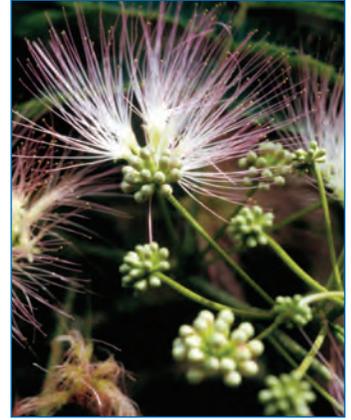


# *Albizia julibrissin* Durazz.



**Common Name:** Silk tree; powderpuff mimosa

**Synonymy:** *Acacia julibrissin* (Durazz) Willd., *Mimosa julibrissin* (Durazz.) Scop.

**Origin:** Warm temperate to tropical Asia.

**Botanical Description:** Deciduous, suckering, broad-spreading tree to 12 m (40 ft) tall, but usually 3-6 m (10-20 ft), with smooth, gray bark. Leaves large, alternate, with a lace-like appearance, twice-compound, 5-15 pairs of pinnae each bearing 10-25 pairs of leaflets (even-pinnate); leaflets to 1.5 cm (0.6 in) long, oblong and curved slightly sideways, tips and bases asymmetrical, tips pointed, central vein offset, glabrous and soft green above, glaucous and paler green below; petiole with noticeable, round-elliptic nectary gland at base. Flowers pink or pinkish white, with very long, showy stamens, born in pom-pom-like clusters 2-5 cm (1-2 in) wide at branch tips. Fruit a long, flat, light brown, papery pod, to 20 cm (8 in) long by 3 cm (1.5 in) wide, not opening and hanging in persistent clusters after leaf fall.

**NOTE:** Distinguished from *A. lebeck* by having small, very pointed leaflets, much larger leaves, and no leaflets on the inflorescence stalk. *A. lebeck* generally replaces *A. julibrissin* in central and southern Florida (Isely 1998).

**Ecological Significance:** Introduced to the United States in 1785 for agricultural and ornamental purposes, and naturalized in Louisiana by 1838 (DeWolfe 1968). First introduced to Florida in 1883 (Gordon and Thomas 1997). Now found throughout the warm-temperate United States and “almost everywhere in the “Dixie” South,” where it is common on roadsides and in open woodlands (Isely 1998). Naturalized across a variety of habitats in Florida, including pine flatwoods, sandhills, scrub, prairies, hardwood hammocks, dunes, and along freshwater springs and rivers (FLEPPC 2002). Invades riparian areas in southern forests of the United States, causing the exclusion of native understory and hardwood species (Miller 1997). Establishes in riparian areas along scoured shorelines, and seeds are transported by water (Remaley 1998a). Rapidly invades disturbed areas and is capable of forming monocultures (Miller 2000a). Widely planted as an ornamental and used by wildlife for cover and browse (Allen and Allen 1981). The seeds are consumed by bobwhite quail (Graham 1941). Brooklyn Botanic Garden lists *A. julibrissin* as one of the worst weeds in Metropolitan

New York. Naturalized in coastal areas of North Carolina, where it tolerates salty winds, and “is enjoyed in landscapes on barrier islands and along tidal creeks” (Russell 1997). Produces abundant root nodules (Allen and Allen 1981) that allow the plant to fix nitrogen, and in dense populations, may alter soil nitrogen cycles (Vitousek 1986).

**Distribution:** Herbarium specimens documented from 17 counties (Wunderlin and Hansen 2002) and recorded from over 28 natural areas throughout Florida (FLEPPC 2002). Documented in 27 US states (USDA NRCS 2002) throughout the southeast, north to New York, west to Missouri, and through the southwestern states to California (Isely 1998). Frequently escapes cultivation in warm temperate areas of the world (Barneby and Grimes 1996). Naturalized in parts of South America, Europe, Russia, New Zealand, Australia, and Jamaica (ILDIS 2002, Fizitea and Scuros 1984, Grigoriev 1978). Listed as a proposed invader in South Africa (Henderson 2001). Restrictions on planting exist in Okaloosa and Seminole counties.

**Life History:** Well adapted to marginal soils (Allen and Allen 1981) and tolerant of many soil types including clay, loam, sand, alkaline to acidic, and occasionally wet soils (Gilman and Watson 1993a). Fast growing, highly drought tolerant, moderately salt tolerant, grows in full sun, tolerates temperatures to -20°C (-5°F), and readily germinates from abundant seeds (Gilman and Watson 1993a). May tolerate partial shade, but seldom occurs under a full forest canopy (Remaley 1998a). Short-lived (10-20 years) with brittle wood, and can produce destructive surface roots (Gilman and Watson 1993). Reproduces well from root cuttings (Fordham 1968). Trees resprout quickly when damaged, and sprouts can grow over three feet in one season (Remaley 1998a). Seeds develop an impermeable coat that allows long dormancy and viability (Remaley 1998a). Germination documented in a 67-year-old seed (Fordham 1968). Germination rates for scarified and non-scarified seeds were 90% and 30%, respectively (Gogue and Emino 1979). Seeds exposed to fire for 1-3 seconds had enhanced germination rates (Gogue and Emino 1979). High levels of genetic variation found in *A. julibrissin* have been attributed to its “wide geographic range, perennial woody nature and outcrossing reproduction” (Huh and Huh 2000). Mimosa wilt disease, *Fusarium oxysporum*, is fatal, but disease resistant clones have been released (DeWolf 1968).