

## ***HEUCHERA AMERICANA* (SAXIFRAGACEAE) IN TEXAS**

**WALTER C. HOLMES**  
Department of Biology  
Baylor University  
Waco, Texas 76798-7388 U.S.A.  
walter\_holmes@baylor.edu

**JASON R. SINGHURST**  
Wildlife Diversity Program  
Texas Parks and Wildlife Department  
3000 South IH-35, Suite 100  
Austin, Texas 78704 U.S.A.  
jason.singhurst@tpwd.state.tx.us

**JEFFREY N. MINK**  
Department of Biology  
Baylor University  
Waco, Texas 76798-7388 U.S.A.  
jeffrey\_mink@baylor.edu

### **ABSTRACT**

The occurrence and distribution of *Heuchera americana* in Texas are clarified and expanded with documentation for five counties: Bowie, Cass, Harrison, Red River, and San Augustine. A distribution map and photo of a specimen from Harrison County are included.

**KEY WORDS:** *Heuchera*, Saxifragaceae, Texas, USA.

The purpose of this paper is to clarify and document the known distribution of *Heuchera americana* L. (Saxifragaceae) in Texas. The initial mention of the species in the state appears to be by Correll and Johnston (1970), who cited the distribution as northeast Texas. Hatch et al. (1990) cited the species as occurring in the Pineywoods, Post Oak Savannahs, and Blackland Prairies of the state, which was later referenced by Diggs et al. (1999) to include the species in their manual of the *Illustrated Flora of North Central Texas*. Johnston (1990) and Jones et al. (1997) also cited *H. americana* as occurring in the state. Turner et al. (2003) mapped the species as occurring in Bowie Co. Curiously, the PLANTS database (USDA, NRCS 2011), Wells (1984), and Wells and Shipps (2009) do not mention the occurrence of *H. americana* in Texas.

Although the species has frequently been cited as occurring in the state, we have not located a published record of a specimen citation for Texas. The following list of exsiccata documents the occurrence of *Heuchera americana* in five Texas counties: Bowie, Cass, Harrison, Red River, and San Augustine (Fig. 1). We are including all collections because of the rarity of the species in Texas herbaria. The Harrison Co. specimen (*Correll & Lundell 18785*, SMU), the oldest Texas collection of the species located, is shown in Fig. 2.

Specimens cited: **TEXAS. Bowie Co.:** On wooded bluff along Rte. 559, 1 mile north of Wamba, 30 April 1969, *Correll 37142* (LL); above waterworks Lake, just NE of Wamba, hardwood slopes, 13 Jul 1965, *Correll 31281* (LL); Bringle Lake, a mesic white oak-chinquapin oak forest; fls cream, 15 April 2000, *Holmes, Singhurst, & Baldrige 10831* (BAYLU, TEX); Bringle Lake, 1.4 mi. NE of Wamba,

City of Texarkana property, 10 May 2000, *Singhurst* 8856 (BAYLU); north of Wamba; very steep, wooded slopes, May 1978, *Ajilvsgi* 7340 (BRIT). **Cass Co.:** Nature Guided Trail, Atlanta State Park, 12 May 1999, *Holmes & Singhurst* 9998 (BAYLU). **Harrison Co.:** on rich wooded slope of ravine along Cypress Bayou, below small roadside park near Jefferson, 23 May 1958, *Correll & Lundell* 18785 (SMU). **Red River Co.:** Mrs. Joe Swindle's land, NE of Woodland Cemetery ca. 0.4 mi. near Woodland Community, headwater springs of Tanyard Creek, Cretaceous Woodbine Formation outcrop at merger with lower Eagleford Shale, 1 April 2000, *Singhurst & Swindle* 7903 (BAYLU). **St. Augustine Co.:** Sabine National Forest, Compartment 65, Cypress Creek, calcareous seep slope forest on Weches outcrop, 24 April 2002, *Singhurst* 11155 (BAYLU).

The San Augustine station is approximately 240 km south of the only previously known records in Bowie Co. All of the Bowie Co. specimens are from the Bringle Lake area (a reservoir impounded in 1929) that has been heavily impacted by recent construction of a golf course and formation of Texas A&M University–Texarkana, with other development planned or in progress. *Heuchera* is considered to be a peripheral species in Texas, the distribution being continuous with that of Oklahoma, Arkansas, and Louisiana. It is of conservation concern (S1, with 6 or fewer populations, rare within Texas).

Within the state, the species occurs in hardwood forests growing on calcareous substrates subject to wet season seepage. Generally these forests are located at the base of slopes or on horizontal benches on slopes. Typical overstory trees include *Quercus alba*, *Carya tomentosa* (= *Carya alba*), *Acer rubrum*, *Fraxinus americana*, and *Carpinus caroliniana*. Understory woody vegetation consists of *Lindera benzoin*, *Itea virginica*, *Alnus serrulata*, *Viburnum rufidulum*, and immature specimens of the overstory vegetation. Associated herbaceous vegetation includes *Polystichum acrostichoides*, *Athyrium felix-femina* subsp. *asplenioides*, *Packera obovata*, *Carex* spp., and *Tipularia discolor*.

Correll and Johnston (1970) referred the Texas specimens of *Heuchera americana* to var. *brevipetala* Rosendahl, Butters, & Lakela, which was treated by Wells and Shipes (2009) as *H. americana* var. *americana*. All Texas specimens examined are referable to *H. americana* var. *americana*.

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#### LITERATURE CITED

- Correll, D.S. and M.C. Johnston. 1970. Manual of the Vascular Plants of Texas. Texas Research Foundation, Renner.
- Diggs, G.M., Jr., B.L. Lipscomb, and R.J. O'Kennon. 1999. Shinnery and Mahler's Illustrated Flora of North Central Texas. Sida Bot. Misc. 16, Bot. Research Inst. of Texas, Fort Worth.
- Johnston, M.C. 1990. The Vascular Plants of Texas. A List, Updating the Manual of the Vascular Plants of Texas, 2<sup>nd</sup> ed. Published by the author, Austin.
- Jones, S.D., J.K. Wipff, and P.M. Montgomery. 1997. Vascular plants of Texas. A Comprehensive Checklist Including Synonymy, Bibliography, and Index. Univ. of Texas Press, Austin.
- Hatch, S.L. K.N. Gandhi, and L.E. Brown. 1990. Checklist of the Vascular Plants of Texas. Texas Agricultural Experimental Station MP-1655, Texas A&M Univ., College Station.

- Turner, B.L., H. Nichols, G. Denny, and O. Doron. 2003. Atlas of the vascular plants of Texas. Sida Bot. Misc. 24 (2 vols.). Bot. Research Inst. Texas, Fort Worth.
- USDA, NRSC. 2011. The PLANTS Database (<http://plants.usda.gov>, January 2011). National Data Center, Baton Rouge, Louisiana.
- Wells, E.F. 1984. A revision of the genus *Heuchera* (Saxifragaceae) in eastern North America. Syst. Bot. Monogr. 3: 45–121.
- Wells, E.F. and B.G. Shipes. 2009. *Heuchera*. Pp. 84–104 in Flora of North America Editorial Committee, Flora of North America, Vol. 8, Magnoliophyta: Paeoniaceae to Ericaceae.

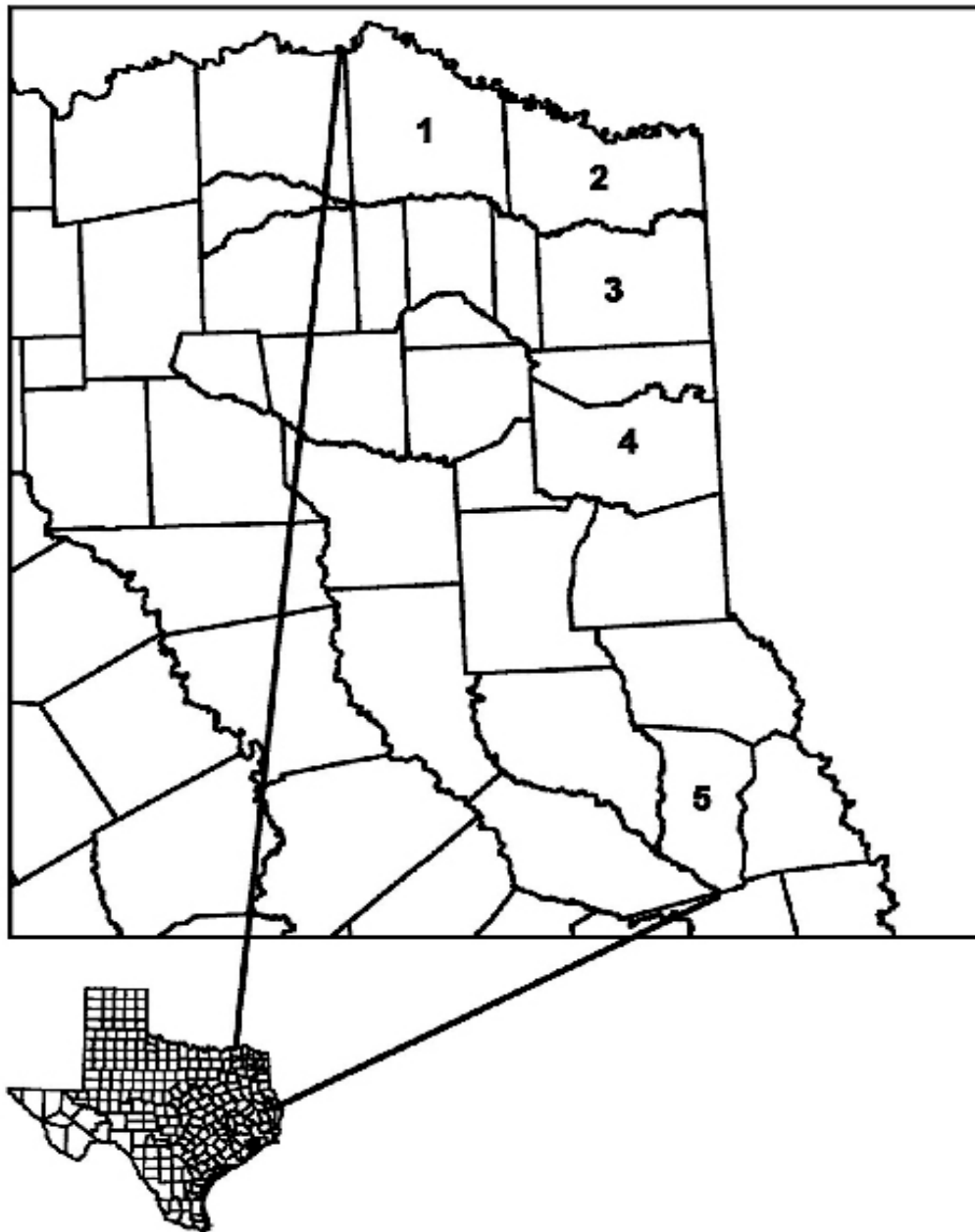


Figure 1. Distribution of *Heuchera americana* in Texas. The numbers are in counties in which the species has been documented: 1. Red River; 2. Bowie; 3. Cass; 4. Harrison; and 5. San Augustin



Figure 2. Correll & Lundell 18785 (SMU), from Harrison Co., Texas; the oldest *Heuchera americana* specimen from the state located during the study. Used with permission of BRIT Virtual Herbarium. Atrium Biodiversity Information System, Botanical Research Institute of Texas. <http://atrium.brit.org>. Accessed 11 Feb 2011.