# Common Native Shrubs and Woody Vines of Virginia

*Identification Guide*

**Virginia Department of Forestry**
www.dof.virginia.gov

HOLIDAY LAKE
FORESTRY CAMP
APPOMATTOX - BUCKINGHAM STATE FOREST

# Holiday Lake Forestry Camp

Each summer, Holiday Lake Forestry Camp 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.

Forestry 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 field trips, demonstrations, exploratory sessions and competitions.

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

**www.dof.virginia.gov**

# 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.

Bettina K. Ring

State Forester

Cranberry
*Vaccinium macrocarpon*

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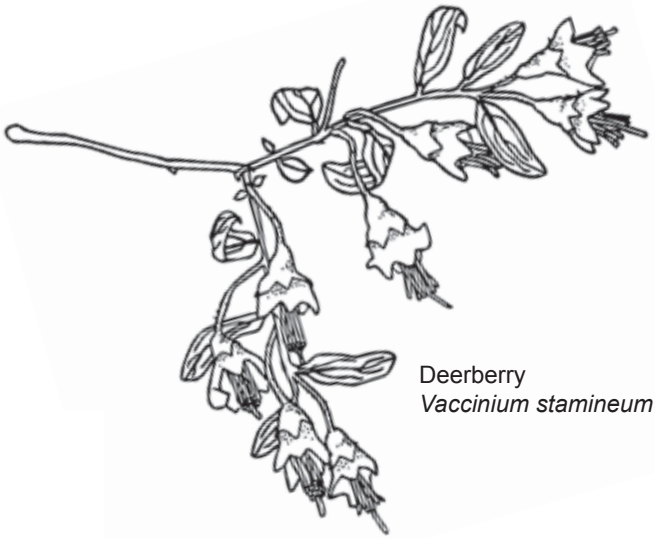
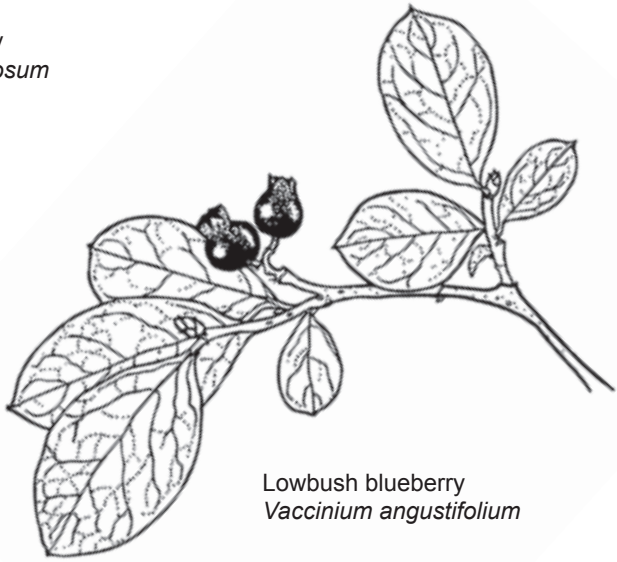


Deerberry
*Vaccinium stamineum*

Highbush blueberry
*Vaccinium corymbosum*



Lowbush blueberry
*Vaccinium angustifolium*

# 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.

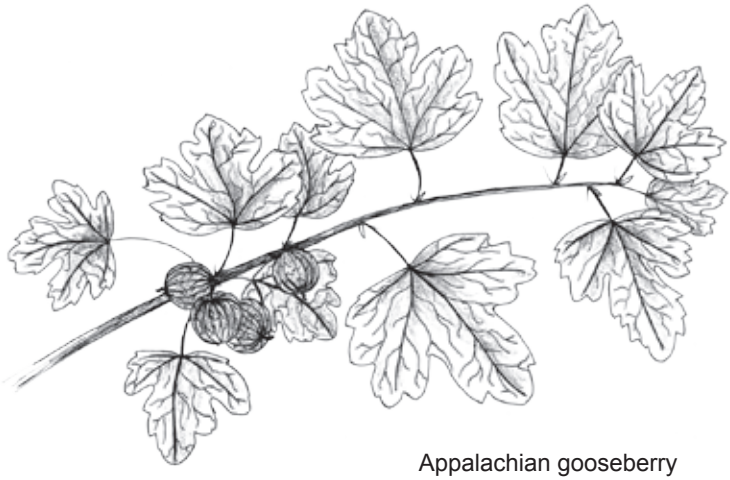
The greatest threat to our forests is the conversion of forestlands to other uses. Rapid population growth places a demand on our shrinking forest landbase. Virginia has lost more than a half million acres of forestland since 1977, mainly through conversion to home sites, shopping centers, roads and 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.

# 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

Needle-like

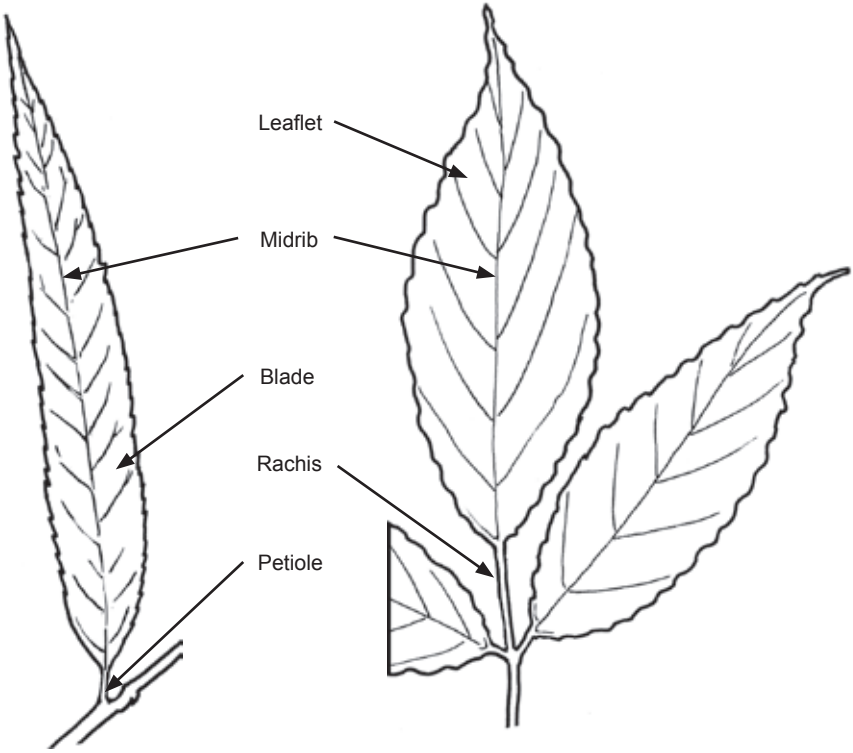
Scale-like

Palmately Lobed and Veined

Pinnately Lobed and Veined

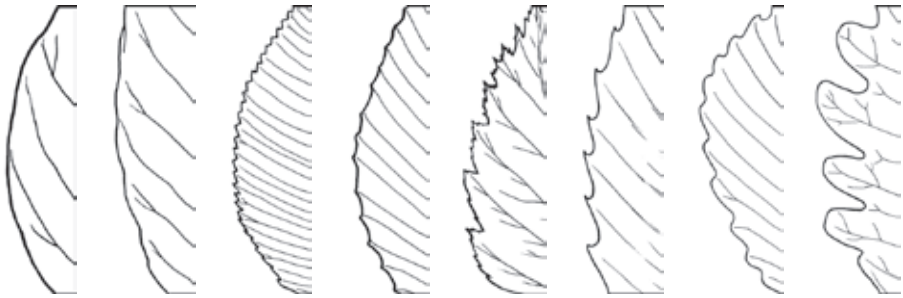
Palmately Compound

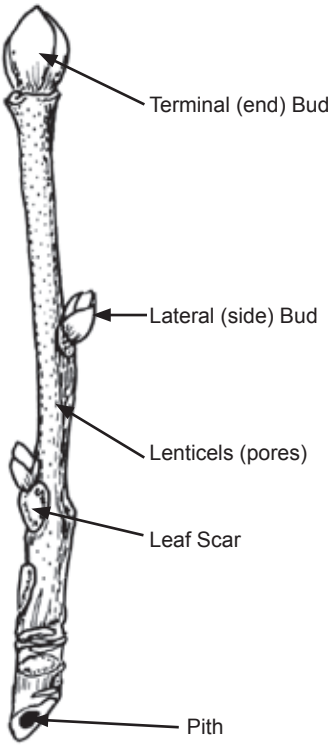
Pinnately Compound



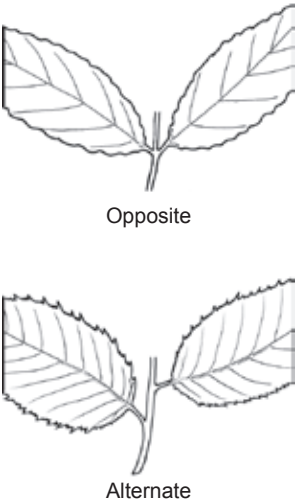
***Identification of Trees, continued***

# 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

## 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

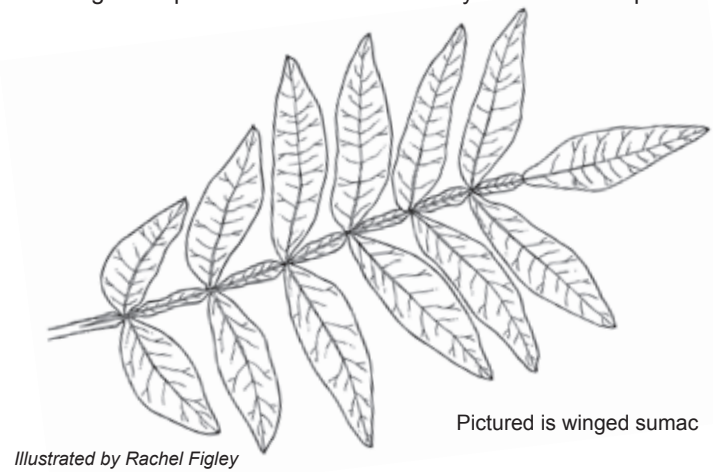
**Fruit:** Round, red, fuzzy, berry-like, ⅛ to ¼ inch across, in dense, erect or drooping clusters; maturing in fall and often remaining on the plant through winter

**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.



Pictured is winged sumac

fruit cluster

*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

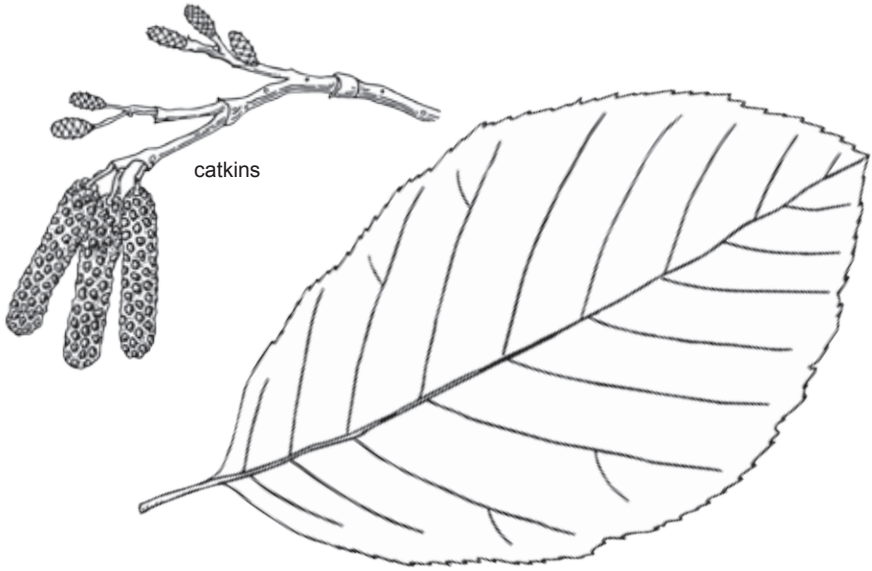
**Flowers:** Males and females both form as catkins in fall, but open in early spring; males greenish brown, 1 to 1½ inches; females ½ inch long, reddish, cone-like

**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

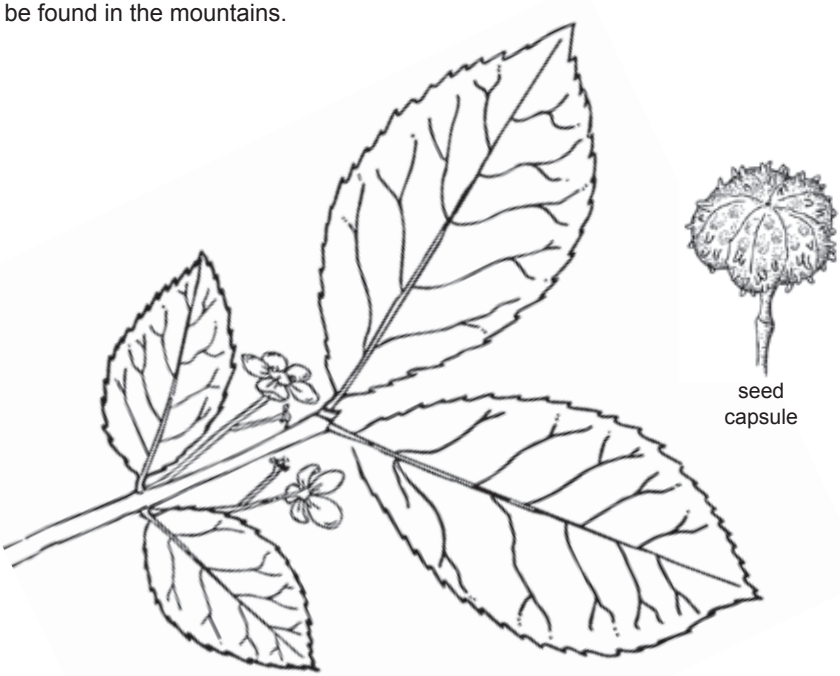
**Flowers:** ⅓ inch across with 5 greenish-purple petals, in clusters; appearing in late spring

**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

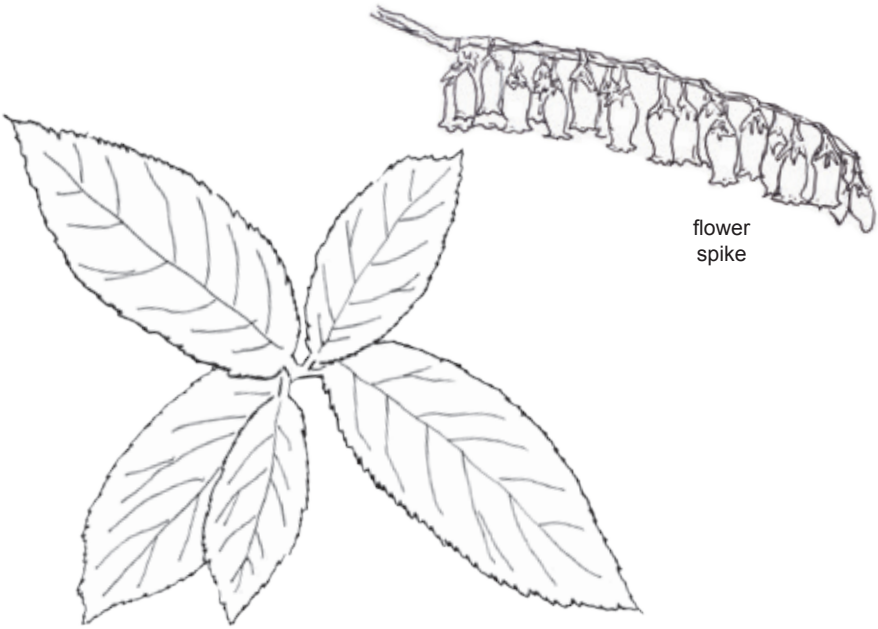
**Flowers:** White, bell-shaped, ¼ inch long, hanging from one side of a curved, 2- to 4-inch spike from bases of new branches; appearing in spring

**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*.




*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

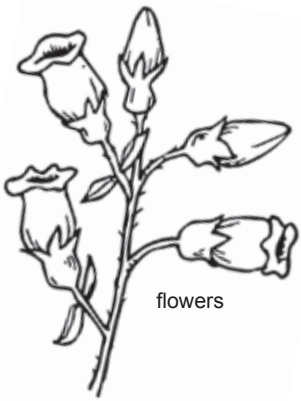
**Flowers:** ¼ inch, white to pink, bell-shaped with 5 lobes, in small clusters in leaf axils; appearing in spring

**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.

seed capsule

*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

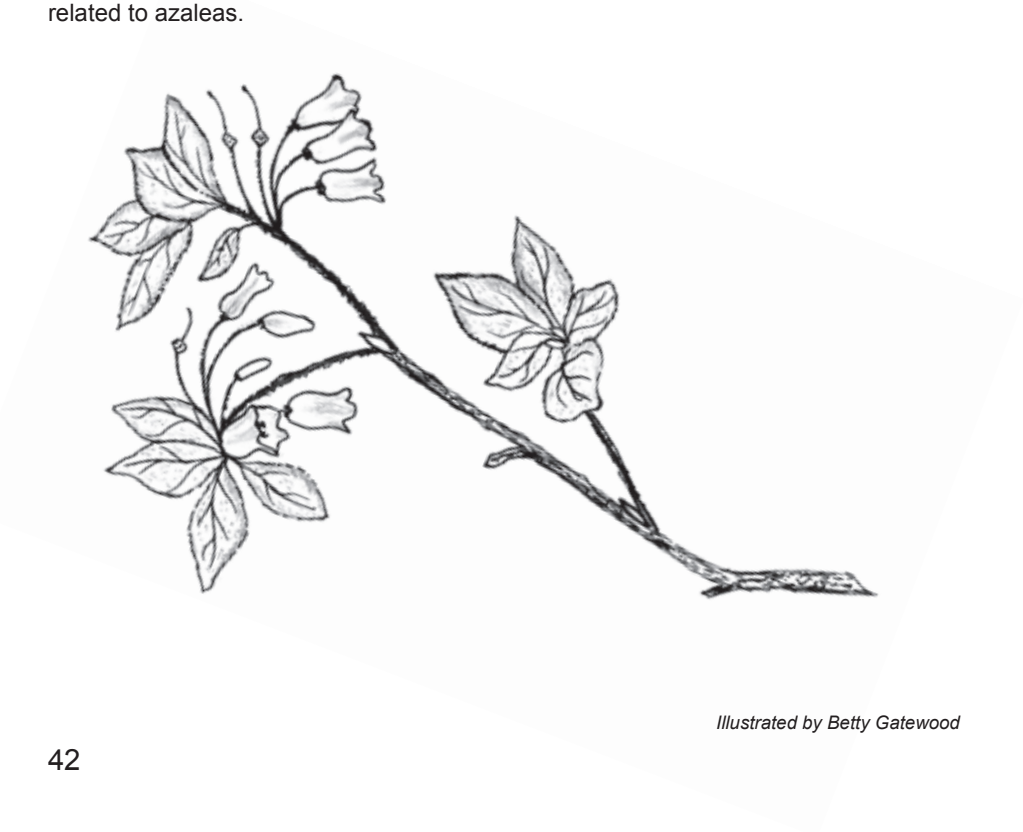
**Flowers:** Greenish-red, urn-shaped, ¼ inch long, hanging in small clusters at branch tips; blooming in late spring to summer

**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) Shinners

**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

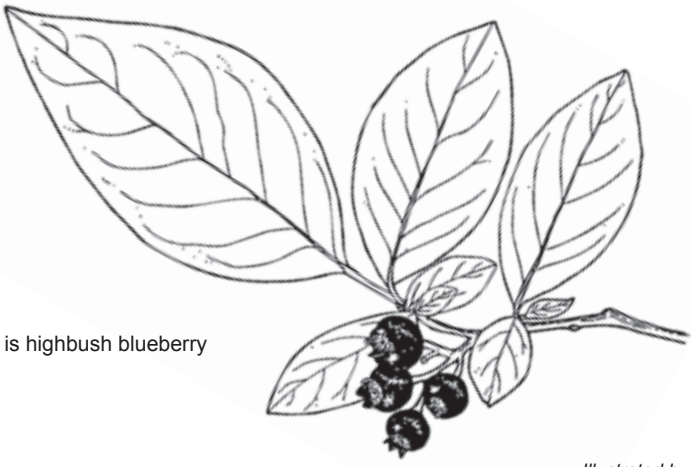
**Flowers:** Greenish, white, or pink, with 4 or 5 petals fused into a bell or urn shape, ¼ to ½ inch long, clustered in most species; appearing in spring

**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.

fruit

*Illustrated by Rachel Figley and Ellen Powell*

## 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

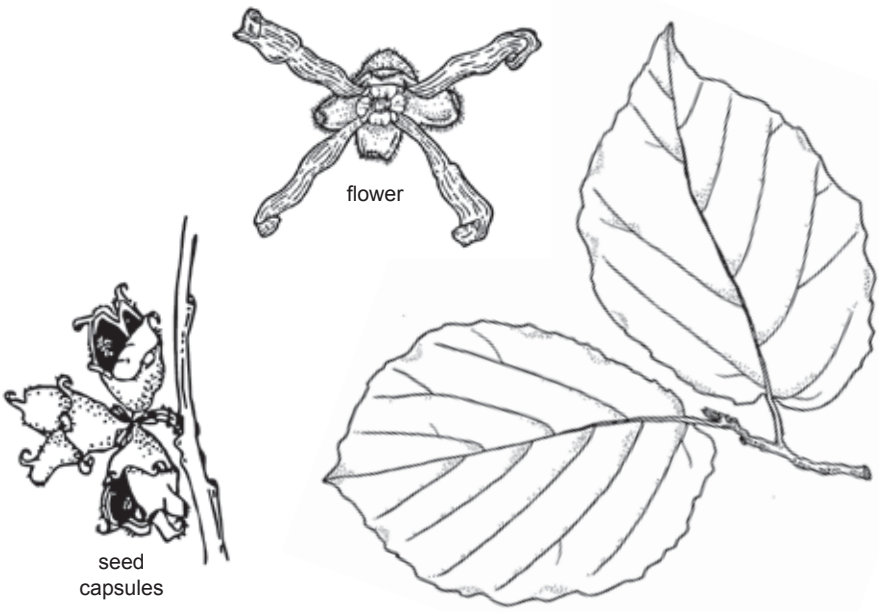
**Flowers:** Bright yellow, with 4 very slender petals ½ to ¾ inch long, giving it a spidery appearance; blooming in mid to late fall

**Fruit:** Woody, brown capsule, ½ inch long, containing two shiny black ¼-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, ⅓ 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 ⅛ 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.

Pictured is bushy St. John's Wort

*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

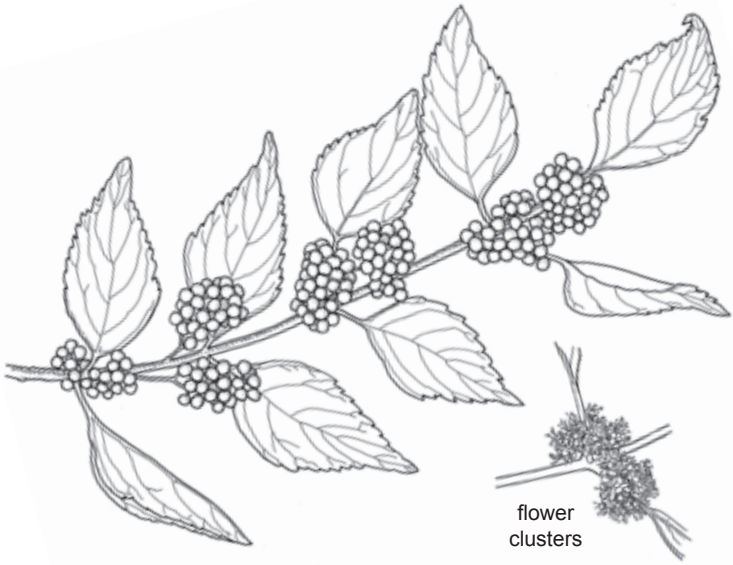
**Flowers:** Small, pink to bluish, tubular with 4 to 5 lobes; appearing from leaf axils in mid- to late summer

**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

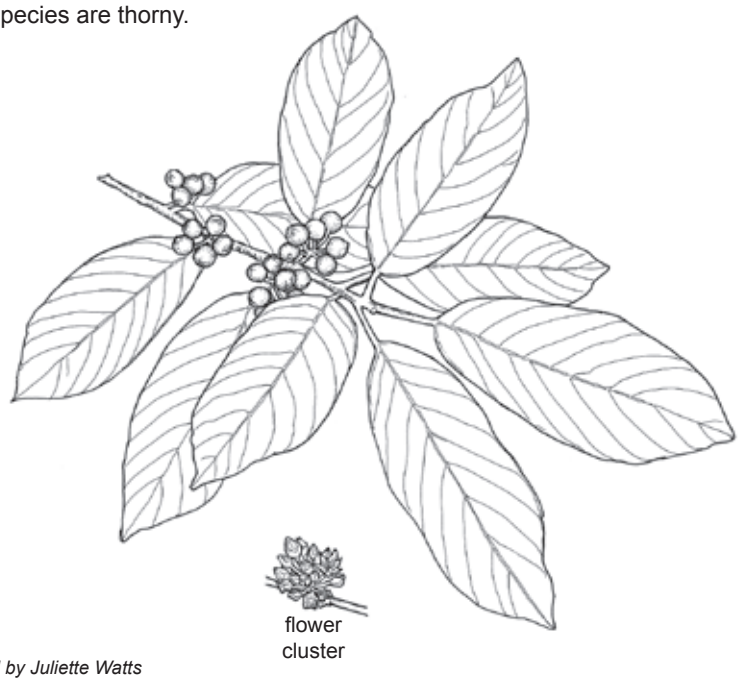
**Flowers:** Very small, pale yellow-green, bell-shaped, in leaf axils; appearing in late spring after the leaves unfold

**Fruit:** Round, berry-like, ⅓ 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

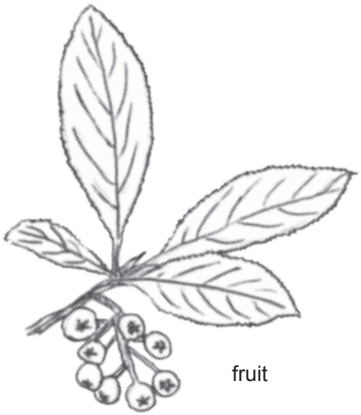
**Flowers:** White, 5-petaled, ½ inch across, in clusters at ends of twigs; appearing in early summer

**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.



fruit

*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," ⅓ 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

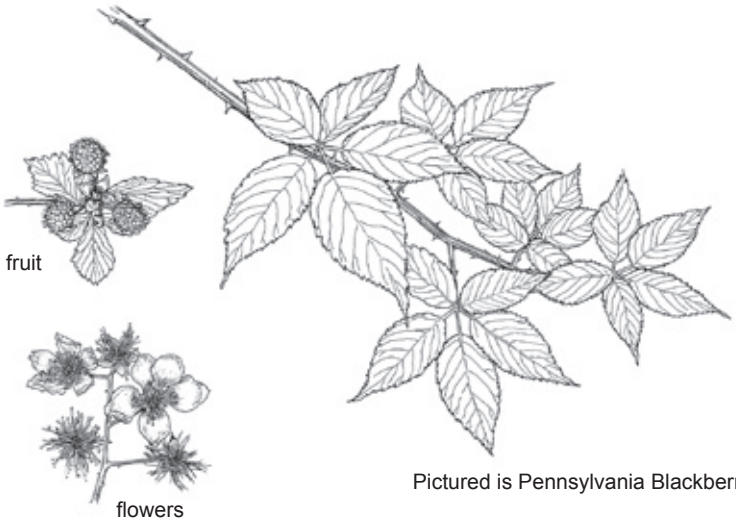
**Flowers:** Showy, white, about one inch across; appearing in clusters in late spring to early summer

**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

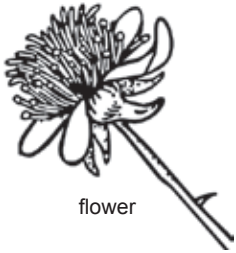
**Flowers:** Small, greenish white, 5-petaled, not showy; appearing in late spring

**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.



flower

*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.

seed capsules

*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

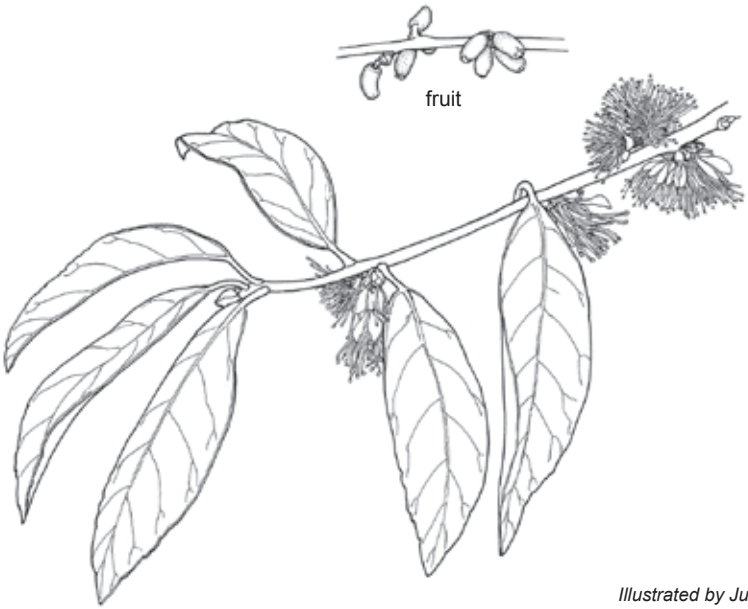
**Flowers:** Small, white with many stamens, in round clusters like fuzzballs; appearing before leaves in spring

**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 fringy 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

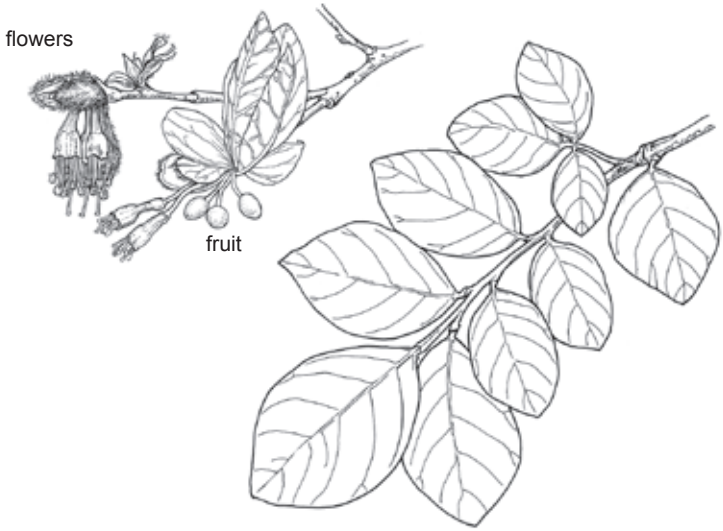
**Flowers:** Tubular, pale yellow, ⅓ inch long, in groups of 2 or 3 from leaf axils; appearing in spring

**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

## 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

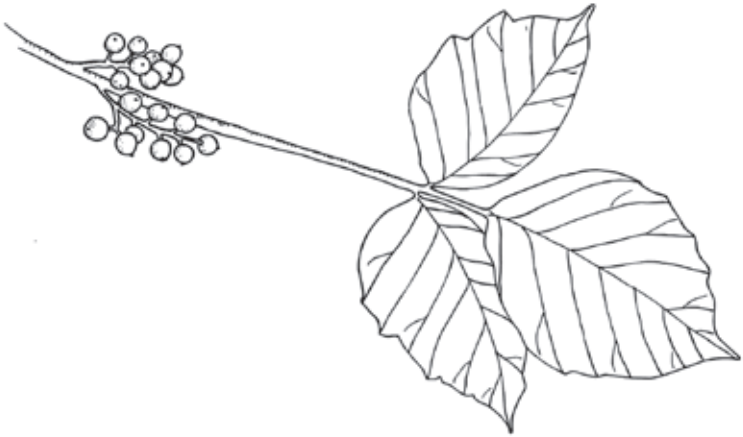
**Leaves:** Alternate, compound, 7 to 10 inches long, with 3 oval, large-toothed or wavy-edged leaflets; shiny green above and paler below; toxic on skin contact

**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 ⅓ 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

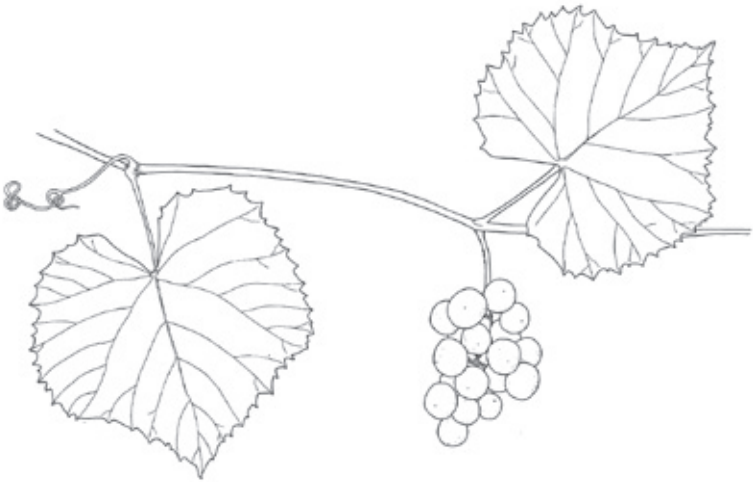
**Leaves:** Alternate, simple, generally heart-shaped to round, 3 to 6 inches long; edges toothed; often lobed in some species; green above, variable below depending on species

**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

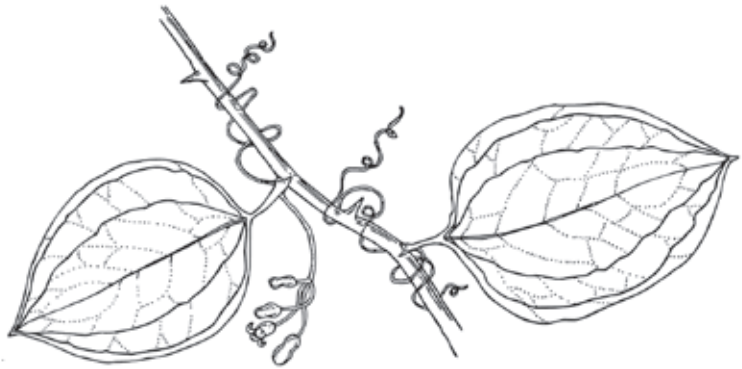
**Leaves:** Evergreen or deciduous and variable by species; alternate, simple, main veins parallel; elliptical, oblong, rounded, heart-shaped, or 3 lobed; 2 to 5 inches long, edges smooth or with small sharp prickles

**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

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

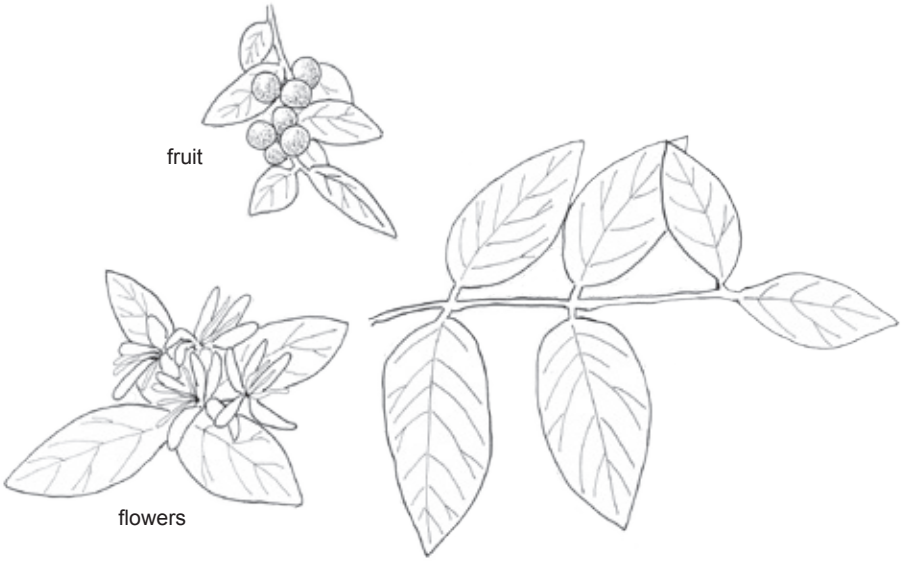
**Flowers:** White to yellow, or pink to red, depending on species; ¾ to 1 inch long, tubular with 5 slender, flaring petal lobes, fragrant, appearing in late winter to early summer

**Fruit:** Juicy, shiny, red, orange or yellow berry, ¼ 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

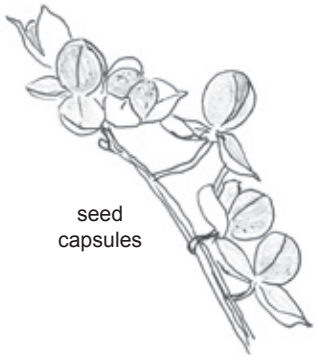
**Leaves:** Alternate, simple, oval to nearly round, 2 to 4 inches long, often blunt-tipped, edges finely toothed with somewhat rounded teeth, green above and slightly paler below

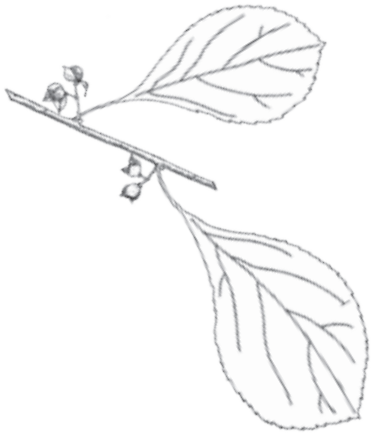
**Flowers:** Tiny, pale yellowish-green, in clusters, appearing in late spring

**Fruit:** Round, ⅓ 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 ⅓ 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

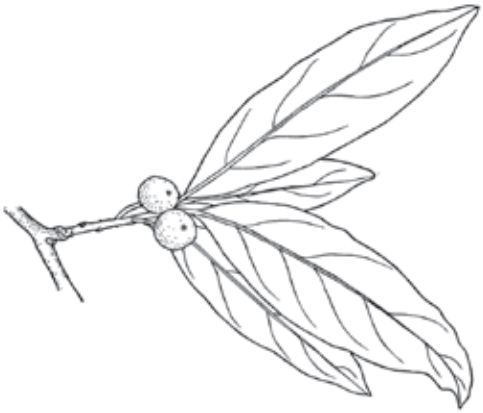
**Flowers:** White to yellowish-white, trumpet-shaped with 4 lobes, ½ inch long, in small clusters, very fragrant, appearing in spring

**Fruit:** Berry-like, red, dotted with silver scales, ¼ to ⅓ 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.) Merritt

Native 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

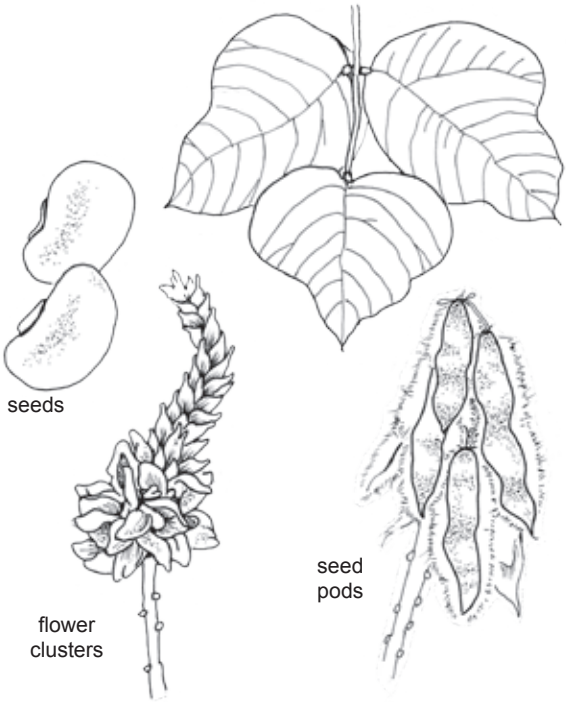
**Flowers:** Large hanging clusters of pea-like, purple to red flowers with an “artificial grape” smell, appearing in mid-summer

**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* Loureiro

Native 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

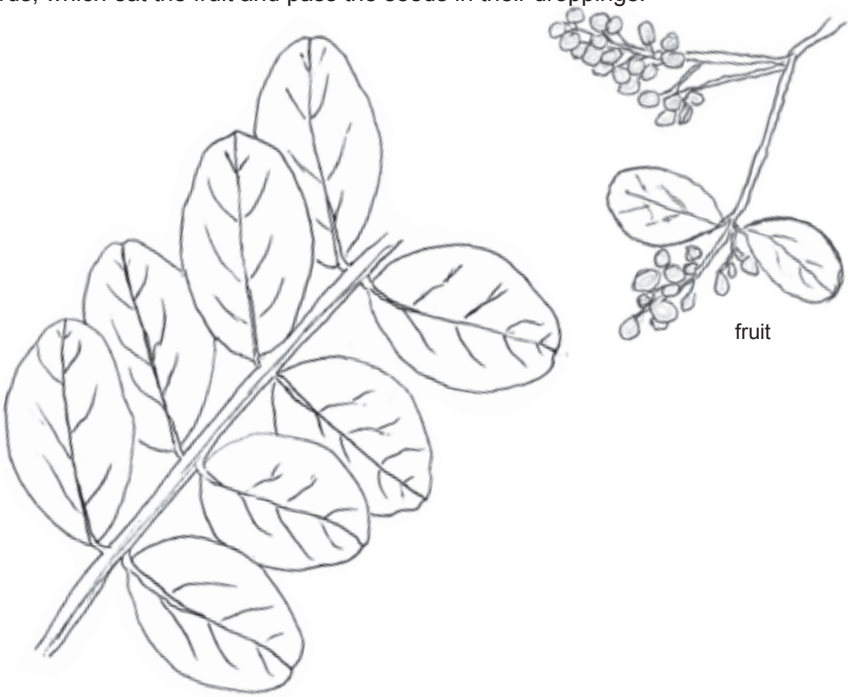
**Flowers:** White, small, bell-shaped, in dense, elongated clusters, fragrant, appearing in late spring

**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

INVASIVE

Native to Asia

(Amur Peppervine)

*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 ⅓ 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)

Throughout the state, Virginia Project Learning Tree (PLT) offers workshops where present and future educators can receive training in PLT's award-winning curriculum. PLT helps students understand their environment; stimulates creativity and critical thinking; develops decision-making abilities on environmental issues, and encourages responsible environmental action.

PLT curriculum includes the PreK-8 Environmental Education Activity Guide, the Energy & Society Kit, and a series of focused modules for secondary students. For more information, see the Virginia PLT website at http://web1.cnre.vt.edu/plt/ or the national PLT website at www.plt.org.

# 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. 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 six Virginia state agencies: Department of Forestry, Department of Game and Inland Fisheries, Department of Conservation and Recreation, Department of Environmental Quality, Museum of Natural History, 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

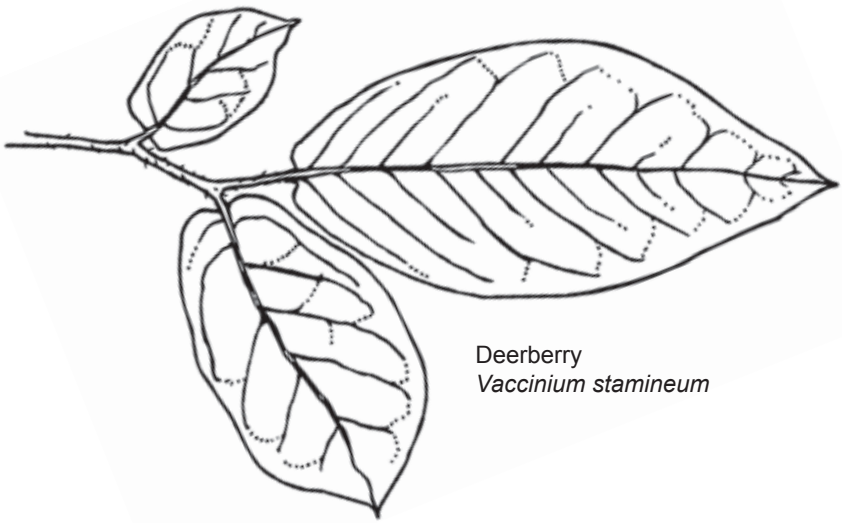
## – U –

**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 for multiple objectives. The forests are self-supporting, generating their own income through timber sales. They also provide wildlife habitat, watershed protection, scenic beauty, research and demonstration areas and recreational opportunities.

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 acquisition of the central Virginia forests, the Department of Forestry began to acquire other tracts of land as gifts from private landowners.

## 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 https://gooutdoorsvirginia.com or where hunting licenses are sold.

**Camping** is allowed on State Forest land by permit only, and at this time 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 and Conway Robinson State Forests have picnic shelters that are available on a first-come, first-served basis.

**Hunting** is allowed seasonally on Appomattox-Buckingham, Big Woods, Channels, Cumberland, Dragon Run, Prince Edward-Gallion, Sandy Point, Browne and Matthews State Forests. State hunting regulations apply. Hunting is not allowed on other State Forests due to deed restrictions, inadequate acreage or devotion to other recreational uses that would create safety issues. Visit www.dof.virginia.gov for the most up-to-date hunting information.

There are eight lakes, two rivers and numerous creeks on State Forest lands suitable for **fishing**. State fishing regulations apply.

There is a **canoe** launch at Zoar State Forest. Boaters on the Mattaponi River are welcome to stop at Sandy Point State Forest to picnic.

**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, and many shorter trails on the smaller State Forests. In addition, the forests have more than 200 miles of gated forest roads, which can be used by hikers, bikers and horseback riders.

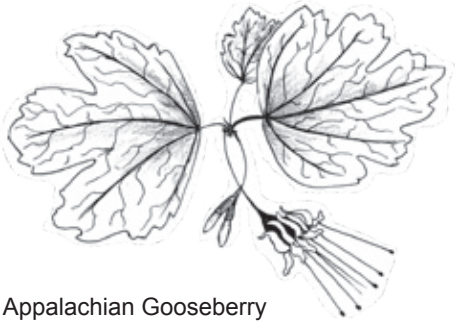
Thirteen of the state forests are suitable for **mountain biking**. Dedicated trails, gated forest trails and open forest roads provide more than 300 miles of opportunities for mountain bike riding. Matthews, Whitney and Conway Robinson State Forests have volunteer groups that have developed and maintain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

Thirteen of the state forests provide for **horseback riding** opportunities, with more than 300 miles of trails and roads available. Parking is limited for horse trailers on state forests, and Appomattox-Buckingham State Forest is the only forest with facilities developed for horse trailers.

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. A forest history geocache is located on the Appomattox-Buckingham State Forest.

**Educational tours, workshops and youth programs** are offered periodically on some of the State Forests.



Appalachian Gooseberry
*Ribes rotundifolium* Michaux

| State Forest | County | Acres | Comments |
|---|---|---|---|
| **Appomattox-Buckingham** | Appomattox & Buckingham | 19,808 | Open to the Public |
| **Big Woods** | Sussex | 2,202 | Open to the Public |
| **Bourassa** | Bedford | 288 | Research Site - CLOSED TO PUBLIC |
| **Browne** | Essex | 128 | No Parking |
| **Channels** | Washington & Russell | 4,836 | Open to the Public |
| **Chesterfield** | Chesterfield | 440 | No Parking |
| **Chilton Woods** | Lancaster | 397 | Open to the Public |
| **Conway-Robinson** | Prince William | 444 | Open to the Public |
| **Crawfords** | New Kent | 258 | Open to the Public |
| **Cumberland** | Cumberland | 16,222 | Open to the Public |
| **Devil's Backbone** | Shenandoah | 517 | Open to the Public |
| **Dragon Run** | King & Queen | 9,563 | Open to the Public |
| **Hawks** | Carroll | 121 | No Parking |
| **Lesesne** | Nelson | 422 | Research Site - Open to the Public |
| **Matthews** | Grayson | 566 | Open to the Public |
| **Moore's Creek** | Rockbridge | 2,353 | Limited Access - Hike into Forest |
| **Niday Place** | Craig | 254 | No Parking |
| **Old Flat** | Grayson | 320 | NO PUBLIC ACCESS |
| **Paul** | Rockingham | 173 | Open to the Public |
| **Prince Edward-Gallion** | Prince Edward | 6,461 | Open to the Public |
| **Sandy Point** | King William | 2,043 | 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** | | 68,626 | |

| Latitude / Longitude | |
|---|---|
| 37° 26’ 18.6”N, 78° 39’ 52.3”W | Office Parking Lot |
| 36° 55’ 17.5”N, 77° 5’ 4”W | Inter. of New Forest Rd. & Rt. 622 |
| 37° 4’ 34”N, 79° 31’ 25”W | Center of Forest |
| 37° 47’ 25.4”N, 76° 46’ 49.7”W | Parking Spots |
| 36° 49’ 40.9”N, 81° 57’ 43.5 ”W | Entrance to Forest |
| 37° 18’ 15.5”N, 77° 32’ 1”W | Center of Forest |
| 37° 49’ 25.3”N, 76° 32’ 7”W | Parking Area |
| 38° 48’ 12.6”N, 77° 35’ 16.7”W | Parking Lot |
| 37° 27’ 12.6”N, 77° 4’ 48.6”W | Parking Area |
| 37° 31’ 37.9”N, 78° 17’ 7.2”W | Office Parking Lot |
| 39° 3’ 1.5”N, 78° 26’ 24.5”W | Parking Lot |
| 37° 42’ 34.8”N, 76° 48’ 26.9”W | Inter. of CCC Rd. & Rt. 616 |
| 36° 36’ 15.1”N, 80° 46’ 30.7”W | Center of Forest |
| 37° 50’ 9.3”N, 78° 58’ 14.6”W | Parking Spots |
| 36° 38’ 34”N, 80° 57’ 27.4”W | Office Parking Lot |
| 37° 43’ 50.5”N, 79° 40’ 13.7”W | Hiking Trail into Forest |
| 37° 23’ 14.9”N, 80° 23’ 36.2”W | Parking Spot |
| 36° 37’ 38”N, 81° 31’ 31”W | Center of Forest |
| 38° 26’ 6.7”N, 79° 2’ 10.4”W | Parking Area |
| 37° 10’ 32.4”N, 78° 16’ 43.7”W | Twin Lakes State Park Office |
| 37° 40’ 7.3”N, 76° 57’ 1.5”W | Parking Area |
| 36° 35’ 54”N, 76° 53’ 44”W | Center of Forest |
| 38° 40’ 20.1”N, 77° 48’ 19.4”W | Parking Area |
| 37° 47’ 14.7”N, 77° 6’ 33.8”W | Parking Area |
| | |

## New Kent Forestry Center

The Department of Forestry hosts educational programs for schools on the site of a former State Nursery. The 450-acre site includes a conference center available for rent by groups and organizations. A two-mile nature trail is open for group hikes by appointment only.

New Kent Forestry Center

(804) 966-5092

## Department of Forestry Headquarters 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.

## Other Places to Study Trees

Virginia has…

- ▲ 36 State Parks
- ▲ 63 Natural Area Preserves
- ▲ George Washington and Thomas Jefferson National Forests
- ▲ Shenandoah National Park
- ▲ Many local parks and trails

Visit http://www.vanaturally.org/ for links to these and other outdoor learning areas.

# 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 30 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**

# Bibliography

Burns, Russell M., and Barbara H. Honkala. 1990. Silvics of North America. USDA Forest Service Agriculture Handbook 654. USDA Forest Service, Washington, DC. http://www.na.fs.fed.us/spfo/pubs/silvics_manual/table_of_contents.htm

Cook, C.W. 2013. Trees, Shrubs, and Woody Vines of North Carolina. http://www.carolinanature.com/trees/

Dirr, M. A. 1998. Manual of Woody Landscape Plants. 5th edition. Stipes Publishing, LLC, Champaign, Illinois.

Martine, C. T. 2007. Shrubs and Vines of New Jersey and the Mid-Atlantic States. New Jersey Forest Service, Jackson.

Seiler, Dr. John R., Edward Jensen, Alex Niemiera, and John A. Peterson. 2012. vTree Fact Sheets. Virginia Tech Department of Forest Resources and Environmental Conservation. http://www.cnr.vt.edu/dendro/dendrology/factsheets.cfm

USDA, NRCS. 2013. The PLANTS Database (http://plants.usda.gov, 21 August 2013). National Plant Data Team, Greensboro, NC 27401-4901 USA.

Weakley, A.S., J.C. Ludwig, and J.F. Townsend. 2012. Flora of Virginia. Bland Crowder, ed. Foundation of the Flora of Virginia Project Inc., Richmond. Fort Worth: Botanical Research Institute of Texas Press.

# Other Resources

Forest Landowner Education Program – http://cnre.vt.edu/forestupdate/

ForSite (Forestry Outreach Site) – http://dendro.cnre.vt.edu/forsite/contents.htm

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

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

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

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

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# Virginia Department of Forestry Contacts

## Headquarters
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 ; FAX: (540) 387-5445

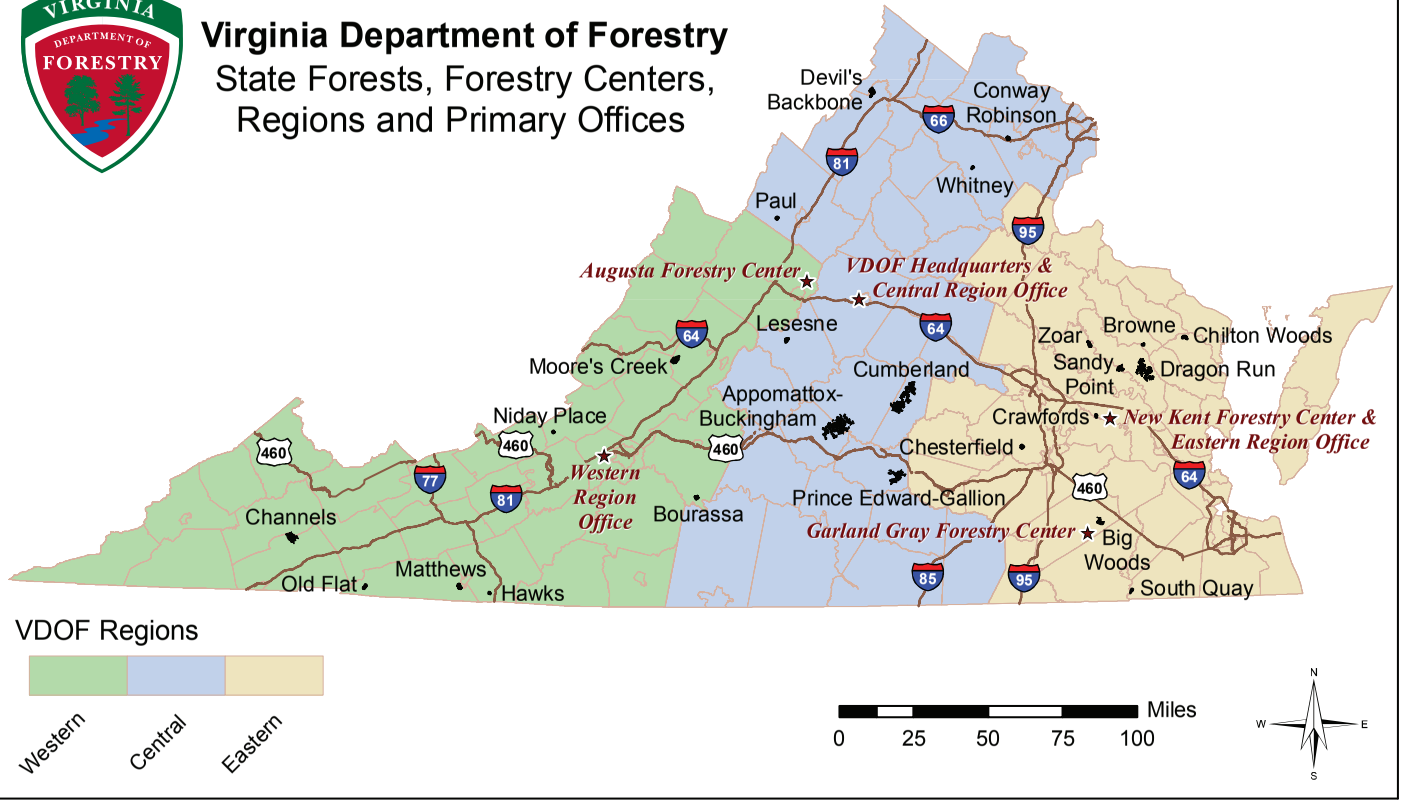
**Central Region Office, Charlottesville:**
Phone: (434) 977-5193 ; FAX: (434) 296-3290

**Eastern Region Office, Providence Forge:**
Phone: (804) 443-2211 ; FAX: (804) 443-3164

## Area Offices
Visit www.dof.virginia.gov

# Virginia Department of Forestry

## State Forests, Forestry Centers, Regions and Primary Offices

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