

BUCHNERA AMERICANA IN BROOKS CO., TEXAS

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ABSTRACT

Buchnera americana is reported for the first time for Brooks Co., Texas, the only known occurrence within an inland county south of the Nueces River. This population was found 60 miles from the coast of the Gulf of Mexico on a migrating sand dune of the South Texas Sand Sheet.

Buchnera americana L. is newly reported for Brooks Co., Texas. This finding is the result of a plant survey conducted within an inland migrating sand dune of the South Texas Sand Sheet (STSS). The population is well-established, with more than 300 individuals (estimated) occurring within the dune and few others in the surrounding vicinity. This represents the only known inland county occurrence of the species south of the Nueces River. Voucher specimens were collected and housed at PAUH (University of Texas Rio Grande Valley Herbarium). County records were determined by referring to TEX-LL Occurrence Records database (Lundell Plant Diversity Portal) as well as regional literature (Richardson 2011; Turner et al. 2003).

Voucher. Texas. Brooks Co.: 0.5 mi NW of FM 755, ca. 13 mi SW of the town of Encino, 26.856130° -98.329379°, 236 ft, sandy loam where Goliad Formation is exposed at the surface, area immediately surrounded by active dunes of the South Texas Sand Sheet (STSS), decreasing concentration gradient of individuals farther from exposed substrate of the Goliad Formation, with *Froelichia drummondii*, *Prosopis glandulosa*, *Croton coryi*, *Stillingia sylvatica*, *Cnidoscolus texanus*, *Dalea obovata*, *Yucca constricta*, *Zanthoxylum hirsutum*, *Galactia canescens*, and various grass species, 3 Jun 2018, Muñoz s.n. (PAUH).

Buchnera americana is a hemiparasite with little host specificity (Natureserve 2018). Individuals of the Brooks Co. population apparently were growing mostly in the absence of characteristic host plants — common hosts are white oak, eastern white pine, green ash, and cottonwood (Musselman & Mann 1977). Populations of *B. americana* have an affinity for sandy substrates and are typically confined to coastal dunes along the southern portion of its range in Texas (Richardson 2011).

The migrating dune where the Brooks County population is located represents an anomaly in terms of its distance away from the coastline (60 miles) and was identified as a unique physiographic feature via satellite imagery. A similar migrating sand dune can be seen 22 miles west of the Brooks Co. locality via satellite imagery.



Figure 1. Apical inflorescences of *Buchnera americana*, Brooks Co., Texas.



Figure 2. *Buchnera americana* individuals at various stages of maturity, Brooks Co., Texas.



Figure 3. *Buchnera americana*, Brooks Co. locality with standard-size botanical press for scale.



Figure 4. Aeolian dunes of the South Texas Sand Sheet surrounding the *Buchnera americana* locality.

ACKNOWLEDGEMENTS

The author thanks Juan González and Guy Nesom for reviewing this paper.

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