

HABRANTHUS TUBISPATHUS (AMARYLLIDACEAE/LILIACEAE),  
NEW TO THE FLORA OF MISSISSIPPI, U.S.A.

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ABSTRACT

*Habranthus tubispathus* (L'Hér.) Traub is reported as new to the flora of Mississippi, U.S.A.

RESUMEN

*Habranthus tubispathus* (L'Hér.) Traub es citado como nuevo para la flora de Mississippi, U.S.A.

KEY WORDS: copper lily, *Habranthus tubispathus*, first report, Mississippi flora

INTRODUCTION

This is the first report of *Habranthus tubispathus* (L'Hér.) Traub, Rio Grande Copper Lily, to the flora of Mississippi. *Habranthus tubispathus* (L'Hér.) Traub is a perennial herbaceous plant from a globose bulb. In response to summer rains, the bulb commonly forms a scape 10–30 cm in length with a single, terminal, showy, orange-yellow flower. The corolla has reddish vertical streaks abaxially and a reddish-streaked throat within. Although not seen in this population, the linear leaves range from 3–5 mm wide and up to 30 cm long, and emerge in autumn and die back by early spring (Diamond et al. 1998). The fruit is a three-sided, subglobose capsule containing numerous flat, shiny seeds when mature. Plants dug up for voucher specimens revealed at least one bulb with two scapes—one in flower, the other with an immature but well-formed capsule. Also, a different bulb had at least one small bulblet formed on one side.

Morphologically *Habranthus* strongly resembles *Cooperia* and *Zephyranthes*. It is distinguished from *Cooperia* by perianth color (white in *Cooperia*), and from *Zephyranthes* by the filaments. *Zephyranthes* has filaments of two lengths (sometimes subequal) and anthers affixed below the middle. *Habranthus* has filaments of four different lengths with the anthers affixed at the middle (Sealy 1937; Flagg et al. 2002a). Another characteristic that helps separate *Habranthus* from *Zephyranthes* is the shape of unopened capsule (ovary). The capsule of *Habranthus* is broader at the top and tapers down to a narrower base. *Zephyranthes* has a globose to subglobose capsule. Because at times some taxa of *Zephyranthes* have been treated in the genus *Cooperia* Herb., it is worth noting that *Cooperia* has an immature capsule that is not broader at the apex and does not taper slightly to the base (Flagg et al. 2002a, b; Flagg et al. 2010). Flora of North America (Flagg et al. 2002a) places *Habranthus* in the Liliaceae, but the Angiosperm Phylogeny Group IV places it in the Amaryllidaceae (APG IV 2016). Generally, members of the Liliaceae have a superior ovary while members of the Amaryllidaceae have an inferior ovary. The flowers of these *Habranthus* were not noticeably fragrant unlike the well-scented flowers of *Cooperia*. Synonyms for this species are *Amaryllis tubispatha* L'Hér., *Atamasco texana* (Herb.) Greene, *Habranthus andersonii* Herb. ex Lindl., *H. texanus* Herb. ex. Steud., and *Zephyranthes texana* Herb. (Flory et al. 2002).

DISCUSSION

Although considered a native plant of the North American flora (USDA 2017), the provenance of the plants in Mississippi is unknown. However, Holmes and Wells (1980) postulated that the species “is very abundant in west-central Louisiana only in areas settled or developed at the same time Texas was being settled by the Spanish. These include the City of Natchitoches, founded in 1714, and the El Camino Real (now roughly



FIG. 1. *Habranthus tubispatus* from population in Holmes Co., Mississippi (P.J. Barbour 8982).

following Louisiana Highway 6), a trail marked in the early 1700s connecting Natchitoches with Spanish Texas, and thence to Mexico.” Furthermore, *Habranthus tubispatus* does not appear to have any natural means of dispersal (Holmes & Wells 1980), although wind dispersal is common in the Amaryllidaceae (Stevens 2001+). No attempt was made to determine if the population resulted from cultivation. Most of the plants seen were on a steeply sloped edge of a yard well away from a house on the property. The yard and property associated with the house did not appear to have any intentional landscaping or perennial bulb cultivation. This was a typical yard in a small rural community maintained with a lawn mower. Multiple online plant databases (BONAP 2017; FNA 2017; McCook & Kartesz 2000; SERNEC 2017; Tropicos.org 2017; USDA PLANTS 2017) showed that although well-reported from TX, LA, AL, and FL, there are no reports of *Habranthus tubispatus* (L’Hér.) Traub from Mississippi. From a search of online herbaria records, this population appears to be the northern-most known distribution to date. Discovery of this species by the collector was serendipitous but did occur because a very showy yet not recognized plant by the author was seen while driving. The plants in this population were estimated to be greater than 500 individuals seen above ground in an area of approximately 100 m<sup>2</sup>. The location was the yard of a private residence in full sun. The soil map unit name for this location is Memphis silt loam (MeD3), 8–12 percent slopes, severely eroded (Soil Survey 2017).

Voucher specimens: MISSISSIPPI: Holmes Co.: Lexington, 101 Andrews Street, T15N, R2E, S36; 33.1146° N, 90.0509° W; elev. 83.5 m. Flowers orange-yellow with reddish streaks abaxially, and a reddish-streaked throat within; anthers of unequal length; very local herb, abundant, in full sun in lawn of private residence; from a population of ~500+ plants seen above ground; bulbs globose and at least one with a bulblet and at least one bulb with two scapes—one in flower, one with an immature, green capsule; other plants with unopened capsules had ovaries broader at the top which tapered to a narrower base; 6 Jul 2017, P.J. Barbour 8982 (BRIT, duplicates to be distributed). Collections made with landowner’s permission. **Fig. 1.**

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