

A FIRST REPORT OF *HIBISCUS MUTABILIS* (MALVACEAE) FROM ARKANSAS

BRETT E. SERVISS

Natural Sciences
Applied Professional Sciences and Technology
Henderson State University
1100 Henderson Street
Arkadelphia, Arkansas 71999
servisb@hsu.edu

J. MICHAEL BROTHERTON

Henderson State University
Arkadelphia, Arkansas 71999

ABSTRACT

Hibiscus mutabilis is reported here for a first occurrence in the naturalized Arkansas flora. In 2023, one spontaneous plant was discovered growing in a highly disturbed urban habitat within the city of Arkadelphia (Clark County). No cultivated plants of *H. mutabilis* were present in the vicinity. The origin of the escaped plant is unknown, although horticultural discards are suspected as the source material for its establishment.

Hibiscus mutabilis L. (Confederate rose-mallow; cotton rose-mallow) is reported here for a first occurrence outside of cultivation in Arkansas. A single spontaneous plant was discovered growing in a highly disturbed urban habitat in Clark County, within the city of Arkadelphia (Fig. 1). The *H. mutabilis* plant was ca. 2 meters tall and growing near one end of an extensive rubbish heap, where horticultural waste has been deposited from multiple sources for many years. This species previously has not been reported for the state (Gentry et al. 2013; Blanchard 2015; Kartesz 2015; Serviss & Tumilson 2021; USDA, NRCS 2023; Weakley 2023). Currently, this nonnative species is known from the floras of Alabama, Florida, Louisiana, North Carolina, South Carolina, and possibly California (Blanchard 2015; Keener et al. 2023; Wunderlin et al. 2023; Weakley 2023). *Hibiscus mutabilis* probably is native to southeastern China but has been in domestication there for a long time (Bailey & Bailey 1976; Tang et al. 2007). It is cultivated in warm regions worldwide and occasionally naturalized (Tang et al. 2007).

The combination of its large size (to 3 or more meters in a growing season), usually doubled flowers, deciduous bractlets, and large, densely pubescent, long-petiolate, prominently three- to seven-lobed leaves distinguish *H. mutabilis* from other *Hibiscus* species in the Arkansas flora, including *H. syriacus*, which also is nonnative and woody. In its native habitat, *H. mutabilis* is a shrub or small tree up to 8 meters tall (Krüssmann 1977; Tang et al. 2007; Blanchard 2015); however, in regions that experience annual freezing temperatures, it generally is not winter-hardy above ground. In warm-temperate zones, such as southern Arkansas, perennation from the roots and crown is typical, with regrowth of stems the following year. Fruit production appears uncommon among cultivated plants of *H. mutabilis* in Arkansas. Its flowers open white or pale pink in the morning and change to deep pink or pinkish-red by evening (Bailey 1949; Bailey & Bailey 1976; Tang et al. 2007; Blanchard 2015). The double-flowered forms are common in cultivation (Blanchard 2015). *Hibiscus mutabilis* regularly is grown for its large, showy flowers, attractive growth form, and ease of cultivation.

Horticultural discards are a recurring source of propagules for establishment of exotic species in the state's flora. In addition to *H. mutabilis*, numerous taxa (*Alocasia macrorrhizos*, *Buxus sempervirens*, *Canna indica*, *Canna x generalis*, *Clerodendron trichotomum*, *Colocasia esculenta*, *Hydrangea macrophylla*, *Lagerstroemia indica*, *Liriope muscari*, *Mahonia bealei*, and *Narcissus* spp.)

have been observed establishing from discards (Serviss et al. 2016a, 2016b; Serviss et al. 2018; Serviss et al. 2020; Serviss et al. 2021; Serviss & Tumilson 2021). Additional escaped occurrences of *H. mutabilis* should be expected, particularly in urban environments in the vicinity of where plants are cultivated or discarded.

Voucher specimen. Arkansas. Clark Co.: Arkadelphia, off N 8th St., NE of intersection of N 8th St. and McNutt St., one spontaneous plant growing within extensive rubbish heap in urban waste area, adjacent to small stream, not planted, no other plants of the species present, 31 Aug 2023, *Serviss 8764* (HEND, ANHC).

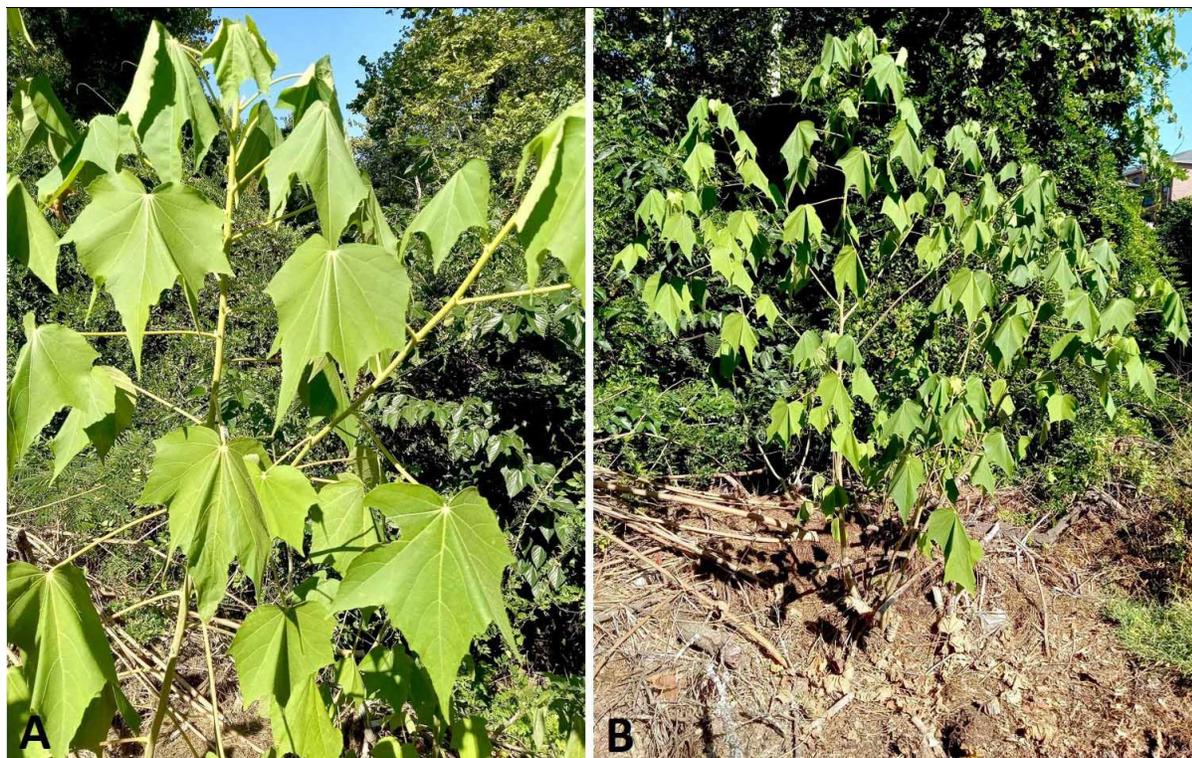


Figure 1. A–B. Spontaneous plant of *Hibiscus mutabilis* from Clark Co., Arkansas. A. Close-up view of leaves and stems. B. Plant and the associated habitat (a small stream is present just to the right). Plant is presumed to be established from horticultural discards transported to and deposited at the site. Although sterile, the plant was well-established when discovered and may have been at the site for multiple years. There was no evidence of spread and no other plants of the species were present in the vicinity.

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