

ANOTHER CONFIRMATION OF *CYPERUS FLAVESCENS*
(CYPERACEAE) FOR KANSAS, U.S.A.

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ABSTRACT

Yellow flat sedge (*Cyperus flavescens*) is confirmed in Kansas for the first time in southeast Kansas from a drainage ditch in Pittsburg, Crawford County.

RESUMEN

Cyperus flavescens está documentada en el sureste de Kansas por primera vez en una zanja de drenaje en Pittsburg, Condado de Crawford.

KEY WORDS: *Cyperus flavescens*, noteworthy collection, Kansas

Cyperus flavescens L. is a tuft-forming herbaceous annual flat sedge that inhabits riparian areas, mesic upland forests, roadsides, and other disturbed areas (Yatskievych 1999; Tucker et al. 2002). The first three authors collected the specimen cited below as part of a collecting assignment for the fall 2019 offering of *Taxonomy of Vascular Plants* at Pittsburg State University (PSU). At the time of its collection in September, 2019, no vouchers had been confirmed for Kansas (see below). Yatskievych (1999) and Tucker et al. (2002) were used to key the specimen, which was compared to other species in the genus using the Kansas and Regional Reference Collection and general collections at the T.M. Sperry Herbarium at PSU. However, soon thereafter, unbeknownst to us at the time and when the first draft of this paper was in preparation, Freeman and Morse (2019) reported the first vouchered specimen of *C. flavescens* for Kansas from Douglas County.

As with the specimen from Douglas County (Freeman and Morse, 2019), the specimen cited below was collected along a hike-bike trail in an urban area; it was growing in saturated soil in a disturbed irrigation ditch along the Watco trail in Pittsburg. Trail maintenance by the city includes mowing, which may not threaten the small population of *Cyperus flavescens* observed in 2019 given its annual reproductive cycle. The location in 2019 was mowed later after the ditch dried. The species may be overlooked more generally in Pittsburg and it seems likely that additional specimens will be encountered in nearby areas.

Voucher specimen: **KANSAS. Crawford Co.:** Pittsburg, 6.3 km W of North Pine, S of Watco Trail in ditch, 37.1417496, -94.706498, 285 m, 29 Sep 2019 (fr), A. Hammesfahr 20 with P. Witham and C. Campbell [KSP030692].

Until recently, sixteen species of *Cyperus* had been confirmed with vouchers from Kansas (Kartesz 2020), but the report by Freeman and Morse (2019) added three more, including *Cyperus flavescens*. Among species in subgenus *Pycneus* (P. Beauv.) J. Carey, only *Cyperus flavescens* and *C. bipartitus* Torr. were indicated as occurring in Kansas by Tucker et al. (2002). Information from NatureServe (2020) also suggested that *Cyperus flavescens* may have been present, but an anonymous reviewer indicated that such specimens, possibly at Emporia State University (KSTC), subsequently were identified as *Cyperus bipartitus*. Furthermore, Tucker presently has no record of *C. flavescens* for Kansas, and believes that a regional reviewer of the FNA treatment may have added Kansas to the state distribution map based on an erroneous earlier report (G.C. Tucker, pers. comm., 2020). A recent check of specimens at KSTC revealed no specimens of *C. flavescens* or *C. bipartitus* for Kansas (D. McKenzie, pers. comm. 2020). The specimen cited above keys unambiguously to *C. flavescens* in Yatskievych (1999) and matches its description therein, based on its two stigmas, spikelet width of ca. 2.0-2.4 mm, and the

black color of its mature fruits. A comparison of our voucher with specimens of the related *C. bipartitus* further corroborates its placement in *C. flavescens*.

The known native range for *Cyperus flavescens* includes much of eastern North America, extending from the central Mississippi River valley to the southern U.S. and west into Texas to Menard, Kimble, and Real counties (Tucker et al. 2002; Freeman & Morse 2019; Kartesz 2020). It also has established beyond its native range in five counties in north-central California (Kartesz 2020). The nearest occurrences to the specimen in Crawford County in Kansas are Newton Co. (MO), Delaware Co. (OK), and Benton Co. (AR). This collection is noteworthy because it documents the first vouchered specimen of *C. flavescens* in southeast Kansas, and highlights the growing concern among many of the widespread and often rapid spread of non-native species, which often are concentrated along hike-bike trails.

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REFERENCES

- FREEMAN, C.G. & C. MORSE. 2019. New and interesting plant records for the central United States. *Missouriensis* 17:16–38. <https://monativeplants.org/wp-content/uploads/missouriensis/missouriensis-37/MONPS-37-16-38.pdf>
- KARTEZ, J. 2020. The biota of North America's floristic synthesis of North America. Beta version (unpublished). University of North Carolina Botanical Garden, Chapel Hill, North Carolina, U.S.A.
- NATURESERVE. 2020. *Cyperus flavescens*. Yellow Flatsedge. NatureServe Explorer https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.133377/Cyperus_flavescens. Accessed 28 April 2020.
- TUCKER, G.C., B.G. MARCKS, & J.R. CARTER. 2003. *Cyperus* Linnaeus. In: Flora of North America Editorial Committee, eds. Flora of North America, Oxford University Press, New York, New York, U.S.A.. 23:141–191.
- YATSKIEVYCH, G. 1999. Steyermark's Flora of Missouri: Volume 1. Missouri Botanical Garden Press, St. Louis, Missouri, U.S.A.