

*Aralia spinosa* L.  
ARALIACEAE

devil's walking stick

Synonyms: *Aralia leroana* K. Koch.

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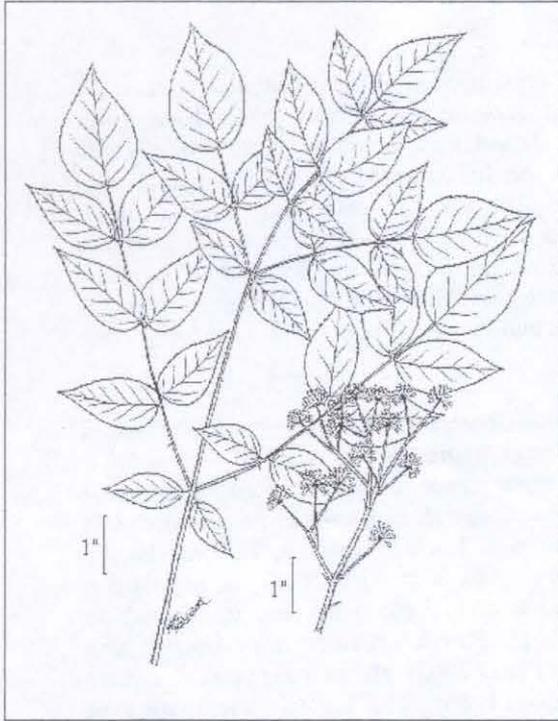


Illustration source: U.S. Department of Agriculture [not dated]

**General Description.**—Devil's walking stick, also known as angelica tree, American angelica-tree, Hercules' club, pigeon tree, pick tree, prickly ash, prickly elder, toothache bush, toothache tree, and shotbush, is a large, coarse-textured shrub or small tree, ranging from 6 to 10 m in height. The sturdy, ash gray to brown stems have dense, stout prickles, and diameters to 15 cm are not uncommon (U.S. Department of Agriculture [no date]). Young stems are mostly unbranched with leaves clustered near the top, producing a flat-topped, widely spreading crown. Stems tend to remain unbranched until the first terminal inflorescences are produced (Sullivan 1992). Twigs are similar in color and armament to the stems and have a large pith (Synor and Cowen [no date]). Leaf scars are distinctive, lined with spines, and can extend half way around the twigs. Leaves are alternate, bi- or tri-pinnately compound, and 0.9 to 1.8 m in length. The rachis is prickly and swollen at nodes (Bailey and Bailey 1976). The rachis and rachilla may be the functional equivalent of branches in this species (Briand and others

1998). The dark green, glaucous leaflets are sessile, 5.1 to 10.2 cms long and 3.0 to 4.1 cm wide, mostly paired, ovate, serrate, with pointed apex and rounded base (Dirr 2002, Johnson and Hoagland 1999, Krüssmann 1986). There are prickles on the veins and lower surfaces; they appear to be outgrowths of epidermal and parenchyma cells (Briand and Soros 2002). The wood is lightweight, brown but streaked with yellow (Synor and Cowen [no date]). It may be that the pithy nature of the trunk of Devil's walking stick allows for rapid growth but ultimately restricts crown architecture and maximum size attainable (Briand and others 1999). The species is deciduous and spreads by underground runners.

**Range.**—Devil's walking stick is found in the Eastern United States, from Pennsylvania south to Florida and west to Texas and southwestern Iowa. It has escaped from cultivation and thus can be found in New England, southern Ontario, Michigan, Wisconsin, Oregon, Washington, and western Europe (Sullivan 1992). It grows in regions where temperatures fall to  $-29^{\circ}\text{C}$ ; such severe freezes can kill stems back to ground level (Godfrey 1988, Frett and MacKenzie 1999, Sullivan 1992, Scheper 2002).

**Ecology.**—This highly adaptable species grows best in well drained soils of low and moist woodlands but can be found growing in rocky, dry or clay soils and under a range of pH conditions (Frett and MacKenzie 1999). It grows luxuriantly on good sites, but plants may live longer and be sturdier on poorer sites (Scheper 2002). It has a fairly high heat tolerance. According to Russell (1997), it is shade tolerant, but Sullivan (1992) reports that it will decline if the overstory becomes thick, a common characteristic of moderately intolerant species. It has no serious pests, but margined blister beetles may defoliate plants early in the fall (Scheper 2002).

**Reproduction.**—Devil's walking stick spreads extensively by vegetative reproduction from underground rhizomes. The first terminal inflorescences usually occur when plants are, on the average, 3.5 years old (Sullivan 1992). The

white to cream colored flowers are small, perfect, numerous, and occur in large clusters (umbels) in mid to late summer, depending on geographic area. Panicles of flowers may be 30 to 46 cm long. Each flower, composed of five sepals, five reflexed petals, and five stamens, is borne on a hairy stalk. The ovary is inferior, and there are usually five styles, united at the base (Brickell and Zuk 1996, U.S. Department of Agriculture [no date]). The purple-black fruits, maturing in late fall, are produced in large quantities on pink-red stems. They are juicy, ovoid drupes up to 6.4 mm long with three to five seed-like stones. The species can be propagated from seed sown outdoors in fall (Russell 1997) or from suckers taken in late winter and root cuttings taken in late fall and overwintered upside down in sand (Scheper 2002). Stored seeds require 3 to 5 months stratification, followed by 1 to 4 months at 20 °C for germination.

**Growth and Management.** Devil's walking stick can be maintained by mowing, cutting, and burning, and will commonly form dense thickets by resprouting after such disturbances. When the overstory becomes too dense, the species will decline. Defoliation by gypsy moth in Pennsylvania and Maryland has increased the presence of Devil's walking stick by thinning the overstory (Sullivan 1992). The species can be controlled by injecting stems larger than 2 inches in diameter with herbicide (Loftis 1978).

**Benefits.**—The flowers provide a pollen and nectar source to honeybees and a variety of other insects. The berries are edible to wildlife, a favorite of cedar waxwings and other birds, as well as other frugivores and omnivores, including the black bear. Deer browsing has been reported (Krüssmann 1986, Sullivan 1992). The bark, roots, and berries have also been used for medicinal purposes by both Native Americans and early settlers. While various plant parts, extracted in alcohol or water, have been used to treat boils, fever, toothache, eye problems, skin conditions, and snakebite, the raw berries can be mildly toxic to humans if ingested, contact with the bark or roots can cause a brief skin irritation, and ingesting the fresh bark will cause vomiting (Felter and Lloyd 1898, Grieve 1971). The species is cultivated as an ornamental plant, the lacy appearance of the foliage, along with the prolific flowers and fruit making it an interesting landscape plant (Dirr 2002, Odenwald and others 1996). It is also an excellent barrier plant (Frett and MacKenzie 1999, Michigan State University Extension 1999) and is good for urban use.

However, it will send up shoots from its rhizomes and can be somewhat invasive.

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