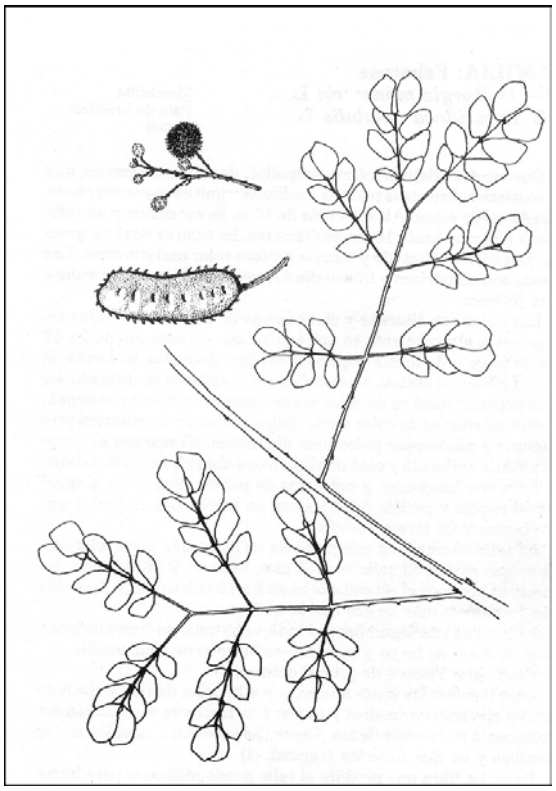
***Mimosa ceratonia* L.** zarsa
FABACEAE

Synonyms: *Lomoplis ceratonia* (L.) Raf.



General Description.—Zarza, also known as climbing mimosa, black ambret, amourette-grand-bois, grate-jambe, and croc-chien, is a multi-stemmed scrambling shrub. It supports itself on other vegetation by means of curved spines and may reach 4 to 6 m into the crowns of trees and as far laterally. The plant has a weak taproot, a moderate amount of lateral roots, and abundant fine roots. Lower stems are gray, scaly, and cylindrical. The branches tend to be long, almost straight or evenly curved, with few divisions. The twigs are green, sometimes reddish with many curved 2-mm spines. Lateral twigs usually die back after 1 year. The leaves are bipinnately compound with three to five pairs of pinnae, each with three to five pairs of leaflets. The leaflet blades are obliquely obovate, three-nerved, 1.0 to 2.5 cm long and 6 to 10 mm broad, rounded at the apex and asymmetrically acute at the base. The inflorescences are terminal racemes of globose heads of flowers that are white or cream-colored. The pods, which are borne in clusters, are straight or slightly curved, oblong, 4 to 6 cm long and armed at the edges. The flattened seeds are brown or black (Acevedo-Rodríguez 1985, Howard 1988, Liogier 1988).

Range.—The range of zarza includes Hispaniola, Puerto Rico, the Virgin Islands, Antigua, Guadeloupe, Martinique, St. Lucia, and Barbados (Howard 1988, Liogier 1988). Also, populations of zarza have been identified in Brazil including the varieties *M. ceratonia* L. var. *pseudo-obovata* (Taubert) Barneby and *M. ceratonia* L. var. *interior* Barneby (Barneby 1985, Paganucci de Queiroz 2001).

Ecology.—Zarza is moderately intolerant of shade. It grows in fencerows, roadsides, wooded drains, brushy pastures, forest edges and openings, and in low-density secondary forest. The species often forms compact, nearly impenetrable clumps. Diffuse stands mixed with tall grass, weeds, and shrubs form in areas that are mowed or burned on one- to several-year cycles. Zarza is most common on soils derived from limestone and serpentine (Vélez and van Overbeek 1950), but also grows on soils overlying other sedimentary and igneous rocks. It tolerates all textures of well-drained soils and a wide range of fertility levels. In Puerto Rico, the species may be found in areas receiving rainfalls from 750 mm per year to over 2000 mm per year. Zarza grows from near sea level to at least 600 m in elevation. Frosts do not occur within its natural range.

Reproduction.—Zarsa flowers between June and December and fruits December through January in Puerto Rico (Acevedo-Rodríguez 1985). A collection of zarza pods from Puerto Rico weighed an average of 0.1371 $\pm$ 0.0005 g (air dry). They averaged 4.18 $\pm$ 0.12 seeds/pod and ranged from three to six seeds per pod. The seeds weighed an average of 0.0201 $\pm$ 0.004 g/seed or 50,000 seeds/kg. Sown on commercial potting mix, 71 percent germinated between 7 and 165 days after sowing. Germination is epigeal. Stems layer (root) if covered by soil or organic debris. Stems sprout when cut and lateral roots sometimes sucker when damaged. The seeds are disbursed by lateral extension of the vines and by the pods clinging to

clothing or to the fur of animals. Seedlings are common, but only a few survive for more than a few weeks.

Growth and Management.—Both seedlings and sprouts grow rapidly, up to 2 or 3 m per year. Zarza plants may endure for many years. Because of the thorny nature of this species, property owners often choose to eliminate it from pastures and plantations. Historically, farmers controlled it by repeated cutting. This method could probably be improved by treating the resulting sprouts with broadleaf weed killers.

Detriments and Benefits.—Thickets and tangles of zarza are almost impenetrable to humans. Paths may be cut to allow passage, but they soon grow over. Because of the thorns, cattle will not eat zarza (Vélez and van Overbeek 1950), but it is browsed by goats. The species is a host for the diaprepes root weevil (*Diaprepes abbreviatus*), which is of grave concern for growers of citrus and other agricultural crops (Simpson and others 2001). Zarza is a valuable honey plant (Marcano 1973), protects the soil, and serves as wildlife cover.

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