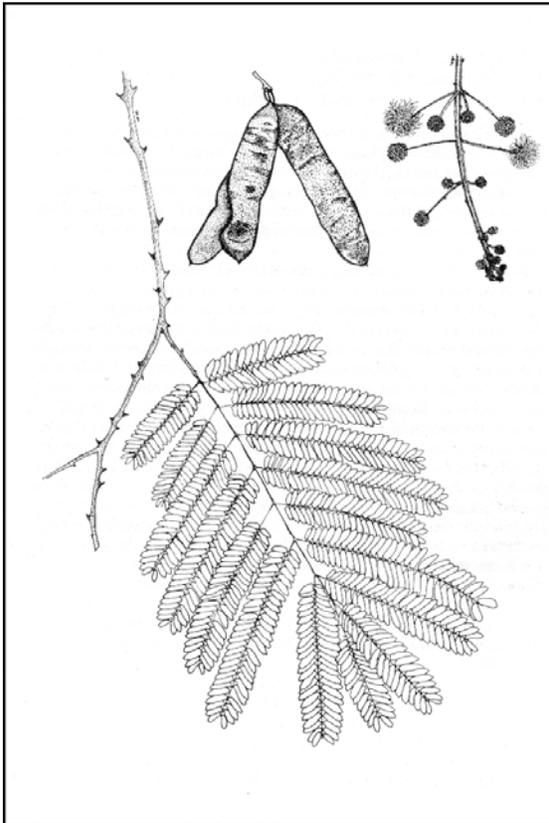


***Acacia retusa* (Jacq.) Howard**
FABACEAE

zarza brava

Synonyms: *Acacia westiana* DC.
Acacia riparia authors, not Kunth
Senegalia westiana (DC.) Britt. & Rose
Mimosa retusa Jacq.
Mimosa paniculata West
Acacia guadalupensis DC.
Acacia sarmentosa Griseb.



General Description.—Zarza brava is also known as acacia zarza, amourette, and fleur du ben-aimé (Acevedo-Rodríguez 1985, Howard 1988, Liogier 1988). The common name zarza brava is Spanish. The modifier “brava” means fierce, which aptly describes the way its thorns grab a person trying to walk through it. Usually, zarza brava is a climber, but when open-grown, it scrambles or grows upright. It is also reported to occasionally become a slender tree (Howard 1988). The stems are gray, squarish when young and angular or fluted when older. The old and young stems and even the leaf petioles and rachises are armed with recurved

spines that protect the plant and facilitate climbing. The root system consists of many robust laterals without an apparent taproot. Nodules were not seen by the author. There may be single or multiple stems from the ground level, but few branches occur on the stem until it reaches increased light in the canopy. The leaves are bipinnately compound with four to 12 pinnae and 15 to 25 leaflet pairs per pinnae (Liogier 1988). The inflorescence is a panicle of small heads. The stamens are white. The legumes are flat, brown, and 6 to 10 cm long and 1 to 2 cm wide. The seeds are oval, flat, and dark brown (Howard 1988).

Range.—Zarza brava is native to Hispaniola, Puerto Rico, the Virgin Islands, the Lesser Antilles, Trinidad, and northern South America (Howard 1988). It is not known to have been planted or naturalized elsewhere.

Ecology.—Zarza brava grows in habitat that receives from as little as 700 mm to as much as 2200 mm of annual rainfall in Puerto Rico, and is more common in the mid-range of this rainfall. Soils from all parent materials, including limestone and ultramafic rocks, are colonized. Soil textures from sand to clays and pH's from at least 5.0 to 8.0 are tolerated. Zarza brava can survive under a broken overstory. When mats are formed, only the upper surface stems produce leaves. The species is more common in disturbed habitat than in remnant old growth forests. During the abandonment of agricultural land, it invades during the brushy pasture stage and becomes very common in early secondary forest. After the canopy closes, zarza brava declines in importance, but does not disappear.

Reproduction.—Zarza brava flowers in June and December (Acevedo-Rodríguez 1985) and ripens fruit in January and July. Fruit production can be

very heavy, and pods in one sample in Puerto Rico averaged 7.97 ± 0.29 seeds/pod. The seeds averaged 0.041 ± 0.001 g/seed or 24,000 seeds/kg. Some of the seeds had been attacked by an unknown species of beetle and a lepidopteran larva. When planted in commercial potting mix, the seeds began germinating in 4 days and by 11 days had reached their final 98 percent germination. Germination is epigeal. In the wild, seedlings are produced in abundance, but few survive beyond the first year. Zarza brava sprouts vigorously and grows rapidly after fires or cutting.

Growth and Management.— Seeds are dispersed by lateral extension of the vines, by pods tumbling laterally through the air after becoming detached from vines, and by accidental dispersal by grazing animals and humans. New seedlings make relatively rapid early growth. Older plants also add length rapidly. The stems of zarza brava may eventually reach as much as 10 cm in diameter and as much as 12 m into tree canopies (Acevedo-Rodríguez 1985). No planting experience of zarza brava is known, but if establishment of plants is needed, doubtless the planting of potted nursery seedlings would succeed. The species is so aggressive that direct seeding into prepared seed spots in forest openings should also give good results.

Benefits.—Zarza brava is eaten by goats, but seldom touched by cattle. In fact, it survives as scrambling patches in overgrazed cattle pasture. On the other hand, the species is a great nuisance to the cattleman, woods workers, and hikers. It is frequently necessary to cut a path through zarza brava thickets with a machete, in order to move through vegetation in the semiarid-zones within the zarza brava range. When one contacts the vines, the tips of the spines break off in the skin, causing pain and sometimes resulting in infection. No specific control recommendations have been developed. In the past, control was attempted with mixed success by repeated cutting. Control could probably be improved by treating the sprouts with herbicides after cutting.

References

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John K. Francis, Research Forester, U.S. Department of Agriculture, Forest Service, International Institute of Tropical Forestry, Jardín Botánico Sur, 1201 Calle Ceiba, San Juan PR 00926-1119, in cooperation with the University of Puerto Rico, Río Piedras, PR 00936-4984