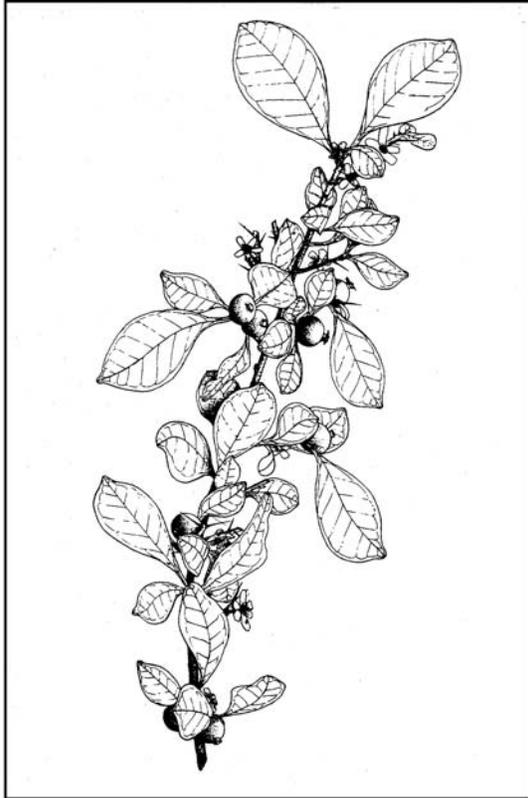


***Randia aculeata* L.**
RUBIACEAE

white indigo berry

Synonyms: *Randia mitis* L.
Gardenia randia Sw.
Randia latifolia Lam.
Randia aculeata L. var. *mitis* (L.) Griseb.



General Description.—White indigo berry is a shrub or small tree from 2 to 6 m in height. It is spiny and may have one to several stems. White indigo berry has smooth to slightly fissured gray bark, opposite, often horizontal, branches, a thin crown, and rough appearance. The plant is supported by an extensive tap and lateral root system. The roots have a corky, ivory colored bark and are stiff and woody. The spines are paired and the foliage is crowded on the ends of short lateral twigs. The leaves are almost stalkless and entire, ovate, obovate, or orbicular. They are 1 to 6 cm long and 0.5 to 3 cm broad, slightly thickened, shiny green above and light green below. The solitary flowers are small, white, funnel-shaped, with a five-lobed corolla, and located on very short lateral spurs. The 6- to 13-mm, globose, white

fruits (or ivory with a salmon blush), with a brittle shell-like skin, have a blue or black pulp and five to 10 round, flattened seeds (Howard 1989, Liogier 1997, Little and others 1974). There are populations and transition populations with and without spines, with large leaves and small leaves, and with large and small fruits. These gave rise to variety designations that are no longer recognized (Howard 1989). White indigo berry is also known as box-brier, inkberry, prickly bush, fishing rod, five fingers, goat horn, tintillo, tintero, palo de cotorra, árbol de navidad, sota-caballo, resuelesue, café cimmarrón, espino cruz, crucete, crucito, maíz tostado, raboe, peetsch-kitam, cabai nache, croc-à-chien, bois-lance, ti coco, and petit coco (Howard 1989, Little and others 1974).

Range.—White indigo berry is native to southern Florida, Bermuda, the Bahamas, the Caribbean Islands, and from Mexico through Central America and South America as far south as Colombia (Little and others 1974, Smithsonian Institution 2001). It is not known to have naturalized outside its native range.

Ecology.—White indigo berry grows in most types of soils including excessively drained and well drained, but not poorly drained soils. It inhabits areas that receive from about 700 to 2200 mm of annual precipitation from near sea level to over 600 m of elevation in Puerto Rico. In Florida, white indigo berry grows in unburned pinelands and along the margins of coastal hammocks (Nelson 1996). In Puerto Rico, the species grows in dry and moist forests, more commonly over limestone rocks, but also over igneous rocks and ultramafics (serpentine). Because white indigo berry is moderately intolerant of shade, it must grow in openings or under low-density forest. The species invades abandoned land, but not quickly, and because of slow growth, is not common in early secondary forest following cultivation. However, white indigo berry does hang on tenaciously after disturbance and is prominent in secondary forests arising after logging or partial

clearing for pasture. Plants are usually well disbursed and seldom, if ever, form thickets.

Reproduction.—White indigo berry blooms and fruits irregularly throughout the year. Fruits ($n = 73$) collected in Puerto Rico weighed an average of 0.472 ± 0.014 g/fruit. Fourteen of the fruits contained from three to 14 seeds and averaged 8.2 seeds. The air dry seeds from these fruits averaged 0.0264 ± 0.0003 g/seed or 38,000 seeds/kg. Sown in commercial potting mix, 25 percent germinated between 46 and 168 days after sowing.

Growth and Management.—Weaver (1990) measured 12 plants over a 5-year period in closed low forest in St. John, U.S. Virgin Islands and found the vary slow diameter growth rate of 0.06 ± 0.02 cm/yr. A 1-m tall sapling in a moist area of Puerto Rico with a basal diameter of 2 cm had 10 growth rings (author's observation). Ornamental plants also grow slowly (Workman 1980). Seeds for nursery production should be cleaned by maceration and wet sieving before sowing. Production of seedlings in containers is recommended. Because growth is slow, a year or more in the nursery is required followed by protection from weeds in the field.

Benefits.—White indigo berry has been used as an ornamental to a limited extent in Florida and, because it is native and resists drought and hurricanes, it is currently being recommended for planting (Dade County 2001). It is available as nursery-grown plants, and plants from the wild can be successfully dug up and transplanted. The fruits are edible although of poor flavor (Workman 1980). White indigo berry provides food and nesting sites for birds (Vélez and van Overbeek 1950) and nectar for butterflies (Dade County 2001). The wood is hard and heavy and useful for fuel. The shrub is sometimes decorated for a Christmas tree, hence the Spanish name, árbol de navidad. Other names (tintillo and inkberry) arose from the former use of the berries for dye and for ink (Little and others 1974). The plant is also frequently formed into bonsai plants. The fruits are used in herbal medicine to control dysentery. An unspecified part of the plant is used to control fever, and the latex is reported to effectively stop bleeding (Liogier 1990).

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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