

**FIRST RECORDS OF *LILIUM LANCIFOLIUM* (LILIACEAE)  
FROM THE OKLAHOMA FLORA**

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**ABSTRACT**

The first naturalized occurrences of *Lilium lancifolium* in the Oklahoma flora are reported here from Le Flore County. In 2024, three small groups of plants were discovered in open, disturbed roadside habitats. No cultivated plants of the species were apparent in the vicinity and the origin of the naturalized ones is unknown, although establishment from previous cultivation is possible. New plants were establishing via bulbils and associated offsets.

*Lilium lancifolium* Thunb. (tiger lily) is reported here for the first naturalized occurrences in the Oklahoma flora. In 2024, three small but separate groups of plants of the species were discovered in open, highly disturbed roadside habitats in Le Flore County, along Talimena National Scenic Byway/Oklahoma Hwy 1 (Figs. 1–4). Although separate, the three locations are within an 11.3 kilometer span of roadway. About 25 total plants in various stages of development were located over all three sites. No cultivated plants of the species were observed and the origin of the plants is unknown, although establishment from once-cultivated plants is possible. Plants were producing bulbils and associated offsets (Figs. 2, 4), and establishment via bulbils is likely as much of the *L. lancifolium* found in North America is a sterile triploid.

**Voucher specimens. Oklahoma.** Le Flore Co.: Site 1: about 6 plants scattered over ca. 3 m, plants growing along greenbelt edge, N side of road, highly disturbed roadside habitat, no cultivated plants in the vicinity or direct evidence of prior cultivation, Talimena Scenic Byway, ca. 1.9 km from the Oklahoma/Arkansas state line, 34.695, -94.483, 13 Jul 2024, *Campbell 07–13–2024–02* (HEND, ANHC, OKL). Site 2: 8 total plants scattered over ca. 2 m, N side of road, disturbed woods and greenbelt, no cultivated plants in the vicinity or direct evidence of prior cultivation, Talimena Scenic Byway, about 3.5 km from the Oklahoma/Arkansas state line, 34.695, -94.494, 13 Jul 2024, *Campbell 07–13–2024–03* (HEND, ANHC). Site 3: 11 total plants scattered over ca. 3 m, N side of road, slightly S of a concrete drainage ditch, wooded, overgrown area of disturbed roadside habitat, no cultivated plants in the vicinity or direct evidence of prior cultivation, Talimena Scenic Byway, ca. 13.2 km from the Oklahoma/Arkansas state line, 34.682, -94.601, 13 Jul 2024, *Campbell 07–13–2024–04* (HEND, ANHC).

*Lilium lancifolium* previously has not previously been documented from Oklahoma (McCoy 1968; Waterfall 1969; Skinner 2002; Hoagland & Buthod 2009, 2010; Kartesz 2015; Fishbein et al. 2024; SEINet Data Portal, TORCH 2024; Weakley 2024). It is known from the floras of many other states in the central and eastern USA, including Arkansas and Missouri, which border Oklahoma (Kartesz 2015; Skinner 2002), and additional naturalized occurrences of this species should be expected elsewhere in eastern Oklahoma. Larger plants are hardy and can persist for many years, and prolific production of bulbils also can allow this species to naturalize readily.

*Lilium lancifolium* is native to eastern Asia and frequently is cultivated for its showy flowers, edible bulbs, and medicinal uses (Bailey & Bailey 1976; Songyun & Tamura 2000; Skinner 2002). *Lilium tigrinum* Ker-Gawl. is a long-used synonym for *L. lancifolium*, although Ker-Gawler published his description and name of the species 16 years after Thunberg's.

In the Oklahoma flora, the only other species of *Lilium* currently documented is the native *L. michiganense* Farwell (Michigan lily). Although superficially similar to *L. lancifolium*, the presence of bulbils on aerial stems and conspicuously lanate stem pubescence of *L. lancifolium* clearly distinguishes it from *L. michiganense*.



Figure 1. A–B. Naturalized plants of *Lilium lancifolium* in Le Flore Co., Oklahoma. A. Site 1. B. Site 3. Multiple plants, both reproductive age and smaller juveniles, were present at all three sites and 25 plants total were observed. Habitat at all sites is similar — edge of highly disturbed, semi-wooded greenbelt along roadside. No evidence of prior cultivation was observed and the origins of the plants are unknown, although it is possible that one or more sites may have been previously inhabited.





Figure 2. Naturalized juvenile plants of *Lilium lancifolium* in Le Flore Co. (site 2). At least eight juvenile plants can be seen in the photograph, with the four in the left center very young plants at the single leaf stage. Evidence of establishment via bulbils was apparent, to include many juvenile plants with small bulbs just below the soil surface. It is likely that all of the plants shown are as a result of bulbils produced by larger plants. Even young plants not of flowering age, which is about 3-4 years, will produce bulbils.

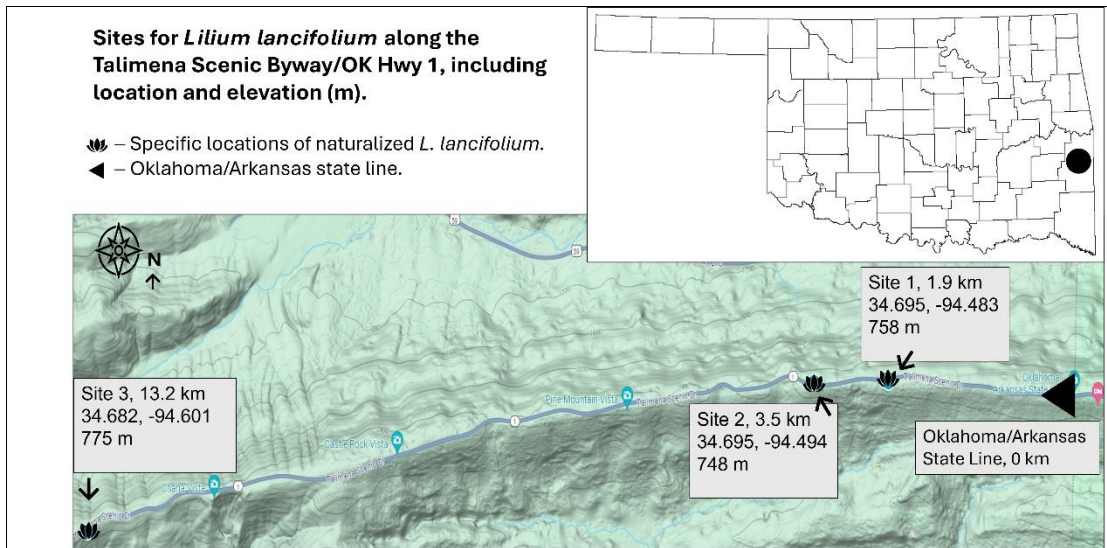


Figure 3. Distribution of naturalized *Lilium lancifolium* in Le Flore Co., Oklahoma. Plants were found at three separate sites. The total distance between site 1 and site 3 is ca. 11.3 km, with sites 1 and 2 separated by only 1.6 km.



Two other possible records for naturalized *Lilium lancifolium* also exist — in Cherokee County (Rd. 645/Lucky Rd., ca. 36°04'53.4 N, 95°02'06.9 W) and an additional site in Le Flore County (34°38'23.6 N, 94°34'52.1 W) (Amy Buthod, pers. comm. 2024). In both instances, plants were observed for multiple years and appeared to be persisting through a combination of perennation and bulbil production. The Le Flore County location may have been used previously as a dump site for soil and other materials, which could indicate a source for the naturalized plants. The Cherokee County site occurs in proximity of an old root cellar, so cultivation may have been the original source, but plants are scattered around the site likely as a result of spread and establishment via bulbils.

Many North America species are known vernacularly as tiger lilies, although that name is properly applied only to *Lilium lancifolium* (Skinner 2002). Along with *L. candidum*, it is considered to be among the earliest domesticated lilies (Woodcock & Stearn 1950). *Lilium lancifolium* is widely planted in North America and is a widespread but sporadic garden escape in the eastern USA. Roadside lilies near habitation in eastern and northeastern North America are often this species (Skinner 2002).



Figure 4. A–E. *Lilium lancifolium* plant and habit. A. Close-up of very young plant, single leaf stage — it likely produced from a bulbil. B. Close-up of large, well-developed bulbils showing scales and small, adventitious roots. C. Stem with leaves and bulbils. D–E. Flowers and inflorescences (the plants shown in 4D are cultivated).

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