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OCCURRENCE OF *SYMPHYOTRICHUM CORDIFOLIUM* (ASTERACEAE) IN TEXAS

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ABSTRACT

Symphyotrichum cordifolium has been recently collected by Singhurst in Fannin and Red River counties, Texas, and is documented here as a member of the state's native flora. A previous record of *S. cordifolium* in Texas is apparently based on a misreading or misinterpretation of the identification of *S. dumosum* var. *coridifolium*.

Symphyotrichum cordifolium (L.) Nesom is known from southern Canada and the eastern USA — Maine, west to North Dakota, south to southeast Oklahoma, east through southern Arkansas, Mississippi to western (panhandle) Florida, then to Maine. It is mapped from Lamar Co., Texas, by Kartesz (2014) but otherwise has been noted as absent from both Texas and Louisiana (Brouillet 2006; Kartesz 2014; Small 1933; Turner et al 2003; USDA, NRCS 2021). Recent collections of *S. cordifolium* by Singhurst in northeast Texas supplant the BONAP record, which is based on a collection of *S. dumosum* (see below).

Voucher specimens. **Texas**. Fannin Co.: Brent Millard Ranch near Dodd City, 0.9 mi S of Hwy 56 and jct with FM 3200 on FM 3200 on W side of FM 3200, branch of Bullard Creek, 27 Oct 2020, *Singhurst 22404* (BAYLU, Figures 1-3). Red River Co.: Burkhand Creek and jct with Co. Rd 4520, N side of Co. Rd 4520 and W side of Burkhand Creek, 28 Oct 2019, *Singhurst 22291* (BAYLU); 4.2 mi E of the jct of Hwy 37 and Capt Henry Stout Bypass (Hwy 82) in Clarksville to the jct of Young Creek and Hwy 82, 14 Oct 2020, *Singhurst 22379* (BAYLU, Figs. 4-5).

The plants were found on a calcareous bottomland hardwood terrace of a branch of Bullard Creek (Figs. 1-3) and Burkhand Creek and Young Creek (Figs. 5-6). Slightly over 100 plants were found at the Bullard Creek site, 25 plants at the Young Creek site, and 15 plants at the Burkhand Creek site. The mesic calcareous upland woodland community occurs in areas of deep, moist, black clay soil — populations at all three were found along woodland borders or in understory of shaded woodlands. All three sites are bordered by dry-mesic blackland prairies that have experienced great floristic loss in the northeast portion on the Blackland Prairie Ecoregion of Texas. The dominant overstory trees include *Carya myristiciformis*, *Celtis laevigata*, *Cercis canadensis*, *Q. muhlenbergii*, *Q. shumardii*, *Q. stellata*, *Ulmus americana*, and *U. crassifolia*. Understory woody plants include *Berchemia scandens*, *Cornus drummondii*, *Frangula caroliniana*, *Fraxinus americanus*, *Ilex decidua*, *Juniperus virginiana*, *Parthenocissus quinquefolia*, *Smilax glauca*, *S. bona-nox*, *Symphoricarpos orbiculatus*, *Toxicodendron radicans*, and *Viburnum rufidulum*. Herbaceous species found in association with *Symphyotrichum cordifolium* include *Arisaema dracontium*, *Carex cherokeensis*, *C. glaucodea*, *Chasmanthium latifolium*, *Galium circaezans*, *Packera aurea*, *Phryma leptostachya*, *Rudbeckia triloba*, *Ruellia strepens*, *Silene stellata*, *Symphyotrichum latifolium*, *Verbesina alternifolia*, and *Viola pubescens.*

The calcareous slope forests (oak-hickory) in northeast Texas are understudied and contain numerous regionally rare elements. Examples include the globally rare *Thalictrum arkansanum* (Poole et al. 2007), disjuncts such as *Enemion biternatum* (Singhurst et al. 1998) and *Triosteum perfoliatum* (Holmes et al. 1999, and narrow globally distributed species such as *Trillium viridescens* (Singhurst et al. 2002). We have a special interest in documenting oak-hickory forests on private lands and encouraging landowners with forests to practice conservation and participate in floral projects in northeast Texas.

Kartesz supplied information about the BONAP record mapped by him as *Symphyotrichum cordifolium* for Lamar County — a digital photograph of the voucher was provided by the Shirley C. Tucker Herbarium at Louisiana State University in Baton Rouge (Fig. 6). The voucher was correctly identified by the collector as *Symphyotrichum dumosum*. The specimen was transferred from TEX to LSU and was annotated by Lowell Urbatsch in 2011 as *Symphyotrichum dumosum* "var. *coridifolium* (Michx.) Semple & Haggit" (an unpublished name). The present authors agree with the identification as *S. dumosum*, which occurs in the eastern third of Texas, with a disjunct westward locality in Medina Co. (Turner et al. 2003).

The Carr collection appears in the herbarium LSU database (and in SERNEC) as *S. dumosum* var. *coridifolium*, and apparently the name was misinterpreted as a synonym of *S. cordifolium* and incorporated as such into the BONAP data. Plants of *Symphyotrichum dumosum* and *S. cordifolium* are not likely to be confused in identification.

Figure 1. *Symphyotrichum cordifolium* (*Singhurst 22404*) along a branch of Bullard Creek in Fannin Co., Texas. Photo by Singhurst.

Figure 2. *Symphyotrichum cordifolium* (*Singhurst 22404*) along a branch of Bullard Creek in Fannin Co., Texas. Photo by Singhurst.

Figure 3. *Symphyotrichum cordifolium* (*Singhurst 22404*) in Bullard Creek woodland habitat in Fannin Co., Texas. Photo by Singhurst.

Figure 4. *Symphyotrichum cordifolium* (*Singhurst 22379*) along a Young Creek in Red River Co., Texas. Photo by Singhurst.

Figure 5. *Symphyotrichum cordifolium* (*Singhurst 22379*) in Young Creek woodland habitat in Red River Co., Texas. Photo by Singhurst.

Figure 6. *Symphyotrichum dumosum* in Lamar Co., Texas. *Carr 14960* (LSU), previously the basis for recognizing the occurrence of *S. cordifolium* in Texas.

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