

***Yucca cernua* (Agavaceae) - New to the Louisiana Flora**

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ABSTRACT

The occurrence of the globally rare *Yucca cernua* (Agavaceae) is documented in Louisiana for the first time from an isolated region of Vernon Parish. *Published online www.phytologia.org Phytologia 104(1): 1-3 (March 22, 2022). ISSN 030319430.*

KEY WORDS: Agavaceae, endemic, isolated, Louisiana, rare plant, Vernon Parish, *Yucca*.

The genus *Yucca*, includes about 40-50 species of worldwide distribution and 28 in North America (Flora of North America (FNA) 2002). *Yucca* is notable for their rosettes of evergreen, tough, sword-shaped leaves and large terminal panicles of white or whitish flowers. They are native to the hot and dry (arid) parts of the Americas and the Caribbean. Recent field studies have resulted in the discovery of a specimen of *Yucca cernua* E.L. Keith from western Louisiana, which is herein reported as new to the state.

Yucca cernua E.L. Keith was described as an endemic restricted to a narrow band of acidic clay hills east of Jasper, Texas in Jasper and Newton Counties (Keith 2003; Poole et al. 2007). *Yucca cernua* in Texas is found in prairie and savanna openings in and along margins of pine-hardwood forests. *Yucca cernua* was not previously reported in Louisiana (Kartesz 2015; USDA 2021).

Yucca cernua was found in Louisiana on 27 February 2020 by Lee Wise with Hancock Forest Management (private timber management company) on a remote tract of land in western Vernon Parish (Figure 1-3). A few scattered vegetative individuals of *Yucca cernua* were documented in a small population. A single *Y. cernua* plant was observed flowering in early June of 2020. The *Y. cernua* site was documented along a utility line intersecting a loblolly pine (*Pinus taeda*) plantation. The soils that occur at the *Y. cernua* site are derived from the Bentley Geological Formation which overlies the Fleming Formation and are sandy clay loams developed along ridge lines. The site includes small natural openings. *Yucca cernua* was documented in association with primarily herbaceous flora, and the most abundant associated species was Missouri coneflower (*Rudbeckia missouriensis*). Missouri coneflower is often found in



Fleming Prairies which are highly restricted and globally rare prairies that follow the Fleming Formation paralleling Highway 63 between Jasper and Burkeville, Texas and eastward into Vernon Parish, Louisiana.

Missouri coneflower is a tallgrass prairie disjunct plant in Louisiana and has only been documented in Natchitoches and Vernon Parishes in Louisiana (Kartesz 2015, USDA 2021). The other commonly associated flora documented at the *Yucca cernua* site in Louisiana included *Ambrosia trifida*, *Ambrosia artemisifolia*, *Buchnera americana*, *Callirhoe involucrata*, *Coreopsis* sp., *Eriogonum* sp., *Linum* sp., *Monarda* sp., *Paspalum floridanum*, *P. plicatulum*, *Polytaenia nuttallii*, *Rubus* sp., and *Schizachyrium scoparium*. This assemblage of associated flora typically signifies that the former landscape that *Y. cernua* occurred in was an herbaceous prairie or pine savanna landscape.

Figure 1. *Yucca cernua* in flower and *Rudbeckia missouriensis* in background in Vernon Parish, Louisiana. Photo taken by Colton McKee.



Figure 2. *Yucca cernua* inflorescence in Vernon Parish, Louisiana. Photo taken by Colton McKee.



Figure 3. *Yucca cernua* basal leaves in Vernon Parish, Louisiana. Photo taken by Colton McKee.

Voucher specimen: **Louisiana. Vernon Parish:** From Evans High School off Hwy 111 in Evans, Louisiana, north on Hwy 111 for ca. 0.4 mi. to Burrell Harvey Rd. from jct of Burrell Harvey Rd. and Hwy 111 north on Burrell Harvey Rd. ca. 2.4 mi. to utility line crossing Burrell Harvey Rd. on east side of Burrell Harvey Rd., 8 July 2020, *Colton McKee* No. 1 (BAYLU).

Future investigation of this recently discovered *Yucca cernua* site is warranted. This would include documenting the extent of the population, information about reproduction, suggestions to future management, and locating additional potential sites in the adjacent region.

ACKNOWLEDGMENTS

We want to thank Hancock Forest Management for access to the site and documenting this plant species of greater conservation need.

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