

***PLUCHEA SERICEA* (ASTERACEAE)
RANGE EXTENSION IN TEXAS ROLLING PLAINS
AND NEW TO THE FLORA OF OKLAHOMA**

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ABSTRACT

Pluchea sericea (Asteraceae) is documented as an eastward range extension to the Texas Rolling Plains Ecoregion and as a new record for the flora of Oklahoma. Populations were found in open riverscours stream terraces along the Prairie Dog Fork of Red River in Hall, Childress, and Hardeman counties, Texas, and Harmon Co., Oklahoma.

Pluchea sericea (Nutt.) Coville, commonly known arrowweed or cachanilla, was recently discovered in the Rolling Plains of Texas and Oklahoma. The species had not previously been reported in the Rolling Plains Ecoregion (Gould 1960), and this is the first report for the flora of Oklahoma (Waterfall 1969; Correll & Johnson 1970; Hatch et al. 1990; Turner et al. 2003; Tyrl et al. 2004; Kartez 2015). These new records extend the global range of the species east by approximately 125 miles.

Pluchea sericea (Nesom 2016; Wikipedia 2023) occurs in riparian areas in the lower Sonoran Desert and surrounding areas. It is also common in the lower Colorado River valley of California, Nevada, and Arizona and ranges eastward into Texas and into northern Mexico. It is a perennial, rhizomatous shrub along watercourses and often forms dense thickets.

Pluchea sericea (Figs. 1-3) was found along open riverscours stream terraces along the Prairie Dog Fork of Red River in Hall, Childress, and Hardeman counties, Texas, and along the same stream in Harmon Co., Oklahoma. Hundreds of plants were found at each site — all sites had high salinity with salt crusts present and the associated flora include many halophytes. Dominant plants in close association with *Pluchea sericea* include *Baccharis salicina*, *Distichlis spicata*, *Limonium limbatum*, *Muhlenbergia asperifolia*, *Suaeda calceoliformis*, *Suaeda nigra*, *Sesuvium verrucosum*, *Rayjacksonia annua*, and *Sporobolus airoides*. Other species present include *Dalea lanata*, *Datura wrightii*, *Helianthus annuus*, *Phragmites australis*, and *Schoenoplectus pungens*. We also observed *Pluchea sericea* mixed with *Baccharis salicina*, which could easily be confused in identity when both shrubs are vegetative. This is possibly why *Pluchea sericea* has been overlooked in this region.

Voucher specimens. Oklahoma. Harmon Co.: Jct of Prairie Dog Fork of Red River and N 1680, from N side of river bridge head SW ca. 330 meters, just E of where Buck Creek meets the Prairie Dog Fork of Red River, large river scour terrace ca. 50 acres in size, 25 Sep 2023, *Singhurst* and *Ruthven* 22413 (TEX). **Texas.** Hardeman Co.: Jct of Prairie Dog Fork of Red River and St. Rte 680 (also called Hollis Road), from end of S side of bridge head W on S side of the river ca. 60 meters to small river scour terrace a few acres in size, 25 Sep 2023, *Singhurst* and *Ruthven* 22414 (TEX). Childress Co.: Jct of US Hwy 62/83 and Prairie Dog Fork of Red River, from N side of bridge where

it meets bluff, head SW 270 meters to small river scour terrace ca. 5 acres in size, 26 Sep 2023, *Singhurst and Ruthven 22415 (TEX)*. Hall Co.: Jct of US Hwy 287 and Prairie Dog Town Fork of Red River, from S side of river bridge, plants on E side of bridge and a small riverscour terrace ca. 4 acres in size W of the river bridge, 26 Sep 2023, *Singhurst and Ruthven 22416 (TEX)*.



Figure 1. *Pluchea sericea* along the Prairie Dog Fork of Red River in Hall Co., Texas.



Figure 2. *Pluchea sericea* colonies are established from rhizomes. These plants in Hall Co., Texas, along the Prairie Dog Fork of Red River range mostly between 4-10 feet in height but can reach 16 feet.

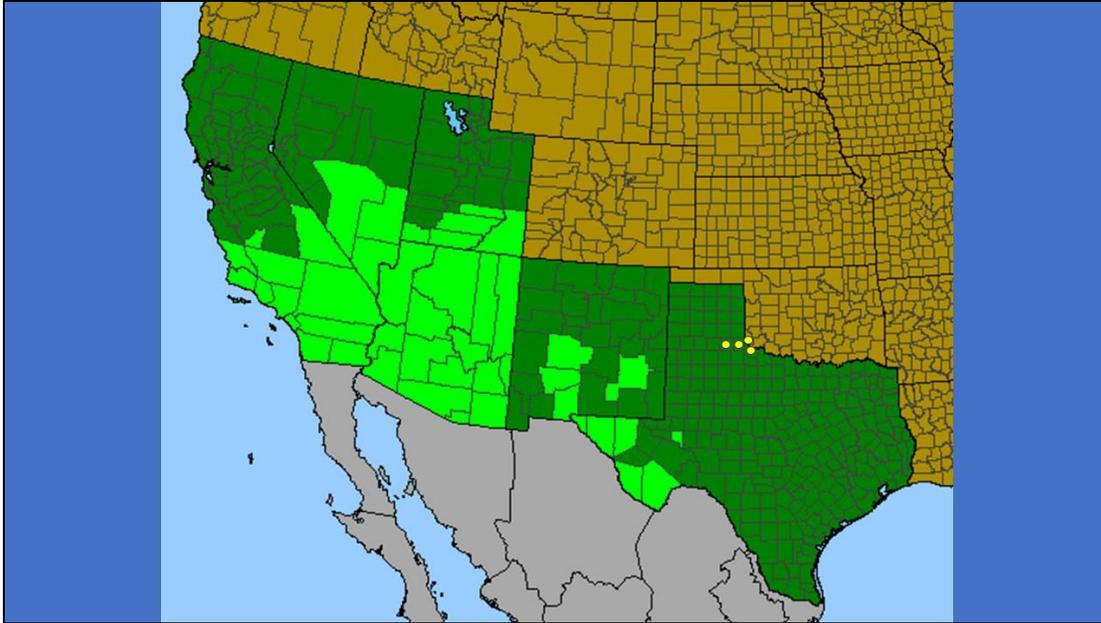


Figure 3. *Pluchea sericea* range and extension into the Rolling Plains, represented by yellow dots in Childress, Hall, and Hardeman counties, Texas, and Harmon Co., Oklahoma. Map from Kartez (2015).

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