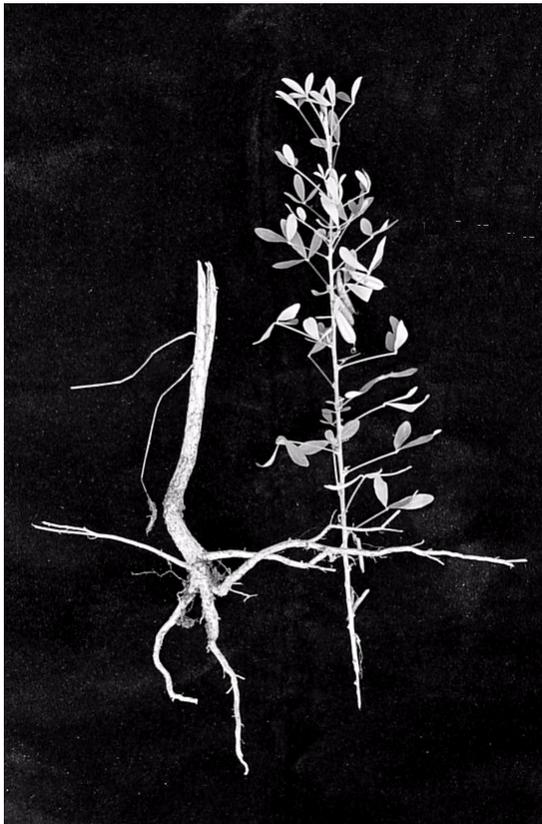


***Crotalaria lotifolia* L.**
FABACEAE

cascabelillo axilar

Synonyms: *Crotalaria lotifolia* L. var. *eggersii* Senn
Crotalaria lotifolia L. var. *grandiflora* Urban
Crotalaria lotifolia L. var. *grandifolia* Urban



General Description.—Cascabelillo axilar is a suffruticose or relatively short-lived shrub usually 1 m in height and 6 mm in basal diameter but sometimes reaching 2 m in height and more than 1 cm of basal diameter. It usually has a single stem, stiff and straight in its lower portions, which branches sparingly. The wood is moderately hard and tough. The branches are slender. Stem bark is yellowish-green and striated. The plant is supported by a tap and lateral root system with moderately stiff roots with yellow bark. Foliage is concentrated near the top of the plant. Leaves are trifoliate on long (2 to 6 cm) petioles. Leaflets are light green or yellow-green, oblong to elliptic, and 1 to 5 cm long. The inflorescences are few-flowered, axillary racemes whose unequal flowers have a yellow corolla 5 to 7 mm long. The legumes (pods) are 2 to 3 cm long and 6 mm wide

and contain a few tan seeds that rattle when dry suggesting the Spanish name cascabelillo, which means little rattlesnake (author's observations, Howard 1988, Liogier 1988).

Range.—Cascabelillo axilar is native to the Bahamas, the Greater Antilles, St. Barts, Dominica, Martinique, the Grenadines, Barbados, Mexico, and Honduras (Howard 1988, Liogier 1988).

Ecology.—In Puerto Rico, cascabelillo axilar grows from a few meters above sea level to about 500 m elevation on the southern slopes of the Sierra Central. These areas receive from 750 to about 2200 mm of mean annual precipitation. It grows on a variety of soils derived from igneous, sedimentary (including limestone), and metamorphic (including ultramaphic) rocks (Breckon 2002). Cascabelillo axilar is moderately intolerant of shade. It grows in openings and in the understory of low basal-area forest, often in rocky and excessively drained areas. The forests are remnants and middle to late secondary. The species does not tolerate competition from tall grass swards and thick herb and brush growth.

Reproduction.—Cascabelillo axilar probably flowers near the end of the wet season. Plants with mature pods were observed by the author in Puerto Rico in March. Seed production can be abundant. Eighteen pods collected in Puerto Rico averaged 6.7 seeds per intact pod. An unknown seed insect had attacked some of the pods. Seeds collected from the same area averaged 0.0086 ± 0.0008 g/seed or 117,000 seeds/kg. Sown on moist blotter paper without pretreatment, 35 percent germinated in 5 months. Seeds from the same batch, mechanically scarified, all germinated in 12 days. Germination is epigeal. Seed pods spring open upon drying flinging the seeds a short distance. Grazing animals probably also move seeds. Seedlings are relatively common on sites where the species is present.

Growth and Management.—Once established,

cascabelillo axilar adds about 0.5 m in height each year and loses most of it to die-back the following dry season. Individual plants probably live 1 to 3 years or more. No management experience has been published. Scarified seed sown and incorporated into prepared ground or seed spots at the start of the wet season may offer a good chance of success.

Benefits.—Cascabelillo axilar contributes in a minor way to standing biomass, cover for wildlife, the aesthetics of the forest understory, and it helps protect the soil. The species is browsed by cattle and consequently is more common in protected areas. Cascabelillo axilar is present in moderately grazed areas but absent from seriously overgrazed areas.

References

Breckon, G.J. 2002. Preliminary checklist for Sierra Bermeja. <http://www.uprm.edu/biology/profs/breckon/herbarium/FLORABERMEJA.htm>. [not paged].

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.

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