United States Department of Agriculture
NRCS Natural Resources Conservation Service
Plant Guide

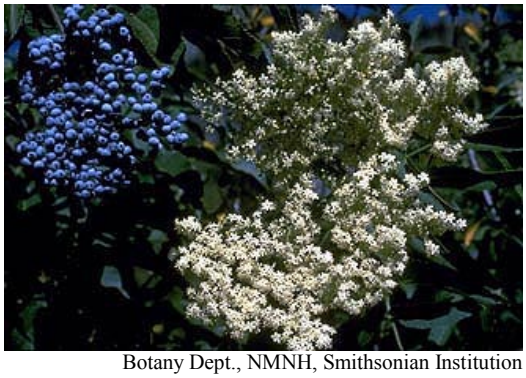
BLUE ELDERBERRY

Sambucus nigra ssp. *caerulea* (Raf.) R. Bolli

plant symbol = SANIC5

Contributed By: USDA, NRCS, National Plant Data Center & the Biota of North America Program

Alternate names



Botany Dept., NMNH, Smithsonian Institution @ PLANTS

Blueberry elder, blue elder, arizona elderberry, new mexican elderberry, velvet-leaf elder, hairy blue elderberry, dwarf elder; synonym: *Sambucus caerulea* Raf. (the epithet sometimes spelled "*cerulea*" or "*coerulea*").

Uses

Blue elderberry is planted because of its forage and cover value, productivity, adaptability, and ease of establishment. It is a useful ground cover for stabilizing streambanks and eroding sites. It provides food, cover, perching, and nesting sites for many species of birds and food and cover for various other wildlife, and it is important as browse for mule deer and elk. In the spring the leaves may be strongly scented and less palatable, but they sweeten and become more palatable by fall.

Fruits of blue elderberry are gathered from the wild for wine, jellies, candy, pies, and sauces. The plants are commercially cultivated for fruit production in Oregon. *Sambucus canadensis* and *S. nigra* have long been used in the same way, and cultivars of both have been developed. Native Americans gathered the fruit of blue elderberry to eat raw, cook, or dry. The wood is hard and has been used for combs, spindles, and pegs, and the hollow stems have been fashioned into flutes and blowguns.

Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status, such as, state noxious status and wetland indicator values.

Description

General: Honeysuckle family (Caprifoliaceae). Native shrubs growing 2-4(-8) m tall, less commonly small single-stemmed trees, young twigs soft and pithy but the wood hard; bark thin, grayish to dark brown, irregularly furrowed and ridged. Leaves are deciduous, opposite, about 15-35 cm long, odd-pinnate with (3-)5-9 serrate leaflets 2-15 cm long, often with a long stalk, often asymmetrical at the base. Inflorescence is flat-topped, 4-20(-30) cm across, broader than high; flowers bisexual, the corollas small, white to cream, rotate, 5-lobed. Fruit is berry-like, 5-6 mm wide, with 3-5 nutlets, blue- to purple-black at maturity with a white-waxy bloom and appearing powder blue. The common name "elder" is from the Anglo-Saxon "ellen," meaning fire-kindler, the dry, pithy stems; blue from the fruit color.

Variation within the species:

A recent proposal treats *Sambucus caerulea* within a broader species concept – where it is considered the western US segment of *S. nigra* L., a species covering all of North America and extending into Europe. Ssp. *canadensis* (L.) R. Bolli (= *S. canadensis* L.) is the eastern US entity of *S. nigra*, extending westward into the Great Plains nearly to the eastern edge of the Rocky Mountains. Ssp. *nigra* is the Old World entity but it also occurs in Greenland, Newfoundland, and a few other localities in northeastern North America.

Several varieties have been described within *Sambucus caerulea*, although they are not currently accepted:

Var. *caerulea*

Var. *neomexicana* (Woot.) Rehd. – New Mexican elderberry

Var. *velutina* (Dur. & Hilg.) Schwerin – Dwarf Elder

Some familiar with elderberry in the western US, however, remain convinced that more than a single entity is represented within "var. *caerulea*," differing in habitat and biological features (e.g., see http://www.laspilitas.com/plants/619.htm).

Distribution: From west Texas north to Montana, western Alberta, and southern British Columbia, and all other western states, south into northwest Mexico. For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

Adaptation
Blue elderberry grows on moist, well-drained sunny sites, usually occurring in early seral communities or in openings in moist forest habitats (slopes, canyons, cliff bases, streamsides, streambanks) and moist areas within drier, more open habitats (sagebrush, mountain brush, pinyon-juniper, ponderosa pine, often along fence rows and roads); at elevations of 3-3000 meters. It can persist past seral stages as scattered individuals in open forests, woodlands, chaparral, or riparian zones. Flowering May-September; fruiting July-October. Blue elderberry is more common on warmer sites than red elderberry (*Sambucus racemosa*), although they overlap in habitat preference.

Establishment
Blue elderberry produces a good seed crop almost every year. The seeds are dispersed by birds and other animals that eat the fruit. The seeds have a hard seed coat and embryo dormancy and may remain viable for up to 16 years in storage. Without pretreatment, seed germination may be delayed from 2 to 5 years after planting. Plants may flower and fruit after only 2-3 years and can reach full size in 3-4 years. They are said to be "short-lived." Vegetative reproduction is limited to coppicing if the stems are killed or injured.

Management
Clear-cutting or seed tree cutting with high soil disturbance sometimes favors the development of blue elderberry in a seral community. It recovers well from heavy grazing in the Great Basin. For use in site stabilization or rehabilitation, seeds may be planted directly or seedlings and 1-2-year old stock may be transplanted. It also grows from transplanted seedlings, cuttings, and rootstocks.

Blue elderberry usually is not present in the understory of closed-canopy forests, and when fire occurs in these, regeneration occurs from seed banks that may occur between 2-10 cm deep in the soil, the seeds deposited from off-site dispersal or from plants of an earlier community. Fire scarifies the hard seed coat of buried seeds and stimulates their germination, which usually occurs the first growing season after the fire. Subsequent burns may eliminate blue elderberry since it spreads slowly by seed. Fire kills above-ground parts but the root crown may sprout but a severe fire can kill the root and stem buds from which sprouting occurs.

Cultivars, Improved and Selected Materials (and area of origin)
Please check the Vendor Database, expected to be on-line through the PLANTS Web site in 2001 by clicking on Plant Materials. These plant materials are somewhat available from commercial sources.

References
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Prepared By
Guy Nesom
BONAP, North Carolina Botanical Garden, University of North Carolina, Chapel Hill, North Carolina

Species Coordinator
Lincoln Moore
USDA, NRCS, National Plant Data Center, Baton Rouge, Louisiana

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