

***Turbina corymbosa* (L.) Raf.**
CONVOLVULACEAE

Christmas vine

Synonyms: *Rivea corymbosa* (L.) Hall.f.
Convolvulus corymbosus L.
Convolvulus sidaefolius HBK.
Ipomoea sidaefolia (HBK.) Choisy
Ipomaea corymbosa (L.) Roth.



General Description.—Christmas vine, also known as Christmas wreath, aguinaldo blanco, corona de novia, ololiuqui, and badoh, is a woody vine that may extend 5 m or more laterally and into the crowns of trees and shrubs. Older stems reach about 2.5 cm in diameter. The gray, three-sided stems have many lenticels and may be grooved. The young stems are cylindrical and tough. The foliage is concentrated on current year's growth. The leaves, with slender petioles, have cordate blades 5 to 8 cm long with an elongated point. The inflorescences are corymbose cymes that arise from leaf axils. The 2.5- to 3-cm corolla is trumpet shaped, white with a red or purple throat and green or greenish gray radiating stripes. The ellipsoidal capsule has three long and three short sepals that cause it to spin and glide laterally when released. Each capsule contains one brown, pubescent seed (Acevedo-Rodríguez and Woodbury 1985, Howard 1989, Liogier 1995).

Range.—Christmas vine is native to the West Indies, Mexico through Central America, and the tropical portion of South America (Liogier 1995). It has naturalized in Florida (Correll and Johnston 1970), Hawaii, a few other Pacific Islands,

Australia (Pacific Island Ecosystems at Risk 2002), and some parts of the Old World Tropics (Howard 1989).

Ecology.—Christmas vine grows as single plants or matted patches of vines in secondary forest openings, old fields, neglected pastures, road sides, stream banks, and vacant lots. In Florida, it may be found in hammocks and brushy areas (Long and Lakela 1971). It demands full or nearly full sunlight and will not grow under a closed forest canopy. Christmas vine will grow on most well-drained soils. It is reported to bloom more profusely on "red" and limey soils (Woman's Club of Havana 1952). The species has been observed by the author growing in areas of Puerto Rico that receive from 1000 to 2000 mm of annual precipitation.

Reproduction.—A collection of fruits from Puerto Rico weighed an average of 0.0389 ± 0.0004 g/fruit. Seeds separated from those fruits weighed an average of 0.0265 ± 0.0002 g/seed or 38,000 seeds/kg. Sown in commercial potting mix, 95 percent of the seeds germinated between 33 and 48 days after sowing (author's observation). Well-established plants root whenever vines touch the soil. Natural seedlings tend to be widely scattered. Besides spreading by wind, water, and lateral vine extension, seeds of the species are now widely sold, exchanged, and grown for the narcotic the seeds contain.

Growth and Management.—Seedlings of Christmas vine grow slowly at first and develop a strong tap and lateral root system. Leaders of well-established plants may extend 2 m or more per year. The plants can be pruned back to the woody stems or thinned in the spring after blooming is complete (Woman's Club of Havana 1952). No specific recommendations are given for controlling the species when it grows as a weed in agricultural settings. Cutting the vines near the ground, and spraying the resulting sprouts with broad-leaf

weed killers, should be effective.

Benefits.—Christmas vine is sometimes grown as an ornamental for the clusters of white, scented flowers it produces during the early winter. The nectar gathered from its flowers makes one of the finest honeys (Woman's Club of Havana 1952). Extracts from the seeds are used as an analgesic in herbal medicine (Schultes and Hoffmann 1992).

Narcotic Properties.—The seeds of Christmas vine were valued as a sacred hallucinogen by Chinantec, Mazatec, Mixtec, Zapotec, and other groups in Southern Mexico in Pre-Columbian times and are still cultivated and used today as aids in divination and witchcraft. It was administered by grinding about 13 seeds, adding water, filtering, and drinking the filtrate in a quiet, secluded place. Hallucinations follow that last about 3 hours, sometimes with aftereffects. The active ingredients are the ergoline alkaloids, lysergic acid amide, and lysergic acid hydroxyethylamide that are closely related to LSD (Schultes and Hoffmann 1992).

References

- Acevedo-Rodríguez, P. 1985. Los bejuocos de Puerto Rico. Vol. 1. General Technical Report SO-58. U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station, New Orleans, LA. 331 p.
- Correll, D.S. and M.C. Johnston. 1970. Manuel of the vascular plants of Texas. Texas Research Foundation. Renner, TX. 1,881 p.
- Howard, R.A. 1989. Flora of the Lesser Antilles, Leeward and Windward Islands. Dicotyledoneae. Part 3. Vol. 6. Arnold Arboretum, Harvard University, Jamaica Plain, MA. 658 p.
- Liogier, H.A. 1995. Descriptive flora of Puerto Rico and adjacent islands. Vol. 4. Editorial de la Universidad de Puerto Rico, Río Piedras, PR. 617 p.
- Long, R.W. and O. Lakela. 1971. A flora of Tropical Florida. University of Miami Press, Coral Gables, FL. 962 p.
- Pacific Island Ecosystems at Risk. 2002. Invasive plant species: *Ardisia elliptica* Thunberg, Myrsinaceae. <http://www.hear.org/pier/arell.htm>. 2 p.

Schultes, R.E. and A. Hoffmann. 1992. Plants of the gods. Healing Arts Press, Rochester, VT. 192 p.

Woman's Club of Havana. 1952. Flowering plants from Cuban Gardens. Criterion Books, New York. 365 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