

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

Charles M. Allen

Colorado State University  
Fort Polk Station 1697 23rd St.  
Fort Polk, Louisiana 71459, U.S.A.  
Charles.M.Allen1.ctr@mail.mil

## 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; styler 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; styler 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 1/2 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.).



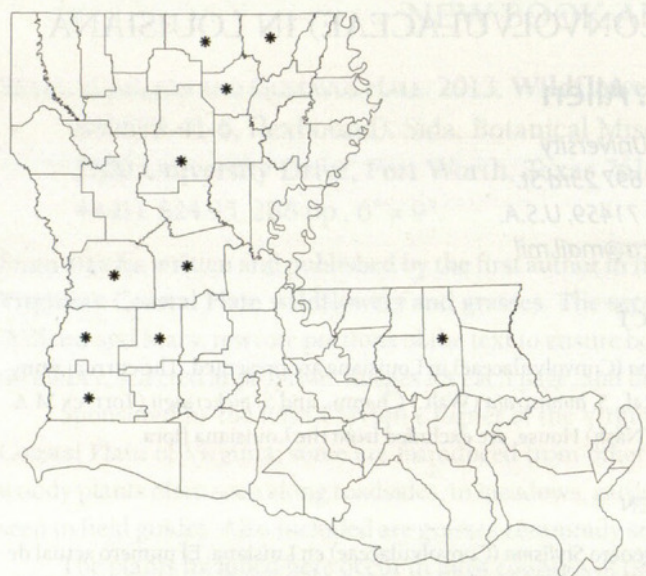


FIG. 1. Known distribution of *Stylisha aquatica* in Louisiana.



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

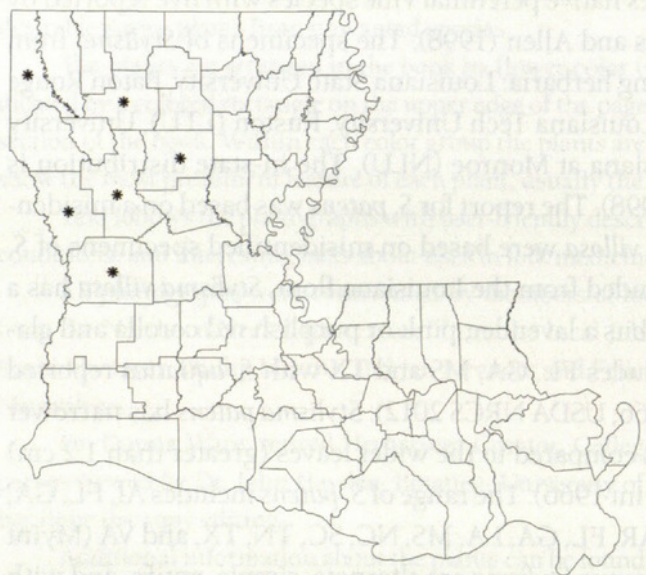


FIG. 3. Known distribution of *Stylisha pickeringii* var. *pattersonii* in Louisiana.

**2. *Stylisha 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. *Stylisha 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).

#### ACKNOWLEDGMENTS

Michael MacRoberts and Andrew McDonald provided helpful comments.

#### REFERENCES

- MACROBERT, D.T. 1984. The vascular plants of Louisiana; an annotated checklist and bibliography of the vascular plants reported to grow without cultivation in Louisiana. Bull. Mus. Life Sci., Louisiana State University in Shreveport, Number 6.
- MYINT, T. 1966. Revision of the genus *Stylisha* (Convolvulaceae). Brittonia 18:97–117.
- THOMAS, R.D. AND C.M. ALLEN. 1998. Atlas of the vascular flora of Louisiana, Vol. 3: Dicotyledons Fabaceae-Zygophyllaceae. Louisiana Department of Wildlife and Fisheries, Baton Rouge.
- USDA, NRCS. 2012. The PLANTS Database (<http://plants.usda.gov>), 4 June 2012). National Plant Data Team, Greensboro, NC 27401-4901 USA.





Allen, Charles M. 2013. "SYNOPSIS OF THE GENUS STYLISMA (CONVOLVULACEAE) IN LOUISIANA." *Journal of the Botanical Research Institute of Texas* 7(1), 515–516.

**View This Item Online:** <https://www.biodiversitylibrary.org/item/236568>

**Permalink:** <https://www.biodiversitylibrary.org/partpdf/263555>

**Holding Institution**

Missouri Botanical Garden, Peter H. Raven Library

**Sponsored by**

Missouri Botanical Garden

**Copyright & Reuse**

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Botanical Research Institute of Texas

License: <http://creativecommons.org/licenses/by-nc-sa/4.0/>

Rights: <https://www.biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.