Sphagneticola trilobata (L.) Pruski) (=*Wedelia trilobata* (L.) Hitchcock)



Common Name: Wedelia; creeping oxeye; yellow dots; water zinnia

Synonymy: *Complaya trilobata* (L.) Strother, *Silphium trilobatum* L.

Origin: Central and South America

Botanical Description: Creeping, mat-forming, herbaceous perennial; stems hairy, somewhat succulent, to 2 m (6.5 ft) long, often rooting at the nodes, flowering stems erect. Leaves opposite, sessile or with small, winged petioles extending onto the blades, papery to fleshy, rough, hairy, lower surface glandular-dotted, strongly veined, obovate to ovate, to 12 cm (4.8 in) long and 6 cm (2.3 in) wide, margins irregularly toothed and often 3 to several lobed, bases wedge shaped, tips rounded to acute. Flowers yellow, daisylike, borne in solitary, long stalked, axillary heads, to 4 cm (1.5 in) across, subtended by 2-4 series of hairy, linear bracts; 8-12 ray flowers to 1.5 cm (0.6 in) long, with toothed apices; disk flowers many, corollas tubular with 5 triangular lobes, darker yellow than ray flowers, to 5 mm (0.2 in) long. Fruit a tiny, brown, pimpled achene, to 5 mm (0.2 in) across.

Ecological Significance: Commonly cultivated as an ornamental and naturalized in south Florida by 1933 (Small 1933). Very aggressive, forms dense, vinelike thickets of layered stems, grows under dense canopy cover, and excludes native ferns and ground covers in south Florida hammocks (Cunningham 1991). Currently found in over 125 conservation areas in central and south Florida (Gann et al. 2001, FLEPPC 2002) from a wide variety of habitats including beach dunes, coastal berms, pine rocklands, prairie hammocks, disturbed uplands (Gann et al. 2001), scrubby flatwoods (FTG), sandhills, hardwood hammocks, swamps, freshwater marshes, lake edges, and maritime forests (FLEPPC 2002). One of the most frequently occurring exotic species in south Florida, it was found in over 52% of surveyed lands (Bradley and Gann 1999). Considered one of the "100 World's Worst Invasive Alien Species" (IUCN 2001). Colonizes dry evergreen hillsides and coastal strand across much of the Caribbean (Acevedo-Rodriguez 1996). Widespread in Hawaii, where it is considered one of the most invasive horticultural plants (DOFAW 2001), and may hybridize with a native aster (Rabakonandrianina and Carr 1981). Occurs along mangrove borders (Thaman 1999) and covers "entire clearings" in Guam (McConnell and Muniappan 1991). Prohibited from trade in South Africa where it invades riverbanks, wetland edges, and coastal dunes (Henderson 2001). Forms monospecific stands that inhibit recruitment of native species on coastal foredunes in Australia (Batianoff and Franks 1998a), and Australian herbarium records document its spread at 2500 kms in 15 years, an average rate of 167 km/year (Batianoff and Franks 1997). Can accumulate heavy metals in roots and shoots (Qian et al. 1999). May exclude birds by eliminating their forage base, and supports significantly lower rodent and invertebrate populations than native ground covers in Hawaii (Linnell 1995). Contact with plants may cause skin irritation (Goh 1986).

Distribution: Herbarium specimens documented from Brevard, Broward, Collier, Escambia, Highlands, Hillsborough, Indian River, Lee, Leon, Levy, Marion, Martin, Miami-Dade, Monroe, Orange, Palm Beach, Pasco, Pinellas, Sarasota, and Seminole counties (Wunderlin and Hansen 2002). Also reported from Charlotte (Gann et al. 2001), Citrus, St. Lucie, and Volusia counties (FLEPPC 2002). Naturalized in Louisiana, Hawaii, Puerto Rico, the Virgin Islands (USDA NRCS 2002), and throughout the Caribbean, where it is noted as a weed in Trinidad, Puerto Rico, the Dominican Republic, Jamaica, Panama, and Surinam (Holm et al. 1979). Escaped in many tropical regions of the world (Acevedo-Rodriguez 1996), including Australia, the Pacific Islands, Malaysia (Pruski 1996), and Japan (RIB 2002). Restrictions exist in Collier and Miami-Dade counties.

Life History: Well suited to hot, dry conditions; fast growing, and spreading rapidly to form dense mats of foliage that will tolerate mowing (Gilman 1999f). Grows well in wetlands and open water (Qian et al. 1999), and thrives in wet places and along stream banks in its home range (Strother 1999). Highly salt tolerant and moderately drought tolerant (Gilman 1999f). Prefers moist soils and partial shade (Whistler 2000), but grows in a range of conditions including full sun to shade; rough, rocky ground; wet ditches; waterlogged sites; and alkaline to acidic substrates (Gilman 1999f). Tolerates clay, loam, sand, and low nutrient soils (Gilman 1999f, Floridata 2002). Killed back to the ground at -2.2°C (28°F; Stadtherr 1982) but rapidly resprouts. Flowers year-round (Long and Lakela 1971). Fruits often infertile, but plants have vigorous vegetative reproduction (Wagner et al. 1990). Vinelike stems creep and root from the nodes, and spread quickly from discarded cuttings; crowds out "nearly all other herbaceous species" (Whistler 2000).