

Argythamnia candicans Sw.
EUPHORBIACEAE

argythamnia

Synonyms: *Tourneol candicans* M. Gómez



General Description.—No common name for *A. candicans* is listed in the literature. The convention among local natural resource workers, when a common name does not exist, is to use its genus or species name as a common name. *Argythamnia* is a common upright, low or half shrub that reaches 1.5 m in height and 2 cm of ground-line diameter. Usual heights are from 0.5 to 1.0 m. It normally has a single stem, although branches may arise near the base. It is supported by a tap and lateral root system with fine tertiary roots. The branches and twigs are thin and gray-green or whitish-green in color. The leaves are green or gray-green above and reddish- or purplish-green and pubescent below. Petioles are 1.5 to 2.5 mm long. The blades are usually narrowly elliptic, 1.3 to 8.5 cm long and 0.9 to 3.6 cm wide. *Argythamnia* produces tiny, inconspicuous staminate and pistillate flowers. The latter develop into round, flattened capsules 5 to 6 mm in diameter. The capsules have three chambers, each with a globose, dark brown seed 1.5 to 2 mm in diameter (Howard 1989, Liogier 1988).

Range.—Howard (1989) lists the range of

argythamnia as the Bahamas, the Greater Antilles, Anguilla, St. Martin, St. Barts, Guadeloupe, and Martinique. However, Britton and Millspaugh (1962) state that the former listings for *A. candicans* in the Bahamas should be *A. lucayana* Millsp., an endemic.

Ecology.—*Argythamnia* inhabits areas of Puerto Rico that receive from 750 to 1800 mm of annual precipitation at elevations from near sea level to about 450 m, usually within a few kilometers of the sea. Soils of all textures derived from all local rock types appear to be suitable, if well drained. Most of the modern habitat is rocky, steep, or disturbed. These sites include primary and secondary forests, brushy natural pastures, and roadsides. The species occurs as scattered individual plants or occasionally in thickets. *Argythamnia* is moderately intolerant of shade. It requires at least good filtered sunlight to survive. *Argythamnia* plants withstand light grazing well but tend to disappear from areas that are overgrazed. It resprouts after fires but is eliminated from large areas by repeated fires and competition from the exotic grasses, *Urochloa maximum* (Jacq.) R.O. Webster and *Bothriochloa pertusa* (L.) A. Camus. Frosts do not occur in the native range.

Reproduction.—*Argythamnia* flowers and fruits continuously. During the maturation and drying process, the capsules develop internal tension and eventually explode flinging seeds as much as 0.3 m away from the parent plant. A collection of capsules from Puerto Rico ranged in fresh weight from 0.0257 to 0.0381. Air-dry seeds collected from them averaged 0.0023 ± 0.0000 g/seed or 429,000 seeds/kg. On moist filter paper, 97 percent of these seeds germinated between 10 and 82 days after sowing.

Growth and Management.—*Argythamnia* is a relatively short-lived species. Seed-bearing plants examined by the author all had two or three growth rings in the base of the stem. Establishment of seedlings could be encouraged by soil disturbance near seed-bearing plants. No planting experience has been reported.

Benefits.—Argythamnia is eaten by livestock and contributes to ground cover and environmental diversity.

References

Britton, N.L., and C.F. Millspaugh. 1962. The Bahama Flora. The New York Botanical Garden. New York. 695 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. 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