

Cornus disciflora DC.

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CORNACEAE (DOGWOOD FAMILY)

Benthamia disciflora (Moc. & Sessé) Nak., *Cornus capitata* Sessé & Moc., *Cornus floccosa* Wanger, *C. disciflora* var., *floccosa* (Wanger Standl.), *Cornus disciflora* f. *floccosa* (Wanger) Rickett

Lloro, llorón

About 40 species of the genus grow in North America, Europe, Asia, and tropical Africa, but only a single species, *Cornus disciflora*, grows in the mountains of tropical America, from Mexico to Panama. Recently, *C. peruvianus* has been reported in Costa Rica (Jiménez and others 1996), and two other species reported in Costa Rica—*C. peruviana* J.F. Macbr. and *Nyssa talamancana* Hammel & N. Zamora—grow in the Talamanca Mountains (Kappelle 1996).

Cornus disciflora is a slow-growing, medium-size tree that reaches 25 m in height and 50 to 60 cm d.b.h. It has a conical trunk; rounded crown; smooth, yellow-gray bark; and foliage of a very peculiar light green color. The small branchlets are conspicuously nodose and very finely appressed-sericeous when young. Leaves are opposite, without stipules, and petiolate; the blade is oblong or ovate-elliptic, acuminate, cuneate, about 7 to 14 cm long and 2 to 6 cm wide, with three to five ascending veins, above opaque and essentially glabrous, and beneath paler and minutely sericeous or tomentose. The species grows in late stages of secondary forest succession, at elevations from 1500 to 2800 m, primarily in moist and wet climates. It grows well in volcanic or alluvial soils, and on slopes of 15 to 40 percent, where the average annual rainfall ranges from 2000 to 2700 mm and the annual temperature average is 14 to 16 °C. It can adapt to a wide range of light conditions, growing in open areas or under more closed canopies.

With a specific gravity of 0.53, the wood of this species is considered heavy. The difference in the colors of *C. disciflora* sapwood and heartwood in dry conditions is striking: sapwood is light pink and heartwood is light brown with black lines. It dries at a moderate rate without defects, is easy to work, and has a smooth surface with a good finish. Though easy to preserve, the wood has very little natural resistance to insects and fungi. The wood is not considered high quality and has been used for low-priced furniture boxes, inside construc-

tion, and cement forms (Carpio 1992). It could also be used for railway foundations, firewood, and airplane propellers, and in agroforestry. The bark has been used in home medicine as a tonic and astringent.

Cornus disciflora blooms and produces fruit most of the year (Jiménez and others 1996). However, the highest period of flowering occurs from November through January and fruits mature from September through February, peaking in December (Torres and others 1992). Inflorescences are terminal or subterminal, pedunculate, capituliform, involucrate; flowering heads are about 1 cm in diameter, many-flowered, subtended by two pairs of deciduous, broadly ovate, sericeous bracts about 5 mm long. Flowers are minute, the petals white, the stamens somewhat shorter than the petals and widely exerted. The fruit is a drupe, red to purplish black, broadly oblong-ellipsoid, sparsely sericeous to glabrate, and up to about 10 mm long and 7 mm wide. When the fruits are mature the pericarp becomes purplish black.

The mature fruits are collected from the tree or gathered from the ground and stored on wood tables in the shade. Once they are dry, the seeds are ready for germination (personal observations). Seeds average 2,128 per kg. Germination percentages rarely surpass 40 percent. When seeds are pretreated by wrapping in moss and soaking in cool water for 24 hours or in warm water (70 to 80 °C) for 1 minute, germination occurs sooner, but the germination percentage remains unchanged. However, when seeds are dried for 2 days, soaked in water for 5 days, dried in full sunlight for 2 days, sanded to thin the endocarp, and washed with a chloride solution, germination increased to 80 percent (Torres and others 1992).

The species germinates in the ground in 40 to 45 days. The seedlings are fully developed and ready for transplanting in 85 days. *Cornus* seeds germinate well in beds of pure soil furrows 3 cm apart leaving 1 cm between seeds. The planted

furrows should be covered with a 5 mm layer of silty soil. After 85 days the seedlings can be transferred to plastic bags in the shade. The seedlings should be watered frequently, weeded, and protected against insects, such as leafcutter ants, known to be attracted to this species. After a nursery period of at least 5 months and at an approximate height of 20 cm, the seedlings can be outplanted (Torres and others 1992). Some plantations have succeeded well by planting seedlings naturally regenerated. Future planting techniques could include planting bare-root, seedlings, pseudocuttings, or cuttings.

ADDITIONAL INFORMATION

North Americans are shocked when they recognize this southern relative of the northern flowering dogwood, *C. florida* L. (Torres and others 1992, Woodson and Schery 1959). The flowering scales of *C. disciflora*, however, are smaller and are seldom seen because they drop off before they fully open. In Spanish the vernacular name, llorón, means the crying one because local people say that when you put your ear close to the trunk you hear crying.

