

***Rudbeckia grandiflora* var. *alismifolia* (Asteraceae) in Oklahoma****John Michael Kelley**

Walter Jacobs Nature Park, Caddo Parks and Recreation; Blanchard, Louisiana 71009, USA

or

Kelley Botanical Library; Haughton, Louisiana 71037, USA

kelley.johnmichael@gmail.com

**ABSTRACT**

*Rudbeckia grandiflora* var. *alismifolia* is reported for the first time from Oklahoma. This report is based on a specimen collected in 1999 from Red Slough Wildlife Management in the extreme southeastern part of the state. The Oklahoma Natural Heritage Inventory intends to track the taxon as historical pending surveys. *Published online* [www.phytologia.org](http://www.phytologia.org) *Phytologia* 105(1): 15-17 (March 21, 2023). ISSN 030319430.

**KEYWORDS:** Coneflower, Prairie, Flatwoods.

---

*Rudbeckia grandiflora* (Sweet) A.P. de Candolle var. *alismifolia* (Torrey & A. Gray), or largeflower coneflower, is an asteraceous herb reaching about 1 m in height, from a woody caudex, with drooping yellow rays, and with the lower stems and leaves glabrous, scabrous, or with ascending hairs less than 0.5 mm long (Urbatsch and Cox 2006). It inhabits high-quality pinelands and prairies in the Gulf Coastal Plain (Small 1933; Weakley 2022). In 2020, I distinguished this variety from var. *grandiflora* in Louisiana after a review of digitized herbarium specimens and site visits (Kelley 2020). My ongoing work delineating the extent of these taxa recently uncovered a specimen of var. *alismifolia* from Red Slough Wildlife Management Area in McCurtain County, Oklahoma (Fig. 1). The specimen, collected in 1999, was examined for me by Tiana Rehman at BRIT and a duplicate was examined by Amy Buthod at OKL, who also digitized for me a second collection from the same area by a different collector. These are apparently the first records of this taxon for Oklahoma (USDA, NRCS 2023; Weakley 2022). The variety will be treated as historical since the collections were made more than 20 years ago.

The collectors found largeflower coneflower in “wet forests”. This terminology belies the strong grassland affinities; other species collected from this locality are obvious heliophytes. Associates typical of open flatwoods and prairies and collected from the same locality included *Asclepias hirtella*, *Carex brevior*, *Helenium flexuosum*, *Liatris pycnostachya*, *Linum curtissii*, *Mimosa nuttallii*, *Neptunia lutea*, *Packera tomentosa*, *Physostegia angustifolia*, *Tradescantia occidentalis*, and *Vernonia missurica*.

It is well established that a series of grasslands formerly existed along the Red River drainage from southeast Oklahoma to northwest Louisiana, but little evidence of these prairies remains (Flores 1984; MacRoberts et al. 1997). Grassland remnants on mounded, acid loams in northwest Louisiana regularly include var. *alismifolia* in association with most of the aforementioned associates (pers. obs.). The Red Slough WMA still contains examples of this habitat, and var. *alismifolia* should be sought in these areas in mid-summer.

Voucher specimen: **Oklahoma. McCurtain County:** Red Slough WMA, Habitat: wet forest, Abundance: infrequent, 19 July 1999, *N. McCarty* (with *F. Johnson*) RSGS353 (OKL) (Fig 1).



Figure 1. Record specimen.

## ACKNOWLEDGEMENTS

I thank my reviewers Chris Reid (LSU) and Lowell Urbatsch (LSU) along with Tiana Rehman (BRIT) and Amy Buthod (OKL, ONHI) who physically examined the sheets.

## LITERATURE CITED

- Flores, D. L. 1984. Jefferson and Southwestern Exploration: The Freeman and Custis accounts of the Red River expedition of 1806. University of Oklahoma Press, Norman. 386 pp.
- Kelley, J. M. (2020). *Rudbeckia grandiflora* var. *grandiflora* (Asteraceae) in Louisiana, U.S.A. Journal of the Botanical Research Institute of Texas 14(1): 147–148.
- MacRoberts, M. H., D. T. MacRoberts, and B. R. MacRoberts 1997. A Floristic and Ecological Interpretation of the Freeman and Custis Expedition of 1806. Bulletin of the Museum of Life Sciences 12, Louisiana State University Shreveport, Shreveport, LA. 26 pp.
- Small, J. K. 1933. Manual of the southeastern flora. University of North Carolina Press, Chapel Hill.
- Urbatsch, L. E. and P. B. Cox. 2006. *Rudbeckia* (Asteraceae: Heliantheae). In: Flora of North America Editorial Committee, eds. 1993+. Flora of North America North of Mexico. 19+ vols. New York, U.S.A. and Oxford, UK. 21: 43–45.
- USDA, NRCS. 2023. The PLANTS Database (<http://plants.usda.gov>, 30 May 2022). National Plant Data Team, Greensboro, NC 27401-4901 USA.
- Weakley, A. S., and Southeastern Flora Team 2022. Flora of the southeastern United States. University of North Carolina Herbarium, North Carolina Botanical Garden.