

Securidaca virgata Sw.
POLYGALACEAE

bejuco de sopla

Synonyms: *Elsota virgata* (Sw.) Kuntze



General Description.—Bejuco de sopla, also known as jaboncillo and maravedí, is a woody vine-like shrub that ascends trees and other vegetation and can reach 9 m in length and 3 cm in basal stem diameter. The plants have a tap and lateral root system of tough and flexible roots with a moderate amount of fine roots. The stems give rise to few branches until they reach full or nearly full light after which there are abundant secondary and tertiary branches. The greenish, cylindrical woody stems have pronounced annual rings. The fine branches are green and produce relatively few leaves, which they lose during dry seasons. Foliage is found only on the current year's growth. The alternate leaves are oval, have a 1 mm petiole, and are 10 to 20 mm long by 8 to 15 mm broad. Small, 8 mm-long, pink to violate, fragrant flowers are borne near the ends of the branches in paniculate racemes. The fruit, a reticulate-veined samara 2 to 4 cm long and about 1 cm broad, turns from green to yellow to light tan as it ripens, and contains a single seed (Acevedo-Rodríguez 1985, author's observations, Grisebach 1963, Liogier 1988).

Range.—Bejuco de sopla is native to Puerto Rico, its offshore island, Vieques, as well as Jamaica, and Cuba (Acevedo-Rodríguez 1985, Grisebach 1963, Liogier 1988).

Ecology.—Bejuco de sopla grows on a wide variety of soils over both sedimentary and igneous rocks at lower and middle elevations. Annual

rainfall in its native areas ranges from about 900 to 2500 mm/year. It sustains itself on other vegetation by twining around stems and branches (Vélez and van Overbeek 1950). Although it depends on trees and shrubs for support, it does not smother them, tending to hang down from side branches. Bejuco de sopla is intolerant of shade and does not grow under closed, shady forest canopies. It grows in brushy pastures, old fields, fencerows, roadsides, canyons, gallery creek bottoms, secondary forest, and low-density remnant forests. The species does not form pure stands or dense thickets, although it may grow in mixture with other vines and shrubs in thickets.

Reproduction.—Bejuco de sopla flowers and fruits sporadically throughout the year (Acevedo-Rodríguez 1985, Vélez and van Overbeek 1950). A collection of fruits from Puerto Rico weighed an average (air-dried) of 0.0728 ± 0.0011 g/fruit. The acorn-like seeds separated from the wing weighed an average of 0.0455 ± 0.0012 g/seed or 22,000 seeds/kg. Sown in moist potting mix, 22 percent of these seeds germinated in 32 days by which time some of the seedlings began to die from "damping-off" (fungal species unknown). The survivors were 10 cm tall 2 months after sowing and ready to prick out. Fruits of bejuco de sopla are mature and ready to harvest when they are dry on the tips or have a yellow color. They should then be air-dried before storage or planting. If the seeds are separated, it must be done by hand, a laborious process that probably is not necessary. Bejuco de sopla vines layer (root) whenever they come in contact with the ground. Although untested, this probably indicates that the species can be propagated by air layering and from cuttings. The seeds are dispersed as they spiral sideways in the wind or still air. Seedlings are usually well scattered.

Growth and Management.—Bejuco de sopla has a moderate growth rate. Height growth of established plants is 1 m or more per year and diameter growth is about 3 mm/year. Individual stems live 5 to 10 years or more; plants may last longer by resprouting. Bejuco de sopla is not abundant, aggressive, or weedy. Should it be necessary to eliminate individual plants, grubbing

them out will probably be effective.

Benefits.—Bejuco de sopla contributes to biodiversity, helps protect the soil, and furnishes wildlife cover. It is a honey plant (Marcano-F. 1973). The roots, principally, are used to treat flu, laryngitis, edema, urinary infections, and as an expectorant and a diuretic (Liogier 1990). The plant is prescribed by traditional Latin healers in New York City to treat uterine fibroids (Balick and others 2000).

References

- Acevedo-Rodríguez, P. 1985. Los bejuocos de Puerto Rico. Vol. 1. General Technical Report SO-58. U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, LA. 331 p.
- Balick, M.J., F. Kronenberg, A.L. Ososki, M. Reiff, A. Fugh-Berman, B. O'Connor, M. Roble, P. Lohr, and D. Atha. 2000. Medicinal plants used by Latino healers for woman's health conditions in New York City. *Economic Botany* 54(3): 344-357.
- Grisebach, A.H.R. 1963. Flora of the British West Indian Islands. J. Cramer-Weinheim, New York. 789 p.
- Liogier, H.A. 1988. Descriptive flora of Puerto Rico and adjacent islands, Spermatophyta. Vol. 2. Editorial de la Universidad de Puerto Rico, Río Piedras, PR 481 p.
- Liogier, H.A. 1990. Plantas medicinales de Puerto Rico y del Caribe. Iberoamericana de Ediciones, Inc., San Juan, PR. 566 p.
- Marcano-F., E. de J. 1973. La flora apícola de la República Dominicana. <http://marcano.freeservers.com/nature/estudios/apicola/floraapl.html>. 7 p.
- Vélez, I. and J. van Overbeek. 1950. Plantas indeseables en los cultivos tropicales. Editorial Universitaria, Río Piedras, PR. 497 p.

John K. Francis, Research Forester, U.S. Department of Agriculture, Forest Service, International Institute of Tropical Forestry, Jardín Botánico Sur, 1201 Calle Ceiba, San Juan PR 00926-1119, in cooperation with the University of Puerto Rico, Río Piedras, PR 00936-4984