

TALINUM PANICULATUM (TALINACEAE) IN THE ARKANSAS FLORA, WITH A THIRD COUNTY OCCURRENCE FOR ULMUS PARVIFOLIA (ULMACEAE)

BRETT E. SERVISS

Arkadelphia School District
Arkadelphia, Arkansas 71923
brett.serviss@arkadelphiaschools.org

ABSTRACT

Talinum paniculatum is reported here for a first occurrence in the Arkansas flora from Clark and Pulaski counties. All plants were present in highly disturbed, urban habitats. Establishment appeared to be exclusively via seeds. Photographs of *T. paniculatum* in habitat and notes on its establishment and potential for invasiveness in the state are provided. A third naturalized occurrence of *Ulmus parvifolia* in Arkansas, from Pulaski County, also is reported.

Talinum paniculatum (Jacq.) Gaertn. (pink baby's-breath; jewels of Opar) is reported here for a first naturalized occurrence in Arkansas from highly disturbed, urban habitats in Clark and Pulaski counties. It previously has not been reported for Arkansas (Arkansas Vascular Flora Committee 2006; Gentry et al. 2013; Kartesz 2015; USDA, NRCS 2022; Weakley 2022). The Pulaski County plants were documented as spontaneous from a yard and also a planter within the city of Little Rock (*Shepherd* 488, 489). In Clark County, an escaped population of at least 24 plants of *T. paniculatum* was observed at a residence within the city of Arkadelphia (Figs. 1–2). Reproductively mature plants (with flowers and fruits) and seedlings were present. Plants with fruits produced large amounts of seeds. Plants were distributed in multiple scattered places at the residence, including several plants at the property edge. A second location from Clark County had an isolated *T. paniculatum* plant growing at a residence, along a driveway near the property edge. No other plants of *T. paniculatum* were present at this location; the status of this individual (escaped or persistent from cultivation) is unclear.

In Arkansas, *Talinum paniculatum* demonstrates the ability to spread and establish via seeds. Despite its perennial duration and tendency to self-seed, it does not appear to have a high potential for invasiveness, seemingly preferring low-quality, highly disturbed habitats for establishment. In the eastern USA, it escapes locally to disturbed areas and garden edges and sometimes is weedy (Kiger 2003; Weakley 2022), as observed for this species in Arkansas. *Talinum paniculatum* is considered native to the southwestern USA and Mexico (west of the Mississippi River) but adventive eastward (Kiger 2003; Weakley 2022).

Voucher specimens. Arkansas. Clark Co.: Arkadelphia, off 12th St. immediately W of intersection of 12th St. and Huddleston St., one plant near street growing in open gravel area along drive of residence, weed or possibly persistent from prior cultivation, no other plants of the species observed, 28 Aug 2014, *Serviss* 8173 (HEND, ANHC); Arkadelphia, NW of intersection of 19th St. and O'Connell St., at least 24 escaped plants distributed in several scattered places at residence, including edge along property line, weedy, plants ranging from seedlings to reproductive age plants with flowers and fruits, 23 Jun 2022 *Serviss* 8758 (HEND, ANHC). **Pulaski Co.:** Little Rock, Valmar Street, spontaneous plants growing in partially shaded yard of residence, 20 Sep 2010, *Shepherd* 488 (ANHC); Little Rock, 34.716855, -92.354826, spontaneous plant growing in patio planter, 21 Sep 2010, *Shepherd* 489 (ANHC).

Ulmus parvifolia Jacq. (Chinese elm) is reported here from Pulaski County for a third naturalized occurrence in the Arkansas flora. It previously has been recorded from Faulkner and Garland counties (Serviss et al. 2016; Ogle et al. 2020; Serviss & Serviss 2020; Serviss & Tumblison 2021). The Pulaski County record consisted of a single, escaped, juvenile plant (ca. 3–4 m tall) growing in a highly disturbed, urban habitat within the city of Little Rock (Fig. 3). No cultivated plants of



Figure 1. A–B. Escaped plants of *Talinum paniculatum* in Clark Co., Arkansas. A. Two young plants with development slightly past the seedling stage. B. A few plants growing in an unkempt portion of a yard at the property edge (additional *T. paniculatum* plants are present that are not shown in the photograph). At least 24 plants were present at this site and ranged from seedlings to reproductive age individuals with flowers and fruits.



Figure 2. A–C. Flowers, fruits, and habit of escaped *Talinum paniculatum* from Clark County (from same site as the plants shown in Fig. 1). A. Inflorescence, flowers, and fruits. B. Infructescence with mature fruits (fruits contain numerous, small, black seeds). C. Reproductive age plant.

U. parvifolia were observed in the vicinity. Wind dispersal of seeds from reproductive age *U. parvifolia* plants present elsewhere likely is the source of the escaped plant. The species also has been recorded from the naturalized floras of other states (Sherman-Broyles 1997; Kartesz 2015; USDA, NRCS 2022; Weakley 2022). It is native to eastern Asia (Fu et al. 2003).

Voucher specimen. Arkansas. Pulaski Co.: Little Rock, off Shackelford Rd., ca. one block S/SW of intersection of Shackelford Rd. and Rodney Parham Dr., single escaped plant, ca. 3–4 m tall, growing in highly disturbed habitat along edge of alley way, no other plants of the species observed in the vicinity, 1 Jun 2022, Serviss 8755 (HEND, ANHC).

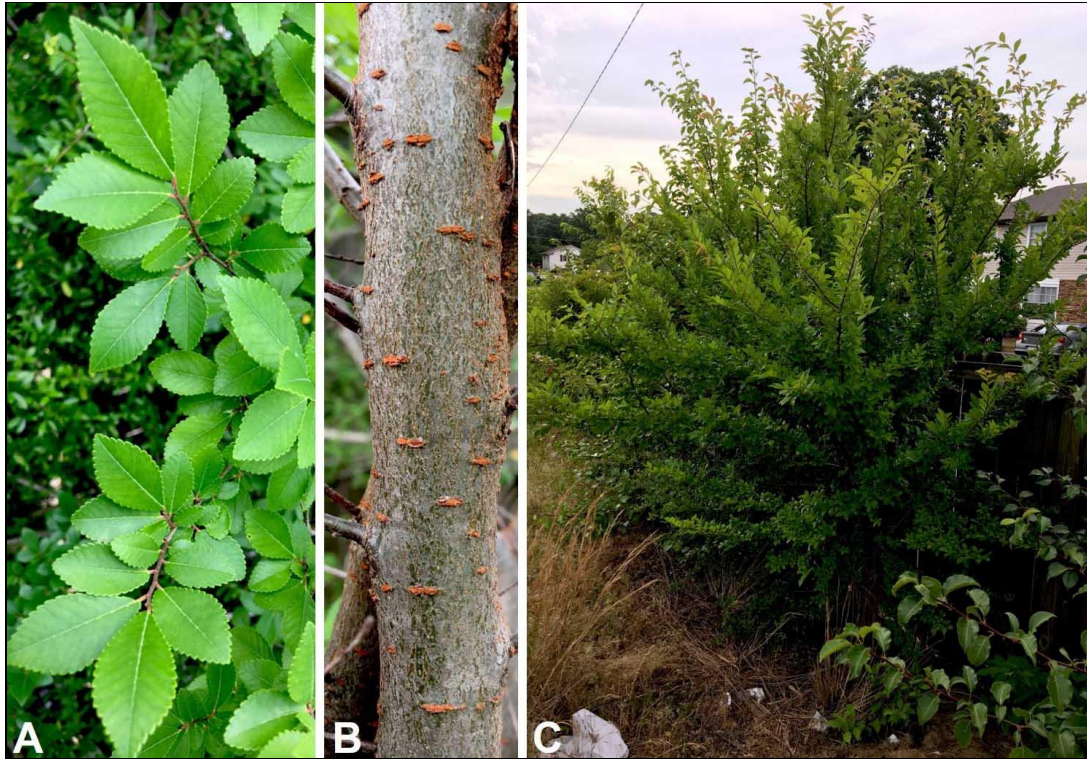


Figure 3. A–C. Escaped plant of *Ulmus parvifolia* in Pulaski County, within the city of Little Rock. A. Leaves and young stems. B. Young bark (notice the conspicuous orange lenticels — this feature aids in distinguishing *U. parvifolia* from other *Ulmus* species in the state). C. Plant in disturbed, urban habitat. No other plants of *U. parvifolia* were observed in the vicinity and wind-mediated dispersal of seeds likely was the method of introduction to the site.

ACKNOWLEDGEMENTS

I am grateful to Kristen Benjamin and Guy Nesom for their helpful editorial suggestions regarding this paper.

LITERATURE CITED

- Arkansas Vascular Flora Committee. 2006. Checklist of the Vascular Plants of Arkansas. Arkansas Vascular Flora Committee, Fayetteville.
- Fu, L., Y. Xin, and A. Whittemore. 2003. *Ulmus*. Pp. 1–9, in Z.Y. Wu and P.H. Raven (eds.). Flora of China. Vol. 5 (Ulmaceae through Basellaceae). Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis.
- Gentry, J.L., G.P. Johnson, B.T. Baker, C.T. Witsell, and J.D. Ogle. 2013. Atlas of the Vascular Plants of Arkansas. Vascular Flora Project, Univ. of Arkansas, Fayetteville.

- Kartesz, J.T. 2015. Taxonomic Data Center. The Biota of North America Program (BONAP). Chapel Hill, North Carolina. <<http://www.bonap.org/index.html>> Accessed September 2022.
- Kiger, R.W. 2003. *Talinum* (Portulacaceae). P. 503, in Flora of North America Editorial Committee (eds.). Flora of North America North of Mexico, Vol. 4. Oxford Univ. Press, New York and London.
- Ogle, J.D., T. Witsell, and J. Gentry. 2020. Trees, Shrubs, and Woody Vines of Arkansas. Ozark Society Foundation.
- Serviss, B.E. and T.K. Serviss. 2020. Noteworthy records of *Pistacia chinensis* (Anacardiaceae) and *Ulmus parvifolia* (Ulmaceae) in Arkansas. Phytoneuron 2020–85: 1–4.
- Serviss, B.E. and R. Tumilson. 2021. Guide to the naturalized, escaped, and adventive woody flora of Arkansas. Phytoneuron 2021-29: 1–193.
- Serviss, B.E., R. Tumilson, and J.H. Peck. 2016. *Ilex crenata* (Aquifoliaceae), *Syringa vulgaris* (Oleaceae), and *Ulmus parvifolia* (Ulmaceae) new to the Arkansas flora, with a second record of *Pyracantha koidzumii* (Rosaceae) for the state. J. Bot. Res. Inst. Texas 10: 563–569.
- Sherman-Broyles, S.L. 1997. *Ulmus* (Ulmaceae). Pp. 369–375, in Flora of North America Editorial Committee (eds.). Flora of North America North of Mexico, Vol. 3. Oxford Univ. Press, New York and London.
- USDA, NRCS. 2022. The PLANTS Database. National Plant Data Team, Greensboro, North Carolina. <<http://plants.usda.gov/home>> Accessed September 2022.
- Weakley, A.S. 2022. Flora of the Southeastern United States. Edition of 26 April 2022. Univ. of North Carolina Herbarium (NCU), Chapel Hill. <<http://www.herbarium.unc.edu/flora.htm>> Accessed September 2022.