

***ABELMOSCHUS ESCULENTUS* AND *ALCEA ROSEA* (MALVACEAE)  
NEW TO THE ARKANSAS FLORA**

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**ABSTRACT**

*Abelmoschus esculentus* (L.) Moench and *Alcea rosea* L. are documented here as new to the Arkansas flora. These records also represent the first reports of these genera outside of cultivation in the state. Escaped/naturalized plants of both species were discovered growing in highly disturbed areas along the Arkansas River flood plain in Pulaski County. Additionally, *A. esculentus* is documented from Garland County on the shore of Lake Ouachita. Photographs of voucher specimens for both species are provided.

In 2007, several escaped plants of *Abelmoschus esculentus* (L.) Moench (okra) were documented from both Garland and Pulaski counties from highly disturbed habitats along the Arkansas River flood plain and the Lake Ouachita shoreline (Fig. 1). Also in 2007, escaped plants of *Alcea rosea* L. (hollyhock) were documented from Pulaski County from highly disturbed habitat along the Arkansas River flood plain (Fig. 2). No previous records of these species have been documented from the Arkansas flora, outside of cultivation (Arkansas Vascular Flora Committee 2006; Gentry et al. 2013; Bates 2015; Hill 2015).

A portion of the Two Rivers Park area consists of an expansive community garden that is a plausible source of propagules, most likely seeds from discards, compost, or abandoned plants, that could have facilitated establishment of the escaped plants. It is important to emphasize, however, that although the initial source pool is probably directly or indirectly attributable to human activities, the plants reported in this paper were escapes, and not planted, cultivated, or persisting as remnants of intentional agricultural or horticultural activities.

*Abelmoschus esculentus* is an annual species that is native to tropical Asia and Africa and is the okra of commerce grown both locally and commercially in the USA and elsewhere (Bailey & Bailey 1976; Bates 2015; Hanes 2015). *Alcea rosea* is a biennial species that is thought to have originated in southwestern China, but is now found in cultivation and naturalized throughout much of the world (Hill 2015). Both species are frequently cultivated in the eastern USA (Bailey & Bailey 1976; Bates 2015; Hill 2015; Weakley 2015), including Arkansas, and have been well-documented outside of cultivation in several states (Bates 2015; Weakley 2015; USDA, NRCS 2017).

Escaped/naturalized plants of these species typically are encountered in highly disturbed areas and waste places (Bates 2015; Hill 2015), similar to the environments in which the Arkansas plants were discovered. Based on frequency of cultivation and ability to self-seed, both *A. esculentus* and *A. rosea* should be expected as adventive or escaped elsewhere in Arkansas in low quality, highly disturbed environments, particularly in urban areas in proximity to where plants of these species occur in cultivation.

*Alcea rosea* is grown as an ornamental for its large, showy, and variously colored flowers, and *A. esculentus* is grown both as an ornamental for its showy flowers and foliage, and more commonly, for its edible fruits (Bailey & Bailey 1976).



Figure 1. A–B. Voucher specimens of escaped *Abelmoschus esculentus* from Garland and Pulaski counties. A. Specimen from Pulaski County. B. Specimen from Garland County.

**Voucher specimens, *Abelmoschus*. Arkansas. Garland Co.:** About a dozen plants growing on dredged spoils of recreational use area swimming beach, escaped, Brady Mt., Lake Ouachita State Park, 29 Jul 2007, *Peck 07-1745* (HEND). **Pulaski Co.:** One to two dozen plants growing in disturbed, sandy soils of Arkansas River flood plain, escaped, Two Rivers Park, Little Rock, 28 Jul 2007, *Peck 07-1732* (HEND); one to two dozen plants growing in disturbed, sandy soils near picnic area, escaped, Two Rivers Park, Little Rock, 29 Jul 2007, *Peck 07-1746* (HEND).

**Voucher specimen, *Alcea*. Arkansas. Pulaski Co.:** Seven plants growing in sandy soils of Arkansas River flood plain in oak and *Acer negundo* woods, escaped, Two Rivers Park, Little Rock, 28 Jul 2007, *Peck 07-1737* (HEND).



Figure 2. Voucher specimen of escaped *Alcea rosea* from Pulaski County.

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