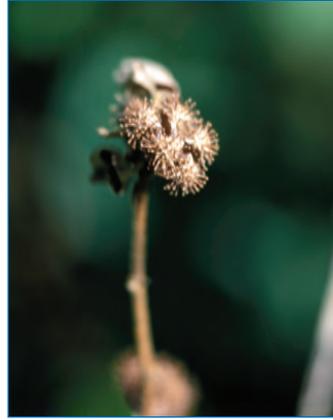


Urena lobata L.



Common Name: Caesarweed; Caesar's weed; burr-mallow

Synonymy: None

Origin: India and tropical Asia

Botanical Description: Tough, erect, woody perennial herb or sub-shrub, to 3 m (10 ft), but usually to 1.5 m (5 ft); stems and leaves covered with star-shaped hairs; often many branched at base. Leaves simple, alternate, papery, upper surface rough, lower surface grayish, broadly ovate, often with 3-5 shallow, angular lobes at apex, to 10 cm (4 in) long; margins finely toothed, bases heart shaped; petioles to 5 cm (2 in) long; stipules tiny, linear. Flowers small, showy, hibiscus-like, solitary on short stalks in leaf axils, subtended by 5 basally united (involucral) bracts to 0.7 cm (0.3 in); calyx 5-lobed, hairy, to 0.6 cm (0.2 in); petals 5, rose or pink, darker at base, rounded, to 1.5 cm (0.6 in) long; stamens fused into an obvious pink column beneath a 5-lobed style. Fruit a small, barbed, spiny capsule, to 1 cm (0.4 in) across, with 5 prominent segments each containing 1 dark brown seed.

Ecological Significance: Introduced to Florida before 1895 and "escaped to waste places" before 1897 (Chapman 1897, Parsons 1895). Widely naturalized and considered a "serious threat" in hardwood hammocks and roadsides in south Florida by 1976 (Morton 1976). Reported from over 100 conservation areas in central and south Florida (Gann et al. 2001, FLEPPC 2002). Forms thickets, and is often abundant on swamp edges and in wet woodlands (Godfrey and Wooten 1981). Found sprouting in tropical hardwood hammock gaps after Hurricane Andrew (Gordon et al. 1999). May occur as scattered plants but can quickly spread to form dense patches and, occasionally, monocultural stands (FLEPPC 2002). Colonizes pine rocklands and prairie hammocks (Gann et al. 2001). Widespread throughout peninsular Florida in almost all habitat types, including hammocks, disturbed sites (Wunderlin 1998, Austin 1999b), pine flatwoods, sandhills, river edges, maritime forests, salt marshes, and coastal dunes (FLEPPC 2002). Occurs in closed canopy forests in its native range (Oommachan 1977). Declared a noxious weed in Fiji and Hawaii (PIER 2002).

Invades coastal dunes in Australia (Batianoff and Franks 1998a). A serious weed in Melanesia and West Polynesia, and common or present as a weed in many countries around the world (Holm et al. 1979). Distributed extensively as a fiber crop and for its many medicinal uses (Austin 1999b). Nectary glands on underside of leaves are used as a food source in Florida by native and nonnative ants (Dreisig 2000).

Distribution: Herbarium specimens documented from 36 counties throughout Florida. Naturalized in Hawaii, Puerto Rico, the Virgin Islands, and Louisiana (USDA NRCS 2002). Weedy in Central and South America, the Caribbean (Fryxell 1988, MOBOT), throughout the Pacific Islands (PIER 2002), Japan (RIB 2002), Australia (Auld and Medd 1992), and most tropical regions of the world. Targeted for removal from commercial production by FNGA/TBWG growers associations (FNGA 2001).

Life History: Fast growing, up to 2.75 m (9 ft) in 5 months; produces large amounts of biomass; may uptake substantial amounts of soil nutrients (Dempsey and Baumann 1970). Grows well in acidic soils (Nascimento and Vilhena 1996) to pH of 3.5 (Souza Filho et al. 2000), and survives in highly eutrophic wastewater (Kent et al. 2000). Withstands occasional flooding; tolerates dry conditions (FLAS, SEPASAL 2002) and a variety of soils, including sandy loam, lateritic gravel, silty clay, fine sand, rich muck, wet prairie, and wetland soils (FTG, Harris 1981b, Dempsey and Baumann 1970). Seeds are highly viable and have high dormancy rates (Harris 1981a), however the hard seed coat requires water soaking or scarification (Veena et al. 2001). Treated seeds had 96-100% germination (Veena et al. 2001), but untreated seeds have very low germination rates (Harris 1981a). Seeds germinate well between pH 5.6-7 and between 20-30°C (68-86°F) (Figueiredo and Popinigis 1980, Harris 1981a). Flowers year-round in Florida (Wunderlin 1998), but may not produce seed in colder climates (Dempsey and Baumann 1970). Barbed fruits readily cling to clothing and are dispersed by animals and humans (Austin 1999b).