***Dalbergia ecastaphyllum* (L.) Taubert** coin vine
FABACEAE

Synonyms: *Hedysarum ecastaphyllum* L.
Pterocarpus ecastaphyllum L.
Ecastophyllum ecastophyllum (L.) Britton
Amerimnon ecastophyllum (L.) Standl.

General Description.—Coin vine is a scrambling and climbing shrub that sometimes becomes a small tree with stems that extend as much as 10 m (Howard 1988). It is also known by the common names maraimaray, palo de pollo, mangle médaille, popian, and a host of other common names (Burkill 1995, Liogier 1988). Coin vine develops a tap and lateral root system. The tan colored roots support many nodules that attach directly to the tap and lateral roots. The older stems, which may reach 7 cm or more in diameter, are gray and extend into the crowns of low trees and scramble over low obstacles. There are many long, vine-like branches that bear leaves only on the current year's growth. The simple leaves have petioles 5 to 12 mm long and elliptical or ovate blades 2.5 to 14 cm long and 2 to 8 cm broad. They are leathery, glossy green, rounded at the base, pointed at the tip, and pubescent on the under side. The small white flowers are grouped in panicles in the leaf axils. These develop into small groups of copper-colored to gray-brown, elongated lenticular fruits about 1.5 to 3 cm long that contains one flattened, brown seed (Holdridge and Poveda 1975, Howard 1988, Liogier 1988, Nelson 1996).

Range.—Coin vine is native to Florida, the Bahamas, the Greater and Lesser Antilles, Trinidad, the east coasts of Mexico, Central America, and South America to southern Brazil, and the coast of tropical West Africa (Liogier 1988, Burkill 1995).

Ecology.—Coin vine inhabits coastal sand dunes, open coastal forests and brush fields, lagoon sides, landward sides of mangrove swamps, shell mounds within mangroves, coastal hammocks, and estuaries (Burkill 1995, Nelson 1996). It also encroaches on dense grass swards. The species is most common on sands or sandy soils, but also grows on heavier soils. Coin vine inhabits areas in Puerto Rico that receive from about 1200 to 2200 mm of annual precipitation. It also survives droughts well (Workman 1980). The species frequently grows on sites where there is constant salt spray and sometimes in moderately salty soils. Old plants tend to form dense thickets.

Reproduction.—A collection of mature fruits from Puerto Rico weighed an average of 0.290 $\pm$ 0.010 g/fruit. Seeds extracted from 24 of the pods constituted 69 percent of the pod weight. The pods are tough and the seeds are fragile. Extraction is difficult and unnecessary because seeds germinate through the exocarp without difficulty. Seventy-three percent of 100 fruits sown in commercial potting mix germinated between 31 and 181 days after sowing. Germination is hypogeal. Seeds disburse by lateral branch extension and by water. Seed may be collected after they wash up on the shores (Workman 1980), directly from the shrubs, and from the ground under them. Natural seedlings are abundant near coin vine plants. However, few

survive more than a few weeks. Branches layer whenever they come in contact with the ground.

Growth and Management.—Early height growth is moderate but steady. A small group of nursery seedlings reached about 15 cm in 5 months. Older plants grow about 2 m per year. By resprouting and layering, plants (clones) can survive almost indefinitely.

Benefits.—The extensive horizontal branches and their roots cover, bind, and stabilize coastal sand dunes (Burkill 1995). The stems are brittle and not suitable for wooden implements or basketry. The crushed roots and bark contain a chemical that was used by Native Americans to stupefy and catch fish (Workman 1980). Coin vine is listed among the honey plants of the Dominican Republic (Marcano Fondeur 2001). In Senegal, the leaves are put into inhalations and baths to treat various debilities (Burkill 1995). Various extracts are used in herbal medicine as a diuretic, an emetic, and a vermicide. Care must be taken, because some of the tissues are toxic (Liogier 1990).

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