

***Castela erecta* Turp.**
SIMAROUBACEAE

cockspur

Synonyms: *Castela nicholsoni* Hook.
Castelaria micholsoni (Hook.) Small



General Description.—Cockspur, also known as goat-bush, retama, and urupagüita, is an evergreen, spiny shrub 1 to 4 m in height and up to 10 cm on stem diameter. The plant is multi-stemmed and branchy. The twigs are stiff, sometimes zig-zag, whitish from fine hairs, and end in spines. There are also short spines at the leaf bases. The foliage is sometimes dense, composed of alternate simple oblong to elliptic, almost sessile leaves, 0.6 to 2.5 cm long by 0.3 to 1.2 cm broad, dark green and glabrous above, and hairy below. The foliage and twigs are bitter. Flowers are tiny, whitish to red and tightly clustered in the leaf axils. The fruits are 6- to 10-mm, red, fleshy drupes, one to four developing from a flower. Each fruit contains one hard seed (Howard 1988, Liogier 1988, Little and others 1974).

Range.—Cockspur is native to Puerto Rico, the Virgin Islands, Antigua, Barbuda, Anguilla, Curacao, Aruba, northern Venezuela and northern Colombia (Howard 1988, Little and others 1974). It is not known to have been planted or naturalized elsewhere.

Ecology.—Cockspur is a coastal species. It grows in beach strand vegetation, in sandy soils behind it, and on rocky escarpments and hills somewhat inland (Fundación La Salle de Ciencias Naturales 2002), a dominant to minor part of local xeric scrub communities (Locklin 2002). It occurs to an elevation of about 100 m in Puerto Rico (Little and others 1974). These areas receive annual rainfall totals of about 700 to 900 mm. Soil type does not appear to be critical except that because of the species' short stature and slow growth, it tends to be more successful in poor sites. Although cockspur tolerates salt spray and mild salt in the soil, it does not grow in very salty soils.

Reproduction.—In Puerto Rico, cockspur flowers and fruits in the spring. The species bears male and female flowers on different plants (dioecious). Fleshy, red fruits are probably eaten and the seeds dispersed by birds.

Growth and Management.—Cockspur is a slow-growing species. No management experience has been published.

Benefits.—Cockspur helps protect the soil and furnishes food and cover for wildlife. The sister species *C. texana* (T.&G.) Rose, once considered a part of cockspur as *C. erectas* subsp. *texana* (T. & G.) Cronq., is considered an important browse species (Secretaría de Medio Ambiente y Recursos Naturales. 2002). The common name, goat-bush, suggests that it is browsed by goats.

References

- Fundación La Salle de Ciencias Naturales. 2002. Playas de Aragua para uso turístico sustentable. <http://www.fundacite.arg.gov.ve/papelesf/docs/playas.pdf>. 24 p.
- Howard R.A. 1988. Flora of the Lesser Antilles, Leeward and Windward Islands. Dicotyledoneae, Part 1. Vol. 4. Arnold Arboretum, Harvard University, Jamaica Plain, MA. 673 p.

Liogier, H.A. 1988. Descriptive flora of Puerto Rico and adjacent islands, Spermatophyta. Vol. 2. Editorial de la Universidad de Puerto Rico, Río Piedras, PR. 481 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.

Locklin, C. 2002. Guajira-Barranquilla xeric scrub (NT1308). World Wildlife Fund, Washington, DC. http://www.worldwildlife.org/wildworld/profiles/terrestrial/nt/nt1308_full.html. 7 p.

Secretaría de Medio Ambiente y Recursos Naturales. 2002. Especies forestales no maderables y maderables no tradicionales de zonas áricas y semiáridas: *Castela texana* (T.&G.) Rose. http://www.semarnat.gob.mx/pfnm3/fichas/castela_texana.htm. 2 p.

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