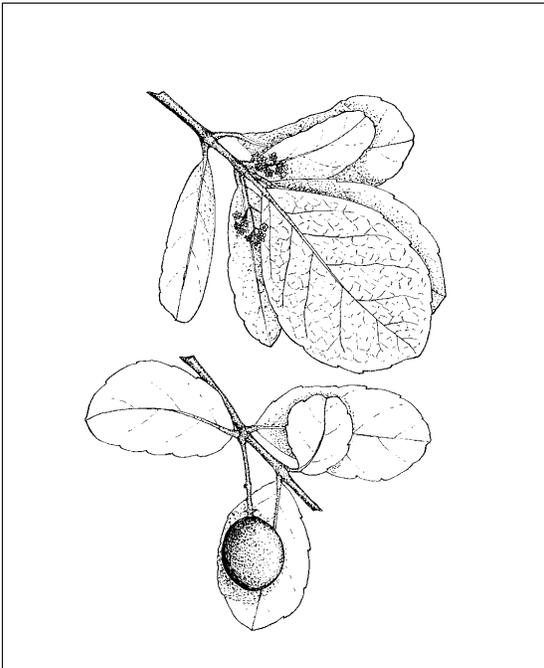


***Cassine xylocarpa* Vent.**
CELASTRACEAE

marble tree

Synonyms: *Elaeodendron xylocarpum* (Vent.) DC.
Freziera dioica Macfad.
Elaeodendron dioicum (Macfad.) Griseb.
Elaeodendron attenuatum A. Rich.
Elaeodendron xylocarpum (Vent.) DC.
Cassine rotundata (DC.) Kuntze



General Description.—Marble tree, also known as spoon tree, poison tree, wild nutmeg, coscorrón, aceituno, guayarote, mate prieto, pinipinche de sabana, bois-tan, bord-de-mer, and grosse-peau, is an evergreen shrub or small tree commonly 2 to 4 m in height and 5 to 8 cm in diameter at breast height. The plant is supported by an extensive shallow and deep lateral root system with sinkers and sometimes a discernable taproot. The roots are orange and stiff. Marble tree often has several stems emanating from the root crown or low on the trunk. The crowns are fairly dense (especially when open-grown), branchy, and often contorted. The bark is gray, smooth to finely fissured, with inner bark that is purplish or pinkish. The twigs are slender and green, becoming gray with age. Leaves are variable, whitish-green to yellow-green, mostly opposite, but sometimes alternate, thick and stiff. They are entire or with a few teeth, elliptic to

obovate, 2.5 to 12.5 cm long, with a rounded to spine-tipped apex. The inflorescences are tiny-flowered, branched axillary cymes. The fruit is a yellow (at maturity), rounded drupe, 1.5 to 3 cm long with a thin, hard-fleshy exocarp and hard, thick-walled stone with one to three cells and elliptic seeds (Howard 1989, Liogier 1994, Little and others 1974).

Range.—The range of marble tree consists of the Bahamas, the Greater and Lesser Antilles, Mexico, Belize, Costa Rica, Nicaragua, Panama, and Venezuela (Howard 1989, Instituto Nacional de Biodiversidad. 2000, Liogier 1994, Missouri Botanical Garden 2002a, 2002b).

Ecology.—Marble tree is moderately intolerant of shade. It can persist and grow slowly under low forest but needs to be open-grown or at least have broken sunlight to flower and fruit. The species is drought-tolerant and usually grows on excessively well-drained situations—beaches, bluffs, rocky headlands, and rocky ridges. Marble tree often grows out of cracks in rocks. It is most often seen in areas of limestone and ultramafic (serpentine) rocks. The species is reported to be a nickel accumulator (Medina and others 1994). Colonized areas in Puerto Rico range from 750 to about 1800 mm of mean annual rainfall and at elevations from near sea level to 300 m or more. The species may be found in remnant and late secondary forests.

Reproduction.—Marble tree flowers and fruits intermittently throughout the year (Little and others 1974). A collection of air-dried seeds in Puerto Rico averaged 3.19 ± 0.076 g/seed or 313 seeds/kg. Sown in commercial potting mix, they began germinating in 26 days and completed 82 percent germination. The species can also be propagated by asexual means. Fifty-six and 21 percent, respectively, of air layers and misted cuttings treated with IBA rooted. The newly formed roots are fragile and easily broken off

during transplanting (author's observation). The seeds are probably dispersed by fruit bats. Seedlings and saplings are relatively common in and around Puerto Rican stands of the species.

Growth and Management.—Marble tree grows slowly. A 1-m tall sapling with a basal diameter of 1.5 cm growing in the understory of low basal area moist forest had 37 annual rings (author's observation). Individuals as large as 20 cm in diameter at breast height (Little and others 1974) must be several decades old. Management of the species should include protection from fire and from commercial development of habitat. Existing understory seedlings and saplings could be released from competition by thinning or eliminating the overstory in patches.

Benefits.—Marble tree is pretty enough to make a good ornamental but has rarely been used as such. It is an important component of the plant community in the harsh environment where it is most common and furnishes food and cover for animals. The fruits of marble tree are listed as a food item for the endangered Anegada iguana (*Cyclura pinguis*) (Zoological Society of San Diego 2002). The wood is light-brown, hard, heavy, fine-textured, strong, and durable (Little and others 1974). It is certainly useful for fuel and fence posts and possibly carving and turnery. The fruits are reported to be edible, and extracts of the plant are a stimulant (Liogier 1990).

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