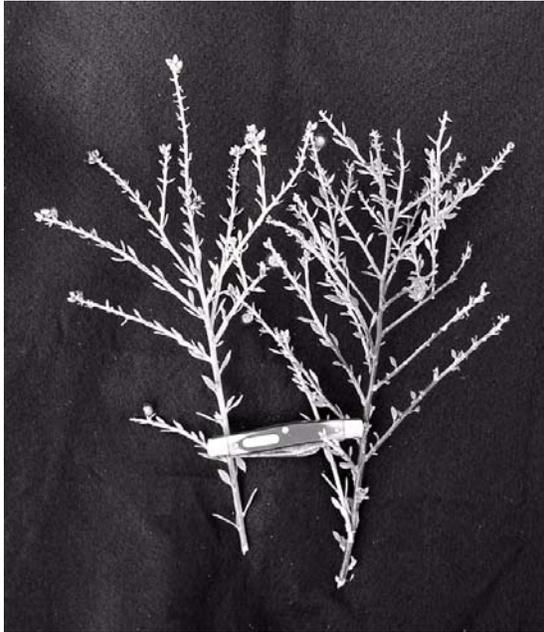


Krameria ixine L.
EUPHORBIACEAE

abrojo colorado

Synonyms: *Krameria cuspidata* C. Presl.



General Description.—Abrojo colorado, sometimes known as retama falsa, is a shrub or suffruticose shrub to 1 m in height and 1 cm in stem basal diameter. The stems are stiff and woody, the twigs flexible and less woody. Older plants have lateral roots with a small or no taproot and many fine roots. The roots are brittle, dark brown outside, with red inner bark. There are multiple stems from the root crown. The branches and leaves are covered with white hairs, giving the whole plant a gray-green color. The leaves are narrowly oblong to oblong-lanceolate, 1 to 2.5 cm long, with a spiny-acuminate tip. The inflorescences are compact lateral or terminal racemes bearing several flowers. The pink-to purplish-red flowers are about 1.2 cm in diameter, from which develop globose 5 to 6 mm, woody capsules (burrs) covered with orange or red, hooked spines. The seeds are light tan and 4 mm in diameter (Howard 1988, Liogier 1988, Stevens and others 2001).

Range.—Abrojo colorado is native to Hispaniola, Puerto Rico, the Lesser Antilles, Mexico through Costa Rica, Colombia, Venezuela, and Guyana (Liogier 1988, Missouri Botanical Garden 2002, New York Botanical Garden 2002, Stevens and

others 2001). It is not known to have naturalized outside its native range.

Ecology.—In Puerto Rico, abrojo colorado grows in areas that receive from 750 to about 1000 mm of mean annual precipitation and at altitudes from near sea level to about 400 m above sea level. Because the shrub is intolerant of shade and low in stature, it does not withstand serious competition. It will grow in almost any well-drained, nonsaline soil. It is most frequently seen on rocky ridges and south slopes, disturbed sites, and overgrazed range. It is rarely browsed by cattle or horses.

Reproduction.—Abrojo colorado flowers and fruits throughout the year in Costa Rica where both flowers and fruit may be present (Instituto Nacional de Biodiversidad 2002). Both flowers and fruits are often present in Puerto Rican plants (author's observation). Fruit and seed production is moderate to abundant. A collection of air-dried fruits in Puerto Rico weighed an average of 0.0516 ± 0.0009 g. The seeds are transported as they cling to passing animals or humans. After drying sufficiently, the capsules open, releasing the seeds. After disturbance, the plants regenerate by sprouting.

Growth and Management.—Individual stems of abrojo colorada grow about 0.5 m/year in the first year from sprouts and live 3 or 4 years. By continual sprouting, established plants live much longer. Although no management experience has been published, it probably is safe to say that overgrazing and disturbance encourages the species, and that reestablishment of tree, tall shrub, or heavy grass cover discriminates against or eliminates it.

Benefits.—Abrojo colorado contributes ground cover, soil stability, and scenic beauty in rocky and often disturbed terrain where it grows. On the other hand, the burrs can be a nuisance to both humans and animals.

References

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.

Instituto Nacional de Biodiversidad. 2002. Lista de especímenes de *Krameria ixine*. <http://www.inbio.ac.cr/bims/k03/p13/c045/o0132/f01646/g008002/s024181.htm>. 2 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.

Missouri Botanical Garden. 2002. Manual de la Flora de Costa Rica. <http://www.mobot.org/manual.plantas/019706/S019706.html>. 1 p.

New York Botanical Garden. 20023. Specimens search results: *Krameria ixine* Loefl. http://scis.../wwwspecimen.search_list?taxon=Krameria+ixine+Loefl.++++&projcode=VAS. 1 p.

Stevens, W.D., C. Ulloa-U., A. Pool, and O.M. Montiel, eds. 2001. Flora de Nicaragua. Monographs in Systematic Botany Vol. 85, No. 2. Missouri Botanical Garden, 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, PR00936-4984