Phytologia (October 1998) 85(4):273-275.

THALICTRUM THALICTROIDES (L.) EAMES & BOIVIN (RANUNCULACEAE): NEW TO TEXAS

J.R. Singhurst

Wildlife Diversity Program, Texas Parks and Wildlife Department, Austin, Texas 78704 U.S.A.

&

W.C. Holmes

Department of Biology, Baylor University, Waco, Texas 76798-7388 U.S.A.

ABSTRACT

Thalictrum thalictroides is reported as new to Texas. A key to species of the genus occurring in northeast Texas is included.

KEY WORDS: Thalictrum, Ranunculaceae, Texas

Thalictrum thalictroides Eames & Boivin, rue anemone or windflower, is an erect, slender, glabrous perennial herb 1-2 dm high that grows from a small cluster of fusiform tubers. Basal leaves are biternately compound while the few-flowered umbel is subtended by 2 or 3 opposite or whorled, sessile, ternately compound involucral leaves. The 5-10 sepals are petaloid, 10-15 mm long, and white to pale pink-purple in color. Pistils number 8-12. The achenes are fusiform, saliently several-ribbed, and tipped with the persistent, sessile, capitate stigmas (Gleason & Cronquist 1963). Some botanists still place this taxon in the segregate genus Anemonella, which is based solely upon its umbellate inflorescence. The other species of Thalictrum from the United States have inflorescences that are panicles, racemes, or corymbs (Park & Festerling 1997).

Thalictrum thalictroides is widely distributed in eastern United States and is also known from Ontario, Canada (Park & Festerling 1997). In states adjacent to Texas, the species is known to occur in the Gulf Coastal Plain Region of Choctaw and McCurtain counties in southeast Oklahoma (Paul Kores, pers. comm.). It has also been documented from the Gulf Coastal Plain Region of southwest Arkansas in Miller County (Smith 1988), just east of Bowie County, Texas. The following collections from Lamar and Red River counties in Texas extend the distribution of T. thalictroides

October 1998

southward approximately 20 km from its nearest documented station in Choctaw County, Oklahoma, but, more importantly, constitute the first report of this species from Texas.

Specimens Cited: TEXAS. Lamar Co.: 1.2 miles north of Pinhook Community, S side of Little Pine Creek, 17 Apr 1999, Singhurst 7739 (BAYLU). Red River Co.: 2.3 miles northwest of Manchester, S side of Big Pine Creek, 0.7 miles SW of Flag Pond, 15 Apr 1999, Singhurst 7737 & Berry (BAYLU); same location (fruiting material), 13 May 1999, Holmes 10025 & Singhurst (BAYLU); Tanyard Creek, 1.6 miles NW of Woodland, 17 April 1999, Singhurst 7738 (BAYLU); same location (fruiting material), 13 May 1999, Holmes 10072 & Singhurst (BAYLU).

Thalictrum thalictroides occurs in mature hardwood forests on very steep (8-20%) slopes in moist soils with a rich humus layer. Common overstory trees include Quercus alba L., Q. shumardii Buckl., and Q. muhlenbergii Engelm. (Fagaceae), and Ulmus rubra Muhl. (Ulmaceae). Subcanopy plants include Cornus florida L. and Cornus drummondii C.A. Mey. (Cornaceae), Sassafras albidum (Nutt.) Nees. (Lauraceae), Vaccinium stamineum L. (Ericaceae), Callicarpa americana L. (Verbenaceae), and Smilax spp. (Smilacaceae). Associated herbaceous flora consists of Agrimonia rostellata Wallr. (Rosaceae), Botrychium virginianum (L.) Sw. (Ophioglossaceae), Carex spp. (Cyperaceae), Desmodium spp. (Leguminosae), Podophyllum peltatum L. (Berberidaceae), Polystichum acrostichoides (Michx.) Schott. (Dryopteridaceae), Sanicula canadense L. (Umbelliferae), Senecio sp. and Solidago sp. (Compositae).

Until this report, only two other species of Thalictrum were known to occur in northeast Texas, T. arkansanum Eames & Boivin and T. dasycarpum (Fisch.) Mey. & Ave-Lall. The three species may be distinguished by use of the following key, which is modified from Waterfall (1966) and Smith (1988).

- 1. Inflorescence umbellate; flowers perfect, sepals 5-10, white to pinkish, 5-18 mm
- 1. Inflorescence paniculate; flowers mostly imperfect, sepals 4-5, greenish to purplish, 1-4 mm long, caducous, stigmas elongate; plants 2-20 dm tall.....2
 - 2. Middle and upper leaves petiolate; carpels 2-9 per flower; plant decumbent, ca.
 - 2. Middle and upper leaves sessile; carpels 9-15 per flower; plant erect, ca. 2 m

ACKNOWLEDGMENTS

We are grateful for the information and assistance provided by Tom Wendt of TEX-LL and to Paul Kores of the Oklahoma Natural Heritage Inventory. Also, special thanks to Glen Berry and Leon Fleming for their stewardship and access to their Red River County properties.

LITERATURE CITED

- Gleason H.A. & A. Cronquist. 1963. Manual of the Vascular Plants of Northeastern United States and Adjacent Canada. D. Van Nostrand Co., Princeton, New Jersey.
- Park, M.M. & D. Festerling, Jr. 1997. Thalictrum in: Flora of North America Editorial Committee, Flora of North America North of Mexico 3. Magnoliophyta: Magnoliidae and Hamamelidae. Oxford University Press, New York, New York. pp. 258-271.
- Smith, E.B. 1988. An Atlas and Annotated List of the Vascular Plants of Arkansas, 2nd ed. Published by the author. Fayetteville, Arkansas.
- Waterfall, U.T. 1966. Keys to the Flora of Oklahoma. Oklahoma State University, Stillwater, Oklahoma.



Singhurst, Jason R. and Holmes, Walter C. 1998. "Thalictrum thalictroides (L.) Eames and Boivin (Ranunculaceae): New to Texas." *Phytologia* 85, 273–275.

View This Item Online: <u>https://www.biodiversitylibrary.org/item/47465</u> Permalink: <u>https://www.biodiversitylibrary.org/partpdf/175751</u>

Holding Institution New York Botanical Garden, LuEsther T. Mertz Library

Sponsored by The LuEsther T Mertz Library, the New York Botanical Garden

Copyright & Reuse Copyright Status: In copyright. Digitized with the permission of the rights holder. Rights Holder: Phytologia License: <u>http://creativecommons.org/licenses/by-nc-sa/3.0/</u> Rights: <u>https://biodiversitylibrary.org/permissions</u>

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.