

Vegetation Survey of Local Urban Area Begins Long-term Documentation of Land Use Impacts on Area Biodiversity

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Project Overview

The Goal: Survey the vegetation of an urban property in west Fort Worth to establish a baseline reading for area biodiversity ahead of new development.

The Property: One section is a wooded natural drainage area that is within a utility easement related to a future sanitary sewer line to serve a neighboring development project. The other section of the property has been grazed by cattle for decades.

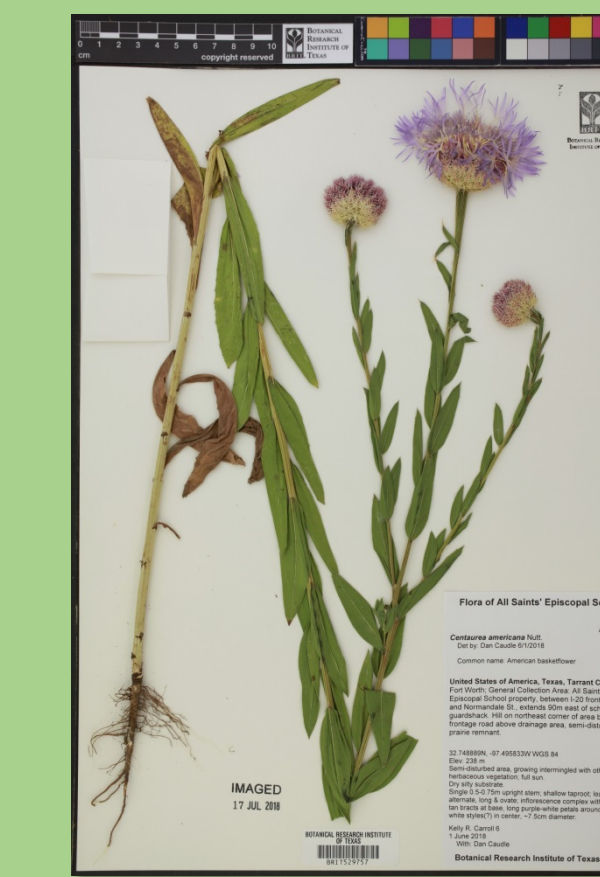
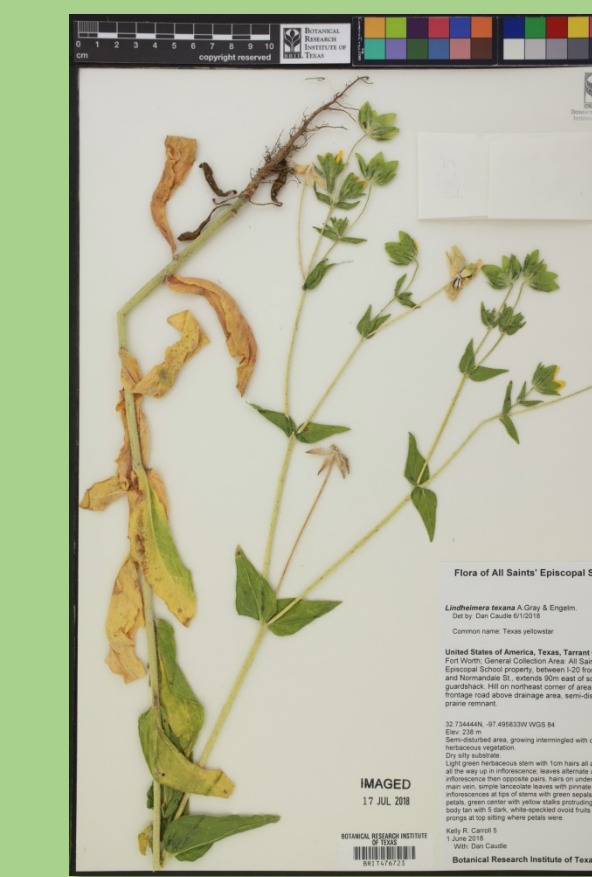
The Project: From May to July 2018, we ran transects to record vegetative cover and collected voucher specimens (deposited at BRIT), recording 147 total taxa and collecting 110 vouchers of 84 distinct taxa. We mounted and digitized all vouchers. We also updated a 1998 survey of the area by Roger W. Sanders and combined it with our results to create a checklist (Flora of All Saints' Episcopal School, Fort Worth) in the TORCH online portal that records 285 total observed taxa at this site between 1998 and 2018.

Legend:

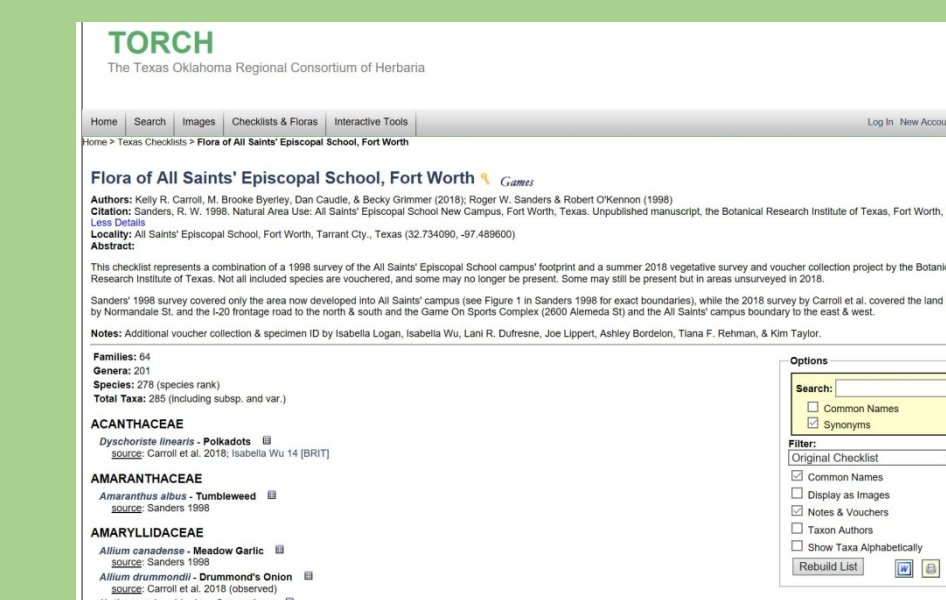
- Grass Area of Interest
- Big Bluestem Colonies
- Yellow Indiangrass Colonies
- Collections
- American Elms
- Notable Little Bluestem
- Easement Transect
- Non-Easement Transect
- Prairie Transects



Project Products



110 digitized collections from the field – 84 taxa represented



Checklist of all flora surveyed on portal.torcherbaria.org – 285 taxa recorded



Populations of big bluestem (~36 m²) and yellow indiangrass (165 m²)

Into the Future

University and high school students are prepared to continue this project, including further vegetation surveys using our protocols. They will also collect specimens in the fall and spring, when species that were not reproductive during our surveys this summer will be flowering or fruiting.

We plan to continue the survey in perpetuity, keeping a running record of the recovery of the easement area post-construction and of the general health and biodiversity of the area as development moves in.



We found 3 populations of high-value tallgrasses – big bluestem (*Andropogon gerardii* var. *gerardii*) and yellow indiangrass (*Sorghastrum nutans*) – along the easement track and within the area of impact.

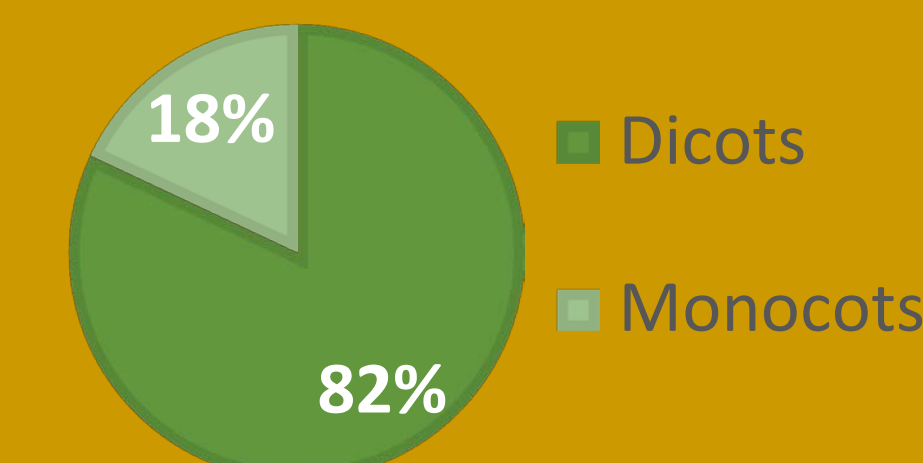
We worked with the property owners to establish a remediation plan designed to preserve these species. This plan was then presented to the developers.

Checklist Stats

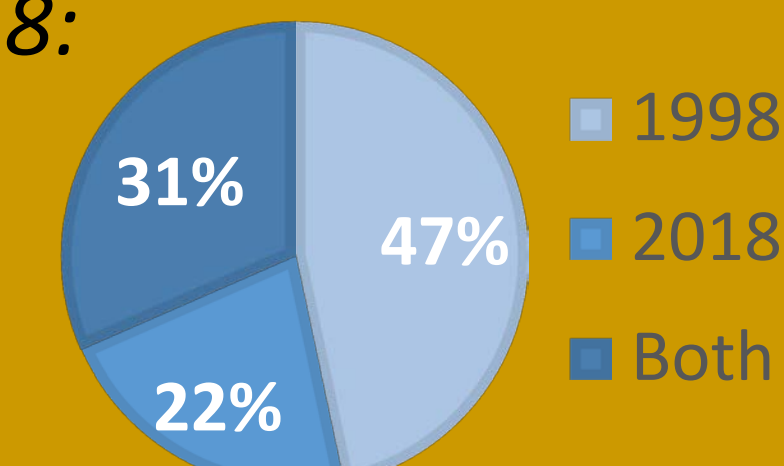
Top 2 Families Represented:

1. Asteraceae
2. Poaceae

Dicots vs. Monocots:



Taxa observed, 1998 and/or 2018:



References & Acknowledgments

Sanders, R. W. 1998. Natural Area Use: All Saints' Episcopal School New Campus, Fort Worth, Texas. Technical Report, the Botanical Research Institute of Texas, Fort Worth, TX.

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