

ADDITIONS TO THE VASCULAR FLORA OF CADDO PARISH, LOUISIANA

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ABSTRACT

The vascular flora of Caddo Parish, Louisiana, is updated. Field research has yielded three new species in the area: *Scutellaria racemosa*, *Nama jamaicense*, and *Bacopa monnieri*.

Since the publication of our “An updated, annotated vascular flora of Caddo Parish, Louisiana, with notes on regional phytogeography and ecology” (MacRoberts & MacRoberts 2006) and several updates recording new species to the parish (MacRoberts & MacRoberts 2017, and references), we have continued to locate interesting additions. The Caddo Parish vascular plant list now stands at 1446 species, of which about 17% are non-native.

LAMIACEAE

Scutellaria racemosa Pers. *MacRoberts & MacRoberts 8993, 8997* (LSUS, LSU).

Scattered in shallow stream bed in Betty Virginia Park, Shreveport, Louisiana, in association with *Acmella oppositifolia*, *Amphicarpaea bracteata*, *Diodia virginiana*, *Justicia ovata* var. *lanceolata*, *Toxicodendron radicans*, *Triadica sebiferum*, and *Trifolium repens*. *Scutellaria racemosa* is apparently a recent introduction to the southeastern USA from South America (Godfrey & Wooten 1981). The species was first found in the park in June 2017 and was still present in May 2018. The area is frequently mowed, but the small intermittent stream in which the *Scutellaria* occurs is not as severely mowed as the remainder of the park, possibly accounting for the survival of the species at this location.

HYDROPHYLLACEAE (Namacaceae)

Nama jamaicense L. *Lewis 303* (LSUS); *MacRoberts & MacRoberts 8996* (CONN, LSU).

About a hundred individual plants of this species have been found growing on rain drip areas near buildings along shaded sidewalks of Louisiana State University in Shreveport (LSUS) campus (Figures 1, 2, and 3). This population apparently is about 200 miles (370 km) from its closest Texas and south Louisiana locations (Turner et al. 2003; Kartesz 2014). The plants occur in frequently mowed and “weed eaten” areas; nonetheless the species has managed to survive apparently largely because of its low, sprawling habit. It was first found 3 March 2018 and has continued to flower into the summer. Associated species include *Bowlesia incana*, *Lamium amplexicaule*, *Modiola caroliniana*, *Oxalis corniculata*, *Sherardia arvensis*, *Taraxacum officinale*, and *Trifolium repens*.

Because very little has been written about this species habitat preference [“hammocks and waste places” (Rickett 1967, p. 418); “sandy or silty ground, road-sides, or disturbed places” (Diggs et al. 1999, p. 740); “disturbed sites” (Wunderlin 1998, p. 515); “ruderal” (Clewell, 1985, p.377); “moist places under shrubs and elsewhere” (Correll & Johnston 1970, p. 1278); “common on various

soils in prairies, openings, fields and waste places” (Jones 1977, p. 159); “shady areas with moist soils” (Eason 2018, p. 138); “flower beds, sidewalk margins ... usually there is a little bit of exposed dirt and at least partial shade” (Guy Nesom, pers. comm.); “mesic riparian zones, streambanks, creekbeds, canyons, slopes, ridges, and banks, ruderal habitats like old pastures, dirt parking lots, and roadside ditches; 10-700m” on “sandy clay loam or limestone soils” (Taylor, in prep.), and because *Nama jamaicense* appears to be thriving so far outside its normal range, we examined its habitat at LSU more carefully. Prior to the founding of the university in 1968 the site was a cotton field on the Red River flood plain (MacRoberts & MacRoberts 2005; Eli Henry, pers. comm.; Edwards et al. 1980). The Red River alluvial soil area within the LSU campus boundary was modified during construction in 1967 and is now classified as an “Urbanland-Moreland clay complex” with a 0-1% slope (USDA, NRCS, Web Soil Survey). Since *Nama jamaicense* at LSU is growing in a single specific locality (exposed, highly disturbed, rain drip, mainly shade, near buildings), we collected three soil samples next to three plant populations and three soil samples in fields on campus away from buildings and away from the plant sites. Soil sample results from the School of Plant, Environmental & Soil Sciences, Soil Testing Plant Analysis Laboratory in Baton Rouge, showed that the soils containing the plants had higher calcium levels (3500-3900 ppm vs. 850-2600 ppm) and pH values (7.8-8.1 vs. 5.9-7.6) than the control areas. This is possibly due to the association of concrete corrosion with wetter soils associated with rain drip areas combined with poor soil runoff characteristics. Otherwise, P, K, Mg, Na, S, Cu, and Zn were about the same.



Figure 1. *Nama jamaicense* habitat.



Figure 2. *Nama jamaicensis* flower.



Figure 3. *Nama jamaicensis* in drip zone near building.

SCROPHULARIACEAE

Bacopa monnieri (L.) Pennell *MacRoberts & MacRoberts* 8992 (LSUS, LSU).

This species was common in the wet edge of a man-made shallow, frequently mowed ephemeral pond near a shopping mall, one km north of LSUS. Associated species include *Centaurium muhlenbergii*, *Fuirena simplex*, *Phyla nodiflora*, *Rhynchospora corniculata*, and *Typha domingensis*. Although common along the Gulf Coast, it appears to be rare in Arkansas, Oklahoma, north Texas, and northwest Louisiana (Kartesz 2014).

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