Bauhinia monandra Kurz

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FABACEAE (BEAN FAMILY)

Buahinia káppleri Sagot, *Bauhinia krugii* Urban, *Caspareopsis monandra* (Kurz) Britton & Rose

Alas de ángel, baujinia, butterfly bauhinia, butterfly-flower, caractére des hommes, casco de mulo, deux jumelles, flamboyán blanco, flamboyán cubano, flamboyán extranjero, Jerusalem-date, mariposa, Napoleon's plume, pata de vaca, pink bauhinia, pink orchidtree, poor man's orchid, seplina, St. Thomas tree, urape, varital variable, vlinderbloem

About 600 species of *Bauhinia* grow in the tropical regions of the world (Larson 1974). The genus includes trees, vines, and shrubs that are frequently planted for their showy flowers and ornamental foliage (Bailey 1941, Neal 1965). A native of southeastern Asia, *B. monandra* is found in the tropical regions of the world. Cultivated in the West Indies, it has naturalized throughout the islands.

Bauhinia monandra is a small, fast-growing, evergreen tree or shrub that commonly reaches 3 to 15.2 m in height and 0.5 m in diameter. Its smooth, gray bark can become scaly and reddish brown on older trees (Little and Wadsworth 1964). The leaves of *B. monandra* are shaped like butterfly wings, rounded, and split one-third to one-half their length, forming two equal lobes. They are dissected by 11 or 13 main veins. The petioles extends into short awns between the leaf lobes. In Puerto Rico, it grows in areas that receive 900 to 2000 mm of rainfall annually and that have moist, well-drained soils (Francis and Liogier 1991). The species does not grow well on nutrient-poor sites.

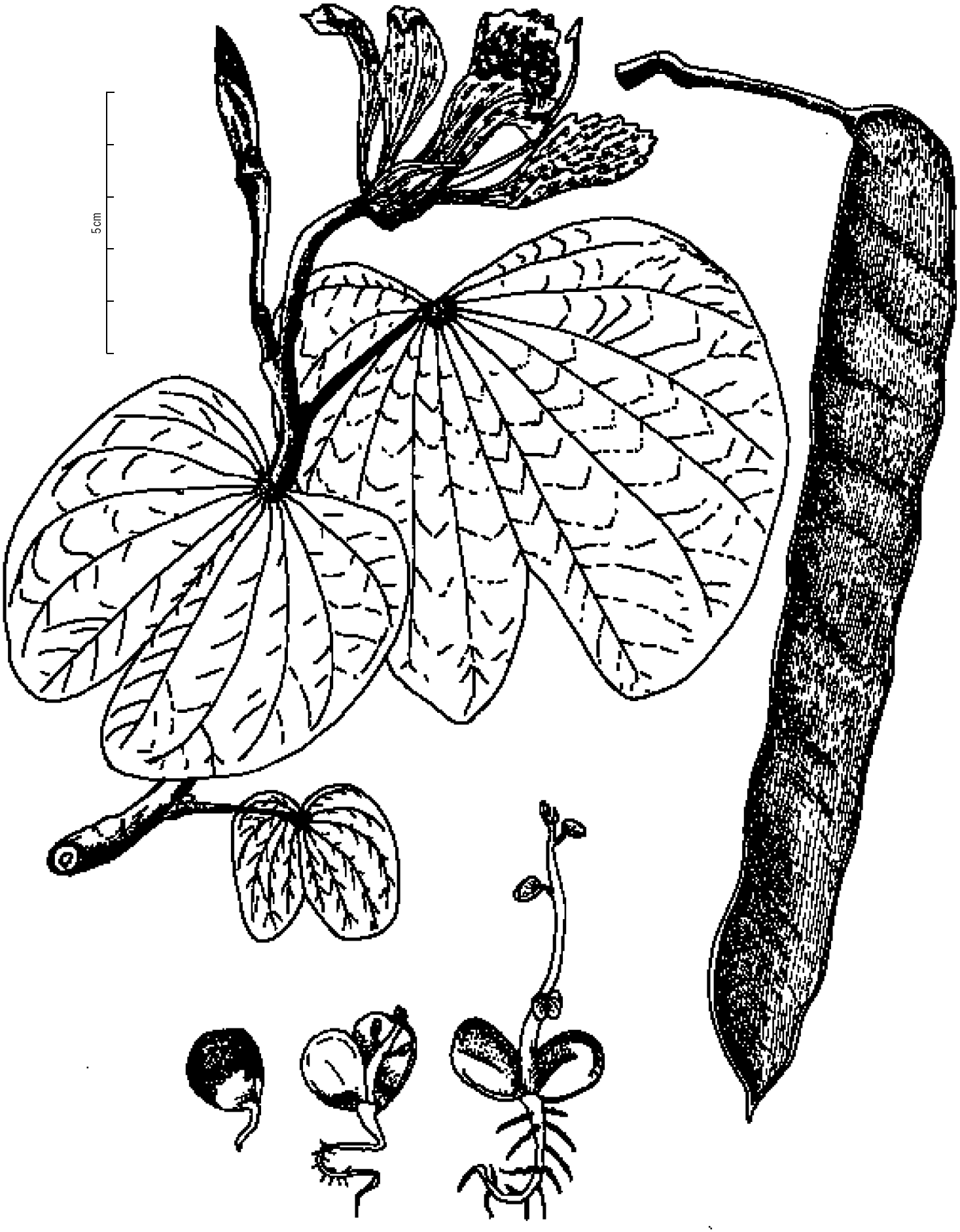
Planted for its showy flowers and ornamental foliage, *B. monandra* is also used for fuelwood in Puerto Rico and for fences in Jamaica (Little and Wadsworth 1964); it is considered a weed in Guam (McConnell and Muniappan 1991). The seeds are a useful source of vitamin A (Essien and Fetuga 1989). In general, *Bauhinia* seeds contain high amounts of linoleic and oleic fatty acids and low amounts of myristic and linolenic fatty acids (Balogun and Fetuga 1985, Ramasastri and Shenolikar 1974, Sherwani and others 1982, Zaka and others 1983).

Bauhinia monandra blooms in 3 to 4 years (Bailey 1941); it flowers and fruits throughout most of the year (Little and Wadsworth 1964). The large, five-petaled, orchid-like flowers of *B. monandra* occur in short racemes; four of the spoon-shaped petals are pink and dotted with red or purple markings, while the fifth petal is mostly red or purple. The flowers range from 6.4 to 10.2 cm in diameter, have only one fertile stamen per flower and a calyx splitting along one side (Little and Wadsworth 1964, Neal 1965). The fruits are dark, dehiscent pods, 2.5 cm wide, 15.2 to 30.5 cm long, and pointed at the apex. While still on the tree, they split open with force, scattering the seeds (Little and Wadsworth 1964, Neal 1965). The black seeds are elliptic, flat, and 1 cm long. *Bauhinia monandra* seeds average 5,680 per kg (Francis and Rodriguez 1993).

Although published reports on the handling of *B. monandra* pods and seeds are not available, in most hard-seeded, temperate Fabaceae, pod ripeness is determined by a color change from green to light or dark brown (U.S. Department of Agriculture 1974). Ripe pods are picked by hand or shaken/flailed from the trees and then spread to air-dry. Seeds are threshed or mascerated from the dry pods and separated from the chaff by screening, fanning, or water flotation. Once dried (moisture content less than 12 percent; Roberts 1973), seeds are placed in sealed containers and stored between 2 and 4 ^{o}C. Dry seeds should store well for at least 3 years. *Bauhinia monandra* seeds can begin germinating 4 days after being placed on moist filter paper, and the final germination can be 100 percent (Francis and Rodriguez 1993).

The following information about related species of *Bauhinia* may be useful when preparing *B. monandra* seeds for germination. Satisfactory germination can occur after 52 weeks when *B. rufescens* seeds are scarified using 97 percent H_2SO_4, washed, dried, sealed into containers, and stored at 4 ^{o}C (Some and others 1990). However, excellent germination

of *Bauhinia spp*. can be achieved without scarification (Francis and Rodríguez 1993). Orientation of the seed in the soil may be an important germination factor (Prasad and Nautiyal 1995); *B. retusa* seeds sowed with the micropylar end up had the earliest onset of germination and the highest seedling survival rate after 2 months. Those with horizontal orientation or micropylar-end-down in the soil had lower survival rates. Some species can be propagated from suckers but rarely from cuttings.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