

***Erythroxylum areolatum* L.**
ERYTHROXYLACEAE

false cocaine

Synonyms: none (genus also spelled *Erythroxylon*)



General Description.—False cocaine, also known as redwood, swamp redwood, thin-leaved erythroxylon, indio, palo de hierro, arabo carbonero, limoncillo, huesito, cocaina falsa, and poirier, is a deciduous shrub or small tree 2 to 7 m in height and 5 to 15 cm in stem diameter. The plant may have a single stem or multiple stems branching from near the ground and is supported by a tap and lateral root system. The roots are dark brown, stiff, and woody. The bark is gray and scaly and the inner bark is red. Moderately robust branches and many twigs form a “branchy” crown, often with a dense display of foliage. Alternate leaves are tightly grouped on short side branches or spread out on new twigs. The leaves are light green to dark green, elliptic to oblong, 3 to 13 cm long, with entire margins and petioles 5 to 7 mm long. Tiny, fragrant, five-merous white flowers are borne in clusters in the leaf axils. At maturity, the thin-fleshed, 6- to 9-mm drupes are bright red. Each fruit contains one oblong, bony seed (Britton and Millspaugh 1962, Liogier 1988, Little and Wadsworth 1964, Stevens and others 2001).

Range.—False cocaine is native to the Bahamas, the Greater Antilles, the Cayman Islands, southern Mexico, and Central America (National Trust for the Cayman Islands 2002, Stevens and others 2001). It is not known to have been planted or naturalized elsewhere.

Ecology.—False cocaine grows in areas of Puerto Rico that receive from about 750 to 900 mm of mean annual precipitation at elevations of a few meters above sea level to about 300 m. It grows in gallery forests in Nicaragua from 40 to 380 m elevation, frequently associated with limestone rocks (Stevens and others 2001). False cocaine is common in limited areas but uncommon in most of its range, growing in remnant and middle to late secondary forests. False cocaine grows on deep, medium-textured soil and sandy beach-strand soils (Vásquez and Kolterman 1998). The species is most frequent on limestone parent material, as skeletal rock or porous solid rocks but grows in areas with igneous and metamorphic (including ultramafic) rocks. It has an intermediate tolerance to shade and will grow in openings or in the understory of medium to low basal area forests.

Reproduction.—False cocaine has been observed flowering from October to June in Puerto Rico (Little and Wadsworth 1964). Fresh fruits collected in Puerto Rico weighed an average of 0.119 ± 0.013 g/fruit. Seeds cleaned from them weighed (air-dried) an average of 0.0493 g/seed or 20,300 seeds/kg. Sown on moist filter paper without pretreatment, they germinated at 35 percent, beginning 12 days after sowing (Francis and Rodríguez 1993). Apparently, birds are the principal dispersers of seeds. Seed production can be abundant in some years. Seedlings and saplings vary from rare to common.

Growth and Management.—False cocaine grows slowly, about 1 to 3 mm in diameter per year and is capable of living several decades. Published planting or management experience is not known to the author. Protecting forests and stands containing the species is probably the best management approach until research can be performed.

Benefits.—False cocaine protects the soil and furnishes food and cover for wildlife. The wood is heavy, hard, fine-grained, durable, and strong. The sapwood is light brown and the heartwood is reddish or chocolate brown (Little and Wadsworth 1964). Available only in small sizes, it is useful for stakes, fuel, carving, and turnery. The foliage of this species does not contain useful amounts of cocaine, which is extracted from a sister species (*E. coca* Lam.) from the Andean Highlands (Little and Wadsworth 1964).

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