

Ruellia tweediana Griseb. (= *R. brittoniana* Leonard)



Common Name: Mexican petunia; Britton's wild petunia

Synonymy: *R. coerulea* Morong, *R. malacosperma* sensu Small, non Greenm.

Origin: Mexico

Botanical Description: Erect, perennial herb to 1 m (3.2 ft) tall with one to many stems, glabrous, often woody at the base, rhizomatous. Leaves opposite, linear-lanceolate to linear-elliptic, to 25 cm (10 in) long and 2 cm (0.8 in) wide, veins prominently raised beneath; margins entire to wavy, bases tapering, tips pinched to a long point; petioles to 2 cm (0.8 in) long, often purplish or red. Flowers in clusters or solitary on long axillary stalks, each flower subtended by 2 linear bracts; calyx lobes 5, linear, to 1 cm (0.4 in) long; corolla lavender with a darker purple throat, to 4.5 cm (1.8 in) long, tube to 1.5 cm (0.6 in) long, flaring to 5 rounded lobes. Fruit a cylindrical capsule containing 4-20 tiny seeds.

Ecological Significance: Presumably introduced as an ornamental (Bailey and Bailey 1976) and noted as naturalized in the south-east coastal plain from Florida to Louisiana by 1933 (Small 1933). Found escaped on the edge of a south Florida mangrove swamp as early as 1968 (FTG). Naturalized in upland and wetland habitats in over 25 conservation areas in Florida (Gann et al. 2001, FLEPPC 2002). Dense monocultures reported from the St. Lucie River, Lake Jesup, Ocklawaha River, and Fakahatchee Strand State Parks (FLEPPC 2002). Dominates creek banks on both sides of Blackwater Creek preserve in Hillsborough County, and forms solid, acre-size patches in cypress and hardwoods adjacent to the creek where it creates a dense monoculture excluding all native groundcover (D. Butts, Hillsborough County Parks and Recreation Department, Tampa, FL, 2002 pers. comm.). Invaded habitats include pine flatwoods, prairies, freshwater marshes, rivers, springs, pastures

(FLEPPC 2002), and hardwood hammocks (USFWS 1999). Forms rhizomatous colonies in marshy or wet areas in Texas (Turner 1991). Very invasive, spreading by rhizomes and seed, and is capable of stabilizing stream banks (Arnold 2002). Commonly planted to attract butterflies (Gilman 1999b).

Distribution: Herbarium specimens documented from 27 counties throughout the state from Monroe to Escambia counties (Wunderlin and Hansen 2002) and also reported from St. Johns County (FLEPPC 2002). Naturalized in Japan (RIB 2002), Puerto Rico (Liogier and Martorell 2000), the Virgin Islands, Hawaii, and throughout the southeastern United States, including Alabama, Georgia, South Carolina, Mississippi, Louisiana, and Texas (USDA NRCS 2002).

Life History: Tolerates a wide variety of soil types including heavy clay (Arnold 2000), acidic, sandy, loamy, and occasionally wet soils (Gilman 1999a). Grows well in sun and shade; very heat tolerant; moderately salt tolerant (Arnold 2000), and drought tolerant (Gilman 1999a). Hardy under adverse conditions and to -9.4°C (15°F); will freeze to the ground in the winter but resprouts from the roots (Gilman 1999b). Plants spread from readily produced seed and from rhizomes, stem sprouts, and cuttings (Gilman 1999b). Flowers throughout most of the year (Gilman 1999b). Seeds germinate rapidly in low and high light and across a range of temperatures from 10-33°C (50-86°F); germination rates as high as 91-97% in seeds planted above and below the soil (Wilson and Wilson 2001). Plants grow well in dry (18-28% moisture) and wet (82-100% moisture) conditions, and plants grown in wet conditions produced over three times as many capsules (Wilson and Wilson 2001). Each capsule contains approximately 20 seeds (Wilson and Wilson 2001). Seeds are dispersed explosively (Witztum and Schulgasser 1995).