

Sambucus nigra L.

Standardized Common Name: European Elder

Other Common Name: Black Elder

Family: Caprifoliaceae, Adoxaceae or Sambucaceae

Parts in Commerce: Flowers or fruits

Identification: If the inflorescence is intact, it should be flattened, not pyramidal. The flowers are greatly shriveled on drying and must be reconstituted with water before examination.

- Flower ca. 2–5 mm in diameter, rarely to 6 mm
- Calyx greenish brown, with 5 small ovate lobes
- Corolla whitish when fresh or yellowed, not reddish
- Corolla disk-shaped to slightly cup-shaped, with short tube and 5 ovate spreading lobes
- Stamens 5, attached at base to corolla; filaments narrow; anthers pale yellow, not reddish; pollen yellow
- Stigmas sessile at top of ovary, darker than ovary, usually 3 (2–4)
- Taste sweetish, mucilaginous

Adulterants: *Sambucus ebulus* L. subsp. *ebulus* (Dwarf Elder) and *S. racemosa* L. (Red Elder) occur in Europe; both should be easily distinguished from *S. nigra*. The anthers and petals of *S. ebulus* are often reddish. The inflorescence of *S. racemosa* is pyramidal in shape, and the petals are often reflexed.

Fruits: The fruits of *S. nigra* and a few other species are used for culinary and medicinal purposes. Only the purple- to black-fruited species are used; these include *S. nigra* (sensu lato) and *S. ebulus*, as well as *S. australis* Cham. & Schlecht. from South America. Two Asian species occasionally have black fruits, but are not likely to be found in commerce. *Sambucus racemosa* also rarely has dark fruits, which are smaller than those of most species. The taste of the fruit is sweet and slightly sour, and the odor is characteristic; other characters are as given below. Pyrenes are variable within and among taxa and are of little taxonomic use. (A fruit might be expected to contain as many pyrenes as the ovary had had locules, but commonly some or even all of the ovules prove infertile and do not mature.)

Species or subspecies	Origin	Fruit shape, size and color	Number of locules	Shape of pyrenes
S. australis	South America	Globose; ca. 6 mm; black with greenish flesh	5	More or less triangular in shape and cross-section, winged on corners
S. ebulus subsp. ebulus	Europe, Mediterranean, Quebec	Variable; 4–6 mm; glossy black with purplish flesh	3(–4)	Variable, faintly wrinkled
S. nigra subsp. canadensis	Eastern U.S. and Canada, Central America, where cultivated	Usually globose; 4–5 mm; immature fruit with prominent ribs, mature fruit first ruby-purple then dark purple to black, with purplish to grayish flesh	3–4(–5)	Variable, usually with acute apex, faintly wrinkled to smooth
S. nigra subsp. cerulea	Western U.S. and Canada, Mexico	Globose to ovoid; 4–5 mm; black, with whitish waxy coating and green flesh	3–5	Ovate to lens-shaped, faintly wrinkled
S. nigra subsp. nigra	Europe, Mediterranean, escaped from cultivation	Globose to ovoid; 4–8 mm; dark purple to black with purplish flesh	3(–4)	Variable, conspicuously wrinkled
S. nigra subsp. peruviana	South America, Costa Rica and Panama	Globose; 5–8 mm; dirty purple to black, with purplish, sometimes bitter flesh	4–5	Ovoid, faintly wrinkled to smooth

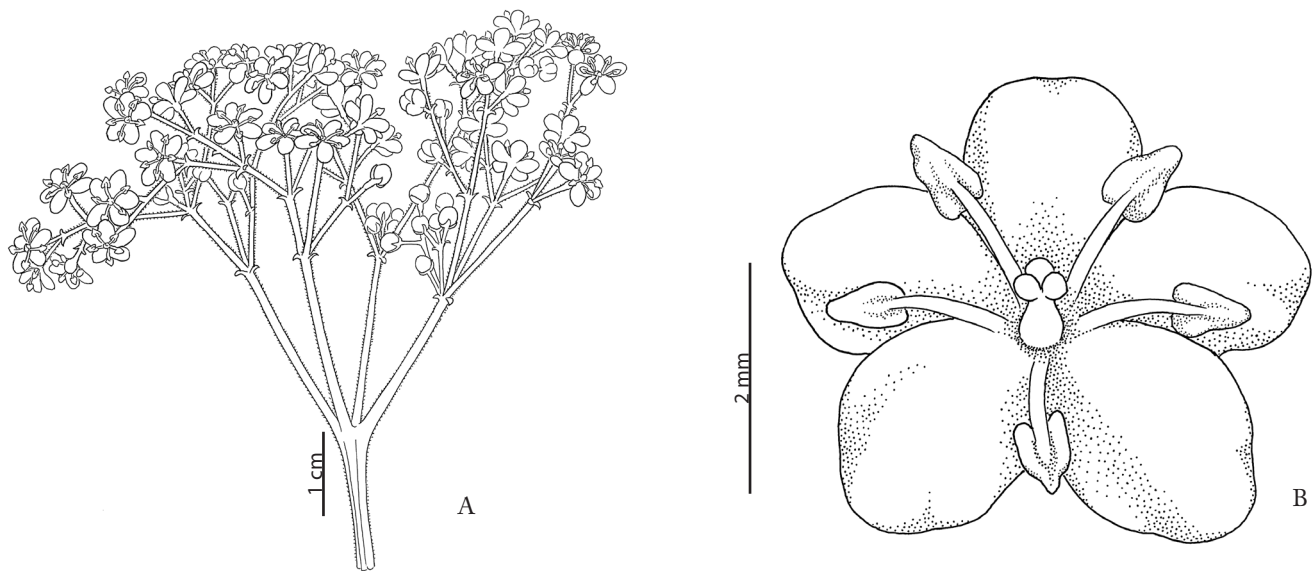


Figure 63: a–b, *Sambucus nigra* inflorescence and flower.

Taxonomy: *Sambucus* includes only 9 species but is broadly distributed, with representatives on every continent but Antarctica. The most recent revision recognizes six subspecies within the widespread *S. nigra*. *Sambucus nigra* subsp. *nigra* is the common European elder, while subsp. *canadensis* (L.) R. Bolli (known as American Elder) is found in the eastern United States, Canada, and Central America. *S. nigra* subsp. *cerulea* (Raf.) R. Bolli (Blue Elder) from Western North America was previously treated as a separate species. The South American subsp. *peruviana* (H.B.K.) R. Bolli might reasonably be recognized at the species level, since as a tetraploid it has probably become reproductively isolated. Too many different specific epithets to list conveniently have been applied to this species; notably, *S. mexicana* Presl. ex DC is now considered to fall within *S. nigra* subsp. *canadensis*. Chemical differences support the recognition of these subspecies, but it is often impossible to tell them apart without fresh fruits. Thus, they can only be identified by geographic origin: *Sambucus nigra* flowers from Europe can be assumed to belong to subsp. *nigra*, those in the eastern U.S. to subsp. *canadensis*, and so forth. Since both of those subspecies have been spread outside their ordinary range by cultivation, some uncertainty may remain.

Description: Deciduous shrub or small tree, 3–10 m high, with shoots arising from base. Bark greyish, corky, furrowed, with dark rounded lenticels; twigs sometimes pubescent. Leaves opposite, variable, pinnately compound, usually with 5–7 leaflets, rarely bipinnate; leaflets lanceolate to ovate, 4.5–12 cm long, with short petiolules; bases cuneate to oblique or rounded; apices acuminate; margins serrate; midribs and undersides sometimes weakly pubescent. Inflorescence a large, repeatedly

branched flat corymb, 10–25(–50) cm across, often with 5 divisions at a node, glabrous except for glandular hairs in axils; pedicels ranging from long to almost absent; flowers subtended by 3 tiny bracts. Flowers small, 2–4(–6) mm in diameter. Calyx fused to lower part of ovary, brownish-green, with 5 small ovate teeth. Corolla rotate or slightly campanulate, with short tube and 5 ovate lobes, creamy white to brownish yellow when dried. Stamens 5; filaments fused basally to petals; anthers lemon-yellow. Ovary half-inferior, with (2–)3(–4) capitate stigmas. Fruit a drupe, globose to ovoid, black-purple at maturity, 4–8 mm in diameter, with calyx lobes present at upper end; containing 3–4(–5) pyrenes (“seeds”); pyrenes variable in shape, ovate to elliptical, oblong or lens-shaped, 2–4 mm long.

References:

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