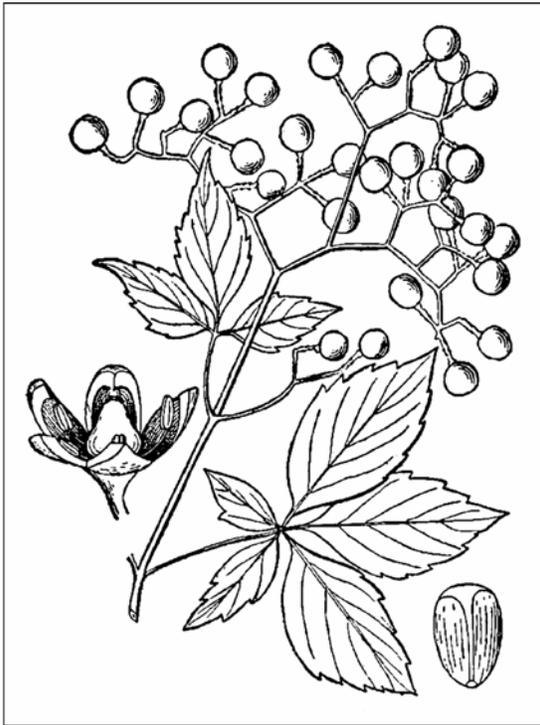


***Parthenocissus quinquefolia* (L.) Planch.**  
VITACEAE

Virginia creeper

Synonyms: *Amphelopsis latifolia* Tausch  
*Amphelopsis quinquefolia* (L.) Michx.  
*Hedera quinquefolia* L.  
*Vitis quinquefolia* (L.) Lam.  
*Parthenocissus hirsute* (Pursh) Graebn.  
*Parthenocissus inserta* (Kerner) Fritsch (and other synonyms: Natural Resources Conservation Service 2003)



**General Description.**—Virginia creeper, occasionally referred to as woodbine, thicket creeper, American ivy, and five-leaved ivy, is a deciduous woody vine that may reach 15 m or more into the crowns of trees or up masonry walls. Single or multiple stems are slender, round, light brown, and have prominent lenticels. Young growth is reddish. The vines adhere to surfaces by means of five- to eight-branched tendrils ending in cup-like, adhesive tips. The alternate leaves are palmately compound with five (sometimes three or four) leaflets. The leaflets are lanceolate, oblanceolate or obovate, 3 to 15 cm long, and 1.6 to 8 cm broad with singly or doubly serrate margins. Petioles are 15 to 20 cm long, and leaflets have distinct petiolules. Small, greenish-white to yellowish-green flowers are borne in terminal

cymes or panicles positioned under the foliage. Fruits are berries, somewhat flattened at the apex, 4 to 6 mm in diameter, bluish-black with a definite bloom when ripe. Fruits usually contain two to three seeds (Dirr 2003, Nelson 1996, Rehder 1951, Welsh and others 1987).

**Range.**—Virginia creeper is native to all the conterminous States except Washington, Oregon, California, Nevada, Arizona, New Mexico, Utah, Idaho, Montana, Wyoming, and North Dakota (Natural Resources Conservation Service 2003). It is also native to northern Mexico and southeastern Canada from Nova Scotia to Ontario (Colorado 1991, Nelson 1996). It has naturalized in at least Utah, England, and France (Compton 2003, Services Culture Editions Ressources 2003, Welsh and others 1987). The species is cultivated as an ornamental in many moist temperate areas of the world.

**Ecology.**—Virginia creeper is found in most of the vegetation associations in the Eastern and Midwestern United States (Colorado 1991). It grows in most moist soils types. Virginia creeper grows well in full sun but also tolerates shade. When growing under a forest canopy, it attempts to ascend the tree trunks or obstacles it encounters. It is a mid- to late-seral species. It is sensitive to fire and is top-killed by most fires. Root crowns and occasional surviving stems sprout and partially renew burned stands (Colorado 1991).

**Reproduction.**—Virginia creeper flowers from June to August, matures fruits from August to October and drops fruits (or they are eaten by birds) from September to February. Good fruit and seed crops are frequent. There are 21,600 to 58,000 air-dried seeds/kg of which 44 to 99 percent are sound (Gill and Pogge 1974). The seeds are dispersed by birds (Dirr 2003). Seeds

germinate the first or second spring after dispersal; germination is epigeal (Gill and Pogge 1974). It layers readily at the nodes when stems come in contact with the soil (Crandall and Crandall 1995).

**Growth and Management.**—Once well established, Virginia creeper grows rapidly. It often must be pruned to prevent it from getting out of control in ornamental settings. It can seed into nearby flower beds and wildlands. Virginia creeper should not be planted to climb up buildings with wooden siding because it is difficult to remove and because it increases the humidity and hastens rot (Gilman 1999). The species occasionally interferes with reproduction of pines and hardwoods and may be controlled with herbicides. Fire can also be an effective control agent (Coladoanto 1991). Fruits can usually be picked in quantity by hand. Seeds are separated from fruit tissue by maceration followed by floating off the pulp and empty seeds with water. However, maceration must be gentle because seed coats are soft and easily damaged. There are 16 to 27 g of seeds/100 g of fruits. The seeds may be fall-sown 1 cm deep in soil and mulched. Alternatively, seeds may be stratified in moist peat or sand at 5 or 6 °C for 60 days and sown in the spring. Forty-one to 94 percent of the seeds will germinate after 30 days. Seedlings are ready for outplanting when they reach 15 cm in height after 1 or 2 years in the nursery. The species can also be propagated with cuttings and layers (Gill and Pogge 1974).

**Benefits.**—Virginia creeper is important to the aesthetics of forests, helps protect the soil, and furnishes food and cover for wildlife. Cattle and white-tailed deer sometimes browse the foliage. Songbirds are the principal consumers of the fruits. The foliage, both as a ground cover and climber, provides cover for small mammals and birds (Coladoanto 1991). It has been planted for watershed protection and erosion control (Gill and Pogge 1974). The principal attraction of Virginia creeper is its fall color. The leaves turn fiery shades of purple, red, and scarlet after the first frost (Dirr 2003). The blue-black fruits and their stems (which turn red also) add color and interest after the leaves have fallen. The species is planted to cover building walls, run up tree trunks, and form trellises and arbors. It also makes a fine ground cover (Crandall and Crandall 1995). Native Americans took decoctions of the roots for diarrhea and difficult urination, infusions for jaundice, and applied decoctions and poultices topically for swelling and lockjaw (Moerman

1986). The fruits are reported to be poisonous by reason of the oxalic acid they contain (Russell and others 1997). However, consuming more than a small amount is unlikely due to their bad flavor (author, personal observation).

## References

- Coladoanto, M. 1991. *Parthenocissus quinquefolia*. In: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory, Fire Effects Information System. <http://www.fs.fed.us/database/feis/plants/vine/parqui/all.html>. 10 p.
- Compton, G. 2003. Cambridgeshire flora records since 1538. [http://mnlg.com/gc/species2pz/p/par\\_qui.html](http://mnlg.com/gc/species2pz/p/par_qui.html). [not paged].
- Crandall, C. and B. Crandall. 1995. Flowering, fruiting, and foliage vines. Sterling Publishing Co., Inc., New York. 192 p.
- Dirr, M.A. 2003. *Parthenocissus quinquefolia*—Virginia creeper, also called woodbine. <http://www.nobleplants.com/classnotes/spring/springprofiles/vines/parthoquinque.htm>. 1 p.
- Gill, J.D. and F.L. Pogge. 1974. *Parthenocissus* Planch., creeper. In: C.S. Schopmeyer, tech. coord. Seeds of woody plants in the United States. U.S. Department of Agriculture, Forest Service, Washington, DC. p. 568-571.
- Gilman, E.F. 1999. *Parthenocissus quinquefolia*. Fact Sheet FPS-454. Cooperative Extension Service, University of Florida, Gainesville, FL. 3 p.
- Moerman, D.E. 1986. Medicinal plants of Native America. Technical Reports. 19. University of Michigan Museum of Anthropology, Ann Arbor, MI. 534 p.
- Natural Resources Conservation Service. 2003. Plants profile: *Parthenocissus quinquefolia* (L.) Planch. [http://plants.usda.gov/cgi\\_bin/plant\\_search.cgi?mode=Common+Name&keyw ordquery=Vi....](http://plants.usda.gov/cgi_bin/plant_search.cgi?mode=Common+Name&keyw ordquery=Vi....) 4 p.
- Nelson, G. 1996. The shrubs and woody vines of Florida. Pineapple Press, Inc., Sarasota, FL. 391 p.

Rehder, A. 1951. Manual of cultivated trees and shrubs hardy in North America. The MacMillan Company, New York. 996 p.

Russell, A.B., J.W. Hardin, L. Grand, and A. Fraser. 1997. Poisonous plants: *Parthenocissus quinquefolia*. North Carolina State University, Raleigh, NC. <http://www.ces.ncsu.edu/depts/hort/consumer/poison/Parthqu.htm>. 2 p.

Services Culture Editions Ressources. 2003. *Parthenocissus quinquefolia* (Linné) Planchon. [http://crdp.ac-besancon.fr/ressourc/flore/flore/especes/parth\\_quinq.htm](http://crdp.ac-besancon.fr/ressourc/flore/flore/especes/parth_quinq.htm). 1 p.

Welsh, S.L., N.D. Atwood, S. Goodrich, and L.C. Higgins, eds. 1987. A Utah flora. Great Basin Naturalist Memoirs 9. Brigham Young University, Provo, UT. 894 p.

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