

# Savanna Restoration

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And Tall Grass Prairie



A savanna is a grassland ecosystem with small mottes of trees, small or widely spaced, to leave an open canopy. Here in Bexar County, we have a Live Oak-Ashe Juniper savanna whose perennial grasses include Little Bluestem, Curly Mesquite, and Buffalo Grass. Cacti are also common.

Up to the 1850s and the onset of ranching, the South Texas plains were savanna. Before the introduction of dairy farming in 1910, Phil Hardberger Park had only 15-30% tree canopy, however, now the park is roughly 70% tree canopy. When bison moved freely, grasses could recover, but fenced cattle kept grasses short, reducing root structure. Fire suppression allowed woody plants to proliferate. Soil became less healthy, less able to cope with heat and drought, and more likely to erode. Invasive grasses became dominant. Traveling bison and fire had allowed tall grasses like Indiangrass, Big Bluestem, and Switchgrass to flourish in the past. So, Hardberger Park began a combination of studies and restoration including three cycles of plugs and seeds, and selective mowing and removing woodies. The result is more flora and fauna diversity and the return of some of the historic tall grass prairie grasses.





Grasses have parts like other plants.

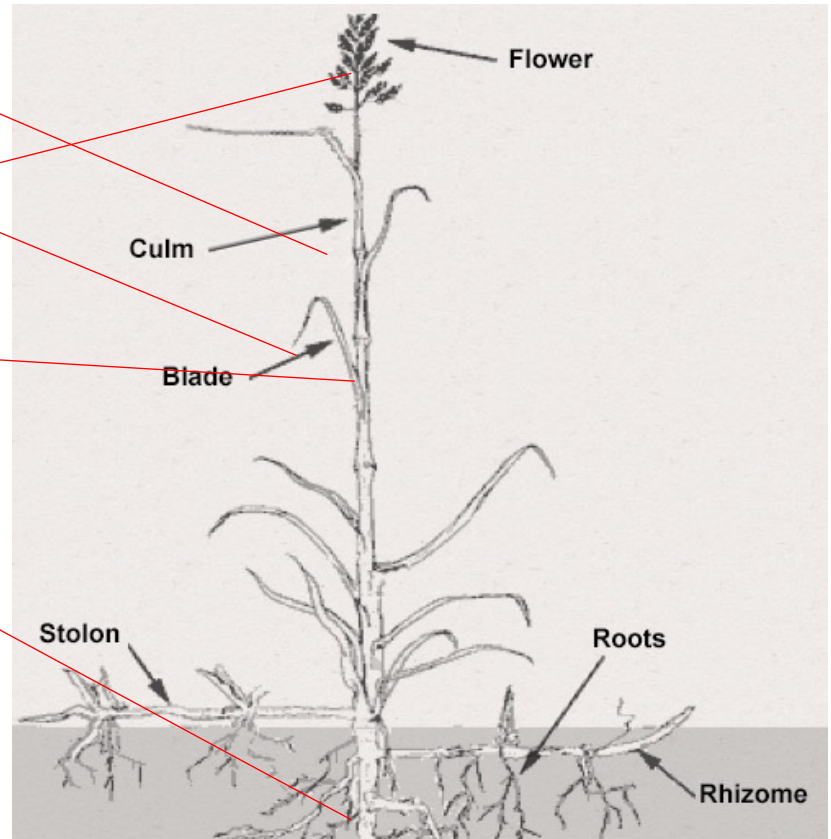
The culm is the stem.

The blade is the leaf.

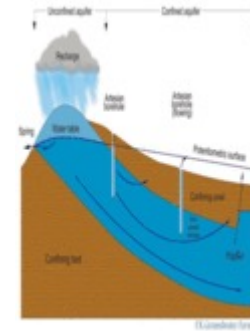
The inflorescence is the flower.

The sheath is where the leaf attaches to the stem.

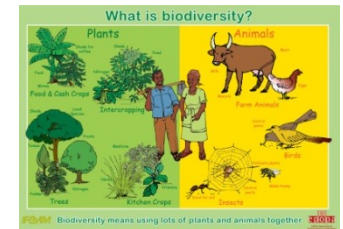
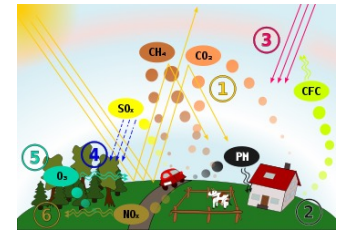
The roots are on, or in, the ground.



# Grasses help us--

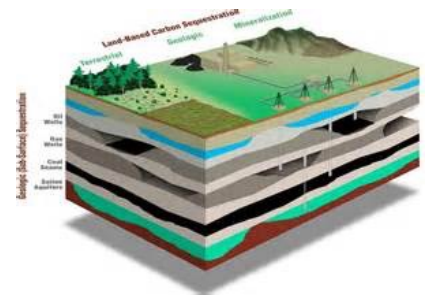
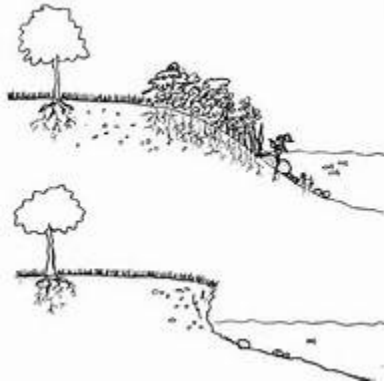


- Hold soil
- Keep water from running off
- Put away carbon
- Keep harmful substances out of water and air
- Increase the variety of living things
- Hold food in the soil
- Reduce plants which would take over
- Feed reptiles, insects, birds and animals
- Reduce dry wood that could catch on fire



# What grass does.....

- Keeps soil in place
- Stores carbon
- Reduces run-off
- Reduces fire damage
- Increases biodiversity
- Nourishes soil
- Captures water



# What maintained the prairies?

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Fire helped keep the grasses new,  
(fingers up for grass)

Along with bison traveling through!  
(fists moving for hooves)





# You can sing a grass song!

You can sing this song to *Down by the Station*.

Out in the savanna (hands out to sides)

Early in the morning

See the little grass blades (fingers pointing up)

Shining in the sun. (point to sky)

See the little grasshopper

Jumping in the grasses—

Up down up down— (fist up and down)

Now we're done! (clap)



You can walk through the savanna. How does the tree cover compare to the tree cover at the edges of the savanna? How many different kinds of grass can you find? You can make a grass snack out of scallions and chives or make a grass collage.





Hardberger  
Park was a  
prairie long  
ago!

