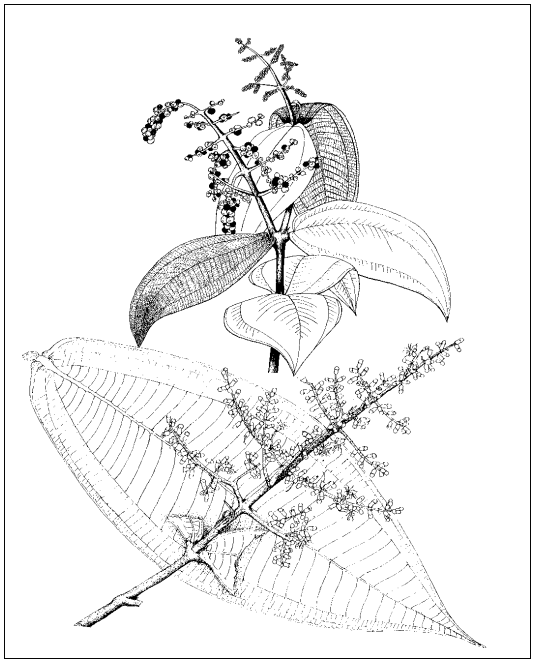
***Miconia impetiolaris* (Sw.) D. Don ex DC.** camasey de costilla
MELASOMATACEAE

Synonyms: *Melastoma impetiolaris* (Sw.) D. Don
Miconia wydleriana DC.
Tamonea impetiolaris (Sw.) Cook & Collins



General Description.—Camasey de costilla, also known as camasey colorado, cordobán, oreja de mula, dos caras, auguey, hoja de pasmo, punta de sarvia, maya, and trios côtes, is a shrub or small tree 2 to 8 m in height. The plant is supported by a deep taproot and strong, lateral roots. These roots are light gray and have fissured bark. Camasey de costilla forms multiple stems if cut or damaged. Stem bark is brown and finely fissured. Young branches are stout, quadrangular, and covered with brown hairs; lower leaf surfaces, petioles, and flower stalks of camasey de costilla are also covered with brown pubescence. Leaf petioles are 2 to 7 mm long and mostly obscured by the cordate leaf base. The leaves are opposite and usually have five main nerves. The blades are ovate, minutely serrate at the edges, long pointed, 12 to 40 cm long, and roughly half as wide. Large terminal panicles bear many tiny, stalkless white flowers. The fruits are berries 4 to 7 mm in diameter progressing from red to purple or blue-black as they ripen. Each fruit contains numerous tiny brown seeds (Croat 1978, Howard 1989, Liogier 1995, Little and others 1974, Stevens and others 2001).

Range.—Camasey de costilla is native to Mexico, Central America, South America as far south as Bolivia, and to the Greater and Lesser Antilles (Liogier 1995, Little and others 1974, Stevens and others 2001). Three varieties have been described (Stevens and others 2001). The species is not known to have been planted or naturalized outside its native range.

Ecology.—Camasey de costilla grows from a few meters above sea level to about 600 m in elevation (Little and others 1974, Stevens and others 2001). It requires moist to wet habitat where it rains from about 1500 to about 3000 mm/year. Although a wide variety of soils are tolerated, the species is most frequent on well drained to somewhat poorly drained, neutral to strongly acid clays and clay loams, often with the A horizons absent or partially gone because of erosion. Excessively drained soils are not colonized. Camasey de costilla is moderately intolerant of shade. It succumbs in dense shade, grows but does not fruit under a forest canopy, and fruits in broken or full sun. The species requires disturbance to become established (Stevens and others 2001). It may be found in early and middle secondary forests, plantations, fencerows, pastures, and roadsides. The species varies from an occasional plant to common as dispersed plants or in clumps.

Reproduction.—Camasey de costilla flowers from spring until fall in Puerto Rico (Little and others 1974). It reportedly flowers during the dry season (February and March) and fruits during the wet season (April and May) in Panama (Croat 1978), and flowers and fruits throughout the year in Nicaragua (Stevens and others 2001). The seeds are disbursed by birds and primates (Molano and others 2002). A collection of fruits from Puerto Rico averaged 0.242 $\pm$ 0.008 g/fruit. Air-dried seeds from these fruits averaged 0.00044 g/seed or 2.3 million seeds/kg. Sown on wet peat, 56 percent of the seeds germinated between 13 and 23 days after sowing. The new seedlings are tiny and

develop slowly (author's observation).

Growth and Management.—Camasey de costilla is relatively slow growing. About 0.25 to 0.5 m of height is added annually. Plants live at least 10 years and probably much longer. No known attempts have been made to plant or manage camasey de costilla. Probably management practices that maintain forests interspersed with pastures, brushlands, and roadsides will ensure at least a presence of camasey de costilla.

Benefits.—Camasey de costilla is employed as a living fencepost in Colombia when it springs up naturally along fence rows (Molano and others 2002). The wood is light colored and hard (Little and others 1974) and used to a limited extent for stakes and fuel. Camasey de costilla benefits wildlife by furnishing food (fruits) and cover. It also contributes to biodiversity and protects the soil from erosion. In herbal medicine, leaf extracts are used for aromatic baths, to arrest bleeding, promote healing, and to treat mouth sores (Liogier 1990). The species is pretty enough to be employed as an ornamental, but perhaps because of the difficulty of propagation, it has not been used so far.

References

Croat, T.B. 1978. Flora of Barro Colorado Island. Stanford University Press, Stanford, CA. 943 p.

Howard, R.A. 1989. Flora of the Lesser Antilles, Leeward and Windward Islands. Vol. 5. Arnold Arboretum, Harvard University, Jamaica Plain, MA. 604 p.

Liogier, H.A. 1995. Descriptive flora of Puerto Rico and adjacent islands. Vol. 4. Editorial de la Universidad de Puerto Rico, San Juan, PR. 617 p.

Liogier, H.A. 1990. Plantas medicinales de Puerto Rico y del Caribe. Iberoamericana de Edicones, Inc. San Juan, PR. 566 p.

Little, E.L., Jr., R.O. Woodbury, and F.H. Wadsworth. 1974. Trees of Puerto Rico and the Virgin Islands. Vol. 2. Agriculture Handbook 449. U.S. Department of Agriculture, Washington, DC. 1,024 p.

Molano, J.G., M.P. Quicero, and C. Roa. 2002. El papel de las cercas vivas en un sistema de produccion agropecuaria en el Pidemonte Llanero. http://lead.virtualcentre.org/es/ele/conferencia2/vbconfe3.htm. 12 p.

Stevens, W.D., C. Ulloa-U., and O.M. Motiel, eds. 2001. Flora of Nicaragua, Angiospermas. Monographs in Systematic Botany Vol. 85, No. 2. Missouri Botanical Garden Press, St. Louis, MO. p. 945-1,910.

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