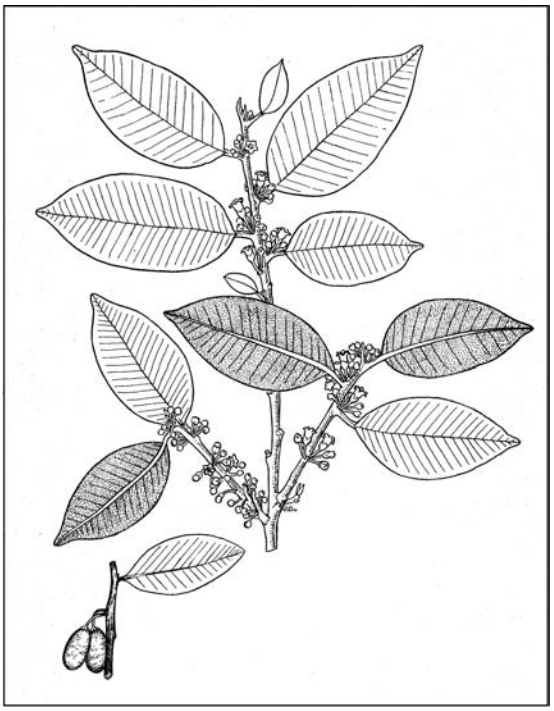
***Chrysophyllum oliviforme* L.** satinleaf
SAPOTACEAE

Synonyms: *Chrysophyllum microphyllum* Jacq.
Chrysophyllum monopyrenum Sw.
Cynodendron oliviforme (L.) Baehni



General Description.—Satinleaf, also known as wild star-apple, damson plum, saffron-tree, caimitillo, caimitillo de perro, camitillo cimarró, teta de burra, macanabo, and caïmite marron, is a beautiful, evergreen shrub or small tree usually 3 to 5 m in height. Under favorable conditions, older individuals occasionally reach 10 m or more in height and 30 cm in diameter at breast height. The single or multiple stems have gray-brown bark with fissures and plates. Twigs are slender and rusty or reddish-brown. The alternate leaves are elliptic, ovate or oblong, 3 to 11 cm long and 2 to 5 cm broad, with shiny, dark-green, hairless upper surfaces and coppery under-surfaces owing to a dense covering of short hairs. The bell-shaped flowers are one to many on short pedicels in the leaf axils. The 3- to 5-mm, five-lobbed corolla is yellowish- or greenish-white. The fleshy fruits are dark-purple, blue, or black, elliptical, one-seeded berries 1 to 2 cm long. They have whitish flesh surrounded by a gummy or rubbery skin that secretes a white milky sap when cut. The fruits are sweet and edible. Satinleaf has 2n = 52 chromosomes (Gilman and Watson 1993, Liogier 1995, Little and Wadsworth 1964, Long and Lakela 1976, Nelson 1996).

Range.—Satinleaf is native to Florida, the Bahamas, the greater Antilles, and Belize (Liogier 1995). The species is planted in many tropical countries as an ornamental and has become naturalized in Hawaii and French Polynesia (Pacific Island Ecosystems at Risk 2002). It has been declared endangered in the wild in Florida (Crowley 2002).

Ecology.—Satinleaf grows on a wide variety of soils in all textures and in pH's from about 5 to 8, and has a moderate tolerance to salt (Institute of Food and Agricultural Sciences 2002). It grows on coastal sands and shallow clays over limestone in Puerto Rico, in pinelands and hammocks of the everglades and keys of Florida, and in low-elevation moist, secondary forests and *Eucalyptus* plantations in Florida (Little and Wadsworth 1964, Pacific Island Ecosystems at Risk 2002). Satinleaf occurs in remnant and middle secondary forests. When young, it demonstrates an intermediate tolerance to shade and can grow and develop in the understory of relatively low-density forests. To bear fruit, it must have increased light, as in intermediate and codominant crown positions. Satinleaf plants are severely damaged by temperatures of 0 °C and below. They are resistant to drought and storm damage (Gilman and Watson 1993).

Reproduction.—Puerto Rican satinleaf plants flower July to October and mature fruits in February (Little and Wadsworth 1964). They are reported to flower and fruit all year in Florida (Long and Lakela 1976). The flowers are insect pollinated. Seeds are dispersed by frugivorous birds (Pacific Island Ecosystems at Risk 2002). Seedlings are relatively common in suitable habitat in Puerto Rico. Seed weights and treatment information is not available. Misted hardwood cuttings and air layers, both treated with 0.3

percent IBA (indol-butyric-acid), were tested as means of propagating the species vegetatively. Thirty-five of 69 cuttings rooted in 7 months and one of 39 air layers rooted in 6 months (author's observation). Ornamental production is by seed and semihardwood cuttings under mist (Gilman and Watson 1993).

Growth and Management.—Growth is relatively slow at all stages, and the plants are relatively long-lived. Natural reproduction can probably be encouraged by disturbance under low-density secondary forests near seed sources.

Benefits.—Satinleaf contributes to the aesthetics of the forests where it grows, helps protect the soil, and furnishes food and cover for wildlife. It was listed as an important source of nectar for honeybees in the Dominican Republic (Marcano Fondeur 1973). The foliage is probably unpalatable to ungulates; at least the key deer *(Odocoilleus virginianus* ssp. *clavium*) will not eat it (Schaus and others 2002). The fruits are edible and sometimes used to make jelly (Little and Wadsworth 1964). In areas of infestation, satinleaf is usually heavily attacked by Mediterranean fruit fly (*Ceratitis capitata* (Wiedemann) (Department of Entomology and Nematology 2002). The wood, which has a specific gravity of 0.9, is hard, heavy, and strong. It is used for construction in Cuba (Little and Wadsworth 1964). Satinleaf has been extensively, but not intensively, planted as an ornamental in Florida, Hawaii, and elsewhere. It makes a pretty addition to natural landscaping, a good foundation plant, and an attractive lawn, street, and parking lot tree. Pruning may be necessary to maintain a single stem and to remove drooping branches (Gilman and Watson 1993).

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