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ERIOBOTRYA JAPONICA (ROSACEAE) NEW FOR THE ARKANSAS FLORA

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ABSTRACT

Eriobotrya japonica (Thunb.) Lindl. is reported here for the first occurrence in Arkansas outside of cultivation. These plants were at the edge of a highly disturbed greenbelt in the city of Arkadelphia, Clark Co., in close proximity to a large cultivated plant of *E. japonica* at the greenbelt edge. Spontaneous *Eryiobotrya* seedlings also occur at other sites in Clark County in the vicinity of cultivated plants. Photographs of spontaneous *E. japonica* plants in habitat are provided.

Spontaneous plants of *Eriobotrya japonica* (Thunb.) Lindl. (loquat) were discovered in 2014 at the edge of a disturbed, urban greenbelt in Clark County, Arkansas (Fig. 1). These plants were juveniles (all less than 2 meters tall) established from a large, presumably cultivated plant of *E. japonica* at the greenbelt edge. Large numbers of spontaneous individuals of the species also have been observed at other Clark County sites (Figs. 2–4).

Voucher specimen. **Arkansas.** Clark Co.: Arkadelphia, W of intersection of University Dr. and N 8th St., numerous spontaneous juvenile plants at edge of expansive urban greenbelt, with a large, cultivated plant of *E. japonica* in the immediate vicinity, 13 Nov 2014, *Serviss 8145* (HEND).

Figure 1. A–B. *Eriobotrya japonica* escaped in Clark Co., Arkansas. Several escaped plants, two of which are shown here, were at the edge of an urban greenbelt in Clark Co., Arkansas.

Eriobotrya japonica is a small, evergreen tree to 10 meters that is native to China (Bailey & Bailey 1976; Krüssmann 1977; Gu & Spongberg 2003—Fig. 5). It is cultivated in the southern USA and throughout southeastern Asia for its juicy, sweet fruit and fragrant flowers (Gu & Spongberg 2003; Phipps 2014). *Eriobotrya japonica* has been documented in the USA from a number of other southern states, including Louisiana and Texas (Thomas & Allen 1998; Hrusa et al. 2002; Judd 2003; Carter et al. 2009; Payne 2010; Wunderlin & Hansen 2011; Phipps 2014; Kartesz 2015; USDA, NRCS 2020). This genus and species previously have not been documented from Arkansas outside of cultivation (Arkansas Vascular Flora Committee 2006; Gentry et al. 2013).

Figure 2. A–D. Spontaneous, juvenile *Eriobotrya japonica* plants in Clark Co., Arkansas. These plants are from a different location than those shown in Figure 1. Plants were repeatedly established at this site over multiple years by seeds from cultivated ones. A–B. Plants in 2009; several individuals may be seen in both photographs. C. Plant in 2006. D. Plant in 2010.

The presence of spontaneous plants of *Eriobotrya japonica* in Arkansas is not surprising, and should be expected in areas where plants of the species are cultivated (and elsewhere) in the southern portion of the state. Based on our observations, *E. japonica* appears to have high potential to become established in the state's flora.

In Arkansas, the large (up to 30 centimeters long), coriaceous, coarsely toothed leaves clearly distinguish *Eriobotrya japonica* from most other woody species. It potentially could be confused with *Photina serratifolia* (Chinese photina) or *Magnolia grandiflora* (southern magnolia); however, it easily may be distinguished from both species by the dense indument of grayish-brown to rusty-brown, tomentose trichomes on young stems, twigs, lower leaf surfaces, and inflorescences. Additionally, the leaves of *M. grandiflora* have entire margins.

Figure 3. Evidence of prolific seeding by *Eriobotrya japonica* in Clark Co., Arkansas. Over 10 spontaneous plants may be seen in the photograph; more plants were present at the site than what is shown.

Figure 4. Slightly older spontaneous plants of *Eriobotrya japonica* in Clark Co., Arkansas. Seven plants may be seen in the photograph. The plants in Figures 3 and 4 were seeded from cultivated plants.

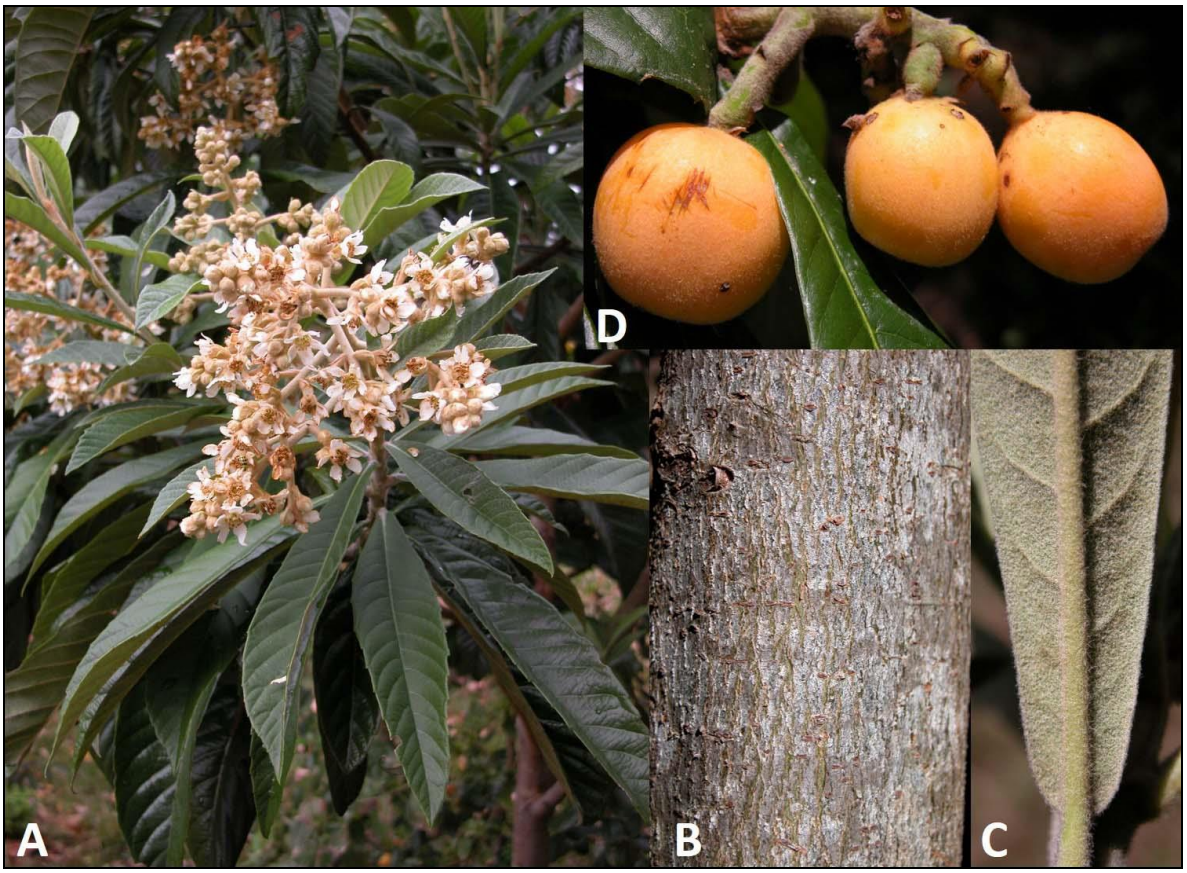

Figure 5. A–D. *Eriobotrya japonica* plant and habit. A. Leaves and inflorescences. B. Bark. C. Lower surface of leaf showing indument of tomentose trichomes. D. Mature fruits.

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