog-Hobble, Coastal Fetterbush)

Eubotrys racemosa (L.) Nuttall

Form: Thicket-forming shrub up to 12 feet tall

Common Range: Coastal Plain

Habitat: Wet forests and swamps, mainly in acidic soils

Leaves: Alternate, simple, oval to lance-shaped, 1½ to 3 inches long; edges sharply but finely toothed; shiny green above and paler below

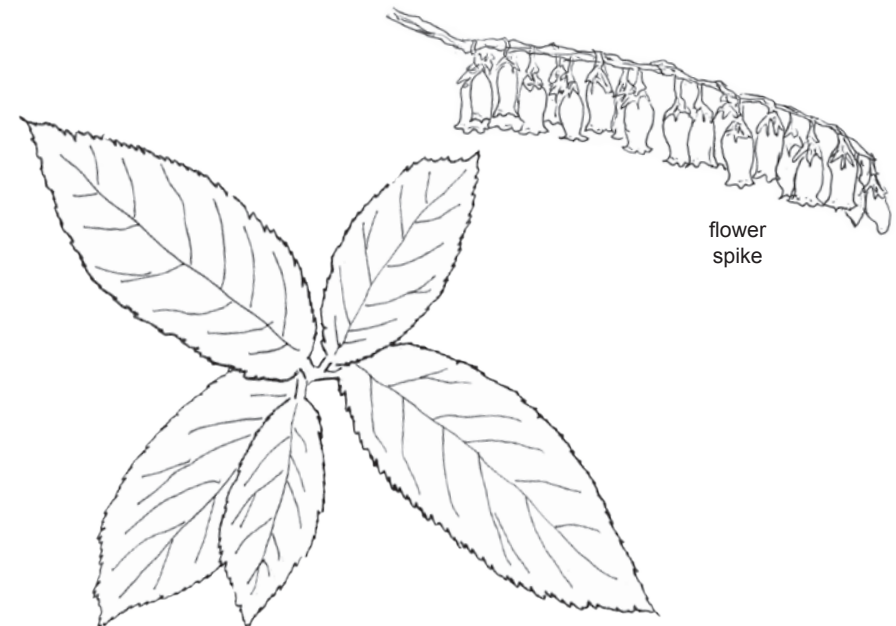
Flowers: White, bell-shaped, ¼ inch long, hanging from one side of a curved, 2- to 4-inch spike from bases of new branches; appearing in spring

Fruit: Dry brown capsules, ¼ inch long, hanging from a curved spike; maturing in early fall

Bark: Smooth, light brown; larger stems may become finely scaly

Twigs: Slender, green or with some red; small buds with visible scales; may have visible dark red flower buds through winter

Did You Know? A similar species, mountain fetterbush (*Eubotrys recurva*), can be found on heath balds in the southern mountains of Virginia. Both were formerly classified in the genus *Leucothoe*.



flower spike

Illustrated by Diana McFarland and Ellen Powell

NATIVE SHRUBS

Huckleberry

Gaylussacia Kunth (multiple species)

Form: Small shrubs to 4 feet tall, often in colonies arising from underground stems

Common Range: Coastal Plain, Piedmont, Mountains (varies by species)

Habitat: Dry upland forests, pine woods, sandhills, boggy flatwoods; almost always in acidic soils

Leaves: Alternate, simple, elliptical, 1 to 1½ inch long; edges with tiny hairs; bright green above, with yellow resin dots below (visible with hand lens) that cause them to be sticky

Flowers: ¼ inch, white to pink, bell-shaped with 5 lobes, in small clusters in leaf axils; appearing in spring

Fruit: Shiny, blue-black, round, berry-like, ⅛ to ⅓ inch across depending on species, 10-seeded; edible but not very sweet; ripening in late summer

Bark: Gray-brown, finely peeling

Twigs: Slender, zigzag, reddish brown with fine gray fuzz; buds small, pointed and gray-brown

Did You Know? Huckleberries are an important food source for wildlife, from songbirds to black bears. Common species are black huckleberry (*Gaylussacia baccata*), common statewide; dwarf huckleberry (*Gaylussacia dumosa*) and dangleberry (*Gaylussacia frondosa*), most common in the Coastal Plain.



Pictured is black huckleberry

Illustrated by Rachel Figley

NATIVE SHRUBS

Mountain Laurel

Kalmia latifolia L.

Form: Large shrub or small tree, usually less than 10 feet tall, but can top 25 feet; usually has multiple twisted stems, and may form thickets

Common Range: Coastal Plain, Piedmont, Mountains

Habitat: Dry to moist forests, shrub balds, bog margins, especially on acidic, sandy or rocky soils

Leaves: Evergreen; alternate, simple, elliptical, 2 to 5 inches long; edges smooth, with a pointed tip; mid-vein raised on upper surface; shiny/waxy green above and yellowish green below; clustered at branch tips

Flowers: White to pink, with purple markings, 1 inch across, the petals forming a distinct bowl; in showy clusters 3 to 6 inches across; blooming in late spring and early summer

Fruit: Open clusters of round, brown capsules, ¼ inch long, splitting into 5 pieces when dry, containing small seeds; maturing in fall

Bark: Thin, dark brown to red, shredding and splitting on older stems

Twigs: Usually forked and twisted; green or red when young, later brownish red

Did You Know? Mountain laurel is poisonous if eaten by livestock.



Illustrated by Rachel Figley

NATIVE SHRUBS

Coastal Dog-Hobble

Leucothoe axillaris (Lamarck) D. Don

Form: Small, sprawling shrub, 2 to 4 feet tall, with arching stems and few side branches

Common Range: Coastal Plain

Habitat: Wet forests and swamps

Leaves: Evergreen; alternate, simple, oblong to lance-shaped, 2 to 4 inches long; edges finely toothed or with tiny hairs along edges; shiny green above and paler beneath

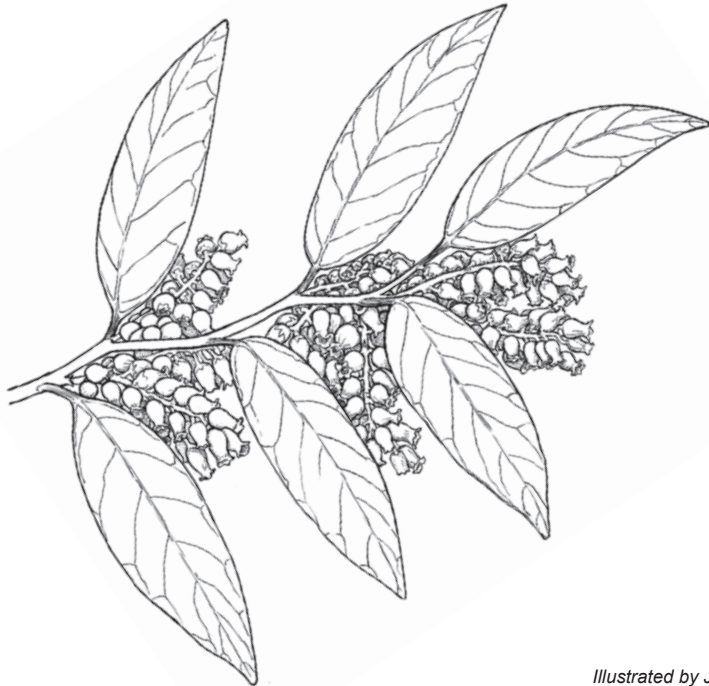
Flowers: White, bell-shaped, ¼ inch long, clustered along 2- to 3-inch stems hanging from leaf axils; blooming in spring

Fruit: Dry brown capsules ¼ inch across, in long clusters

Bark: Smooth, light brown

Twigs: Slender, all green or with some red, somewhat zigzag; buds small, blunt and brown

Did You Know? The name dog-hobble comes from this shrub's tendency to grow so thickly that dogs (and people) have trouble walking through it.



Illustrated by Juliette Watts

NATIVE SHRUBS

Maleberry

(He-huckleberry)

Lyonia ligustrina (L.) Augustin de Candolle

Form: Dense, medium-sized shrub to 9 feet tall, often thickly sprouting from roots

Common Range: Coastal Plain, Piedmont, Mountains

Habitat: Acidic soils in a variety of habitats, from dry forests to edges of swamps and bogs

Leaves: Alternate, simple, oblong to elliptical, 1½ to 3 inches long; edges smooth or finely toothed, with a pointed tip; dark green and sometimes fuzzy above, lighter green and fuzzy below

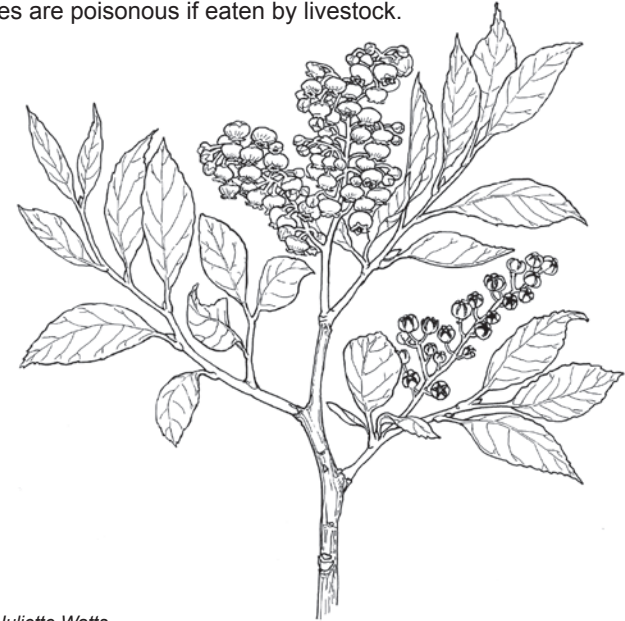
Flowers: White, urn-shaped, ¼ inch across, hanging in large clusters from leaf axils of previous year's growth; blooming in early summer

Fruit: Dry, reddish brown, 5-parted capsules, ¼ inch long; maturing in late summer and remaining on the plant for some time

Bark: Brown to reddish brown, with long horizontal splits developing

Twigs: Slender, reddish brown, a bit angled particularly at the points of leaf attachment; at first a bit fuzzy but later smooth; leaf scar with one bundle scar

Did You Know? Both of this shrub's common names refer to its hard, dry, inedible fruit. A related species, staggerbush (*Lyonia mariana*), is common in eastern Virginia. Both species are poisonous if eaten by livestock.



Illustrated by Juliette Watts

NATIVE SHRUBS

Minniebush

Menziesia pilosa (Michaux ex Lamarck) A.L. de Jussieu ex Persoon

Form: Small to medium shrub, up to 6 feet tall

Common Range: Mountains

Habitat: Forests with acidic soils, bogs, wet depressions, shrub balds

Leaves: Alternate, simple, elliptical, ½ to 1½ inch long; edges wavy or slightly toothed; hairy on both surfaces, with long hairs along midvein; leaf tips white and sharply pointed

Flowers: Greenish-red, urn-shaped, ¼ inch long, hanging in small clusters at branch tips; blooming in late spring to summer

Fruit: Egg-shaped, woody capsule, ¼ inch long, splitting into 4 parts; maturing in late summer to fall

Bark: Reddish-green and smooth on young stems, reddish and peeling on older stems

Twigs: Slender, reddish, softly hairy

Did You Know? Some botanists classify this species as a rhododendron, closely related to azaleas.



Illustrated by Betty Gatewood

NATIVE SHRUBS

Mountain Andromeda

(Mountain Fetterbush)

Pieris floribunda (Pursh) Bentham & Hooker

Form: Thick, rounded, multi-stemmed shrub with crooked branches, to 5 feet tall

Common Range: Mountains

Habitat: Dry forests with acid soils

Leaves: Evergreen; alternate, simple, leathery, oblong to lance-shaped, 1½ to 2½ inches; edges very slightly toothed with tiny hairs; leaf stems also hairy; shiny green above and paler below

Flowers: White, ¼ inch across, urn-shaped to somewhat triangular, in 2 to 4 inch upright clusters; appearing in early spring

Fruit: Dry, ¼ inch, 5 parted, round capsules; ripening in late summer and remaining on plant through winter

Bark: Gray to reddish brown, shredding into vertical, peeling strips

Twigs: Slender, green to reddish brown, covered with tan hairs; buds small, pointed, reddish

Did You Know? Like the related mountain laurel, this shrub's leaves are poisonous if eaten.



Illustrated by Betty Gatewood

NATIVE SHRUBS

Great Rhododendron

(Rosebay, Great Laurel)

Rhododendron maximum L.

Form: Large shrub or small tree with twisted branches, to 20 feet tall, often forming dense thickets

Common Range: Piedmont, Mountains

Habitat: Moderate to dry forests, streamsides, cliffs, bog edges; found on acidic soils and north-facing slopes

Leaves: Evergreen; alternate, simple, leathery, elliptical, 4 to 10 inches long; edges smooth or rolled downward slightly; dark green above and paler with rust-colored fuzz below

Flowers: Showy, pale pink or white, with 5 rounded petals, in large clusters 5 to 8 inches across; blooming in late spring to early summer

Fruit: Red-brown ½ inch capsules, splitting along 5 lines, containing many tiny seeds, in long-stemmed clusters; maturing in fall

Bark: Thin, light brown and smooth when young, broken into thin scales on older stems

Twigs: Thick, yellow-green, often with reddish-brown hair; leaf buds small, appearing enclosed in tiny leaves; flower buds oval, ½ inch long, enclosed in rusty green, fuzzy scales

Did You Know? The related catawba rhododendron (*Rhododendron catawbiense*) is more common in the southern mountains, often on drier sites and at higher elevations. It has rose pink to purple flowers and usually has smaller, more rounded leaves.



Illustrated by Diana McFarland

NATIVE SHRUBS

Wild Azalea

(Pinxterflower)

Rhododendron periclymenoides (Michaux) Shinnery

Form: Shrub up to 6 feet tall (usually shorter), often with crooked, leggy stems and most of the foliage on the upper parts

Common Range: Coastal Plain, Piedmont, Mountains (varies by species)

Habitat: Acid soils of dry to moderately moist forests and streamsides

Leaves: Alternate, but tightly clustered at twig tips so as to appear whorled, simple, oval, 1 to 3 inches long; edges smooth with tiny hairs

Flowers: Very showy, light pink to violet, 1½ inches long and across, in large clusters; appearing just before the leaves in mid-spring

Fruit: Oblong capsule, ¼ to ½ inch long, with upswept hairs, splitting when ripe, releasing the very tiny, somewhat winged seeds; ripening in late summer

Bark: Gray to reddish-brown, becoming finely shredded

Twig: Slender, red-brown to gray, with bristly hairs; multiple end buds, pointed and yellow-green to red-brown; flower buds much larger (½ inch) and broadly oval

Did You Know? Several other wild azalea species are common in Virginia: rose azalea (*Rhododendron prinophyllum*) and flame azalea (*Rhododendron calendulaceum*) in the mountains, and dwarf azalea (*Rhododendron atlanticum*) and swamp or clammy azalea (*Rhododendron viscosum*) in the Coastal Plain. All are deciduous, unlike some of their larger *Rhododendron* relatives.



Illustrated by Rachel Figley

NATIVE SHRUBS

Blueberry

Vaccinium L. (several species)

Form: Upright or sprawling shrubs or small trees, sometimes forming thickets; size varies by species, from 1 to 25 feet tall

Common Range: Coastal Plain, Piedmont, Mountains (varies by species)

Habitat: Varies widely by species, from dry slopes to wet woods, but typical of acidic soils

Leaves: Alternate, simple, elliptical to oval, mostly 1 to 3 inches long; edges smooth, finely toothed, or with tiny hairs

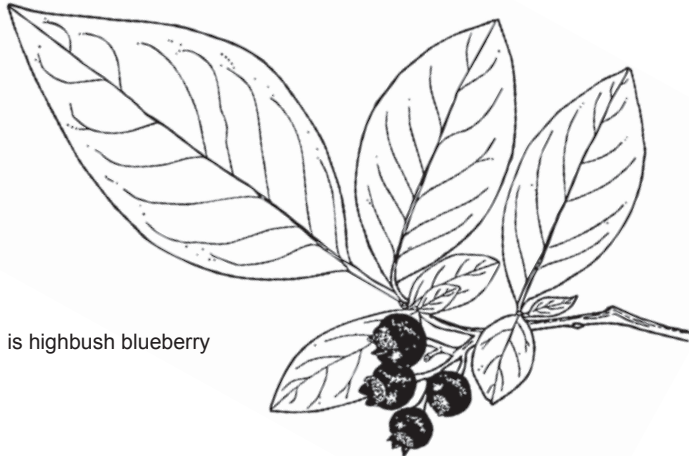
Flowers: Greenish, white, or pink, with 4 or 5 petals fused into a bell or urn shape, ¼ to ½ inch long, clustered in most species; appearing in spring

Fruit: Round berry, ⅓ to ½ inch across, usually with many small seeds; blue, black, red or greenish when ripe in mid to late summer; generally edible, though some species are quite tart

Bark: Green to grayish or reddish brown, often furrowed or shredding when mature

Twigs: Slender, zigzag, green to red; may have whitish bloom or fuzz, depending on species; leaf buds generally small, red and pointed; flower buds larger and rounded

Did You Know? The most common and widespread species in Virginia are highbush blueberries (*Vaccinium corymbosum*, *Vaccinium formosum* and *Vaccinium fuscatum*), lowbush blueberries (*Vaccinium pallidum* and *Vaccinium angustifolium*) and deerberry (*Vaccinium stamineum*). Many other species are locally common, and hybrids make exact identification difficult. The terms highbush and lowbush refer to the overall size of the plant. The red-fruited cranberries, uncommon in Virginia, are also part of the genus *Vaccinium*.



Pictured is highbush blueberry

Illustrated by Rachel Figley

NATIVE SHRUBS

Appalachian Gooseberry

Ribes rotundifolium Michaux

Form: Small to medium shrub, to 5 feet tall

Common Range: Mountains

Habitat: Moderate to dry forests, rocky areas

Leaves: Alternate, simple, 2 to 4 inches long, with 3 to 5 palmate lobes; edges with large rounded teeth; dark green above and paler below, with resin dots on both surfaces

Flowers: Small, pale yellow or white, tubular, in showy, hanging clusters several inches long; appearing in mid-spring

Fruit: Round, black berry, ⅓ inch across, tipped by a shriveled leaf-like tuft, resin dotted, in hanging clusters; ripening mid-summer

Bark: Silvery gray with a coppery tint, finely peeling on older stems

Twigs: Moderately thick, red-gray, with small wing-like ridges running downward from leaf scars; may or may not have prickles

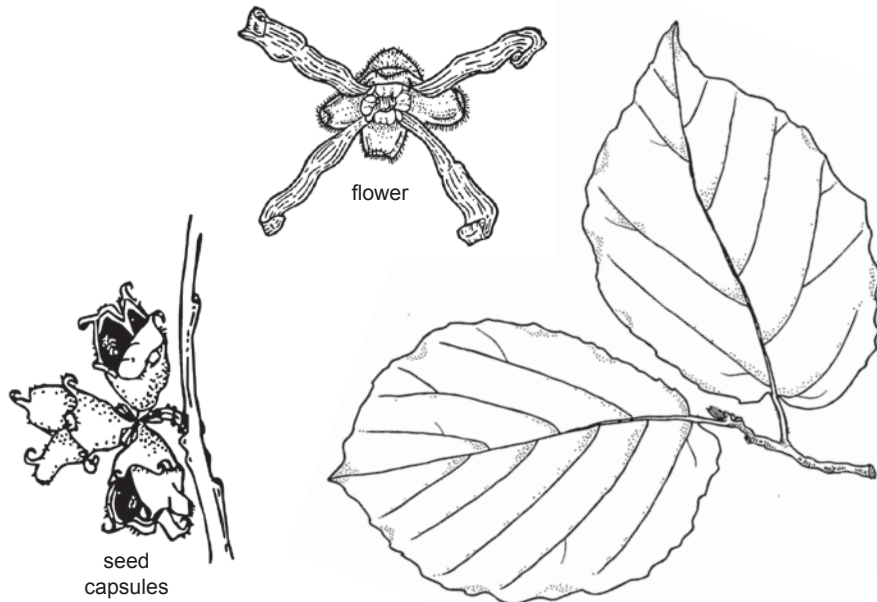
Did You Know? A related species, prickly gooseberry (*Ribes cynosbati*), is common in parts of the mountains, and several less common species can be found in other parts of the state.



Illustrated by Betty Gatewood

NATIVE SHRUBS

Witch-Hazel

Hamamelis virginiana L.**Form:** Large shrub or small tree to 20 feet tall, often forming clumps**Common Range:** Coastal Plain, Piedmont, Mountains**Habitat:** Understory of mainly moist upland forests**Leaves:** Alternate, simple, 3 to 6 inches long, broadly oval with an uneven base; edges so wavy as to appear almost toothed; dark green above and paler below; leaf stems fuzzy**Flowers:** Bright yellow, with 4 very slender petals $\frac{1}{2}$ to $\frac{3}{4}$ inch long, giving it a spidery appearance; blooming in mid to late fall**Fruit:** Woody, brown capsule, $\frac{1}{2}$ inch long, containing two shiny black $\frac{1}{4}$ -inch seeds; seeds are shot out forcibly when capsule splits open; maturing in late summer; old capsules may stay on plant for some time**Bark:** Smooth, gray to gray-brown, even on very old stems**Twigs:** Slender, light brown, finely fuzzy; leaf buds (actually folded leaves) light brown, $\frac{1}{2}$ inch long, stalked, lacking scales, resembling a deer foot or butter knife; flower buds small, round, in tight clusters on short stalks**Did You Know?** An extract from the bark is used to make a skin care product.

Illustrated by Rachel Figley

NATIVE SHRUBS

Wild Hydrangea

(Smooth Hydrangea)

Hydrangea arborescens L.**Form:** Small to medium shrub up to 6 feet tall, with an open rounded crown and many unbranched stems**Common Range:** Piedmont, Mountains**Habitat:** Rocky areas of dry woods, slopes and stream banks**Leaves:** Opposite, simple, heart-shaped, 4 to 10 inches long; edges toothed**Flowers:** Small, white, in flat-topped clusters 4 to 6 inches across, occasionally with larger sterile flowers present along edges of cluster; appearing in early summer**Fruit:** Dry, light brown, clustered capsules; appearing in early fall**Bark:** Brown and finely shredding**Twigs:** Moderate, light brown to brown; scales present where new branches form; leaf scars shallowly U-shaped with 3 bundle scars; buds $\frac{1}{8}$ inch long**Did You Know?** Many Hydrangea species, mainly from other countries, are popular and very showy landscape plants.

Illustrated by Juliette Watts

NATIVE SHRUBS

St. John's Wort*Hypericum* L. (multiple species)**Form:** Small sprawling shrubs to 2 feet tall**Common Range:** Coastal Plain, Piedmont, Mountains (varies by species)**Habitat:** Varies by species; many species prefer dry forests, rocky areas and sandhills; others may be found in floodplain forests, bogs and other wet areas**Leaves:** Opposite, simple, oblong, 1 to 2 inches long; edges smooth; blue green above, paler below; transparent dots visible with hand lens when held up to light; clusters of smaller leaves often grow from leaf axils**Flowers:** Bright yellow, 4 or 5 petaled, 1½ inches across, clustered at twig ends; appearing in summer**Fruit:** Dry, 4 to 5 parted capsules, ¼ to ½ inch across; ripening in late summer**Bark:** Finely shredding and scaly on larger stems**Twigs:** Slender, brown and angled**Did You Know?** Six *Hypericum* shrubs are common in Virginia: St. Peter's-wort (*Hypericum crux-andreae*) and St. Andrew's Cross (*Hypericum hypericoides*) in the Coastal Plain; early St. John's-wort (*Hypericum nudiflorum*) in the Coastal Plain and Piedmont; shrubby St. John's-wort (*Hypericum prolificum*) and low St. Andrew's Cross (*Hypericum stragulum*) in the Piedmont and mountains, and bushy St. John's-wort (*Hypericum densiflorum*) in the mountain regions. Many other species are locally common to rare, and still others are classified as perennials or annuals.

Illustrated by Rachel Figley

NATIVE SHRUBS

Virginia Sweetspire

(Virginia willow, Tassel-white)

Itea virginica L.**Form:** Loose, arching medium-sized shrub, to about 6 feet tall**Common Range:** Coastal Plain**Habitat:** Wet woodlands, swamps, stream banks**Leaves:** Alternate, simple, elliptical, 2 to 4 inches long; edges finely toothed; green above and slightly paler below**Flowers:** White, ¼ inch across, in arching 2- to 6-inch spikes at branch ends, abundant but not fragrant; appearing in late spring to early summer**Fruit:** ¼ inch, elongated, woody capsules in 2- to 6-inch spikes; appearing in mid-summer and lasting into winter**Bark:** Smooth and red-brown on young stems, later developing splits and turning brown**Twigs:** Slender, arching and green, turning red in fall; buds small, triangular; leaf scars with 3 bundle scars**Did You Know?** This shrub's leaves turn bright red and remain on the shrub long into the fall.

Illustrated by Diana McFarland

NATIVE SHRUBS

Beautyberry

(French mulberry, Spanish mulberry)

Callicarpa americana L.

Form: Open shrub to 6 feet tall

Common Range: Coastal Plain

Habitat: Moderate to dry pine and hardwood forests, edges, disturbed areas

Leaves: Opposite, simple, elliptical to oval, 3 to 5 inches long; edges toothed; green above and white beneath, both surfaces fuzzy; rotten orange smell when crushed

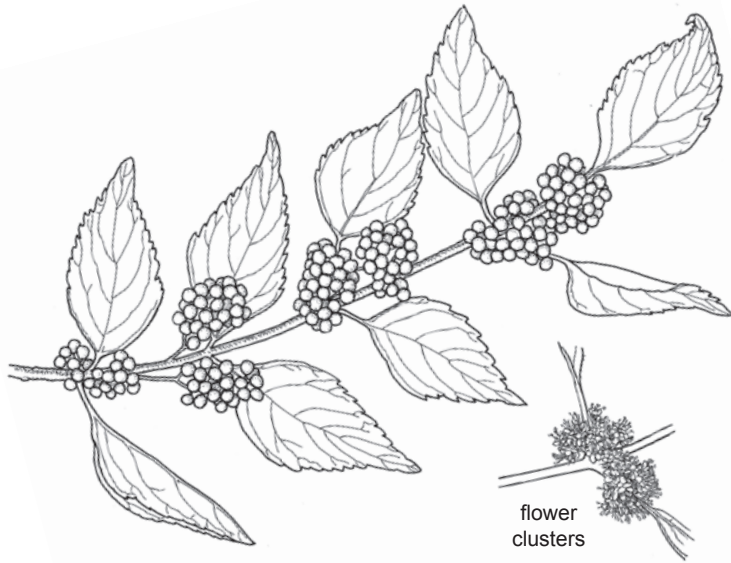
Flowers: Small, pink to bluish, tubular with 4 to 5 lobes; appearing from leaf axils in mid- to late summer

Fruit: Unique bright purple, berry-like, ¼ inch across, in clusters from leaf axils; ripening late summer to early fall

Bark: Brown with many raised pores

Twigs: Slender to moderate in diameter; gray-brown to reddish-brown with light pores; buds small and naked or with a few scales; leaf scars oval, with a single bundle scar

Did You Know? Beautyberry fruits are eaten by many birds and small mammals, and the leaves and stems are a favorite browse of deer.



Illustrated by Juliette Watts

NATIVE SHRUBS

Spicebush

Lindera benzoin (L.) Blume

Form: Large shrub to 15 feet tall, often multi-stemmed

Common Range: Coastal Plain, Piedmont, Mountains

Habitat: Moist woodlands, floodplain forests, swamps; sometimes drier forests

Leaves: Alternate, simple, oval, 3 to 5 inches long; edges smooth or with very tiny hairs; spicy odor when crushed; green above and paler below

Flowers: Small, numerous, yellow, in clusters above leaf buds; blooming before the leaves appear in early spring; male and female flowers on separate plants

Fruit: Berry-like, bright red (occasionally yellow), ⅜ inch long with a large seed, spicy scent when crushed; ripening in fall

Bark: Brown to gray-brown with lighter speckles

Twigs: Slender, olive-green to brown, with many light speckles; spicy odor when broken or scratched; stalked, round buds with 2 to 3 yellow-green to brown scales

Did You Know? Caterpillars of the spicebush swallowtail butterfly feed on the leaves of this plant.



Illustrated by Rachel Figley

NATIVE SHRUBS

Wax Myrtle

(Southern Bayberry)

Morella cerifera (L.) Small

Form: Small tree or large shrub, often with multiple, crooked or twisting stems

Common Range: Coastal Plain

Habitat: Woodlands, dune scrublands, tidal swamps and marsh edges

Leaves: Evergreen; alternate, simple, 3 inches long, spoon-like in shape with a tapered base, fragrant (spicy) when rubbed; edges smooth or sparsely and coarsely toothed, mainly on outer half; dark green and waxy-shiny above, pale green below, with yellow resin dots on both surfaces

Flowers: Males and females on separate trees; ½ inch catkins in the leaf axils in spring

Fruit: Round, waxy, bluish-white, ⅛ inch across, in clusters on short stalks

Bark: Thin, smooth, and gray-brown; often covered with lichens

Twigs: Slender and brittle, at first covered with scruffy hairs, becoming smooth and gray-brown with age

Did You Know? The fruits are eaten by migrating songbirds and are a particular favorite of wintering myrtle warblers. A related species, northern bayberry (*Morella pensylvanica*) is common near the ocean on the Eastern Shore and in Virginia Beach. Bayberry fruits were used by early colonists for making candles.



Illustrated by Rachel Figley

NATIVE SHRUBS

Fringetree

(Old Man's Beard)

Chionanthus virginicus L.

Form: Large, suckering shrub or small tree, to 25 feet tall

Common Range: Coastal Plain, Piedmont, Mountains

Habitat: Quite variable; dry uplands to wet lowland forests and wetlands

Leaves: Opposite or sometimes partially opposite, simple, oval to elliptical, somewhat thickened, 4 to 8 inches long; edges smooth; green above and paler below

Flowers: Male and female flowers sometimes on separate plants; very showy and fragrant, 1 inch long, white, with 4 to 6 petals, clustered on 4 to 8 inch stalks; clusters resemble a long white beard; blooming in late spring

Fruit: Egg-shaped, berry-like, ¾ inch long, dark blue to nearly black with fleshy pulp and a large seed; ripening in late summer

Bark: Dark gray-brown, becoming somewhat furrowed, with reddish scales

Twigs: Moderately stout, ashy-gray, smooth or slightly fuzzy, with scattered warty dots; end buds large, brown, cone-shaped; leaf scar with one bundle scar

Did You Know? Bark from the roots has been used as an herbal remedy for liver ailments.



Illustrated by Betty Gatewood

NATIVE SHRUBS

Yellowroot

Xanthorhiza simplicissima Marshall

Form: Low, ground-covering shrub, usually 1 to 3 feet tall

Common Range: Piedmont, Mountains

Habitat: Shady stream banks and rocky streamside slopes

Leaves: Alternate, once or twice pinnately compound, 4 to 8 inches long, with 3 to 5 leaflets 1 to 3 inches long; edges toothed and sometimes lobed; yellow-green, with maroon to yellow fall color; leaf stems long and slender

Flowers: Small, yellow to purple-brown, star-like with 5 petals, in drooping 4-inch long clusters; appearing in early spring

Fruit: Tiny, somewhat bean-shaped, in star-shaped clusters; initially green and fleshy, drying and turning brown

Bark: Gray-brown and smooth; inner bark yellow

Twigs: End buds cigar-shaped, sharp-pointed and scaly; leaf scars narrow and nearly encircling the twig, with many bundle scars in a distinct row

Did You Know? The bright yellow roots of this plant have been used medicinally and can be used to make a yellow dye.



Illustrated by Juliette Watts

NATIVE SHRUBS

Carolina Buckthorn

Frangula caroliniana (Walter) A. Gray

Form: Large shrub or small tree, to 20 feet tall

Common Range: Piedmont, Mountains

Habitat: Dry woodlands and barrens, especially on limestone-based soils

Leaves: Alternate, simple, elliptical to oblong, 2 to 5 inches long; edges smooth with a few widely spaced teeth, or with very tiny teeth; veins parallel, turning near edge of leaf to follow the edge; shiny green above and slightly paler below

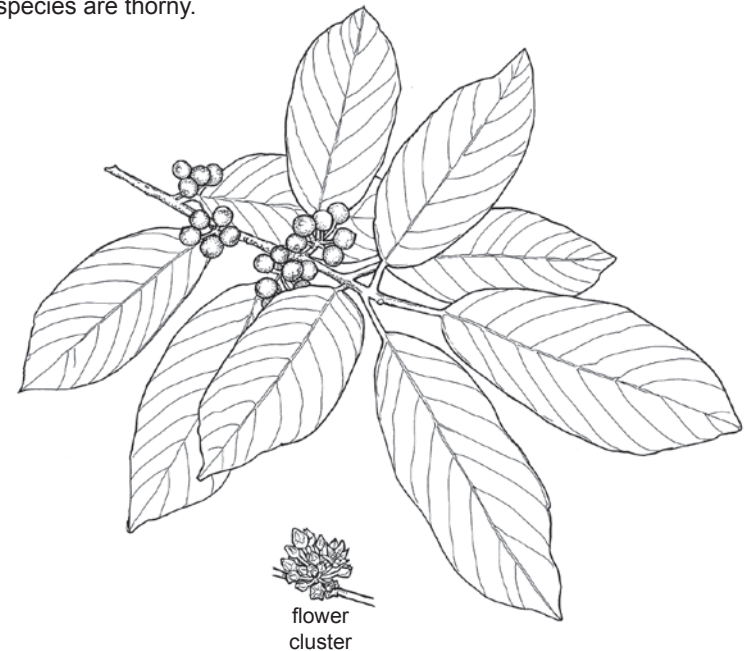
Flowers: Very small, pale yellow-green, bell-shaped, in leaf axils; appearing in late spring after the leaves unfold

Fruit: Round, berry-like, 1/3 inch across, at first red but later turning black; ripening in late summer

Bark: Smooth, gray-brown, with a few raised dots, and sometimes darker blotches; may become shallowly fissured on larger stems

Twigs: Slender, reddish brown with gray fuzz; strong almond smell when broken; buds very small, brown, naked (actually folded leaves) but fuzzy; leaf scars with 3 bundle scars

Did You Know? Despite its common name, this plant has no thorns. Several related exotic species are thorny.



Illustrated by Juliette Watts

NATIVE SHRUBS

New Jersey Tea

(Redroot)

Ceanothus americanus L.**Form:** Low shrub to 3 feet tall**Common Range:** Coastal Plain, Piedmont, Mountains**Habitat:** Dry woods and clearings**Leaves:** Alternate, simple, oval, 2 to 4 inches long; edges finely toothed; fuzzy underneath; 3 main veins from the leaf base; veins have a sunken appearance**Flowers:** White, small, in dense rounded clusters from leaf axils; appearing in mid to late summer**Fruit:** Dry, rounded, 3-parted capsules**Bark:** At first green, later turning brown with shallow splits**Twigs:** Slender, green to brown, somewhat fuzzy, with a large white pith; leaf scars with one bundle scar; buds small, egg-shaped and sometimes fuzzy**Did You Know?** Colonists used the leaves of this shrub as a substitute for tea during the American Revolution, hence its common name.

Illustrated by Rachel Figley

NATIVE SHRUBS

Red Chokeberry

Aronia arbutifolia (L.) Persoon**Form:** Upright, usually multi-stemmed shrub to 10 feet tall, often forming thickets**Common Range:** Coastal Plain, Piedmont, Mountains**Habitat:** Usually swamps, wet woods and other wetland edges, but may occur in moderate to dry forests**Leaves:** Alternate, simple, elliptical, 1 to 3 inches long; edges finely toothed; shiny dark green above, usually very fuzzy below; main leaf vein with several stiff, dark hairs, mostly toward the leaf base**Flowers:** White, 5-petaled, ½ inch across, in clusters at ends of twigs; appearing in early summer**Fruit:** Red, apple-like but only ¼ inch across, in clusters; ripening late summer to early fall, often remaining on plant for some time**Bark:** Reddish brown, smooth, with large pores, later developing diamond-shaped splits**Twigs:** Slender, reddish brown, generally fuzzy; end buds ⅓ to ½ inch long; leaf scars narrow**Did You Know?** A similar species, black chokeberry (*Aronia melanocarpa*) can be found in the mountains. The berries of *Aronia* species are not eaten quickly by wildlife but may serve as a late winter food source.

Illustrated by Ellen Powell

NATIVE SHRUBS

Hawthorn

Crataegus L. (multiple species)

Form: Dense shrubs or small trees, to 25 feet tall

Common Range: Coastal Plain, Piedmont, Mountains (varies by species)

Habitat: Varies widely by species; the most common species, cockspur hawthorn (*Crataegus crus-galli*), is most often found in edges, old fields and open forests.

Leaves: Alternate but clustered on spur shoots, simple, 2 to 4 inches long; edges toothed, lobed or unlobed; often with long thorns above; dark green above and paler below

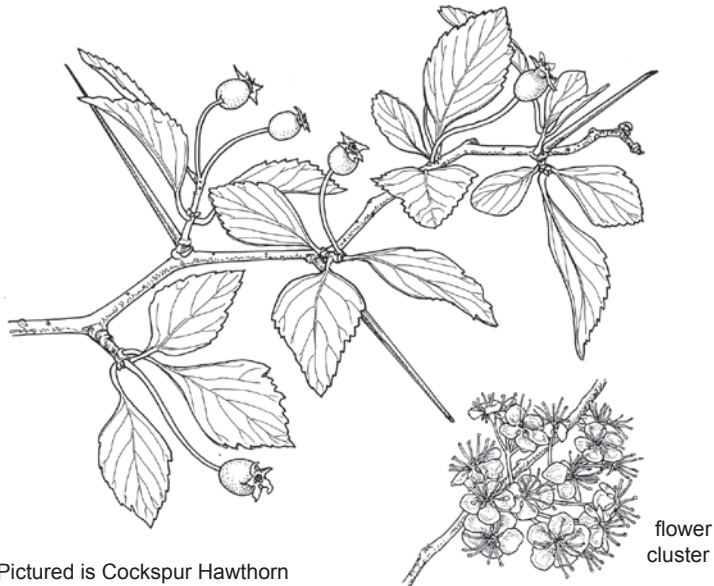
Flowers: Usually small, white, 5-petaled, in clusters near twig ends; appearing in mid- to late spring

Fruit: Generally ¼ inch in diameter, apple-like, yellow to red; maturing in early fall, often remaining on the plant for some time

Bark: Smooth and gray-brown when young, later turning darker and scaly

Twigs: Slender, gray; most species with stiff, 1-inch-long thorns; end buds usually shiny, red and round; leaf scars with 3 bundle scars

Did You Know? The many species of hawthorn in Virginia often hybridize and can be difficult to tell apart. The most common and widespread is cockspur hawthorn (*Crataegus crus-galli*). Hawthorn fruits are eaten by wildlife but may be left alone until late winter. The thorny shrubs provide good protective and nesting cover for birds.



Pictured is Cockspur Hawthorn

Illustrated by Juliette Watts

NATIVE SHRUBS

Ninebark

Physocarpus opulifolius (L.) Maximowicz

Form: Large shrub, to 10 feet tall

Common Range: Piedmont, Mountains

Habitat: Dry woods, rocky areas, stream banks, cliffs, slopes; often on limestone soils

Leaves: Alternate, simple, 1½ to 3½ inches long, with 3 to 5 pointed, palmate lobes (maple-like); edges toothed; dark green above and paler below

Flowers: White to faintly pink, ½ inch across, in dense, rounded clusters; appearing in late spring to early summer

Fruit: Pointed, inflated, pod-like, ¼ inch long, 3 to 5 per stem, in dense, rounded clusters; at first bright red, later turning reddish brown

Bark: Attractive, thin, yellow- orange- or reddish-brown; shredded and peeling in long strips, especially on older stems

Twigs: Slender, red-brown; bark splitting and peeling on older twigs; buds with many loose scales; leaf scars raised with lines below

Did You Know? Ninebark gets its name from the multiple (though probably not nine) layers and colors of its bark.



Illustrated by Juliette Watts

NATIVE SHRUBS

Chickasaw Plum

Prunus angustifolia Marshall

Form: Large shrub or small tree up to 20 feet tall, often forming dense thickets

Common Range: Coastal Plain, Piedmont

Habitat: Abandoned fields, clearings, wood edges, roadsides; most common in sandy soil

Leaves: Alternate, simple, oblong to narrow, often folded longitudinally, 1½ to 3 inches long; edges finely toothed; shiny dark green above, dull and lighter beneath

Flowers: White with red-orange anthers, 5-petaled, ⅓ inch across, in small clusters; appearing in early spring before the leaves

Fruit: Berry-like, bright yellow to red, ⅓ to ½ inch across, flesh juicy and edible; ripening in late summer

Bark: At first smooth and reddish with many long light pores, later developing cracks and splits and becoming rough, scaly and shallowly furrowed

Twigs: Slender, bright reddish brown, with a flaking grayish film; may have thorn-like spurs; buds small and reddish with loose scales; clusters of flower buds often present; leaf scars raised

Did You Know? A related small shrubby tree, American plum (*Prunus americana*) occurs statewide but is not common. Fruits of both species are edible and are a favorite of raccoons, foxes and many other birds and mammals.



Illustrated by Juliette Watts

NATIVE SHRUBS

Choke Cherry

Prunus virginiana L.

Form: Large shrub or small tree to 25 feet tall, often forming thickets

Common Range: Mountains

Habitat: Dry woodlands and rocky areas

Leaves: Alternate, simple, oblong to nearly oval, 2 to 4 inches long; edges very finely toothed; dark green above and paler below; tiny glands on leaf stem

Flowers: White, in a 3 to 6 inch drooping spike; appearing after leaves in spring

Fruit: Dark red to purple, berry-like, ⅓ inch across, arranged along a spike; maturing in late summer

Bark: Smooth, gray-brown, with conspicuous dots that develop into shallow fissures; shallowly peeling, curling layers on young stems

Twigs: Slender, light brown to gray, with a strong unpleasant odor when broken or scratched; buds ⅓ inch long, covered with brownish scales

Did You Know? Most parts of the plant, including the seeds, are poisonous if eaten. The fruit pulp alone is not toxic and is often made into jam.



Illustrated by Juliette Watts

NATIVE SHRUBS

Pasture Rose

(Carolina Rose)

Rosa carolina L.

Form: Colony-forming shrub 2 to 6 feet tall

Common Range: Coastal Plain, Piedmont, Mountains

Habitat: Upland woods, edges, old fields and other openings

Leaves: Alternate, pinnately compound with 3 to 9 (often 5) elliptical leaflets; leaflet edges toothed; a leaf-like flap tinged with pink is attached at the leaf base; dark green and often shiny above

Flowers: 5-petaled, pink, fragrant, 1 to 2 inches across; blooming late spring to early summer

Fruit: Round, red, apple-like "hips," ½ inch across; ripening in late summer to fall

Bark: Green on young stems; later brown, with scattered straight prickles

Twigs: Green when young; later brown, with scattered straight prickles

Did You Know? The related swamp rose (*Rosa palustris*) is common in wetlands throughout the Coastal Plain, Piedmont and parts of the mountains. Many non-native rose species have escaped cultivation and may be found statewide, especially around old home sites.



Illustrated by Rachel Figley

NATIVE SHRUBS

Blackberry

Rubus L. (multiple species)

Form: Sprawling and arching or erect canes, often forming dense thickets, 3 to 10 feet tall depending on species

Common Range: Coastal Plain, Piedmont, Mountains (varies by species)

Habitat: Roadsides, wood edges, old fields, forest openings

Leaves: Alternate, palmately compound, with 3 to 5 lance-shaped to oval leaflets; leaflet edges toothed; leaf stems prickly

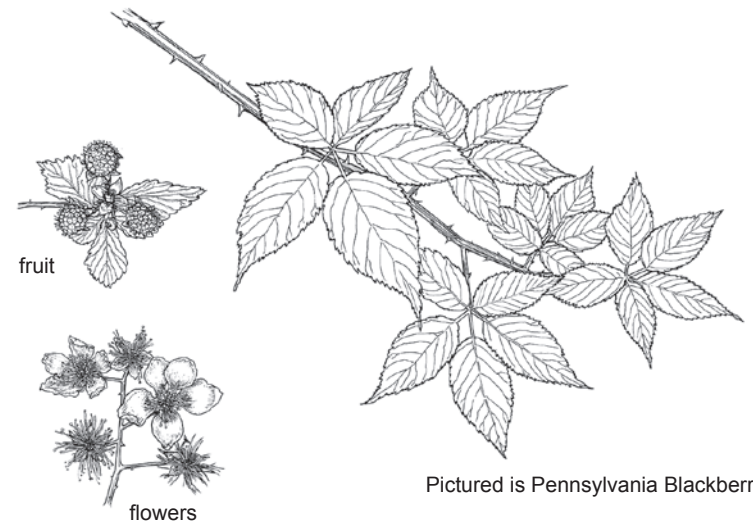
Flowers: Showy, white, about one inch across; appearing in clusters in late spring to early summer

Fruit: Edible, juicy, black, fleshy clusters, about ½ inch long, not separating from the base when picked; ripening in summer

Bark: Dull reddish brown to purple, darkest on older canes

Twigs: Green to purple- or red-brown, some species with a whitish cast (bloom); often angular, with large hooked or almost straight prickles

Did You Know? Blackberry fruits are a favorite of people, birds and other wildlife. The most common Virginia species are Pennsylvania blackberry (*Rubus pensilvanicus*), common dewberry (*Rubus flagellaris*) and swamp or bristly dewberry (*Rubus hispidus*). In addition, Allegheny blackberry (*Rubus allegheniensis*) is common in the higher mountains, and sand blackberry (*Rubus cuneifolius*) is common in the Coastal Plain.



Pictured is Pennsylvania Blackberry

Illustrated by Juliette Watts

NATIVE SHRUBS

Black Raspberry

Rubus occidentalis L.

Form: Arching stems 3 to 5 feet tall, often forming dense, tangled thickets

Common Range: Coastal Plain, Piedmont, Mountains

Habitat: Forest edges, roadsides, fields

Leaves: Alternate, palmately compound, 3 to 5 inches long and wide, with 3 to 5 leaflets; leaflet edges toothed; small prickles on leaf stems; light green above and much paler below

Flowers: Small, greenish white, 5-petaled, not showy; appearing in late spring

Fruit: Edible, juicy, black, fleshy cluster, ½ inch across, separating cleanly from the base when picked; ripening in mid summer

Bark: Deep purplish red, prickly

Twigs: Arching “canes” which generally live 2 years, rooting easily at the tips when they touch the ground; purplish-red with a white cast or “bloom” and hooked prickles

Did You Know? Another species, purple-flowering raspberry (*Rubus odoratus*) is common in the mountains. It has simple, palmately lobed (maple-like) leaves, no thorns and attractive deep pink to purple flowers.



Illustrated by Rachel Figley

NATIVE SHRUBS

Steeplebush

(Hardhack)

Spiraea tomentosa L.

Form: Small shrub with few branches, usually 2 to 4 feet tall

Common Range: Coastal Plain

Habitat: Moist, acidic soils of wetlands, ditches, edges

Leaves: Alternate, simple, somewhat thickened, oval to elliptical, 1 to 2½ inches long, veins obvious; edges coarsely toothed; dark green above, whitish or rusty and fuzzy below

Flowers: Small, 5-petaled, pink or occasionally white, in dense spike-like clusters; blooming mid to late summer

Fruit: Small, brown capsules that split into 5 parts, in dense clusters; maturing in fall

Bark: Smooth, reddish brown, later peeling off in fine strips

Twigs: Slender, angular, fuzzy, yellowish brown, mostly unbranched and “wand-like”

Did You Know? A related species, dwarf spiraea (*Spiraea corymbosa*), can be found in the mountains. Several other species are less common to rare, and a few non-natives can also be found in Virginia. Spiraeas are often visited by butterflies and other insects.



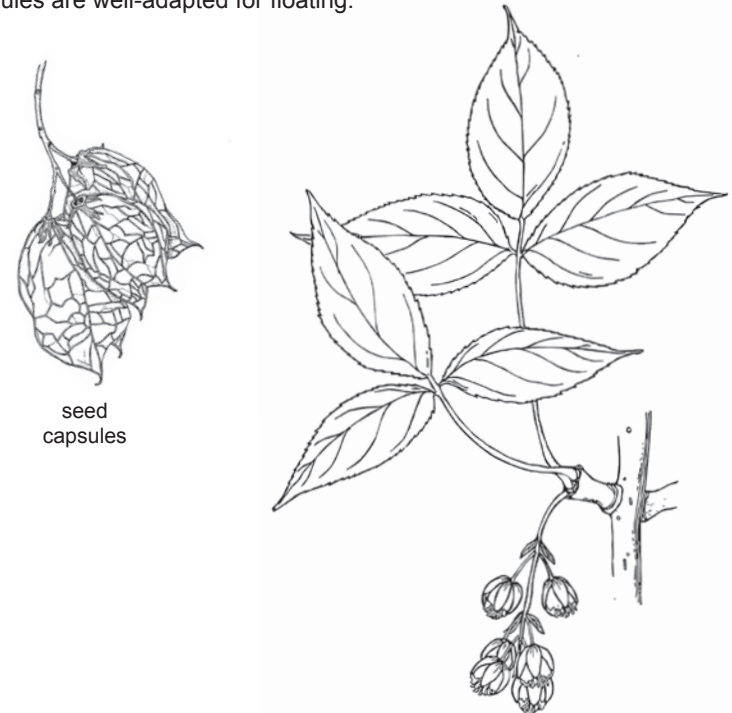
Illustrated by Juliette Watts

NATIVE SHRUBS

Buttonbush*Cephalanthus occidentalis* L.**Form:** Large, many-branched shrub or small tree to 15 feet tall**Common Range:** Coastal Plain, Piedmont, Mountains**Habitat:** Swamps, marshes, floodplain pools and other wetlands**Leaves:** Opposite or whorled, simple, elliptical, 3 to 5 inches long; edges smooth, with a pointed tip**Flowers:** Small, white, tubular, in dense round 1 inch "balls" on slender 1 to 2 inch stalks; blooming in mid-summer**Fruit:** Round cluster of ¼ inch dark brown nutlets; maturing in late summer to fall**Bark:** Thin and smooth on young stems, becoming fissured and scaly with age**Twigs:** Slender to somewhat stout, dark reddish brown with lighter, elongated dots; lateral buds small and embedded in bark; leaf scars D-shaped or nearly round, with one U-shaped bundle scar; twig tips typically die back**Did You Know?** Wintering waterfowl often eat buttonbush seeds. The fragrant flowers attract hummingbirds and many nectar-feeding insects.

Illustrated by Juliette Watts

NATIVE SHRUBS

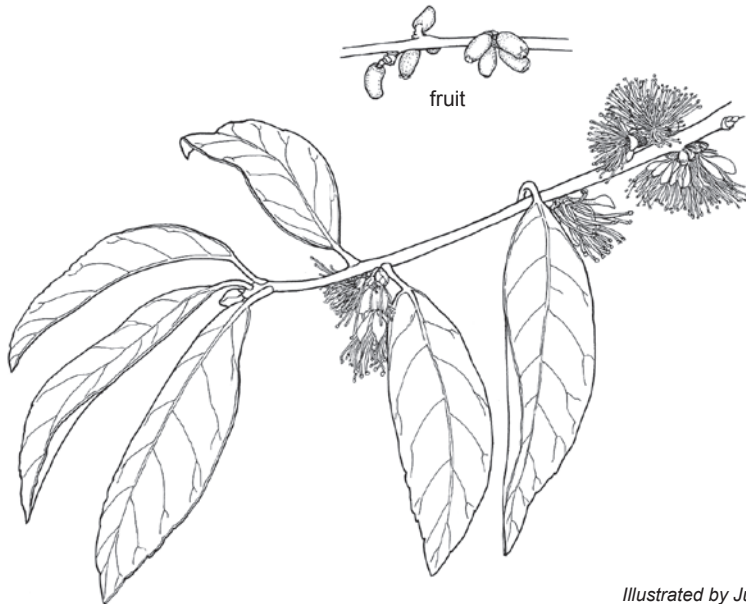
Bladdernut*Staphylea trifolia* L.**Form:** Shrub or small tree, up to 15 feet tall, often forming thickets**Common Range:** Piedmont, Mountains**Habitat:** Streamsides and moist slopes; often on limestone soils**Leaves:** Opposite, pinnately compound with 3 (rarely 5) oval 2- to 4-inch leaflets; leaflet edges toothed**Flowers:** Greenish white, bell-shaped and small, on dangling 2-inch long clusters; appearing in spring**Fruit:** Unique 1½ inch, 3-lobed, papery capsule that looks inflated; the inflated bag contains several hard, small brown seeds; maturing in September**Bark:** Greenish gray, with shallow white furrows**Twigs:** Slender, green to brown, with a large white pith; buds brown, 4-scaled, egg-shaped and may be stalked**Did You Know?** This shrub's seeds are often transported by water; the papery, air-filled capsules are well-adapted for floating.

Illustrated by Rachel Figley

NATIVE SHRUBS

Sweetleaf

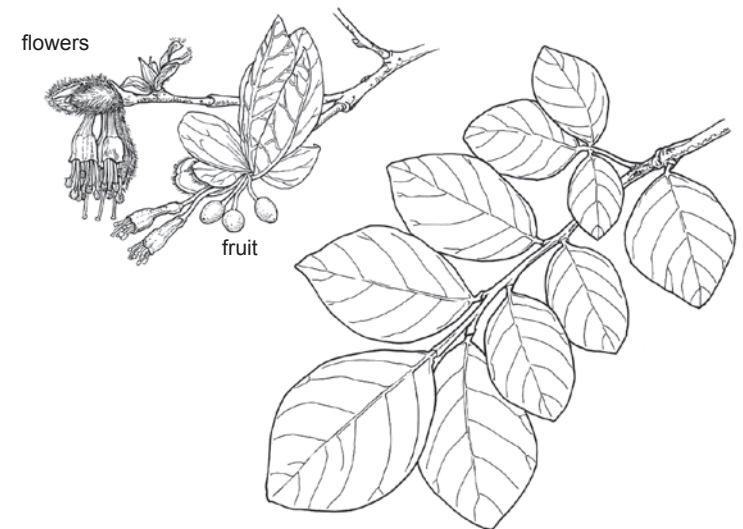
(Horse Sugar)

Symplocos tinctoria (L.) L'Heritier de Brutelle**Form:** Large shrub or small tree to 30 feet tall, with up-curving branches**Common Range:** Coastal Plain**Habitat:** Moderate to dry forests, higher spots in swamps and wet woodlands, especially in sandy soils**Leaves:** Tardily deciduous; alternate, simple, thickened, oblong to elliptical, broadest near or above middle, 2 to 6 inches long; edges smooth or very slightly toothed; shiny green above, yellow-green below; remaining on tree far into autumn; green apple smell when crushed**Flowers:** Small, white with many stamens, in round clusters like fuzzballs; appearing before leaves in spring**Fruit:** ½ inch long, egg-shaped, berry-like, orange-brown; maturing in late summer**Bark:** Grayish green or brown; at first smooth, later developing warts and shallow splits**Twigs:** Medium sized, reddish brown, pith divided into hollow chambers; leaf scar with one bundle scar; buds large and sharp pointed, with fringed scales**Did You Know?** Sweetleaf often develops fleshy, distorted but mostly harmless growths called galls. These are caused by a fungus that attacks the buds.

Illustrated by Juliette Watts

NATIVE SHRUBS

Leatherwood

Dirca palustris L.**Form:** Medium shrub to 6 feet tall**Common Range:** Piedmont, Mountains**Habitat:** Rich woods and floodplains, rocky areas; prefers limestone soils**Leaves:** Alternate, simple, elliptical, 1½ to 3½ inches long, slightly fuzzy when young but soon becoming smooth; edges smooth**Flowers:** Tubular, pale yellow, ⅓ inch long, in groups of 2 or 3 from leaf axils; appearing in spring**Fruit:** Berry-like, egg-shaped, ⅓ inch long, yellow-green to red; ripening in summer**Bark:** Pale gray-brown, sometimes with a golden tone; smooth with some elongated pores**Twigs:** Greenish-brown, jointed, swollen and often spurred at points of leaf attachment, aromatic when broken, very flexible and hard to break off the plant**Did You Know?** The bark of leatherwood causes a skin rash in some people.

Illustrated by Juliette Watts

NATIVE WOODY VINES

NATIVE WOODY VINES

Poison Ivy

Toxicodendron radicans (Linnaeus) Kuntze

Form: Creeping or high-climbing vine with aerial roots, or small shrub

Common Range: Coastal Plain, Piedmont, Mountains

Habitat: Variable; many types of forests, edges and open areas

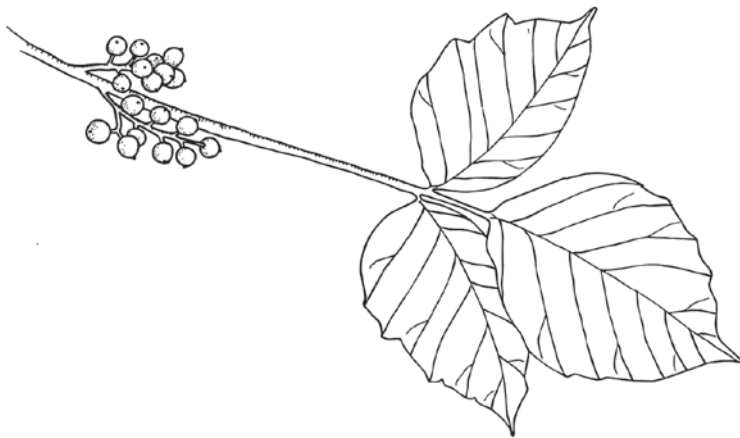
Leaves: Alternate, compound, 7 to 10 inches long, with 3 oval, large-toothed or wavy-edged leaflets; shiny green above and paler below; toxic on skin contact

Flowers: Small, yellowish green, in clusters; appearing in late spring to early summer

Fruit: Greenish white, round, ¼ inch in diameter, in hanging clusters; ripening in late summer and persisting through winter

Stems: Slender, gray- to red-brown, smooth or slightly fuzzy; older stems may be quite thick and covered with aerial roots, giving the vine a hairy appearance; buds pointed, stalked, naked (folded leaves), ¼ inch long

Did You Know? All parts of this plant are toxic, causing an itchy skin rash, thanks to an oily substance called urushiol that is also found in other members of the genus. Poison oak (*Toxicodendron pubescens*) is common in sandy soils of the Coastal Plain. It is a suckering shrub (not a vine) with lobed, fuzzy leaflets in groups of 3. Poison sumac (*Toxicodendron vernix*) is a shrub or small tree of wet areas in the Coastal Plain. Its compound leaves have 7 to 13 leaflets.



Illustrated by Rachel Figley

NATIVE WOODY VINES

Dutchman's Pipe

(Pipevine)

Isotrema macrophyllum (Lamarck) C.F. Reed

Form: High-climbing, twining vine

Common Range: Mountains

Habitat: Mountain forests, especially in moist alkaline soils

Leaves: Alternate, simple, heart shaped, 5 to 10 inches long; edges smooth; leaf stems quite long and often curved

Flowers: Unique, tubelike, curved nearly to a U shape, brownish purple and green, up to 2 inches long; appearing in early summer

Fruit: Six-sided pod, 2 inches long; brown when ripe in September

Stems: Slender, green at first, turning brown and fairly smooth, but later developing shallow vertical splits; leaf scars U-shaped, wrapping around small, clustered, wooly buds

Did You Know? Caterpillars of the pipevine swallowtail butterfly feed on this plant. The pipe-shaped flowers attract and trap flies, later releasing them to visit other flowers with a coating of pollen.



Illustrated by Juliette Watts

NATIVE WOODY VINES

Trumpet Creeper

(Trumpet Vine, Cow-Itch Vine)

Campsis radicans (Linnaeus) Seemann ex Bureau

Form: Scrambling or high-climbing vine

Common Range: Coastal Plain, Piedmont, Mountains

Habitat: Fencerows, old fields and many types of forests

Leaves: Opposite, pinnately compound, 5 to 13 inches long, with 7 to 11 coarsely toothed 1- to 3-inch leaflets, often shiny

Flowers: Attractive, orange to red, tubular, 2 to 3 inches long, in clusters; appearing in late summer

Fruit: Dry pod, 3 to 6 inches long, containing many winged seeds; ripening in early fall

Stems: At first green, becoming light brown and smooth, and later scaly with rows of pale tan aerial roots; leaf scars sunken; buds small

Did You Know? Some people get an itchy skin rash from contact with this plant. The orange tubular flowers attract hummingbirds.



Illustrated by Rachel Figley

NATIVE WOODY VINES

Cross-Vine

Bignonia capreolata L.

Form: High-climbing, twining vine with tendrils

Common Range: Coastal Plain, Piedmont

Habitat: Forests, from wet lowlands to dry uplands

Leaves: Evergreen (or nearly so); opposite, compound with only two leaflets and a branched tendril at the end, oval to lance-shaped, 3 to 5 inches long; edges smooth; dark green in summer, bronze red in winter

Flower: Attractive, tubular, flaring and spreading at the end, 2 inches long, reddish brown on the outside and orange to yellow on the inside; appearing in spring

Fruit: Slender, flat, brown capsule, 4 to 7 inches long, containing many winged seeds; maturing in late summer

Stems: Gray-brown, somewhat squared, revealing a cross pattern when cut in cross-section; many tendrils with suction cups on ends; bark becoming finely scaly with vertical splits

Did You Know? Hummingbirds are attracted to this vine's large, tubular flowers.



Illustrated by Juliette Watts

NATIVE WOODY VINES

Coral Honeysuckle

(Trumpet Honeysuckle)

Lonicera sempervirens L.

Form: Twining vine, scrambling or climbing to 15 feet

Common Range: Coastal Plain, Piedmont

Habitat: Various wet to dry forests, fencerows and edges

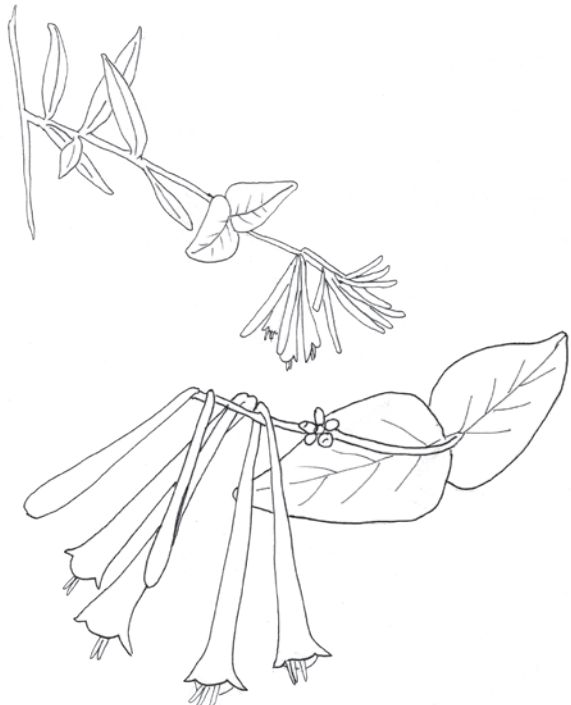
Leaves: Semi-evergreen; opposite, simple, oval to elliptical, 1 to 3 inches long; edges smooth; dark green above and whitish below; pairs of leaves just below flower clusters are fused into a circle, giving the appearance of a stem piercing a leaf

Flowers: Red, coral or orange, (occasionally yellow), slender, tubular, 1½ to 2 inches long, 5-lobed, in clusters at ends of shoots; appearing spring to summer

Fruit: Round, red, berry-like, ¼ inch across; ripening in early fall

Stems: Slender, tan, smooth on young stems and peeling on older ones

Did You Know? The flowers are a favorite nectar source for hummingbirds. Unlike the related Japanese honeysuckle (*Lonicera japonica*), this vine is easily controlled and often planted ornamentally.



Illustrated by Diana McFarland

NATIVE WOODY VINES

American Bittersweet

Celastrus scandens L.

Form: Twining, high-climbing woody vine, with some stems reaching several inches across

Common Range: Mountains

Habitat: Dry to moderately moist forests and rocky areas

Leaves: Alternate, simple, elliptical to oval with a pointed tip, 2 to 5 inches long; edges finely toothed

Flowers: Small, pale yellowish-green, in clusters at branch tips only; appearing in late spring; males and females usually on separate plants

Fruit: Attractive round capsules, ⅓ inch across, in clusters at stem tips only; orange to yellow-orange when ripe, splitting to expose a bright red seed surrounded by orange scales; ripening in fall and visible throughout winter

Stems: Twining, light brown, with small pointy buds at nearly right angles to the stems; bark brown and smooth at first, becoming corky with diamond-shaped patterns, and much later becoming finely scaly

Did You Know? A related species from Asia, Oriental bittersweet (*Celastrus orbiculatus*), is a serious invasive pest in the Piedmont and mountains. It can be identified by its rounded leaves and fruit clusters all along the stems rather than only at the tips.



Illustrated by Juliette Watts

NATIVE WOODY VINES

Carolina Jessamine

(Yellow Jessamine)

Gelsemium sempervirens St. Hilaire**Form:** Twining vine that scrambles over bushes and fences, becoming quite dense in full sun**Common Range:** Coastal Plain**Habitat:** Sandy forests and wet woods**Leaves:** Evergreen, opposite, simple, oblong to lance-shaped with a sharp tip, 1 to 3 inches long; edges smooth**Flowers:** Very attractive, fragrant, bright yellow, trumpet-shaped with five short rounded lobes, 1 inch long, single or in small clusters; appearing early spring**Fruit:** Somewhat flattened 1-inch capsules; appearing in summer**Stems:** Slender, tough, wiry, green or reddish brown; bark brown to reddish brown, becoming fissured and somewhat fluted**Did You Know?** Carolina jessamine is considered a “well-behaved” vine and is often grown as an ornamental. All parts of the plant are poisonous if eaten.

Illustrated by Juliette Watts

NATIVE WOODY VINES

Climbing Hydrangea

(Woodvamp)

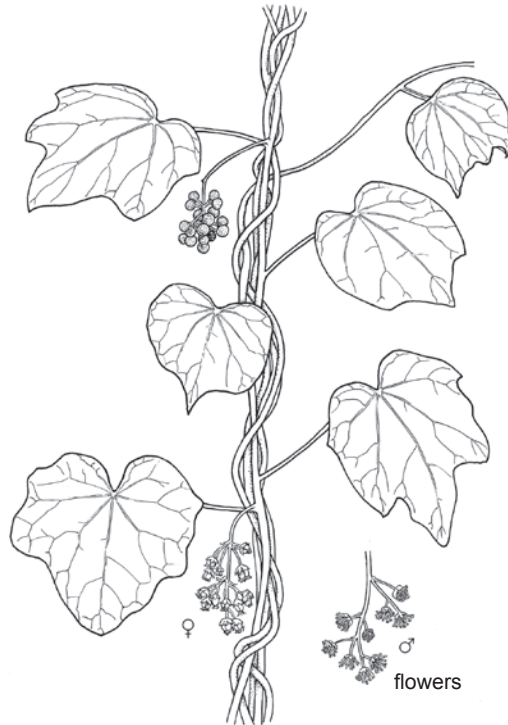
Decumaria barbara L.**Form:** Vine climbing to 40 feet, clinging by aerial roots**Common Range:** Coastal Plain**Habitat:** Swamps, floodplains and other moist lowland forests**Leaves:** Opposite, simple, elliptical, oval, 3 to 6 inches long; edges smooth or with a few teeth; shiny dark green above and paler below**Flowers:** Small, creamy white, fragrant, in round 2- to 4-inch clusters at stem ends; appearing in late spring**Fruit:** Dry, brown, urn-shaped, ribbed capsules, ¼ to ½ inch long; ripening in late summer**Stems:** Slender, greenish brown to gray-brown; older stems may be reddish and covered with thin aerial roots; leaf scars narrow and crescent shaped; buds red and hairy**Did You Know?** This vine will not bloom when growing as a ground cover, but only when allowed to climb.

Illustrated by Juliette Watts

NATIVE WOODY VINES

Common Moonseed

(Canada Moonseed)

Menispermum canadense L.**Form:** Twining woody vine climbing to 15 feet**Common Range:** Piedmont, Mountains**Habitat:** Moist to dry forests, usually on alkaline soils**Leaves:** Alternate, simple, 4 to 8 inches, rounded to somewhat heart-shaped, often with several shallow lobes or angles; edges smooth; leaf stem attached to bottom of leaf, near but not at the leaf base**Flowers:** Small, white, in clusters on a stalk attached to the stem just above a leaf; males and females on separate stalks; appearing in late spring to summer**Fruit:** Round, berry-like, ¼ to ½ inch across; dark blue to black when ripe, often with a whitish cast; seed shaped like a crescent moon**Stems:** Slender, grooved, green at first, becoming tan to brown**Did You Know?** All parts of this plant are poisonous if eaten.

Illustrated by Juliette Watts

NATIVE WOODY VINES

Virgin's Bower

(Devil's Darning Needles)

Clematis virginiana L.**Form:** Vine, scrambling or climbing to 20 feet**Range:** Piedmont, Mountains**Habitat:** Dry to moderate forests, field edges, roadsides**Leaves:** Opposite, compound with 3 (usually) to 5 oval, pointy-tipped leaflets; edges coarsely toothed and sometimes lobed**Flowers:** White, ½ inch across, with a spiky appearance and 4 petal-like sepals, unscented, in large clusters; appearing in late summer**Fruit:** Small, dry brown seeds with long white plumes, in large fuzzy clusters; ripening in early fall**Stems:** Angular, green turning light brown, smooth to slightly fuzzy; older stems splitting and shredding**Did You Know?** Several other native Clematis vines are found in Virginia, but they are perennials that resprout from roots rather than woody stems each spring. An introduced woody species, sweet autumn clematis (*Clematis terniflora*), is invasive in some areas.

Illustrated by Betty Gatewood

NATIVE WOODY VINES

Supplejack

(American Rattan)

Berchemia scandens L.**Form:** Twining, high-climbing woody vine, with main stems up to 7 inches across**Common Range:** Coastal Plain**Habitat:** Swamps, floodplain and upland forests, dune scrublands**Leaves:** Alternate, simple, elliptical, 2 to 4 inches long, with very obvious straight veins; edges finely toothed or smooth**Flowers:** Small, light green, in small clusters; appearing late spring to early summer**Fruit:** Oblong, berry-like, ¼ inch long; dark blue when ripe**Stems:** Slender, smooth, mottled with gray, brown, red and green; leaf scars raised; buds small, sharp, and pressed closely to the twigs**Did You Know?** Yellow-bellied sapsuckers often drill rows of holes into the older stems of this vine. The smaller stems can be used to make wicker baskets and other woven items.

Illustrated by Juliette Watts

NATIVE WOODY VINES

Virginia Creeper

(Woodbine)

Parthenocissus quinquefolia (Linnaeus) Planchon**Form:** Ground-covering or climbing vine that may reach 50 feet**Common Range:** Coastal Plain, Piedmont, Mountains**Habitat:** Various wet to dry, open to forested habitats**Leaves:** Alternate, palmately compound, 4 to 8 inches across, with 5 elliptical leaflets; edges coarsely toothed to wavy**Flowers:** Small, green, not showy, in clusters on long reddish stems; appearing in summer**Fruit:** Blue-black berry, ¼ inch across, in long-stemmed clusters; maturing in late summer**Stems:** Slender and light brown, with many reddish dots; tendrils ending in adhesive pads are opposite the buds; buds broadly cone-shaped with orange-brown scales; leaf scars nearly round and sunken; older vines gray-brown, appearing coarsely hairy due to aerial roots and tendrils; young aerial roots are bright orange-brown**Did You Know?** Virginia creeper is in the grape family, but its fruits are not edible by humans. They are, however, eaten by many types of birds and wildlife.

Illustrated by Rachel Figley

NATIVE WOODY VINES

Wild Grape

Vitis L. (multiple species)

Form: High-climbing vine with tendrils

Common Range: Coastal Plain, Piedmont, Mountains

Habitat: Variable; many types of forests and edges

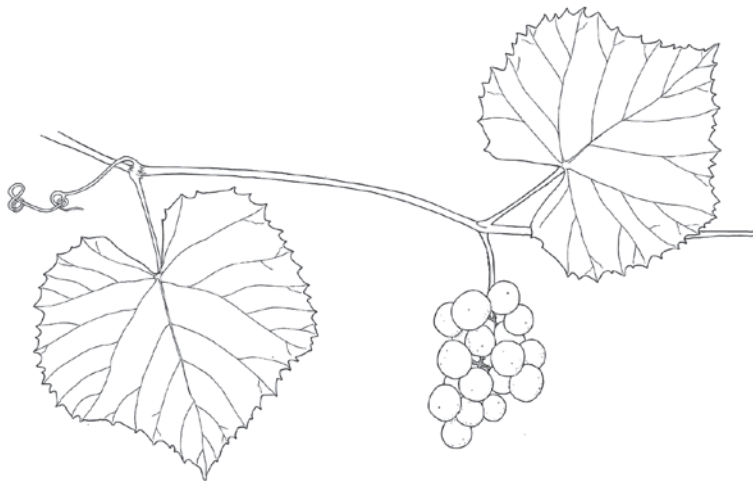
Leaves: Alternate, simple, generally heart-shaped to round, 3 to 6 inches long; edges toothed; often lobed in some species; green above, variable below depending on species

Flowers: Green to greenish-white, small, in elongated clusters; appearing in late spring

Fruit: Round berry, varying in size and color by species, ¼ to 1 inch across, in clusters; dark blue, purple, black, reddish, or bronze, sometimes with a whitish "bloom," when mature in fall

Stems: Rounded to angular; buds rounded; tendrils branched or simple, opposite the leaves, older stems reddish to greenish brown, developing long splits and usually peeling in narrow strips

Did You Know? The edible fruit is prized by humans and many species of birds and wildlife. Common species include summer grape (*Vitis aestivalis*), possum grape (*Vitis cinerea*), fox grape (*Vitis labrusca*), riverbank grape (*Vitis riparia*), muscadine grape (*Vitis rotundifolia*) and frost grape (*Vitis vulpina*).



Pictured is Fox Grape

Illustrated by Rachel Figley

NATIVE WOODY VINES

Greenbrier

Smilax L. (multiple species)

Form: Vine, usually prickly, sprawling or climbing by tendrils, sometimes forming impenetrable thickets

Common Range: Coastal Plain, Piedmont, Mountains

Habitat: Variable, many types of forests and edges

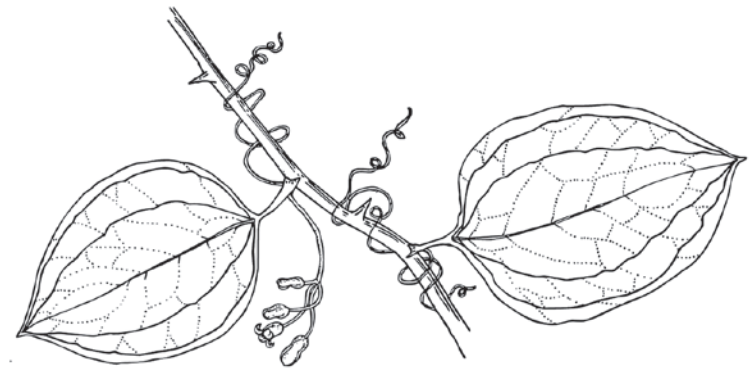
Leaves: Evergreen or deciduous and variable by species; alternate, simple, main veins parallel; elliptical, oblong, rounded, heart-shaped, or 3 lobed; 2 to 5 inches long, edges smooth or with small sharp prickles

Flowers: Small, yellow-green, in clusters; appearing in late spring to summer

Fruit: Round berry, ¼ inch across; dark blue, black or red, often with a whitish "bloom"; in clusters; maturing in late summer and often remaining through winter

Stems: Stout, tough, often 4-angled, usually with many scattered, stiff prickles; climbing by tendrils; green for a long period of time, turning brown on old stems

Did You Know? The berries are an important food for songbirds and other wildlife, and the tender shoots are heavily browsed by deer. Not all species are woody; the most common woody species are catbrier (*Smilax bona-nox*), sawbrier (*Smilax glauca*), bristly greenbrier (*Smilax hispida*), laurel-leaf greenbrier (*Smilax laurifolia*), bullbrier (*Smilax rotundifolia*) and coral greenbrier (*Smilax walteri*).



Pictured is Bullbrier

Illustrated by Rachel Figley

NON-NATIVE INVASIVE SPECIES

NON-NATIVE INVASIVE SPECIES

From mountains to sea, and from cityscape to countryside, Virginia's landscape is a mosaic of native and non-native plants. Some non-native species are beneficial and cause no problems. Others become invasive. An invasive species is one that is not native and causes or is likely to cause economic, health-related or environmental harm.

Native ecosystems maintain a balance of interactions among plants, animals and nonliving components, such as soil and water. Introducing a new species can upset that balance, causing effects that ripple through the entire natural community. For example, displacement of native plants can cause declines in the wildlife species that depend on them. Invasive plants can crowd out economically important species, such as native oaks. They might serve as carriers for diseases that attack native plants. They can also reduce an area's biodiversity of plants and the animals that depend on them. Invasive plants can even change the hydrology or alter soil chemistry in an area.

Some invasive plants arrived here by accident, usually by seeds "hitchhiking" in soil or on people or animals. Others have been planted for special purposes, such as attractive flowers or livestock forage. No one fully understands why some non-native plants become invasive and others do not. We do know that invasive plants tend to have the following characteristics:

- ▲ Rapid growth and maturity
- ▲ Prolific seed production and effective dispersal, and/or the ability to spread vegetatively
- ▲ Few or no natural predators or diseases to keep them in check in a new area
- ▲ Traits which limit competition from other plants, such as allelopathic chemicals, dense roots or the ability to shade out other species.

The 10 shrubs and vines described in detail in this book are only the tip of the iceberg when it comes to Virginia's invasive plants. Many other shrubs and vines are moderately to occasionally invasive, and the status of each one is constantly changing. In addition, an alarming number of other plants, animals, insects and diseases have also become invasive. Unfortunately, the number of invasive species is increasing as global travel becomes easier and more common.

How can you stop the spread of invasive species?

- ▲ Learn to identify invasive species. The websites listed in this book's bibliography are good sources of information.
- ▲ Don't plant any species known to be invasive.
- ▲ If you have invasive plants on your property, get rid of them. Your local Extension Office or Department of Forestry Office can provide information on how to remove problem plants and suggest alternative species to plant.
- ▲ Be careful not to move pieces of plants or seeds into new areas – either purposely, by picking them, or accidentally, on your shoes or clothing.
- ▲ Spread the word about invasive species. Teach others what you have learned, and encourage them to take action as well.

NON-NATIVE INVASIVE SPECIES

Japanese Honeysuckle

INVASIVE

Lonicera japonica Thunberg

Native to Japan

Form: Scrambling or high-climbing, twining vine, sprouting from roots to form dense thickets

Habitat: Almost all types of forests, edges and open areas

Leaves: Semi-evergreen; opposite, simple, oval, 1 to 2 inches long, edges smooth, sometimes lobed, somewhat fuzzy, green above and lighter below

Flowers: White or yellowish-white, ½ to 1 inch long, tubular with 5 flaring petal lobes, in pairs from leaf bases, fragrant, appearing in late spring

Fruit: Round, shiny black berry, ¼ inch across, often in pairs, ripening in fall and lasting into winter

Stems: Twigs slender, light brown, fuzzy when young, developing scaly, thin bark, pith hollow; old stems to 2 inches across, reddish-brown to straw-colored, developing cracks and peeling in long strips, no tendrils or aerial roots present

Did You Know? A native of Japan, this vine was introduced more than 200 years ago as a landscape plant and for erosion control.



Illustrated by Rachel Figley

NON-NATIVE INVASIVE SPECIES

Bush Honeysuckles

INVASIVE

Lonicera L. (several species)

Native to Asia

Form: Multi-stemmed, often arching, shrubs or small trees, to 20 feet tall

Habitat: Various open woodlands, edges, fields and other disturbed areas, often near former home sites

Leaves: Opposite, simple, oval to oblong, 1 to 4 inches long, edges smooth, some species fuzzy on undersides

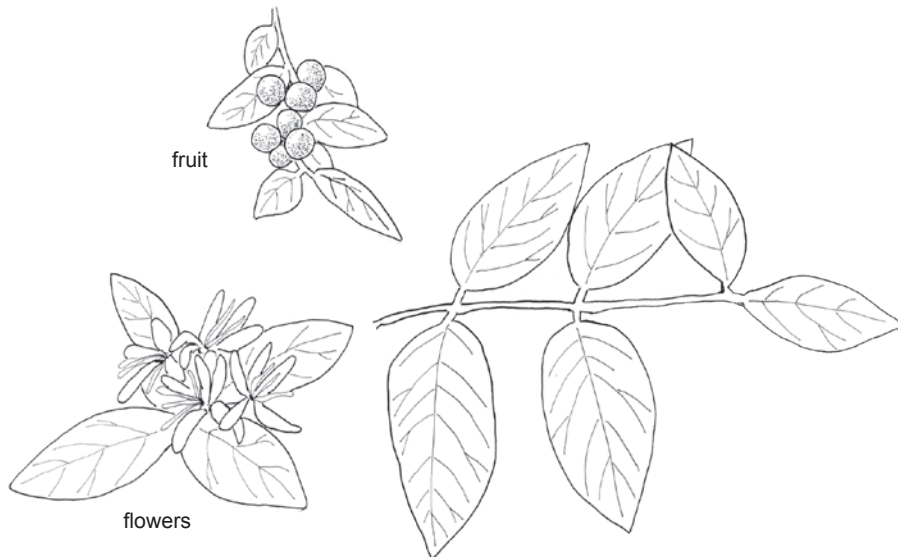
Flowers: White to yellow, or pink to red, depending on species; $\frac{3}{4}$ to 1 inch long, tubular with 5 slender, flaring petal lobes, fragrant, appearing in late winter to early summer

Fruit: Juicy, shiny, red, orange or yellow berry, $\frac{1}{4}$ inch across, in pairs at leaf bases, appearing in summer and often lasting into winter

Bark: Grayish brown, flaking or developing long cracks and scaly ridges

Twigs: Slender, opposite branched, grayish brown, hollow pith but solid brown at the nodes

Did You Know? Natives of Asia, several species of bush honeysuckle were planted in the past for wildlife and landscaping. Common invasive species include Morrow's honeysuckle (*Lonicera morrowii*), Amur honeysuckle (*Lonicera maackii*) and Tatarian honeysuckle (*Lonicera tatarica*).



Pictured is Morrow's Honeysuckle

Illustrated by Diana McFarland

NON-NATIVE INVASIVE SPECIES

Oriental Bittersweet

INVASIVE

Celastrus orbiculatus Thunberg

Native to Asia

Form: High-climbing vine, with an open, spiraling pattern

Habitat: Well-drained forests, edges, clearings and other disturbed areas

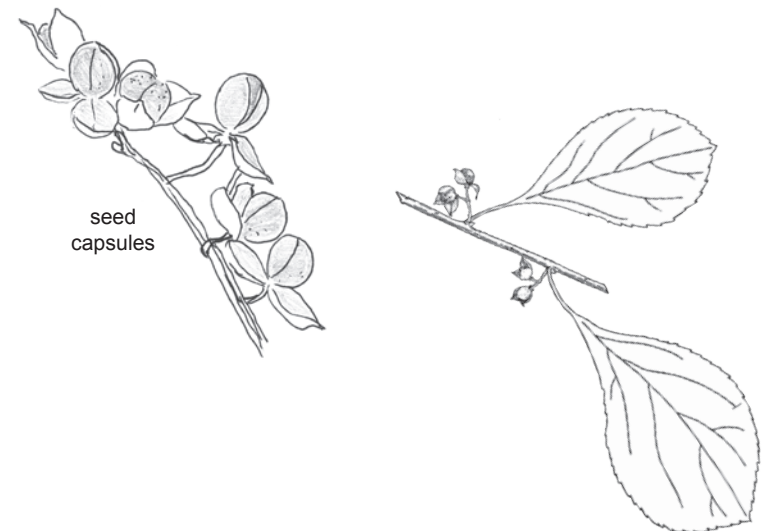
Leaves: Alternate, simple, oval to nearly round, 2 to 4 inches long, often blunt-tipped, edges finely toothed with somewhat rounded teeth, green above and slightly paler below

Flowers: Tiny, pale yellowish-green, in clusters, appearing in late spring

Fruit: Round, $\frac{1}{3}$ inch orange capsule, splitting to expose bright red seeds, in clusters at leaf bases, ripening in fall and visible through the winter

Stems: Young stems silvery gray-brown and smooth, with small pointy buds at nearly right angles to the stems; older stems becoming corky with diamond-shaped patterns; the oldest stems may be several inches in diameter and finely scaly; no tendrils or aerial roots present

Did You Know? This Asian native is suspected to hybridize with American bittersweet (*Celastrus scandens*), which bears fruit only at the stem tips.



Illustrated by Rachel Figley and Ellen Powell

NON-NATIVE INVASIVE SPECIES

Winged Burning Bush

INVASIVE

Euonymus alata (Thunberg) Siebold

Native to Asia

Form: Multi-stemmed shrub with rounded crown, to 10 feet tall**Habitat:** Moderately moist forests and disturbed areas, especially near cities and suburbs**Leaves:** Opposite to sub-opposite, simple, elliptical to oval, 1½ to 3 inches long, edges finely toothed, turning bright red in the fall**Flowers:** Pale yellow-green, ½ inch across, in clusters of three, appearing in late spring**Fruit:** Rounded capsule, ¼ to ½ inch across, dark red outside, splitting open to reveal a bright orange-red, berry-like aril, ripening in early fall**Bark:** Gray to gray-brown, splitting to reveal a lighter inner bark, causing it to look faintly striped**Twigs:** Greenish brown with several corky “wings” on each stem; buds sharp pointed and reddish brown**Did You Know?** Burning bush gets its name from its brilliant red fall color, which has made it popular in the landscape trade. It is native to northeastern Asia. A related species, wintercreeper (*Euonymus fortunei*), is also invasive in some areas.

Illustrated by Rachel Figley

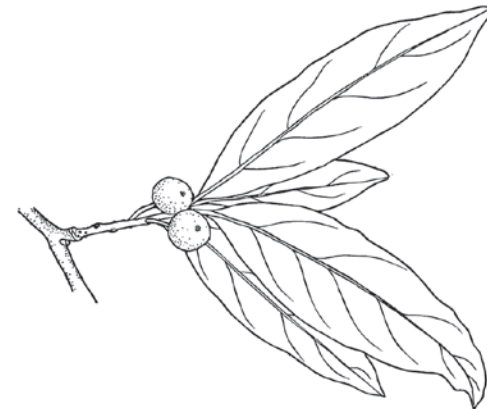
NON-NATIVE INVASIVE SPECIES

Autumn Olive

INVASIVE

Elaeagnus umbellata Thunberg

Native to Asia

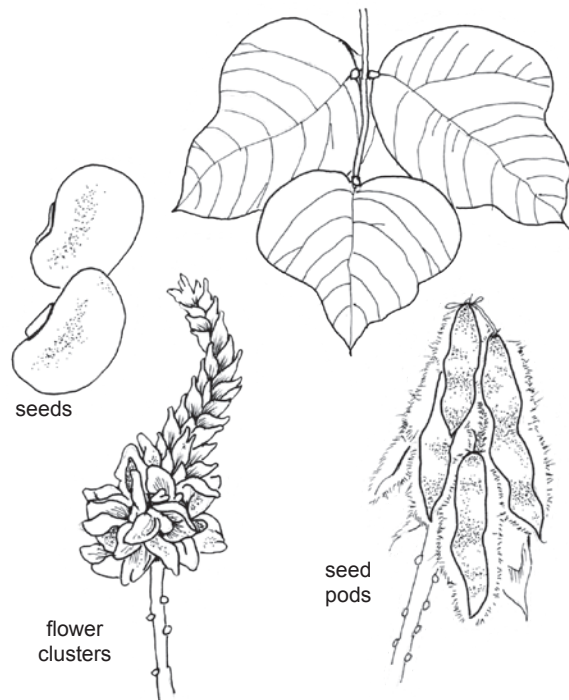
Form: Large, bushy shrub, to 15 feet tall**Habitat:** Various forest understories, edges and especially open areas**Leaves:** Alternate, simple, lance-shaped, 1 to 3 inches long, edges smooth to wavy, green above and silvery below**Flowers:** White to yellowish-white, trumpet-shaped with 4 lobes, ½ inch long, in small clusters, very fragrant, appearing in spring**Fruit:** Berry-like, red, dotted with silver scales, ¼ to ½ inch long, maturing in late summer to early fall**Bark:** Smooth and gray when young, becoming split and furrowed later**Twigs:** Young branches silvery and scaly, occasionally with spurs, later turning light brown; buds small, silvery-brown and rounded, covered with 4 scales**Did You Know?** Once recommended as a wildlife planting, autumn olive is native to eastern Asia. The berries are relished by birds, which spread the seeds in their droppings.

Illustrated by Rachel Figley

NON-NATIVE INVASIVE SPECIES

Kudzu*

INVASIVE

Pueraria montana (Lour.) MerrittNative to China
and Japan**Form:** High climbing and sprawling vine, often completely covering trees and buildings**Habitat:** Roadsides, openings and other disturbed areas**Leaves:** Alternate, compound, 6 to 8 inches long with a very long leaf stem, 3 fuzzy leaflets 3 to 4 inches long, oval or nearly heart shaped, sometimes lobed**Flowers:** Large hanging clusters of pea-like, purple to red flowers with an “artificial grape” smell, appearing in mid-summer**Fruit:** Dark brown, flattened, hairy pods in clusters, ripening in the fall**Stems:** Velvety hairy turning brown and smooth, eventually becoming finely scaly**Did You Know?** A native of China and Japan, kudzu was introduced for erosion control and livestock feed. Its growth rate is phenomenal, reaching 100 feet in a single growing season.**Technically a perennial vine, but included here because of its growth habit*

Illustrated by Diana McFarland

NON-NATIVE INVASIVE SPECIES

Chinese Privet

INVASIVE

Ligustrum sinense LoureiroNative to India
and China**Form:** Large, dense, thicket-forming shrub or small tree, to 20 feet tall**Habitat:** Forest understories, particularly in bottomlands; also edges, fencerows, fields and other disturbed areas**Leaves:** Semi-evergreen; opposite, simple, oval to elliptic, 1 to 1½ inch long, edges smooth, green above, lighter and slightly fuzzy below, especially along mid-vein**Flowers:** White, small, bell-shaped, in dense, elongated clusters, fragrant, appearing in late spring**Fruit:** Egg-shaped, berry-like, less than ¼ inch across, dark purple to black, ripening in late summer and often remaining on plant through winter**Bark:** Smooth, grayish brown, with lighter, raised pores**Twigs:** Slender, grayish green, fuzzy**Did You Know?** Native to China and India, this species was introduced as a landscape shrub, commonly pruned into hedges. Several related species have also escaped into the wild and are invasive in more localized areas. Privets are “planted” by birds, which eat the fruit and pass the seeds in their droppings.

Illustrated by Ellen Powell

NON-NATIVE INVASIVE SPECIES

Multiflora Rose

INVASIVE

Rosa multiflora Thunberg ex Murray

Native to Asia

Form: Sprawling, arching shrub, to 9 feet tall, forming dense thickets**Habitat:** Forest edges, fields, roadsides and other open areas**Leaves:** Alternate, pinnately compound, 3 to 5 inches long with 5 to 11 toothed leaflets, dark green above and paler below, comb-like leafy structures along base of leaf stems**Flowers:** White, 2 inches across, with 5 wedge-shaped petals, in clusters, fragrant, appearing in early summer**Fruit:** Red to reddish brown, ¼ inch, oblong, fleshy “hips”, ripening in late summer and remaining through the winter**Bark:** Brown, finely shreddy at base**Twig:** Green to greenish-red, long and arching, usually with paired, curved prickles, buds red, pointed**Did You Know?** In earlier days, multiflora rose was often planted in pastures to fence in livestock. It is native to Asia.

Illustrated by Rachel Rigley

NON-NATIVE INVASIVE SPECIES

Wineberry

INVASIVE

(Wine Raspberry)

Native to Asia

Rubus phoenicolasius Maximowicz**Form:** Arching canes 4 to 6 feet tall, often forming thickets**Habitat:** Upland forest understories, fields, edges, roadsides**Leaves:** Alternate, palmately compound, usually with 3 toothed leaflets, the middle one largest and heart-shaped, green above and white below, red hairs and small spines on leaf stems**Flowers:** Pointed, greenish sepals with reddish hairs, surrounding small, white petals, appearing in late spring to early summer**Fruit:** Juicy, red to orange-red, berry-like, may have fine hairs, separating cleanly when picked, ripening in mid summer**Stems:** Arching “canes” covered in red, gland-tipped hairs, initially green but later turning red, rooting at tips**Did You Know?** Wineberry has delicious, edible fruit. It is native to eastern Asia.

Illustrated by Diana McFarland

NON-NATIVE INVASIVE SPECIES

Porcelainberry

(Amur Peppervine)

INVASIVE

Native to Asia

Ampelopsis brevipedunculata (Maxim.) Trautvetter

Form: Climbing vine with tendrils, reaching 25 feet

Habitat: Disturbed forests, edges and streamsides

Leaves: Alternate, simple, 2 to 4 inches, heart-shaped or 3- to 5-lobed, edges coarsely toothed, leaf stems fuzzy

Flowers: Tiny, green, in clusters opposite the leaves, appearing in summer

Fruit: Hard, round berry, ¼ to ½ inch across, in clusters; green to yellow, lavender or bright blue, often with several colors in the same cluster; ripening in fall

Stems: Fuzzy when young, pith white, tendrils opposite leaves, bark light reddish-brown with lighter pores

Did You Know? Introduced for the landscaping, this vine is native to northeast Asia. Its seeds are spread by birds and are also thought to be carried by water, when berries float downstream. A native relative with compound leaves, peppervine (*Ampelopsis arborea*), is locally common in the Coastal Plain and lower Piedmont.



Illustrated by Rachel Figley

Project Learning Tree (PLT)

Virginia Project Learning Tree (PLT) offers workshops regularly throughout the state, where present and future educators can receive training in PLT's award-winning curriculum. At www.plt.org, there are more details about the PLT PreK-8 Environmental Education Activity Guide, early childhood materials, and our series of secondary modules:



Focus on Forests, Focus on Risk, Municipal Solid Waste, Places We Live, Forests of the World, Biodiversity, Biotechnology, and Southeastern Forest and Climate Change. Workshops are posted on the calendar of events at www.plt.org. The Virginia PLT Web site is <https://sites.google.com/site/pltvawebseite/>.

Virginia Master Naturalist Program

Virginia Master Naturalists are volunteers who provide education, outreach and service dedicated to the beneficial management of natural resources in their communities. Chapters exist in many localities, and new chapters may start at any time.

Virginia
Master
Naturalist



Certified Virginia Master Naturalists receive a minimum of 40 hours training in a wide variety of natural resource topics. They then devote a minimum of 40 hours per year to projects, which range from teaching others to building trails, and from improving habitats to performing research.

The Virginia Master Naturalist program is sponsored by seven Virginia state agencies: Department of Forestry, Department of Wildlife Resources, Department of Conservation and Recreation, Department of Environmental Quality, Museum of Natural History, Institute of Marine Science's Center for Coastal Resources Management, and Cooperative Extension.

For more information, visit www.virginiamasternaturalist.org.

GLOSSARY

Glossary

— A —

Acidic soil: Soil with a pH below 7

Alkaline soil: soil with a pH above 7

Alternate leaves: Leaves arranged singly in an alternating pattern along a twig

Aril: A fleshy seed coat

Axil: The angle between an attached leaf and the stem

— B —

Bark: The outer covering of a woody plant

Bipinnately compound leaf: Multi-parted leaf with leaflets arranged on side branches off a main axis; also called twice-compound

Branchlet: A small branch

Bract: A modified leaf which is part of a flower

Browse: leaves, tender shoots and other soft, growing parts of woody plants, that are eaten by animals

— C —

Capsule: A seed-bearing structure that splits open when ripe

Catkin: An elongated flower cluster

Compound leaf: Leaf with more than one part, made up of several leaflets attached to a slender, stem-like structure

Cone: The reproductive, seed-bearing structure of most needle-leaved evergreens, usually consisting of overlapping woody scales

Crown: The mass of branches at the top of a tree or shrub

— D —

Deciduous: Plants which lose their leaves seasonally

Dioecious: Plants having male and female flowers on separate plants

Doubly serrate (doubly toothed): Leaf edge having evenly spaced notches with smaller notches in between

Downy: Covered with short, soft, fuzzy hairs

— E —

Entire: Leaf edges which are smooth, without teeth or lobes

GLOSSARY

— F —

Fruit: A mature ovary, or seed-containing structure

Fibrous: Made up of fine, threadlike strands

Fissures: Linear splits or cracks, such as those in the bark of some trees and shrubs

Furrowed: Deeply grooved; often used to describe bark

— I —

Invasive: a species not native to an area, but present and spreading at such a pace as to alter the ecosystem or cause economic or environmental harm

— L —

Lateral bud: an unopened leaf or shoot along the side of a twig

Leader: The central or main stem of a branch, tree or shrub

Leaf scar: An impression left at the point of leaf attachment after the leaf falls

Leaflet: A single leaf-like blade that is part of a compound leaf

Leaf margin: The outer edge of a leaf

Lenticel: a pore in the bark of some woody plants, usually most noticeable on twigs or smooth areas of the bark

Loam: Soil consisting of a mix of sand, silt and clay

Lobe: Segment of a leaf that protrudes from the main part, like fingers from a hand

— M —

Midrib: Central vein in a pinnately veined leaf

Monoecious: Plant having both male and female flowers on the same plant

— N —

Native: Original to an area (not brought to the area by humans), and able to grow and reproduce there without aid from humans

Naturalized: Native to another area, but now growing and reproducing in a new place without aid from humans

Needle: A long, very slender leaf

Node: The point on a twig where a leaf is attached

Nut: One-seeded, hard fruit that does not split naturally, and is usually contained in a husk while on the plant

Nutlet: A small nut

GLOSSARY

— O —

Opposite leaves: Leaves arranged along a twig or shoot in pairs across from each other

— P —

Palmately compound leaf: Multi-parted leaf with all leaflets arising from a common point

Palmately veined: Having multiple major leaf veins spreading out from a common point

Panicle: Multi-branched flower cluster

Perfect flower: Flower with both male and female reproductive parts

Petiole: The stalk of a leaf

Pinnately compound leaf: Multi-parted leaf with leaflets arranged along a slender, stem-like structure

Pinnately veined: Having one central vein, with smaller veins branching off from it

Pith: The central growth ring of a twig, branch, or trunk, best seen when the twig is split lengthwise

Pubescent: Densely fuzzy

— R —

Rachis: The central stem-like structure in a pinnately compound leaf, to which the leaflets are attached

Receptacle: end of a flower/fruit stem, where the fruit is attached

Resin: A sticky, flammable substance produced by some plants

— S —

Serrate margin: Jagged notches or “teeth” along the edges of a leaf

Shoot: An actively growing stem

Simple leaf: Leaf consisting of a single blade or part

Sinus: The space or gap between two lobes of a leaf

Spur: A short side shoot or twig, sometimes resembling a thorn

Stipule: A leaf-like structure at the base of a leaf petiole or nearby on the twig

Suckering: Sending up shoots from roots, often at a distance from the main stem

GLOSSARY

— T —

Tardily deciduous: Losing leaves very late in the season, often in winter; also called semi-evergreen

Terminal bud: An unopened leaf or shoot at the end of a twig

Thicket: dense growth of shrubs

Toothed margin: Leaf edge with many small pointed or rounded notches; pointed teeth may resemble the edge of a saw; rounded teeth may appear evenly wavy

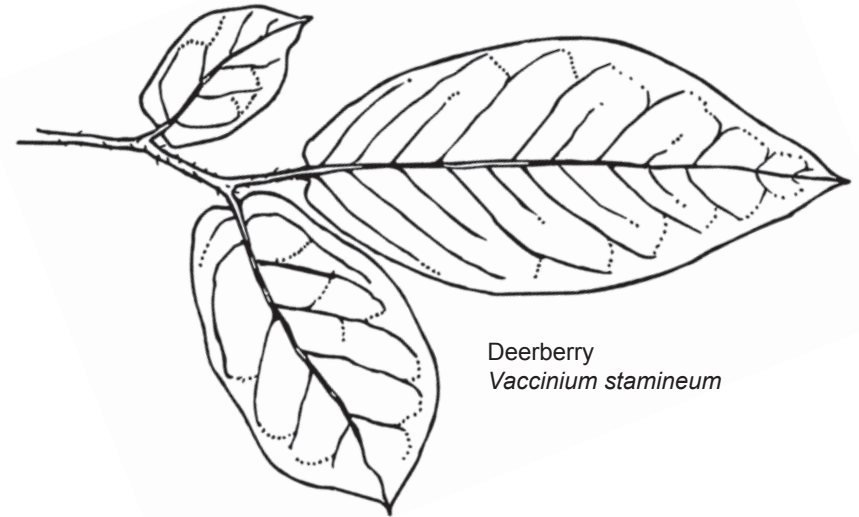
— U —

Understory: The area beneath and in the shade of larger trees

— W —

Whorled leaves: Leaves arranged in a circle around one point on a twig

Wing: Thin flat projection alongside a fruit, seed or twig



Deerberry
Vaccinium stamineum

Virginia's State Forests

Virginia's state forests are working forests, managed by the Virginia Department of Forestry (VDOF) for multiple objectives, providing wildlife habitat, watershed protection, scenic beauty, research, forest management demonstration areas, and recreational opportunities.

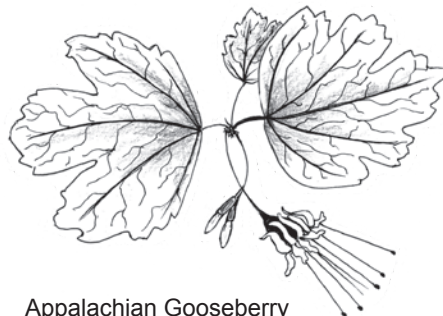
All 26 of Virginia's state forests, covering more than 74,000 acres, have been certified to the Sustainable Forestry Initiative and American Tree Farm System standards. Certification of state forest lands demonstrates for landowners how certification can be part of their management efforts while validating that working forests are sustainable. Certification ensures that forestry is practiced in an environmentally-responsible and socially-beneficial manner.

State forests typically do not have the facilities many recreational users expect, such as trash cans, restrooms, or improved parking areas. They do, however, offer good places for self-directed activities, such as hiking, mountain biking, horseback riding, orienteering, hunting, fishing, wildlife watching, and other nature study. Visitors use the forests at their own risk. They must pack out all trash, respect research areas, and obey all state forest regulations.

The Virginia State Forest system was established in 1919 when Emmett D. Gallion donated 588 acres in Prince Edward County to the Commonwealth, "to advance the course of forestry in the southern piedmont of Virginia." More land in Appomattox, Buckingham, Cumberland and Prince Edward counties was acquired in the mid-1930s, when the federal government began acquiring land under the Bankhead-Jones Farm Tenant Act. In 1939, the federal government leased these lands to the Commonwealth of Virginia, for the purposes of demonstrating forestry and wildlife management practices and providing for public recreation. In 1954, the federal government deeded these lands to the Commonwealth.

When these first state forests were acquired, the land was in a depleted condition, having been used almost exclusively for agriculture in the preceding 200 years. Thanks to scientific forest management and good conservation practices, forest growth continues to exceed harvest, soil quality has improved considerably, the quality of water originating from the forest is excellent, and biodiversity has significantly improved.

In the years following VDOF's acquisition of the central Virginia forests, the Department of Forestry began to acquire other tracts of land as gifts from private landowners. The state forests are a tremendous asset for the Commonwealth and managed by a small staff with the help of local VDOF field staff. These state forests are self-supporting and receive no



Appalachian Gooseberry
Ribes rotundifolium Michaux

general state funds for operations. Operating funds are generated from the sale of forest products, and educational programs are funded through taxpayer contributions to Virginia's State Forest Education Fund tax check-off. Thank you to all who have contributed in support of state forest education!

We encourage you to explore our Virginia state forests!

Things to Do on State Forests

Recreational uses of Virginia state forests vary by location, size, deed restrictions and local demographics. A State Forest Use Permit is required for hunting, trapping, fishing, bike riding, and horse riding on Virginia state forests. Permits are required for individuals age 16 and older, and can be purchased online at www.dwr.virginia.gov or where hunting and fishing licenses are sold.

Camping is allowed on state forest land by permit only, and is limited to group activities, such as equestrian events, Boy Scouts, Girl Scouts, adventure races, and similar organized events.

Picnicking is allowed on almost all state forests. Appomattox-Buckingham, Cumberland, Conway Robinson, Matthews, and Sandy Point State Forests have picnic shelters that are available on a first-come, first-served basis.

Hunting is allowed seasonally on some state forests. State hunting regulations and local regulations apply. Hunting is not allowed on some state forests due to deed restrictions, inadequate acreage, or devotion to other recreational uses. Some hunting restrictions may apply. Visit www.dof.virginia.gov for the most up-to-date hunting information.

There are numerous lakes, rivers, and creeks on state forest lands suitable for **fishing**. State fishing regulations apply. Some state forests, such as Zoar State Forest, have **canoe** launches.

Hiking is a popular activity on many state forests. Trails developed specifically for hiking or multiple uses include the Willis River Hiking Trail and Cumberland Multi-Use Trail on Cumberland State Forest; the Carter Taylor Hiking Trail on the Appomattox-Buckingham State Forest. Many other trails and gated forest roads are available at various state forests for use by hikers, bikers and horseback riders.

Many state forests are suitable for **mountain biking**. Dedicated trails, gated forest trails, and open forest roads provide more than 300 miles of opportunities for mountain bike riding. Matthews, Whitney, and Conway Robinson State Forests have volunteer groups that maintain developed bike trails.

Numerous state forests provide for **horseback riding** opportunities, with more than 300 miles of trails and roads available. Parking is limited for horse trailers on some state forests.

Almost all state forest land is available for **bird watching and observing nature**. Due to the tree species and age diversity, a wide variety of wildlife is present.

State forest lands have become a popular destination for **orienteering** activities, due to the large acreages of contiguous land.

Visit www.dof.virginia.gov for the most updated information.

Education on State Forests

Educational tours, workshops, and youth programs are offered periodically on some of the State Forests. Our Matthews State Forest boasts a forest education center where we host many educational programs for youth as well as adults.



Other Places to Study Trees

Virginia has...

- ▲ 41 State Parks
- ▲ 66 Natural Area Preserves
- ▲ George Washington and Jefferson National Forests
- ▲ Shenandoah National Park
- ▲ Many local parks and trails

Department of Forestry James W. Garner Building Nature Trail

A one-mile, interpreted trail surrounds the Department of Forestry's Headquarters in Charlottesville. This trail contains some unusual species, stemming from the days when a State Nursery occupied the site. The Forestry Nature Trail is connected to the local Rivanna Trail system.

State Forest	County	Acres	Comments
Appomattox-Buckingham	Appomattox & Buckingham	19,513	Open to the Public
Big Woods	Sussex	2,403	Open to the Public, Limited Parking
Bourassa	Bedford	288	NO PUBLIC ACCESS
Browne	Essex	128	Open to the Public, Limited Parking
Channels	Washington & Russell	4,836	Open to the Public
Charlotte	Charlotte	5,005	Open to the Public
Chesterfield	Chesterfield	440	Open to the Public
Chilton Woods	Lancaster	397	Open to the Public
Conway-Robinson	Prince William	440	Open to the Public
Crawfords	New Kent	264	Open to the Public, Limited Parking
Cumberland	Cumberland	16,154	Open to the Public
Devil's Backbone	Shenandoah	705.5	Open to the Public
Dragon Run	King & Queen	9,563	Open to the Public, Limited Parking
First Mountain	Rockingham	573	Open to the Public, Limited Parking
Hawks	Carroll	121	Open to the Public, No Parking
Lesesne	Nelson	422	Open to the Public
Matthews	Grayson	566	Open to the Public
Moore's Creek	Rockbridge	2,353	Open to the Public, No Direct Access
Niday Place	Craig	264.5	Open to the Public, No Parking
Old Flat	Grayson	320	Open to the Public, No Direct Access
Paul	Rockingham	173	Open to the Public
Prince Edward-Gallion	Prince Edward	6,491	Open to the Public
Sandy Point	King William	2,074	Open to the Public
South Quay	City of Suffolk	266	NO PUBLIC ACCESS
Whitney	Fauquier	148	Open to the Public
Zoar	King William	378	Open to the Public
Summary		74,286	

Visit www.dof.virginia.gov for the most updated information.

Virginia's State Nurseries

Want to plant some trees?

The Virginia Department of Forestry (VDOF) operates forest tree nurseries providing tree and shrub seedlings to be used on private, industry and public lands. Regional nurseries produce seedlings to be used to establish timber stands, pulpwood crops, Christmas tree plantations, wildlife habitat, streambank stabilization, urban forests, biodiversity and improvement of watersheds as mandated by the *Code of Virginia*.

Portions of the land and the physical facilities at the nurseries are used to educate and inform the public and for research by state and private universities. The offices and quarters are used by university students and faculty for field trips. Established nature trails supplement school curriculum for students to study nature.

In addition to research and education, the New Kent Forestry Center, located near Providence Forge, conducts a series of special deer hunts each fall for disabled sportsmen. Local communities, businesses and civic groups support these activities with volunteers, equipment and supplies.

VDOF nurseries are self-supporting through their tree seedling sales. Our employees are dedicated to producing the highest quality seedlings available. Tree seedlings are planted, visually inspected, harvested, hand-graded, labeled, and packaged for delivery. Tree seedlings may be ordered online or by mail from November through April.

The VDOF has been in the seedling production business for 100 years. When you're putting your money in the ground in the form of seedlings, you need to start with the best stock available – stock suited for Virginia soils and climate. The cultural practices that we use in growing seedlings in our seedbeds are based on more than 40 years of research and experience in quality production.

Our seedling catalog, *Virginia Trees for Virginia's Landowners*, includes more than 40 species of seedlings that have been grown at one of our two State Forestry Centers: the Augusta Forestry Center, near Waynesboro, and the Garland Gray Forestry Center near Littleton. Covering more than 400 acres, our nurseries produce more than 35 million seedlings annually.

In addition to the wide selection of bare-root seedlings, we also offer landowners specialty seedling packs and seed mixtures suitable for various wildlife habitats, screening, use in wetland areas and for erosion control. Our seedlings are sold directly from the seedbed without replanting, and seedling age is one to three years old.

**FOR QUESTIONS
OR TO ORDER SEEDLINGS, CONTACT:
Augusta Forestry Center
(540) 363-7000
P.O. Box 160, Crimora, VA 24431
www.dof.virginia.gov**

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Other Resources

Forest Landowner Education Program – <https://forestupdate.frec.vt.edu/>

ForSite (Forestry Outreach Site) – <http://dendro.cnr.vt.edu/forsite/LSListings.htm>

USDA Forest Service – <http://www.fs.fed.us/>

Virginia Big Tree Database – <http://www.web2.cnr.vt.edu/4h/bigtree/>

Virginia Tech Dendrology Web site – <http://dendro.cnr.vt.edu/dendrology/main.htm>

Project Learning Tree – <http://www.plt.org/>

INDEX

Index

A

Acknowledgements 2
 Alder 31
 Alder, hazel 31
 Alder, smooth 31
 Allegheny blackberry 65
Alnus serrulata 31
 Alternate-leaf dogwood 36
 Alternate leaf placement 12, 13
 American bittersweet 77, 89
 American filbert 32
 American hazelnut 32
 American plum 62
 American rattan 82
Ampelopsis arborea 96
Ampelopsis brevipedunculata
 (Maxim.) Trautvetter 96
 Amur honeysuckle 88
 Amur peppervine 96
 Andromeda, mountain 43
 Appalachian gooseberry 47
Aralia spinosa L. 28
 Aromatic sumac 25
Aronia 59
 Aronia arbutifolia (L.) Persoon 59
 Aronia melanocarpa 59
 Arrowwood 22
 Augusta Forestry Center 106, 116
 Autumn olive 91
 Azalea 45
 Azalea, clammy 45
 Azalea, dwarf 45
 Azalea, flame 45
 Azalea, rose 45
 Azalea, swamp 45
 Azalea, wild 45

B

Baccharis halimifolia L. 29
 Basic terms 13
 Beaked hazelnut 32
 Beautyberry 52
Berchemia scandens L. 82
 Bibliography 107
Bignonia capreolata L. 75
 Bittersweet 77, 89
 Bittersweet, American 77, 89
 Bittersweet, Oriental 77, 89
 Blackberry 65
 Blackberry, Allegheny 65
 Blackberry, Pennsylvania 65
 Blackberry, sand 65
 Black chokeberry 59
 Blackhaw 24
 Blackhaw, rusty 24
 Black huckleberry 38
 Black raspberry 66
 Bladdernut 69
 Blade 11
 Blueberry 46
 Blueberry, highbush 46
 Blueberry, lowbush 46
 Bluntly toothed leaf margin 12
 Bristly dewberry 65
 Bristly greenbrier 85
 Buckbrush 33
 Bullbrier 85
 Burning Bush, winged 90
 Bush honeysuckles 88
 Buttonbush 68

C

Callicarpa americana L. 52
Campsis radicans (Linnaeus) See-
 mann ex Bureau 74
 Canada moonseed 80
 Carolina buckthorn 57
 Carolina jessamine 78
 Carolina rose 64

INDEX

Catawba rhododendron 44
 Catbrier 85
Ceanothus americanus L. 58
Celastrus 77, 89
 Celastrus orbiculatus Thunberg
 77, 89
 Celastrus scandens L. 77, 89
Cephalanthus occidentalis L. 68
 Cherry, Choke 63
 Chickasaw plum 62
 Chinese privet 93
Chionanthus virginicus L. 55
 Chokeberry 59
 Chokeberry, black 59
 Chokeberry, red 59
 Choke cherry 63
 Clammy azalea 45
Clematis 81
 Clematis, sweet autumn 81
 Clematis terniflora 81
 Clematis virginiana L. 81
Clethra 35
 Clethra acuminata 35
 Clethra alnifolia L. 35
 Climbing hydrangea 79
 Coarsely toothed leaf margin 12
 Coastal dog-hobble 40
 Coastal fetterbush 37
 Cockspur hawthorn 60
 Common dewberry 65
 Common moonseed 80
 Compound leaf 13
 Contacts, Virginia Department of
 Forestry 116
 Coralberry 33
 Coral greenbrier 85
 Coral honeysuckle 76
Cornus 36
 Cornus alternifolia 36
 Cornus amomum P. Miller 36
 Cornus florida 36
 Cornus racemosa 36
 Cornus stricta 36
Corylus 32
 Corylus americana Walter 32
 Corylus cornuta 32
 Cow-Itch vine 74
Crataegus L. 60
 Crataegus crus-galli 60
 Creeper 74, 83
 Creeper, trumpet 74
 Creeper, Virginia 83
 Cross-Vine 75
 Currant, Indian 33

D

Dangleberry 38
Decumaria barbara L. 79
 Deerberry 46
 Devil's darning needles 81
 Devil's shoestring 33
 Devil's walking stick 28
 Dewberry 65
 Dewberry, bristly 65
 Dewberry, common 65
 Dewberry, swamp 65
Dirca palustris L. 71
 Dog-Hobble 37, 40
 Dog-Hobble, coastal 40
 Dog-Hobble, swamp 37
 Dogwood 36
 Dogwood, alternate-leaf 36
 Dogwood, flowering 36
 Dogwood, gray 36
 Dogwood, silky 36
 Dogwood, swamp 36
 Doubly toothed leaf margin 12
 Dutchman's pipe 73
 Dwarf azalea 45
 Dwarf huckleberry 38

INDEX

E

Early St. John's-wort 50
 Eastern wahoo 34
Elaeagnus umbellata Thunberg 91
 Elderberry 20
 Elderberry, red 20
 Entire leaf margin 12
Eubotrys 37
 Eubotrys racemosa (L.) Nuttall 37
 Eubotrys recurva 37
Euonymus 34, 90
 Euonymus alata (Thunberg)
 Siebold 90
 Euonymus americanus L. 34
 Euonymus atropurpureus 34
 Euonymus fortunei 90

F

Fetterbush 37
 Fetterbush, coastal 37
 Fetterbush, mountain 37
 Filbert, American 32
 Finely toothed leaf margin 12
 Flame azalea 45
 Flowering dogwood 36
 Foreward 1
 Fox grape 84
Frangula caroliniana (Walter) A.
 Gray 57
 French mulberry 52
 Fringetree 55
 Frost grape 84

G

Gallberry 26
 Garland Gray Forestry Center 106,
 116
Gaylussacia 38
 Gaylussacia baccata 38
 Gaylussacia dumosa 38

Gaylussacia frondosa 38
Gaylussacia Kunth 38
Gelsemium sempervirens St. Hilaire
 78
 Glossary 98–101
 Gooseberry 47
 Gooseberry, Appalachian 47
 Gooseberry, prickly 47
 Grape 84
 Grape, fox 84
 Grape, frost 84
 Grape, muscadine 84
 Grape, possum 84
 Grape, riverbank 84
 Grape, summer 84
 Gray dogwood 36
 Great laurel 44
 Great rhododendron 44
 Greenbrier 85
 Greenbrier, bristly 85
 Greenbrier, coral 85
 Greenbrier, laurel-leaf 85
 Groundsel-bush 29
 Groundsel-tree 29

H

Hamamelis virginiana L. 48
 Hardhack 67
 Hawthorn 60
 Hawthorn, cockspur 60
 Hazel alder 31
 Hazelnut 32
 Hazelnut, American 32
 Hazelnut, beaked 32
 Hearts a 'bustin' 34
 He-huckleberry 41
 Highbush blueberries 46
 High-tide bush 29
 Holly 27
 Holly, mountain 27
 Holly, winterberry 27

INDEX

Honeysuckle 88
 Honeysuckle, amur 88
 Honeysuckle, bush 88
 Honeysuckle, coral 76
 Honeysuckle, Japanese 76, 87
 Honeysuckle, Morrow's 88
 Honeysuckle, tatarian 88
 Horse sugar 70
 How to Use This Book 9
 Huckleberry 38
 Huckleberry, black 38
 Huckleberry, dwarf 38
Hydrangea 49, 79
 Hydrangea arborescens L. 49
 Hydrangea, climbing 79
 Hydrangea, smooth 49
 Hydrangea, wild 49
Hypericum L. 50
 Hypericum crux-andreae 50
 Hypericum densiflorum 50
 Hypericum hypericoides 50
 Hypericum nudiflorum 50
 Hypericum prolificum 50
 Hypericum stragulum 50

I

Identification of Shrubs and Woody
 Vines 10
Ilex 26, 27
 Ilex decidua 27
 Ilex glabra (L.) A. Gray 26
 Ilex montana 27
 Ilex verticillata (L.) A. Gray 27
 Incurved teeth leaf margin 12
 Indian currant 33
 Inkberry 26
 Invasive Species, non-native 86–96
Isotrema macrophyllum (Lamarck)
 C.F. Reed 73
Itea virginica L. 51
Iva frutescens L. 30

Ivy, poison 72

J

Japanese honeysuckle 76, 87
 Jessamine 78
 Jessamine, Carolina 78
 Jessamine, yellow 78

K

Kalmia latifolia L. 39
 Key to Common Native Shrubs
 and Woody Vines of Virginia
 13–19
 Key to shrubs 13–18
 Key to woody vines 18–19
 Kudzu 92

L

Lateral (side) bud 12
 Laurel 39
 Laurel, great 44
 Laurel, mountain 39
 Laurel-leaf greenbrier 85
 Leaflet 11
 Leaf margins 12
 Leaf placement 12
 Leaf scar 12
 Leatherwood 71
 Lenticels (pores) 12
Leucothoe 37
Leucothoe axillaris (Lamarck) D.
 Don 40
Ligustrum sinense Loureiro 93
Lindera benzoin (L.) Blume 53
 Lobe 13
 Lobed leaf margin 12
Lonicera L. 76, 87, 88
 Lonicera japonica Thunberg 76,
 87
 Lonicera maackii 88

INDEX

- Lonicera morrowii* 88
Lonicera sempervirens L. 76
Lonicera tatarica 88
 Lowbush blueberry 46
 Low St. Andrew's cross 50
Lyonia 41
 Lyonia ligustrina (L.) Augustin de Candolle 41
 Lyonia mariana 41
- M**
- Maleberry 41
 Maple-leaf viburnum 21
 Marsh-elder 30
 Master Naturalist Program 97
Menispermum canadense L. 80
Menziesia pilosa (Michaux ex Lamarck) A.L. de Jussieu ex Persoon 42
 Midrib 11
 Minniebush 42
 Moonseed 80
 Moonseed, Canada 80
 Moonseed, common 80
Morella 54
 Morella cerifera (L.) Small 54
 Morella pensylvanica 54
 Morrow's honeysuckle 88
 Mountain andromeda 43
 Mountain fetterbush 37, 43
 Mountain holly 27
 Mountain laurel 39
 Mountain pepperbush 35
 Mulberry 52
 Mulberry, French 52
 Mulberry, Spanish 52
 Multiflora rose 94
 Muscadine grape 84
- N**
- Nannyberry 24
- Native shrubs 20–71
 Native woody vines 72–85
 Needle-like leaves 11
 New Jersey tea 58
 New Kent Forest Education Center 105
 Ninebark 61
 Non-Native Invasive Species 86–96
 Northern bayberry 54
 Northern wild raisin 23
 Nurseries 116
 Nurseries, Virginia's State 106
- O**
- Oak, poison 72
 Old man's beard 55
 Olive, autumn 91
 Opposite leaf placement 12, 13
 Oriental bittersweet 77, 89
 Other Places to Study Trees 105
 Other Resources 107
- P**
- Palmately compound leaves 11
 Palmately lobed and veined leaves 11
Parthenocissus quinquefolia (Linnaeus) Planchon 83
 Parts, Types and Positions of Leaves 11
 Pasture rose 64
 Pennsylvania blackberry 65
 Pepperbush 35
 Pepperbush, mountain 35
 Pepperbush, sweet 35
 Peppervine 96
 Peppervine, amur 96
 Petiole 11
Physocarpus opulifolius (L.) Maximowicz 61
Pieris floribunda (Pursh) Benth &

INDEX

- Hooker 43
 Pinnately compound leaves 11
 Pinnately lobed and veined leaves 11
 Pinxterflower 45
 Pipevine 73
 Pith 12
 Plum, Chickasaw 62
 Poison ivy 72
 Poison oak 72
 Poison sumac 72
 Porcelainberry 96
 Positions of leaves 11
 Possum grape 84
 Possum haw 27
 Possum-haw 23
 Prickly gooseberry 47
 Privet
 Privet, Chinese 93
 Project Learning Tree (PLT) 97
Prunus 62, 63
 Prunus americana 62
 Prunus angustifolia Marshall 62
 Prunus virginiana L. 63
Pueraria montana (Lour.) Merritt 92
 Purple-flowering raspberry 66
- R**
- Rachis 11
 Raisin
 Raisin, northern wild 23
 Raisin, southern wild 23
 Raspberry 66
 Raspberry, black 66
 Raspberry, purple-flowering 66
 Raspberry, wine 95
 Rattan, American 82
 Red chokeberry 59
 Red elderberry 20
 Redroot 58
 Regional Offices 116
- Rhododendron* 42, 44, 45
 Rhododendron atlanticum 45
 Rhododendron calendulaceum 45
 Rhododendron, catawba 44
 Rhododendron catawbiense 44
 Rhododendron, great 44
 Rhododendron maximum L. 44
 Rhododendron periclymenoides (Michaux) Shinners 45
 Rhododendron prinophyllum 45
 Rhododendron viscosum 45
Rhus L. 25
 Rhus aromatica 25
 Rhus copallinum 25
 Rhus glabra 25
 Rhus typhina 25
Ribes 47
 Ribes cynosbati 47
 Ribes rotundifolium Michaux 47
 Riverbank grape 84
Rosa 64, 94
 Rosa carolina L. 64
 Rosa multiflora Thunberg ex Murray 94
 Rosa palustris 64
 Rose 64
 Rose, Carolina 64
 Rose, multiflora 94
 Rose, pasture 64
 Rose, swamp 64
 Rose azalea 45
 Rosebay 44
Rubus L. 65, 66
 Rubus allegheniensis 65
 Rubus cuneifolius 65
 Rubus flagellaris 65
 Rubus hispidus 65
 Rubus occidentalis L. 66
 Rubus odoratus 66
 Rubus pensilvanicus 65
 Rusty blackhaw 24

INDEX

S

- Saltbush 29
- Sambucus* 20
 - Sambucus canadensis* L. 20
 - Sambucus racemosa* 20
- Sand blackberry 65
- Sawbrier 85
- Scale-like leaves 11
- Shining sumac 25
- Shrub 9
- Shrubby St. John's-wort 50
- Silky dogwood 36
- Simple leaf 13
- Smilax* L. 85
 - Smilax bona-nox* 85
 - Smilax glauca* 85
 - Smilax hispida* 85
 - Smilax laurifolia* 85
 - Smilax rotundifolia* 85
 - Smilax walteri* 85
- Smooth alder 31
- Smooth hydrangea 49
- Smooth sumac 25
- Southern bayberry 54
- Southern wild raisin 23
- Spanish mulberry 52
- Spicebush 53
- Spiraea* 67
 - Spiraea*, dwarf 67
 - Spiraea corymbosa* 67
 - Spiraea tomentosa* L. 67
- Staggerbush 41
- Staghorn sumac 25
- St. Andrew's cross 50
 - St. Andrew's cross, low 50
- Staphylea trifolia* L. 69
- State Forests, Virginia's 102–105
- Steeplebush 67
- St. John's-wort 50
 - St. John's-wort, bushy 50
 - St. John's-wort, early 50
 - St. John's-wort, shrubby 50
 - St. Peter's-wort 50
- Strawberry bush 34
- Sumac 25
 - Sumac, aromatic 25
 - Sumac, poison 72
 - Sumac, shining 25
 - Sumac, smooth 25
 - Sumac, staghorn 25
 - Sumac, winged 25
- summer grape 84
- Supplejack 82
- Swamp azalea 45
- Swamp dewberry 65
- Swamp dog-hobble 37
- Swamp dogwood 36
- Swamp rose 64
- Sweet autumn clematis 81
- Sweetbells 37
- Sweetleaf 70
- Sweet pepperbush 35
- Sweetspire, Virginia 51
- Symphoricarpos orbiculatus* Moench 33
- Symplocos tinctoria* (L.) L'Heritier de Brutelle 70

T

- Tassel-white 51
- Tatarian honeysuckle 88
- Teeth 13
- Terminal (end) bud 12
- Things to Do on State Forests 102
- Toxicodendron* 72
 - Toxicodendron pubescens* 72
 - Toxicodendron radicans* (Linnaeus) Kuntze 72
 - Toxicodendron vernix* 72
- Trumpet creeper 74
- Trumpet honeysuckle 76
- Trumpet vine 74

INDEX

- Types of Leaf margins 12
 - Types of Leaves 11
- V**
- Vaccinium* L. 46
 - Vaccinium angustifolium* 46
 - Vaccinium corymbosum* 46
 - Vaccinium formosum* 46
 - Vaccinium fuscatum* 46
 - Vaccinium pallidum* 46
 - Vaccinium stamineum* 46
 - VDOF Headquarters Nature Trail 105
 - Viburnum* 21, 22, 23, 24
 - Viburnum acerifolium* L. 21
 - Viburnum cassinoides* 23
 - Viburnum dentatum* L. 22
 - Viburnum lentago* 24
 - Viburnum*, maple-leaf 21
 - Viburnum nudum* L. 23
 - Viburnum prunifolium* L. 24
 - Viburnum rufidulum* 24
 - Vine 9
 - Vine, cow-itch 74
 - Vine, trumpet 74
 - Virginia creeper 83
 - Virginia's Forest Resources 7–8
 - Virginia's State Forests 102–105
 - Virginia's State Nurseries 106
 - Virginia Department of Forestry
 - Contacts 116
 - Virginia Master Naturalist Program 97
 - Virginia Sweetspire 51
 - Virginia willow 51
 - Virgin's bower 81
 - Vitis* L. 84
 - Vitis aestivalis* 84
 - Vitis cinerea* 84
 - Vitis labrusca* 84
 - Vitis riparia* 84
 - Vitis rotundifolia* 84
 - Vitis vulpina* 84
- W**
- Wavy leaf margin 12
 - Wax myrtle 54
 - Wild azalea 45
 - Wild grape 84
 - Wild hydrangea 49
 - Wild raisin 23
 - Wild raisin, northern 23
 - Wild raisin, southern 23
 - Willow, Virginia 51
 - Wineberry 95
 - Wine raspberry 95
 - Winged burning bush 90
 - Winged sumac 25
 - Winterberry holly 27
 - Wintercreeper 90
 - Witch-Hazel 48
 - Withe-rod 23
 - Woodbine 83
 - Woodvamp 79
 - Woody plants 9
- X**
- Xanthorhiza simplicissima* Marshall 56
- Y**
- Yellow jessamine 78
 - Yellowroot 56

Notes

Notes

Notes

Notes

Virginia Department of Forestry Contacts

James W. Garner Building

Charlottesville, Virginia

Phone: (434) 977-6555 ; FAX: (434) 296-2369

State Forests

Office located at Cumberland State Forest, Cumberland, Virginia

Phone: (804) 492-4121 ; FAX: (804) 492-9213

Nurseries

Augusta Forestry Center:

Crimora, Virginia

Phone: (540) 540-363-5732 ; FAX: (540) 363-5055

Garland Gray Forestry Center:

Courtland, Virginia

Phone: (804) 834-2855 ; FAX: (804) 834-3141

Regional Offices

Western Region Office, Salem:

Phone: (540) 387-5461

Central Region Office, Charlottesville:

Phone: (434) 977-5193

Eastern Region Office, Providence Forge:

Phone: (804) 443-2211

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