

Solanum tampicense Dunal



Common Name: Wetland nightshade, aquatic soda apple

Synonymy: *S. houstonii* Martyn, *S. quercifolium* Miller

Origin: Mexico, West Indies, Belize

Botanical Description: Straggly and sprawling prickly shrub, woody below, herbaceous above, with prickly green stems to 5 m (16 ft) long and 1.5 cm (0.5 in) in diameter; branches often interlocking; stem prickles white to tan, recurved, broad based, to 0.5 cm (0.2 in) long; stems also sparsely hairy with star-shaped (stellate) hairs. Leaves alternate, simple, with petioles to 3 cm (1.5 in) long; blades longer than wide, to 25 cm (10 in) long and 7 cm (3 in) wide, with deeply round-indent (sinuate) margins, recurved or straight prickles on veins, and stellate hairs. Flowers small, 3-11 in stalked, branched clusters at leaf axils; petals white, mostly free (fused only at base), spreading or often recurved; stamens with yellow anthers held closely and erect in center of flower. Fruit a small, spherical, tomato-like berry to 1 cm (0.4 in) wide, shiny solid green turning orange then bright red at maturity, with 10-60 yellowish, flat, round seeds.

NOTE: Distinguished from other prickly *Solanum* spp. in Florida, native and exotic, by its clusters of up to 11 pea-sized, red berries (with no dark markings when green); its petioles, longer-than-wide, deeply sinuate leaves; its pubescence of stellate hairs only (no straight or glandular hairs); and its clambering, almost vinelike habit.

Ecological Significance: Not known from cultivation; apparently a recent accidental or natural introduction to Florida. Most species of the genus known to be bird-dispersed (D'Arcy 1974). First recorded for Florida in 1974 in the Dry Tortugas, where it has filled available wet habitat (confined by brick walls) (D. Jones, National Park Service, and others, personal observations to 1997). First noted on the mainland in 1983 in a small hammock in south Charlotte County (A. Shuey, Florida Department of Environmental Protection, specimen at University of South Florida Herbarium). Found through various surveys of the 1990s in 3 other areas in

southwest Florida: the Peace River, Fisheating Creek, and Six-Mile Slough basins. Occurs in relatively undisturbed wetlands, typically cypress swamps or along river margins; capable of forming large, tangled, monocultural stands of many acres by invading sparsely vegetated areas or clambering over native vegetation; can dominate the understory of cypress heads, growing over and covering even large plants such as fire flag (*Thalia geniculata* L.) and pickerelweed (*Pontederia cordata* L.) (A. Fox, University of Florida, personal observations).

Distribution: Native to the West Indies and Central America. Occurs in Florida along at least 40 km (25 mi) of Fisheating Creek (Highlands and Glades counties); along at least 40 km (25 mi) of the Peace River (DeSoto County), including 2 tributaries; and in the Six-Mile Slough natural area (Lee County) (FLEPPC 2002). In Florida, documented as invading floodplain swamps, strand swamps, and ruderal communities. Documented by herbarium specimens in DeSoto, Highlands, Charlotte, Lee, and Monroe counties (Wunderlin and Hansen 2004). Reported in natural areas in Pinellas, Hillsborough, and Hendry counties (FLEPPC 2005). In Charlotte County, found in open marsh near original hammock location (K. C. Burks, A. Nielsen, Florida Department of Environmental Protection, personal observations).

Life History: Grows in full shade to full sun. New green stems produced annually from woody base. Can form adventitious roots at leaf axils. Sheds leaves at high water, producing new ones when flooding recedes; apparently not tolerant of permanent flooding. Susceptible to frost, but may regrow from crowns. Flowers and fruits in May (in sun), or early fall (in shade), prolifically in the sun (247 recorded on 1 stem) and far less in the shade (10% as many). Seeds tolerant of freezing and drying, viable for at least 12 months; fresh seeds showing over 90% germination. Dispersal of seeds and stem fragments possible, especially downstream (Fox and Wigginton 1996).