

FIRST REPORT OF *URENA LOBATA* (MALVACEAE) IN TEXAS, U.S.A.

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ABSTRACT

The pantropical weed, *Urena lobata* L. (Malvaceae) is reported for the first time in Texas. The spread of *U. lobata* in the U.S.A. and the role of botanic gardens in reducing threats from invasive plants are discussed.

RESUMEN

La maleza pantropical, *Urena lobata* L. (Malvaceae) se reporta por la primera vez en Texas. Se discute la difusión de *U. lobata* en los Estados Unidos y el rol de los jardines botánicos en la reducción de las amenazas de las plantas invasoras.

KEY WORDS: *Urena*, invasive species, Texas flora

Regarded as a pantropical weed, *Urena lobata* L. (Malvaceae), is likely native to Southeast and East Asia (Hill 2024; Weakley et al. 2024). First described by Carl Linnaeus in 1753, *U. lobata* is congeneric with approximately five species native to tropical and subtropical regions (Weakley et al. 2024). Known as Caesar weed, bur mallow, and congo jute, *U. lobata* has spread to Africa, tropical America, and the southeastern U.S.A. states of Louisiana, Alabama, Florida, South Carolina, and Tennessee (Hill 2024; Weakley et al. 2024). On October 23, 2023, Nicholas Brockett, former intern at Mercer Botanic Gardens, discovered *U. lobata* growing as a weed, or waif, at Mercer Botanic Gardens, Texas, U.S.A., a 180-acre public botanic garden administered by Harris County (<https://www.pct3.com/MBG>).

In the U.S.A., *U. lobata* spreads easily in moist habitats, roadsides, vacant lots, woods, and swamps (Weakley et al. 2024). Well-established in Florida, this erect shrub with minutely stellate-hairy stems (Hill 2024) can reach up to 3 m and can grow up to 2 m by the end of the first year's growth (University of Florida IFAS Center for Aquatic and Invasive Plants 2024). Leaves are reduced distally with 2–4 mm stipules (Hill 2024). Petioles equal blades proximally and are reduced distally to ¼ blade length. Blades (usually 3–9 cm) are paler abaxially; ovate; angulate to shallowly lobate; with mostly acute sinuses and acute apices. Inflorescences are subsessile or with pedicels to 7 mm. The lobes of the 5–6 mm involucels alternate with the ½ divided, hairy, 5–9 mm ciliate calyx lobes. The 15–20 mm long rose-pink petals are abaxially hairy, and dry to a lavender color. The glabrous staminal columns are apically 5-dentate with subsessile anthers. Ovaries are 5-carpellate with one ovule per cell. The styles are 10-branched with 2 per carpel and bear capitellate stigmas. The fruits are 5-lobed, 8 mm diameter, stellate-hairy, glochidiate-spiny schizocarps with convex lobes and bear 3–5 mm glabrous seeds. Plants flower nearly year-round, and seeds are easily dispersed by means of the spiny schizocarps that readily attach to clothing and can be spread by contaminated soil and equipment (University of Florida IFAS Center for Aquatic and Invasive Plants 2024).

Introduced to the Caribbean by European voyagers in the 1700s likely as a fiber crop and medicinal, records show *U. lobata* escaped cultivation in Florida by the late 1800s. Because *U. lobata* alters native plant communities by displacing native species and changing native plant community structures or ecological



FIG. 1. *Urena lobata* L. at Mercer Botanic Gardens, Harris County, Texas, 5 Dec 2023. Plant since removed. (<https://www.inaturalist.org/observations/194449706>). Photo by Jacob Martin. Additional images available in <https://www.inaturalist.org/observations/193214275>.

functions, the Florida Invasive Species Council ranks *U. lobata* as a Category 1 Weed in Florida (University of Florida IFAS Center for Aquatic and Invasive Plants 2024).

Voucher specimen (**Fig. 1**): **TEXAS. Harris Co.:** planting beds at Mercer Botanic Gardens, 5 Dec 2023, K.L. Hernandez 194449706 (EMC, MERCA, TAES/TAMU, TEX); same location, 6 Dec 2023, K.L. Hernandez 193214275 (MERCA).

Mercer Botanic Gardens is being monitored for regrowth of the species. Mercer Botanic Gardens strives to increase the awareness of invasive plant species (Tiller & Berkshire 2005). Landmark meetings in 2001 and 2002 at Missouri Botanical Garden and Chicago Botanic Garden culminated with the St. Louis Declaration that proposed botanic gardens, green industry, government agencies, and garden clubs adopt voluntary measures to promote awareness and control of invasive plants (White 2002). Continued monitoring for *Urena lobata* with prompt removal will prevent its spread at Mercer unlike bushkiller, *Causonis japonica* (Thunb.) Raf. (syn. *Cayratia japonica* (Thunb.) Gagnep.) (Vitaceae), Mercer Botanic Gardens, 22 Jun 1988, Young 590 (MERCA).

Though now much reduced at Mercer, *C. japonica*, a native of Asia and the W Pacific, continues to be a troublesome weed.

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