***Hyperbaena laurifolia* (Poir.) Urban** limestone snakevine
MENISPERMACEAE

Synonyms: *Cissampelos laurifolia* Poir. in Lam.
Anelasma laurifolia (Poir.) Meirs
Cocculus laurifolia Eggers

General Description.—Limestone snakevine is an uncommon scrambling shrub or vine-like small tree. It is also known as hyperbaena, following the convention among natural resources workers to use the Latin genus or species name as a common name. The vine develops a tap and lateral root system. Plants of the species have single or multiple smooth, gray stems with a moderate number of branches and stiff, slender, hairless twigs. Limestone snakevine has alternate, oblong to lanciolate, hairless, leathery leaves with a short petiole and blades from 7 to 16 cm long and 2.5 to 6 cm broad. The leaves are shiny, dark green above and dull, lighter green below, have smooth edges, and may be rounded or pointed at either end. Male and female flowers grow on different plants (dioecious). The individual flowers are tiny, greenish-yellow, and grow in clusters at the leaf bases. The fruits (drupes) that develop are rounded and somewhat flattened, bright red when ripe, 2 to 3 cm broad with a plum-like skin and flesh about 5 mm thick and contain a single seed. The large yellow stone within is grooved and shaped like a crescent curved back upon itself (Liogier 1985, Little and others 1974, Mathias and Theobald 1981).

Range.—Limestone snakevine is native to Puerto Rico, St. Thomas in the U.S. Virgin Islands (Liogier 1985), and Haiti (Mathias and Theobold 1981). It had been reported in Montserrat (Little and others 1974), but apparently this was in error (Howard 1988).

Ecology.—Little and others (1974) and Mathias and Theobald (1981) reported that this species is confined to limestone areas. However, the author knows of two stands near Salinas, Puerto Rico that are growing on soil residual from igneous rocks. Limestone snakevine grows from near sea level to 1,200 m in elevation (presumably in Haiti) (Mathias and Theobald 1981). In Puerto Rico, it grows to elevations of 600 m (Little and others 1974), and in areas that receive from about 800 to about 2000 mm of mean annual precipitation. Limestone snakevine grows in a variety of soils, most of which are very rocky in the currently available habitat. The species is moderately shade tolerant and grows and reproduces mainly under the crowns of trees in remnant and advanced secondary forests.

Reproduction.—Limestone snakevine flowers in the spring and bears fruits during the spring and summer (Little and others 1974). The fruits are easily detached and presumably dispersed by fruit bats. Forty fruits in a Puerto Rican collection weighed an average of 9.31 ± 0.27 g each. Seeds from that collection averaged 4.18 ± 0.12 g/seed or 240 seeds/kg. Ninety-eight percent of the seeds sown in potting mix germinated between 45 and 72 days after sowing. Two of the stones produced two seedlings each. Germination is hypogeal, a stiff, well-branched root developing considerably before the top emerges. The tops reach 10 to 15 cm in height from the reserves in the seeds. The seedlings are ready to transplant within a month of emergence. They are hardy and survive well when transplanted from nursery beds to pots. Seedlings are not common in the wild.

Growth and Management.—Limestone snakevine may reach 3 m in height, 8 m in lateral extension, and 10 cm of basal stem diameter. Established plants appear to have a moderate growth rate, and plants known to the author appear to be several decades old. However, no data on

growth rate and longevity or experience on management have been published.

Benefits.—The fruits of limestone snakevine are slightly acid, bitter, and unpleasant to the taste and smell. The fruit pulp immediately stains skin and cloth a lasting reddish-brown and might be useful as a natural dye in crafts. The wood is heavy and hard and would certainly be good for small-diameter fuel. The species contributes to the biodiversity of local forests and in a minor way, furnishes wildlife food and cover, and protects against erosion.

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.

Liogier H.A. 1985. Descriptive flora of Puerto Rico and adjacent islands, Spermatophyta. Vol. 1. Editorial de la Universidad de Puerto Rico, Río Piedras, PR. 352 p.

Little, E.L., Jr., R.O. Woodbury, and F.H. Wadsworth. 1974. Trees of Puerto Rico and the Virgin Islands. Vol. 2. Agriculture Handbook 449. U.S. Department of Agriculture, Washingtion, DC. 1,024 p.

Mathias, M.E. and W.L. Theobald. 1981. A revision of the genus *Hyperbaena* (Menispermaceae). Brittonia 33(1): 81-104.

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