

SYNOPSIS OF THE GENUS *STYLISMA* (CONVOLVULACEAE) IN LOUISIANA

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ABSTRACT

The distribution, description, and a key to the species of the genus *Stylisma* (Convolvulaceae) in Louisiana are presented. The current number of species includes three native perennial vines: *S. aquatica* (Walt.) Raf., *S. humistrata* (Walt.) Chapm., and *S. pickeringii* (Torr. ex M.A. Curtis) A. Gray. Two species, *Stylisma patens* (Desr.) Myint and *S. villosa* (Nash) House, are excluded from the Louisiana flora.

RESUMEN

Se presentan la distribución, descripción, y una clave de las especies del género *Stylisma* (Convolvulaceae) en Luisiana. El número actual de especies incluye tres trepadoras perennes: *S. aquatica* (Walt.) Raf., *S. humistrata* (Walt.) Chapm., y *S. pickeringii* (Torr. ex M.A. Curtis) A. Gray. Dos especies, *Stylisma patens* (Desr.) Myint y *S. villosa* (Nash) House, se excluyen de la flora de Luisiana.

The genus *Stylisma* (Convolvulaceae) in Louisiana includes native perennial vine species with five reported by the USDA, NRCS (2012), MacRoberts (1984) and Thomas and Allen (1998). The specimens of *Stylisma* from Louisiana were examined and annotated from the following herbaria: Louisiana State University, Baton Rouge (LSU), Louisiana State University in Shreveport (LSUS), Louisiana Tech University, Ruston (LTU), University of Louisiana at Lafayette (LAF), and University of Louisiana at Monroe (NLU). The in-state distribution is based on these data and the work of Thomas and Allen (1998). The report for *S. patens* was based on a misidentified specimen of *S. humistrata* and the two reports of *S. villosa* were based on misidentified specimens of *S. aquatica*. Consequently, these two species should be excluded from the Louisiana flora. *Stylisma villosa* has a white corolla and villous filaments while *S. aquatica* exhibits a lavender, pink or purplish red corolla and glabrous filaments (Myint 1966). The range of *S. villosa* includes FL, GA, MS and TX with *S. aquatica* reported from AL, AR, FL, GA, LA, MS, NC, SC, and TX (Myint 1966; USDA NRCS 2012). *Stylisma patens* has narrower leaves (less than 1.2 cm wide) and mostly solitary flowers compared to the wider leaves (greater than 1.2 cm) and flowers, mostly in cymes of three, of *S. humistrata* (Myint 1966). The range of *S. patens* includes AL, FL, GA, MS, NC, and SC while *S. humistrata* is reported from AL, AR, FL, GA, LA, MS, NC, SC, TN, TX, and VA (Myint 1966; USDA NRCS 2012). The leaves of plants within the genus *Stylisma* are alternate, simple, entire, and with pinnate major veins. The inflorescence is an axillary corymb. The perfect regular flowers have five imbricate sepals, five fused petals with the corolla campanulate to funnelform, and five epipetalous stamens. The ovary is superior and the fruit is a capsule with four seeds.

KEY TO THE SPECIES OF *STYLISMA* IN LOUISIANA

1. Leaf blades linear; bracteoles of flowers longer than 1 cm; styles fused nearly to base of stigmas; stylar branches shorter than 5 mm _____ **3. *S. pickeringii***
1. Leaf blades oblong to oblong-elliptic; bracteoles of flowers shorter than 1 cm; styles free or fused only in lower portion; stylar branches longer than 5 mm.
 2. Corolla lavender to red; calyx pubescent; filaments mostly glabrous _____ **1. *S. aquatica***
 2. Corolla white; calyx glabrous; filaments pubescent _____ **2. *S. humistrata***

1. *Stylisma aquatica* (Walt.) Raf. Leaf blades oblong to elliptic, short densely pubescent, sepals pubescent, corolla lavender, style deeply lobed to ½ or more of length, filaments glabrous. An infrequent plant of pine flatwoods and savannahs in the southwest and southeast part of the state (Fig. 1). May–July (*Bonamia aquatica* (Walt.) A. Gray, *Bonamia michauxii* (Fern. & Schub.) K.A. Wilson, *Breweria aquatica* (Walt.) A. Gray, *Breweria michauxii* Fern. & Schub.).

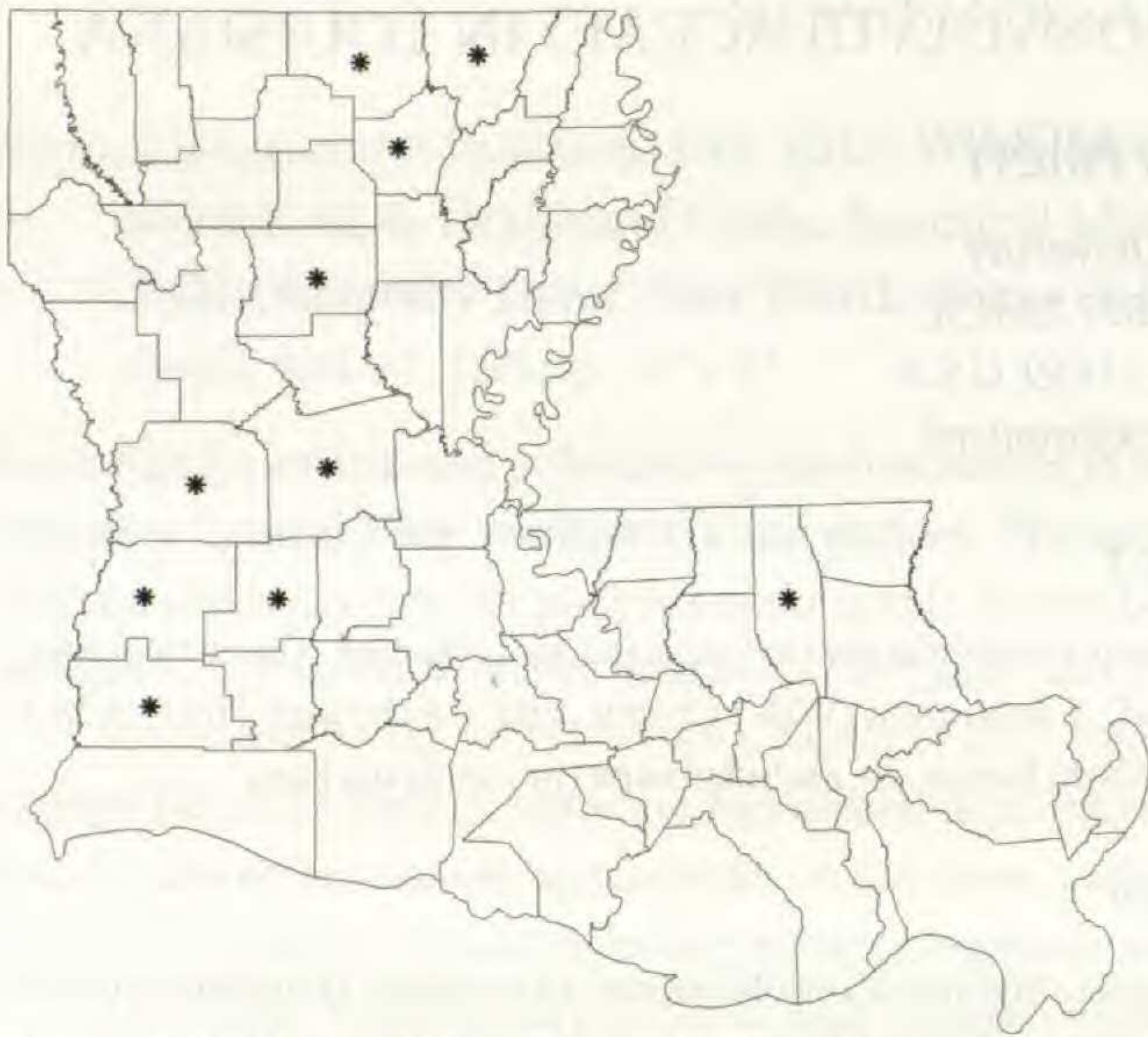


FIG. 1. Known distribution of *Stylishma aquatica* in Louisiana.



FIG. 2. Known distribution of *Stylishma humistrata* in Louisiana.

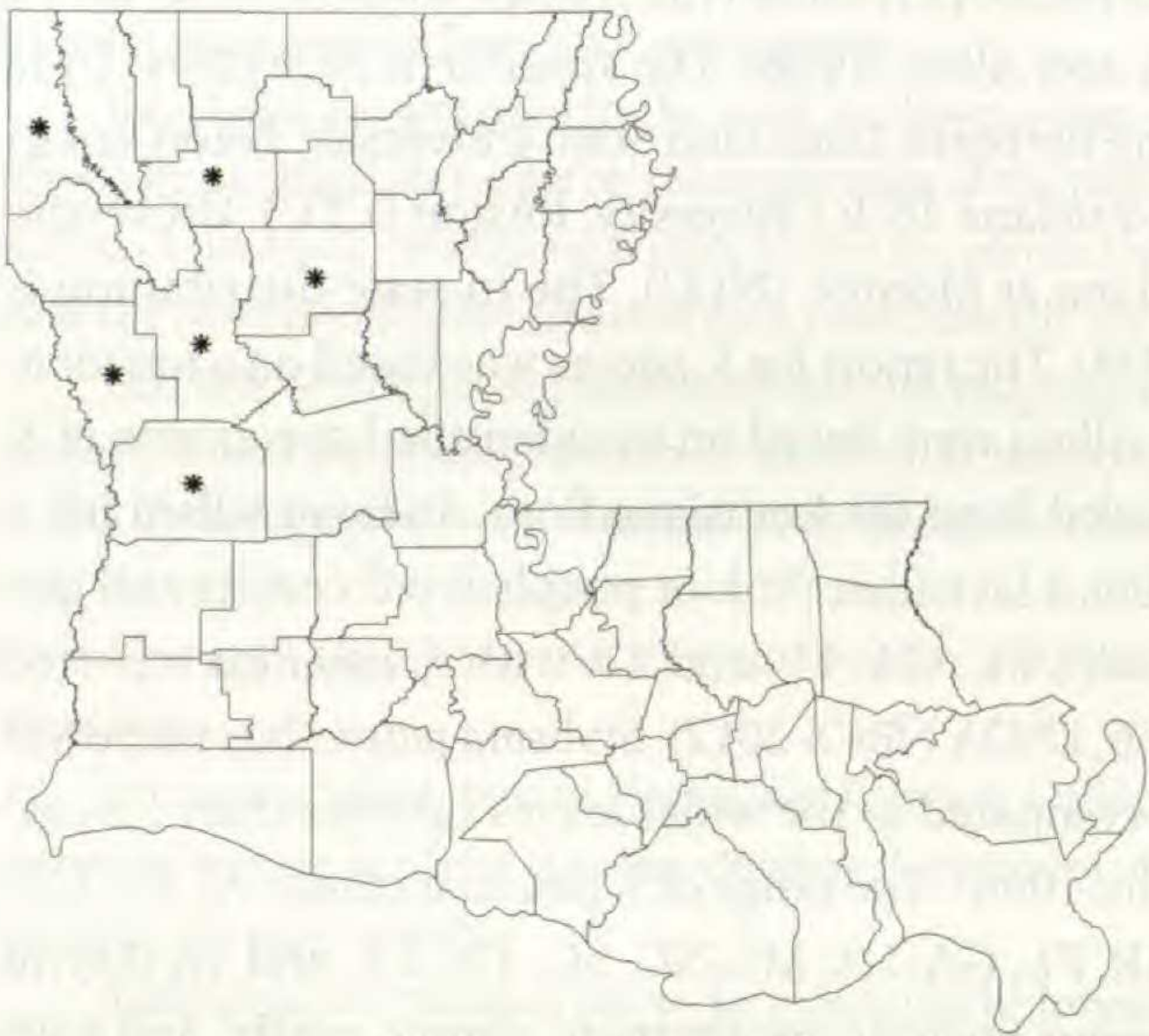


FIG. 3. Known distribution of *Stylishma pickeringii* var. *pattersonii* in Louisiana.

2. *Stylishma humistrata* (Walt.) Chapm. Leaf blades oblong to elliptic, sparsely pubescent, sepals glabrous, corolla white, style not lobed, filaments pubescent. The most common and widespread of the Louisiana species of this genus in sandy pine forests in the pine regions of the state (Fig. 2). May to October (*Bonamia humistrata* (Walt.) A. Gray, *Breweria humistrata* (Walt.) A. Gray).

3. *Stylishma pickeringii* (Torr. ex M.A. Curtis) A. Gray var. ***pattersonii*** (Fern. & Schub.) Myint. Leaf blades linear, sparsely pubescent, sepals pubescent, corolla white, style not lobed, filaments glabrous. An infrequent species of very sandy areas in western and northwestern Louisiana (Fig. 3). May–August (*Breweria pickeringii* (Torr. ex M.A. Curtis) A. Gray var. *pattersonii* Fern. & Schub., *S. pattersonii* (Fern. & Schub.) G.N. Jones).

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