

**FIRST RECORDS OF *IRIS FLORENTINA* (*I. ALBICANS*) AND *IRIS FLAVESCENS*  
(IRIDACEAE)  
IN THE ARKANSAS FLORA**

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**ABSTRACT**

First naturalized occurrences of *Iris florentina* and *I. flavescens* in the Arkansas flora are reported here from Clark and Garland (*I. florentina*), and Garland (*I. flavescens*) counties. In 2024, small colonies of *I. florentina* and *I. flavescens* plants were discovered in highly disturbed urban habitats. In all instances, escaped plants appear to be spreading exclusively via rhizomatous offsets. Photographs and a key to the bearded *Iris* species known to occur outside of cultivation in the state are provided.

*Iris florentina* L. (*I. albicans* Lange; cemetery iris, white flag iris) is reported here for the first naturalized occurrences in the Arkansas flora from Clark and Garland counties. In 2024, two small populations of *I. florentina* were discovered in highly disturbed urban habitats within the cities of Arkadelphia and Hot Springs (Figs. 1–6). Each of the two populations consists of numerous rhizomatous offsets/ramets that have been established presumably from prior cultivated plants. *Iris florentina* is a nearly sterile, interspecific hybrid; thus, reproduction is only asexual through offsets. At the Clark County site, about 7–8 widely separated groups of plants are present (Figs. 2–4). Most of these occur at the edge and within a highly disturbed, wooded greenbelt that is surrounded by residential areas. Two larger groups of *I. florentina* plants, possibly remnant or long-persistent from cultivation, also are present (Fig. 1). Many colonies occur several meters away from these plants.

In Garland County, several dozen offsets occur along a steep, nearly vertical and well-drained roadside slope — these plants presumably have been established from once cultivated *Iris florentina*, as the site was at the edge of an old, abandoned home site; however, no obvious plants persisting from cultivation were apparent (Figs. 5–6). Only one of the escaped plants was fertile, with a nearly dried inflorescence; however, the inflorescence and leaf morphologies, along with the overall growth form of the plants, are strongly suggestive of *I. florentina*. It is interesting to note that *I. florentina* is highly tolerant of dry, well-drained, open sites and historically was planted along banks and hillsides in the Mediterranean region to help prevent erosion (Dykes 1913) — similar habitat was present at the Garland County site.

**Voucher specimens.** **Arkansas.** Clark Co.: About 7–8 small, escaped colonies of plants/rhizomatous offsets scattered within and at edge of highly disturbed, semi-wooded greenbelt adjacent to residential area, likely escaped from prior cultivated plants, immediately SSW of intersection of Caddo St. and 21<sup>st</sup> St., Arkadelphia, 27 Mar 2024, *Serviss 8778* (HEND, ANHC). Garland Co.: Numerous

plants/rhizomatous offsets established and spreading on and above a steep, nearly vertical, highly disturbed roadside bank, possibly established from once cultivated plants, area at edge of old home site, off Hwy 270/Albert Pike Rd, immediately W from intersection of Hwy 270 and Dennis St, 34.50953° N, 93.15750° W, 6 Apr 2024, *Serviss 8779* (HEND, ANHC).

The white flowers with pale greenish-yellow to yellow beard and markings on the sepals, sepals sometimes with inward folded margins, few-flowered, compact inflorescence with little to no branching and bracts that often obscure the pedicels, and stiff, often slightly twisted and apically incurved leaves aid in distinguishing *Iris florentina* from the other bearded *Iris* species in the Arkansas flora (Figs. 1, 6, 10). *Iris florentina* was not treated by Henderson (2002) in Flora of North America and previously not reported from Arkansas outside of cultivation (Gentry et al. 2013; Kartesz 2015; Weakley 2023). At present, it is known from the flora of Alabama (Spaulding et al. 2023); however, based on potential confusion with *I. germanica*, it likely is naturalized in other states. *Iris florentina* probably is native to France and Italy (Mahan 2007); however, others consider it native to the Arabian Peninsula and naturalized in Mediterranean Europe and elsewhere (Webb & Chater 1980; Crespo 2013).

Spaulding et al. (2023) noted that *Iris florentina* often is misidentified as *I. germanica* and attributed that to the fact that Henderson (2002) did not treat it in Flora of North America. Regardless, much taxonomic confusion has existed between true *I. florentina* (*I. albicans*) and the nearly white-flowered form of *I. germanica*, *I. germanica* var. *florentina* (Martini & Viciani 2018). Most taxonomic literature treats *I. florentina* as *I. albicans*; however, Mahan (2007) and Martini and Viciani (2018) provide compelling evidence that *I. albicans* is synonymous with *I. florentina* L., which has priority as it predates Lange's name of *I. albicans* by over 100 years.



Figure 1. A–C. *Iris florentina* in Clark Co., Arkansas. A. Flowering plant at the site that was part of two groups of possibly long-persistent plants from cultivation, although both groups were spreading vegetatively by offsets — if indeed persistent, these plants possibly were the source for the escaped plants that occur elsewhere at the site. B–C. Close-up of flower and inflorescence.





Figure 2. *Iris florentina* escaped in Clark Co. Small colony of 10 rhizomatous offsets; about 7–8 similar groups of plants are present at scattered locations at the site, some separated from each other by several meters. Most occurred within and at the edge of a disturbed, semi-wooded greenbelt, and many were several meters away from the plants shown in the figure.



Figure 3. *Iris florentina* escaped in Clark Co. Similar but different escaped group of offsets to that shown in Figure 2. Several, including many newly produced offsets, can be seen. Like all of the escaped colonies, spread and establishment appears to be exclusively through rhizomatous offsets. All escaped plants/offsets observed are sterile, without reproductive structures present, but probably originated from once cultivated *I. florentina* plants.





Figure 4. A–B. *Iris florentina* escaped in Clark Co. A. Single, somewhat isolated offset; other offsets are scattered near this one. B. Small, newly formed offsets and their rhizomes — these plants occur at the edge of one of the escaped groups of plants. Several similar-sized offsets are present at the site.



Figure 5. *Iris florentina* escaped in Garland Co., Arkansas. This population occurs both on and above a steep, nearly vertical, south-facing, highly disturbed roadside slope. Establishment and spread appears to be exclusively through rhizomatous offsets. The soil was dry and would be so during most of the growing season. Several spontaneous offsets can be seen. An old, abandoned home site is present some distance above the slope, but no obvious persistent (from cultivation) *I. florentina* plants were observed.





Figure 6. A–B. *Iris florentina* as individual escaped plants/offsets from Garland Co. A. Plant with dried inflorescence; notice the compact nature and lack of branching. Also, notice the incurved leaf tips on some of the leaves. B. Leaves show a slightly twisted growth form that sometimes occurs.

Also in 2024, a small, escaped colony of ca. two dozen *Iris flavescens* Delile (lemon-yellow iris) plants, or possibly a related cultivar, was documented from Garland County, within the city of Hot Springs (Fig. 7). These plants, which consist of rhizomatous offsets that have spread directly from plants in cultivation, occur in a highly disturbed, urban habitat above a steep drainage ditch adjacent to a home site and residential area. Spread and establishment appears to be exclusively via offsets. In addition to the brown markings on the sepals, these plants have very pale brownish-purple coloration on the lower three-fourths of the sepals (Fig. 10C). *Iris flavescens* sometimes is encountered (in Arkansas) as long-persistent from cultivation, with plants often producing rhizomatous offsets (Fig. 8).



Figure 7. *Iris flavescens* escaped in Garland Co., Arkansas. A. Numerous plants/rhizomatous offsets occurred in a highly disturbed zone above a drainage ditch adjacent to a residence in the city of Hot Springs. These plants had spread from once cultivated *I. flavescens* that are present along a fence line behind the area in the photograph. The glaucous plant in the foreground is not an *Iris*, but rather *Allium ampeloprasum* L., which also is naturalized in Arkansas.



**Voucher specimen. Arkansas.** Garland Co.: About two dozen escaped plants as rhizomatous offsets, at edge of steep drainage ditch along a highly disturbed area adjacent to a residence, spreading from cultivated plants, 403 Westbrook St., Hot Springs, 34.53413° N, 93.05119° W, 14 Apr 2024, *Taylor 89* (HEND, ANHC).



Figure 8. A–C. *Iris flavescens* or similar cultivars long-persistent from cultivation in Clark, Hot Spring, and Garland counties. A–B. Persistent plants of *I. flavescens* present in disturbed areas along roadsides in Garland and Hot Spring counties, respectively. C. Persistent plants in Clark County — three rhizomatous offsets are present at the lower left of the main group of plants (see Figure 10I for close-up of the flower). In Arkansas, *I. flavescens*, along with other bearded irises, regularly are encountered persisting from cultivation practices. Numerous plants of *Narcissus x medioluteus* Mill. (twin sisters) were growing with *I. flavescens* at the Hot Spring County location (upper-left, 8B) — exotic taxa such as these (and many others) are long-persistent and readily produce vegetative propagules — the combination of these attributes can, *and does*, facilitate entry into the flora and establishment of escaped populations (Serviss et al. 2016; Serviss et al. 2019).

*Iris flavescens* is known from the floras of a few other states, including Kansas, Illinois, and Pennsylvania (Kartesz 2015); however, it previously has not been reported from Arkansas (Gentry et al. 2013; Kartesz 2015; Weakley 2023). It can be distinguished from the other species of bearded *Iris* known from the state's flora by its yellow flowers with numerous light brown to brownish-purple markings on the sepals. Dykes (1913) described *I. flavescens* as having pale yellow, almost white sepals with brown veins, and that it likely is of hybrid origin. He also considered it distinct from *I. germanica*. Mathew (1981) considered *I. flavescens* to be a pale-flowered form of *I. variegata* L. (Hungarian iris), whereas Henderson (2002) treated *I. flavescens* as a yellow-flowered form of *I. germanica*, which he proposed may be an interspecific hybrid between *I. pallida* L. (sweet iris) and *I. variegata*. Mahan (2007), in his discussion of *I. germanica*, limited its flower colors to blue and purple. Bailey and Bailey (1976) stated that cultivated irises with yellow flowers likely are derived from *I. variegata*. Serviss and Peck (2023) discussed *I. flavescens* as possibly distinct from *I. germanica* but tentatively included it with *I. germanica* based on the Flora of North America treatment. Further taxonomic study of the yellow-flowered bearded irises encountered in the flora is needed. Both *I. flavescens* (or similar yellow-flowered cultivars) and *I. florentina* should be expected elsewhere outside of cultivation in Arkansas.

In addition to *Iris florentina* and *I. flavescens*, two other species of bearded *Iris* are documented from Arkansas (Figs. 9–10): *I. germanica* L. (German iris, purple flag; Fig. 10E–F), which is known from several scattered counties (Gentry et al. 2013; Serviss et al. 2023), and *I. pallida* L. (sweet iris; Fig. 10G–H), from Garland and Pulaski counties (Serviss et al. 2023). Species, hybrids, and cultivars of bearded *Iris* frequently are cultivated in Arkansas, providing an extensive source pool for propagule entry and establishment into the flora.

Bearded irises are so named because of the conspicuous, multicellular, often white or yellow trichomes that form a prominent band on the adaxial surface of the sepals. Unlike many of the *Iris* species native to eastern North America, bearded irises generally prefer well-drained, mesic to dry habitats. Species in this group are native to the Old World, and many are common ornamentals in temperate regions, including the USA, because of their large, showy, often fragrant flowers and ease of cultivation and propagation (Bailey & Bailey 1976; Mathew 1981; Henderson 2002; Fan et al. 2019).

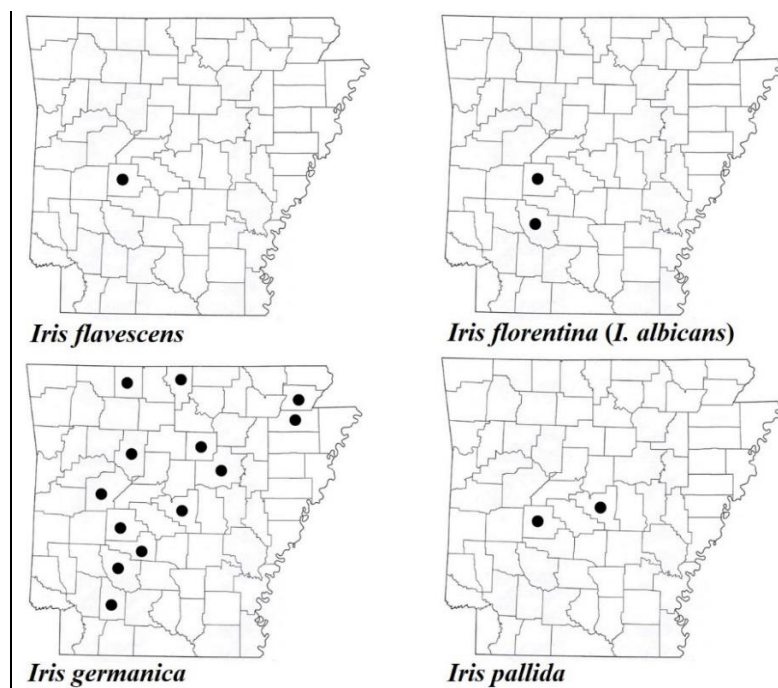


Figure 9. County occurrences of bearded *Iris* species in Arkansas.



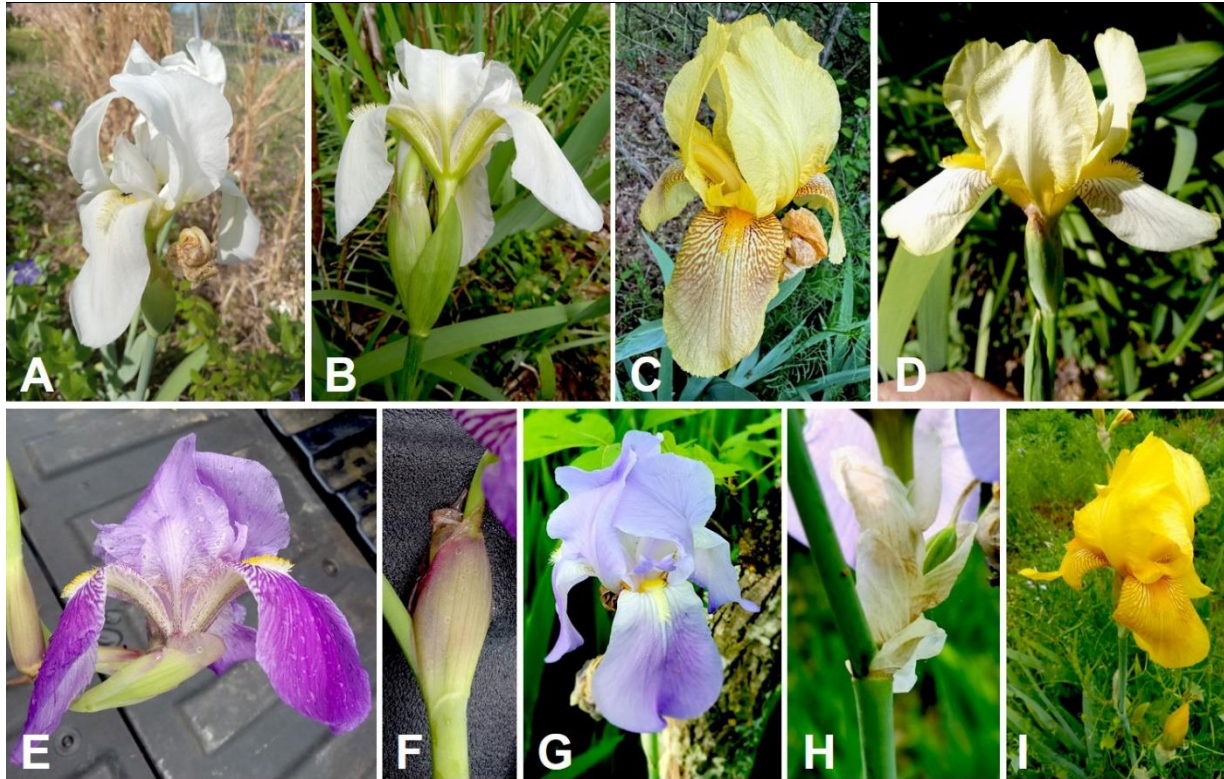


Figure 10. A–I. Flower comparison between the bearded *Iris* species currently known from the Arkansas flora. A–B. *Iris florentina* (*I. albicans*). C–D. *Iris flavescens*: notice the brown markings on the sepals, and in Figure 10C, also the very pale purplish-brown coloration. E–F. *Iris germanica*: notice the mostly green bracts with slightly scarios margins (the purple coloration also is sometimes present). G–H. *Iris pallida*: notice the silvery-white bracts without any green coloration, which clearly distinguish it from *I. germanica*. I. Dark-yellow-flowered cultivar of, or similar to, *I. flavescens*. Photo credit for *Iris pallida*: Cindy Fuller, Arkansas Colleges of Health Education.

The **bearded *Iris* species** known to occur in the Arkansas flora outside of cultivation can be distinguished using the following key. Note: Attempting to key plants in cultivation may lead to identification errors.

1. Bracts of inflorescence and individual flowers completely white/silvery-white-scarious, without green coloration; floral tube short, ca. 1–1.3 cm long ..... ***Iris pallida***
1. Bracts of inflorescence and individual flowers completely green, often with some purple or blue coloration, or green basally with the apical portions and/or margins scarios; corolla tube longer, ca. 1.9–2.5 cm.
  2. Flowers white, pedicels short, usually obscured by the subtending bracts; leaves sometimes slightly twisted and/or the leaf tips incurved ..... ***Iris florentina***
  2. Flowers blue, purple, or yellow, pedicels longer, at least on lowermost flowers in an inflorescence, usually much longer than the bracts; leaves often not twisted.
    3. Flowers bright to pale yellow; sepals with pale brown to brownish-purple markings and yellow to yellow-orange beard ..... ***Iris flavescens***
    3. Flowers blue or purple; sepals with white or yellow markings and white beard, with some yellow-tipped trichomes toward the center of the flower..... ***Iris germanica***



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