Solanum viarum Dunal




Common Name: Tropical soda apple, Sodom apple

Synonymy: *S. khasianum* var. *chatterjeeanum* Sen Gupta

Origin: Brazil, Paraguay, Argentina

Botanical Description: Bushy, prickly herbaceous perennial, to 2 m (6 ft) tall, more commonly 1 m (3 ft) tall; stems armed with broad-based, straight or downward-pointing prickles and clothed in a mixture of stellate and simple glandular or nonglandular hairs (pubescent). Leaves alternate, simple, clearly petioled (these also prickly); blades oval-triangular, nearly as broad as long, to 20 cm (8 in) long and 15 cm (6 in) wide, angular lobed; surfaces dense with fine soft hairs giving blades a velvety sheen (hairs a mix of types as on stems); veins prickly. Flowers white, in small terminal clusters; 5 petals white, recurved; stamens with prominent cream-colored anthers. Fruit a globose berry, 2-3 cm (0.8-1.2 in) wide, green with dark veining, like a tiny watermelon, when immature, dull medium yellow when ripe; seeds about 400 per berry.

NOTE: Distinguished in Florida from other prickly *Solanum* spp. by its straight prickles, mixture of stellate and simple hairs with and without glands, clearly petioled leaves with a velvety sheen, terminal flower clusters, and yellow berries that are dark veined when young.

Ecological Significance: A recent accidental introduction, exact means unknown; first collected in Florida in 1988; found in pastures and other open disturbed sites of Glades, Okeechobee, and Polk counties (Wunderlin et al. 1993). From 1990 to 1996, Florida's infestation estimated to have increased from 10,000 ha (25,000 acres) to 200,000 ha (500,000 acres), becoming a major concern of agriculture and a serious threat to Florida natural areas (J. Mullahey, University of Florida, 1997 pers. comm.). Outcompetes native plants, crowding or shading them out (observations of several natural-area managers).

Distribution: In Florida, documented as invading scrub, mesic flatwoods, marl prairies, bottomland forests, strand swamps, and ruderal communities. Documented by herbarium specimens in 30 counties as far west as Leon, Jefferson, and Madison counties south through the peninsula to Collier and Miami-Dade counties (Wunderlin and Hansen 2004). Reported in natural areas from 17 additional counties as far west as Escambia County in the Panhandle through the peninsula to Monroe County, including the Keys (FLEPPC 2005). Now a common weed in fields and groves, a frequent one along roadsides, and turning up more often at pineland and hammock edges. Also present now in adjoining states (Mullahey et al. 1993). Naturalized also in the West Indies, Mexico, Africa, and India (Wunderlin et al. 1993).

Life History: Reaches maturity from seed within 105 days (Mullahey and Cornell 1994). Green stems persist in mild winter temperatures (Coile 1993). Less productive or may die in summer when standing in water (Mullahey and Colvin 1993). Can regenerate shoots from extensive root system; difficult to eradicate (Akanda et al. 1996). Flowers and fruits primarily from September through May, with few fruits produced in summer. Produces 40,000 to 50,000 seeds per plant, with a tested germination rate of 30-100% (Mullahey et al. 1993). Seeds dispersed by birds and other animals, including cattle, deer, feral pigs, and raccoons (Akanda et al. 1996). Also spread by seed-contaminated hay, sod, and machinery.