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ADDITIONS AND NOTES ON THE FLORA OF CADDO PARISH, LOUISIANA

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ABSTRACT

Three additions to the flora of Caddo Parish are reported. *Scandix pecten-veneris* is reported for the state and parish while *Packera anonyma*, and *Rudbeckia triloba* are reported for the parish only. Occurrences of *Taenidia integerrima* and *Styphnolobium affine* in Caddo Parish are briefly discussed.

The MacRoberts maintained an annotated checklist of the vascular flora of Caddo Parish for more than 40 years (D.T. MacRoberts 1979; B.R & M.H. MacRoberts 2006, 2008, 2012, 2017, 2019, 2020). Their regular additions and commentary have generated a first-rate record of the flora, to which three records are contributed here. With these records, the flora of Caddo Parish appears to stand at 1455 species.

Recent work in the region also has afforded observations of *Taenidia integerrima* and *Styphnolobium affine*, on which I offer comments.

1. Scandix pecten-veneris L. Apiaceae

This alien species was found in a powerline ROW while searching for prairie species. *Scandix* has been documented in Texas since at least 1954, but major sources exclude it from Louisiana (Kartesz 2014; SERNEC 2021; USDA 2014; Weakley 2020). Weakley (2020) cites the habitat as "roadsides, fields, disturbed areas."

Caddo Par.: On weedy roadside of prairie remnant with invasive grasses such as *Lolium* and *Poa annua*, but also some rares, plants scattered over a few hundred feet along LA Hwy 538 at a gas ROW across from a church, 32.581024, -93.78958, 8 Apr 2021, *Kelley 672* (LSU).

2. Packera anonyma (Wood) Weber & Löve Asteraceae

Small's ragwort is not currently tracked as a species of conservation concern in Louisiana, but it has rarely been collected and its habitat is poorly documented (SERNEC 2021; LNHP 2020). Latimore Smith and Nelwyn Mcinnis discovered it growing in a longleaf pine savanna (Smith 4130, SERNEC 2021). Most collections appear to be from roadsides.

Caddo Par.: 7602 Pines Road, in a small patch of grass surrounded by concrete, 5 plants, 32.433142, -93.861206, 12 May 2020, *Kelley 350* (LSU).

3. Rudbeckia triloba L. Asteraceae

Three-lobed coneflower is a species of conservation concern in Louisiana (LNHP 2020). In another parish, I have observed this species in an old, calcareous forest adjacent a remnant prairie, where it grew along the woodland border with multiple vernal ephemerals. The Caddo Parish population is within the boundaries of a parish park. In this new station it occurs with many of the same rare ephemerals, but the habitat is on a densely forested floodplain and the soil is acid loam. A wet, saline meadow is less than 100 meters away, but no coneflowers grow there. The population is

vulnerable to mowing, and I have informed the Caddo Parish Parks Department of its importance.

Caddo Par.: Eddie Jones Park, W boundary at Cypress Bayou, along a dirt road just inside the boundary and in margin of rich woods, plants being mowed in the trail, 500-1000 plants with *Viola*, *Astragalus*, *Phlox divaricata*, 27 May 2020, *Kelley 424* (LSU).

Notes

These notes are an extension to an observation by MacRoberts (2006): "Hale, Cocks, Peterson, Correll, Palmer, and other early collectors found species in the area that are either very rare today or entirely missing (e.g., *Buchloe dactyloides, Dasistoma macrophylla, Gratiola flava, Helianthus occidentalis, Helianthus petiolaris, Onosmodium bejariense, Panicum flexile, Prosopis glandulosa, Sophora affinis, and Taenidia integerrima*). This suggests that in the last two centuries, a great deal of the original habitat has been lost and that the flora was once richer in native species than it is today." The discovery of any of the aforementioned species should not discount their point; habitats and species have surely been lost (MacRoberts 1998).

Taenidia integerrima (L.) Drude Apiaceae.

The yellow pimpernel is a species of conservation concern in Louisiana (LNHP 2020). I found three stations in Bossier Parish in 2020. In the spring of 2021 I located two *Taenidia* plants growing in a rich old-growth forest in Caddo Parish. This Caddo locality resembled those in Bossier Parish — few plants growing in light gaps in mature, steeply sloping forests with iron ore at the surface. Robert Kral collected *Taenidia* nearby in 1964 (*Kral 20219*, SERNEC 2021). I am currently studying the community associated with *Taenidia*, as it contains many other rare species at the southwestern edge of their range. Associates included *Phlox pilosa ozarkana*, *Silene stellata*, *Ribes curvatum*, *Arnoglossum plantagineum, Helianthus spp., Verbesina spp*., *Smilax lasioneura*, *Scutellaria ovata*, and *Galium circaezans*. See Figures 1-2 for photos of habitat.

Styphnolobium affine (Torr. & Gray) Walpers Fabaceae

Eve's necklace is a species of concern in Louisiana, with fewer than five natural occurrences recorded (LNHP 2020; SERNEC 2021). I was informed by Larry Raymond, naturalist and former director of the Caddo Parish Parks Department, about a population of this species in a roadside park last year. This population is apparently natural, and the habitat is similar to stations in Arkansas and East Texas (Palmer 1924; SERNEC 2021). I found a collection from this locality made by John Theiret in 1966 (SERNEC 2021). In his notes, Theiret remarked that the tree he sampled was twelve inches in diameter at two feet above the ground. Larry and I suspect he observed a particular large tree which still stands today (Fig. 3). I measured this tree as a potential state champion in 2020, finding a diameter of fifteen inches at 1.37 meters.

Six mature trees and less than 100 individuals of any size were evident to me in the spring of 2021. In the fall of 2020, more than 60 saplings were destroyed in the expansion of a frisbee golf course. This is apparently the only extant occurrence in Louisiana — I have searched the surrounding roadsides for miles in each direction, finding no other stations. Raymond informs me that the stunted trees have not noticeably grown since he first observed them 50 years ago. I consider it noteworthy that these trees occur at the confluence of two degraded grassland communities — a wet, likely sodic, saline meadow and a calcareous prairie or woodland. *Astragalus distortus, Zephyranthes chlorosolen, Carex meadii, Pyrrhopappus pauciflorus, Asclepias viridis and tuberosa, Amsonia tabernaemontana, Sisyrinchium spp.*, and other habitat-specific and rare grassland species have been collected from these habitats.

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I would like to dedicate this paper to the memory of Michael MacRoberts, who passed away in December 2021. Without the work of Michael and Barbara our state's flora would be less studied, less preserved, and less appreciated. Michael supported me with his intellectual skepticism and desire for solid proof in novel research and he encouraged me to study at the LSUS herbarium. I am a better scientist for having known him a short while. I thank John Kees and Jared Gorrell for reviewing this paper. Larry Raymond, with his five decades of experience as a naturalist, continues to provide new insights and accounts of this region's biota. The Caddo Parish Parks and Recreation Department has been open to my exploration and suggestions.

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Figure 1. Slope forest habitat of *Taenidia* integerrima on private land along Twelve Mile Bayou, March 2021.

Figure 2. Slope forest habitat of *Taenidia* integerrima along Twelve Mile Bayou, March 2021.

Figure 3. Habitat and form of old *Styphnolobium* tree at Earl G. Williamson park, summer 2021.

Figure 4. Habitat and form of old *Styphnolobium* tree at Earl G. Williamson park, summer 2021.