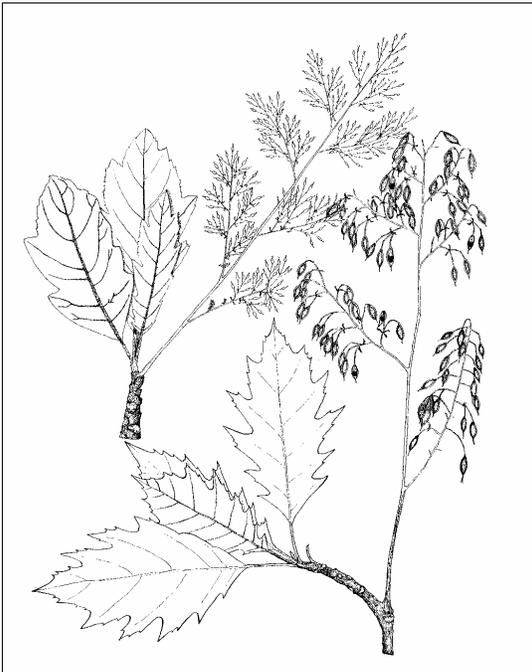


***Bocconia frutescens* L.**
PAPAVERACEAE

pan cimarrón

Synonyms: *Bocconia frutescens* var. *cernua* Moc. & Sessé ex DC.
Bocconia glauca Salisb.
Bocconia pearcei Hutch.
Bocconia quercifolia Moench
Bocconia sinuatifolia Stokes
Bocconia subtomentosa L'Hér. ex Stahl



General Description.—Pan cimarrón is also known as parrot weed, celadonia, plume-poppy, palo de toro, panilla, llorasangre, curarador, palo amarillo, saúco, yagrunito, chocolate blanco, gordolobo, guacamayo, trompeto, tabaquillo, grande chelidoine, and bois codine. It is a shrub or small tree, usually 2 to 3 m in height and 2 to 3 cm in stem diameter. Branching near the ground normally results in multiple stems. The plant is supported by a tap and lateral system of orange-red roots that are fleshy outside and fibrous within. There are relatively few branches. The outer bark is light brown, smooth to lightly fissured; the inner bark is orange-red and bitter. An orange or yellow sap exudes from wounds. The deeply lobed and toothed leaves are alternate but usually clustered at the ends of older branches. Petioles are stout, 1.5 to 3 cm long, and blades are 14 to 50 cm long.

Panicles up to 50 cm long have lax branches. The numerous small flowers are yellow-cream in color. The fruits are ellipsoidal capsules each containing a black seed with a red, fleshy aril running along one side (Howard 1988, Liogier 1985, Little and others 1974).

Range.—Pan cimarrón is reported to be native from the middle of Mexico through Central America to Argentina and Bolivia in South America, and throughout the Caribbean (Howard 1988, Liogier 1985, Stevens and others 2001, New York Botanical Garden 2002). It has naturalized in forests in the islands of Maui and Hawaii in the State of Hawaii (University of Hawaii Botany 2002).

Ecology.—Pan cimarrón grows in a wide variety of soil types at middle elevations up to 2,150 m in Mexico (Secretaría de Medio Ambiente y Recursos Naturales 2002). In Puerto Rico, it grows in subtropical dry forest along streams (750 to 1000 mm/year precipitation), in subtropical moist forest (1000 to 2000 mm/year precipitation), and in subtropical wet forests (2000 to 3000 mm/year precipitation). In Nicaragua, the species grows even in the cloud forests (Stevens and others 2001). In Puerto Rico, pan cimarrón is most common along streams, road cuts, and landslides. The species also grows widely scattered in brush lands, which develop from abandoned fields and pastures, and in secondary forest. Pan cimarrón is intolerant of shade. It competes vigorously with herbs and brush after establishment. The shrub does not form continuous stands in Puerto Rico, but occurs as scattered individuals or small patches. However, as an invader in Hawaii, it does form large, dense stands in dry and mesic habitat (University of Hawaii Botany 2002).

Reproduction.—Pan cimarrón flowers and fruits throughout the year (Little and others 1974,

Stevens and others 2001). The infrutescences may contain tens to hundreds of fruits. Fruits in the infrutescences mature a few at a time beginning at the top and proceeding downward. A collection of seeds from Puerto Rico weighed (air-dried) an average of 0.0146 ± 0.0002 g/seed (author's observation). Germination begins in 25 to 55 days with 40 percent germinating. Germination is epigeal (Ricardi and others 1977). The seeds are dispersed by birds (Environmental Protection Agency 2002). Damaged plants usually resprout.

Growth and Management.—Once established, pan cimarrón has relatively rapid growth (Jardín Botánico de Bogotá José Mutis 2002). Only in Hawaii is the species mentioned as a nuisance where it displaces native vegetation and threatens the endangered Blackburn's sphinx moth (Environmental Protection Agency 2002). In the absence of tests of control measures, such standard practices as grubbing and spraying with broadleaf herbicides are recommended.

Benefits.—Pan cimarrón contributes to biodiversity, helps protect the soil, and furnishes food and cover for wildlife. The sap has been used as a dye (Little and others 1974). The orange wood is soft and brittle with a thick pith, and is of little use. Extracts of various tissues of pan cimarrón are employed in herbal medicine to control mange, lice, and intestinal worms, to treat ulcers of the eyes, to treat wounds, and to treat edema and jaundice (Pérez-Arbelaez 1978). A dose of 15 drops of the sap causes a strong purgative effect (Guzmán 1975). The sap will cure warts and if injected under the skin acts as a local anesthetic although the injection itself causes considerable pain. The bark contains the alkaloids, bocconietrine, cocconichlorine, bocconioidine, and bocconixatine (Secretaría de Medio Ambiente y Recursos Naturales 2002). Pan cimarrón is being evaluated as a species for restoration of disturbed sites (Jardín Botánico de Bogotá José Mutis 2002).

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