

# Plants for New Landowners

Philip Shackelford  
Texas A&M AgriLife  
Extension Service  
Austin County

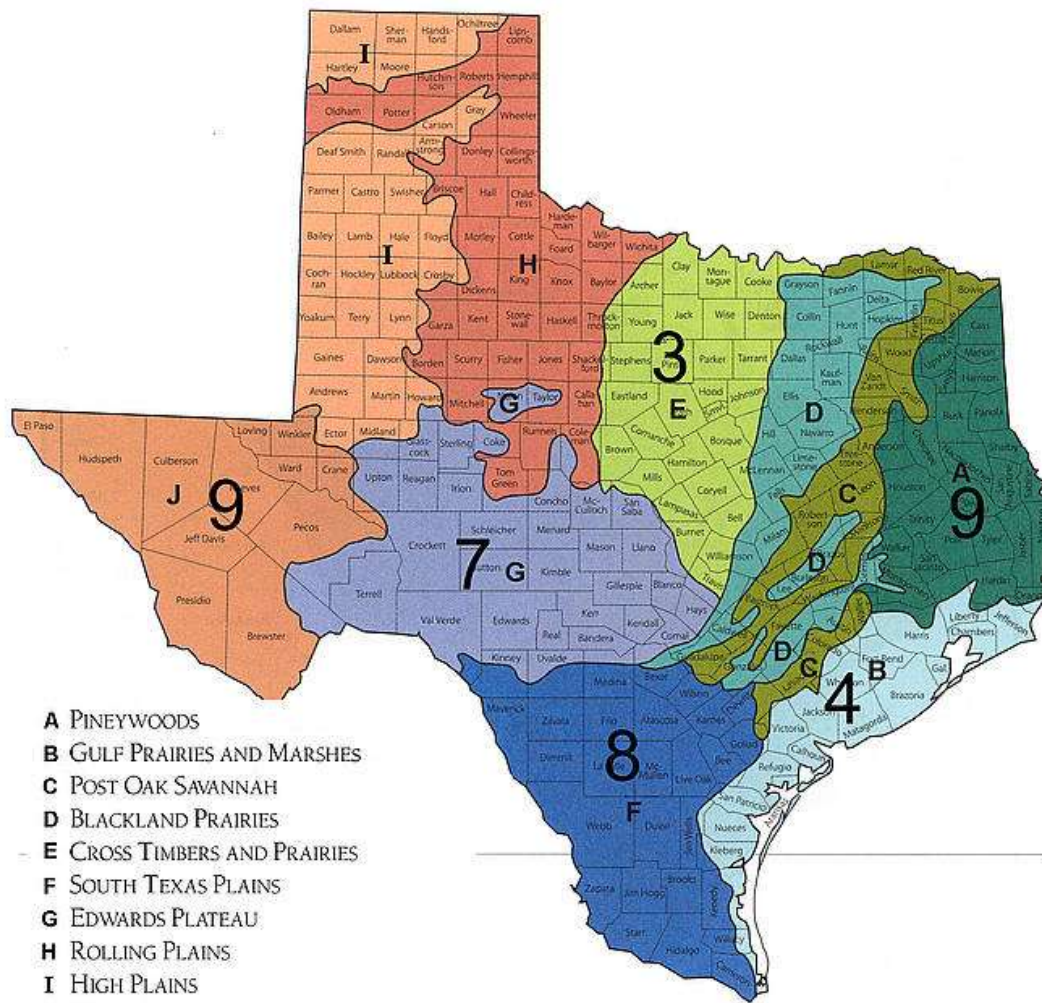
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# Why learn plants

- ⊙ “If you can’t name it, you can’t see it” – Barron Rector
- ⊙ Learning the Language of the Land
- ⊙ Determines your Goals/Management practices for your property
- ⊙ Self Satisfaction

# What do we see?



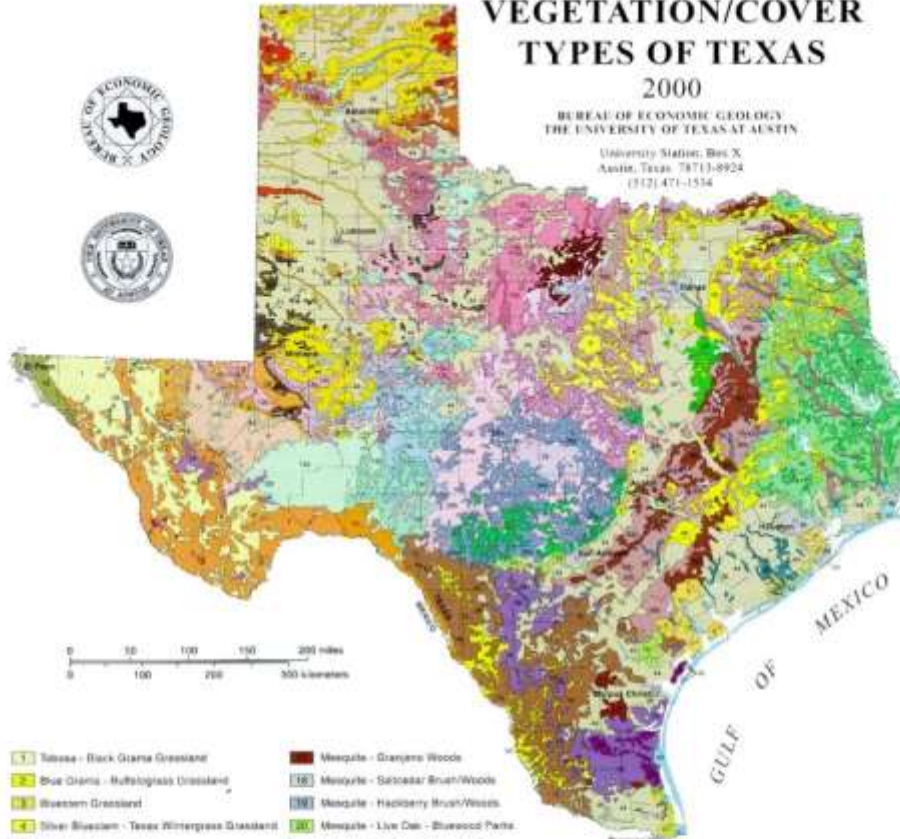


- A PINEYWOODS
- B GULF PRAIRIES AND MARSHES
- C POST OAK SAVANNAH
- D BLACKLAND PRAIRIES
- E CROSS TIMBERS AND PRAIRIES
- F SOUTH TEXAS PLAINS
- G EDWARDS PLATEAU
- H ROLLING PLAINS
- I HIGH PLAINS
- J TRANS-PECOS, MOUNTAINS AND BASINS

# VEGETATION/COVER TYPES OF TEXAS 2000

BUREAU OF ECONOMIC GEOLOGY  
THE UNIVERSITY OF TEXAS AT AUSTIN

University Station, Box X  
Austin, Texas 78713-8924  
(512) 471-1534



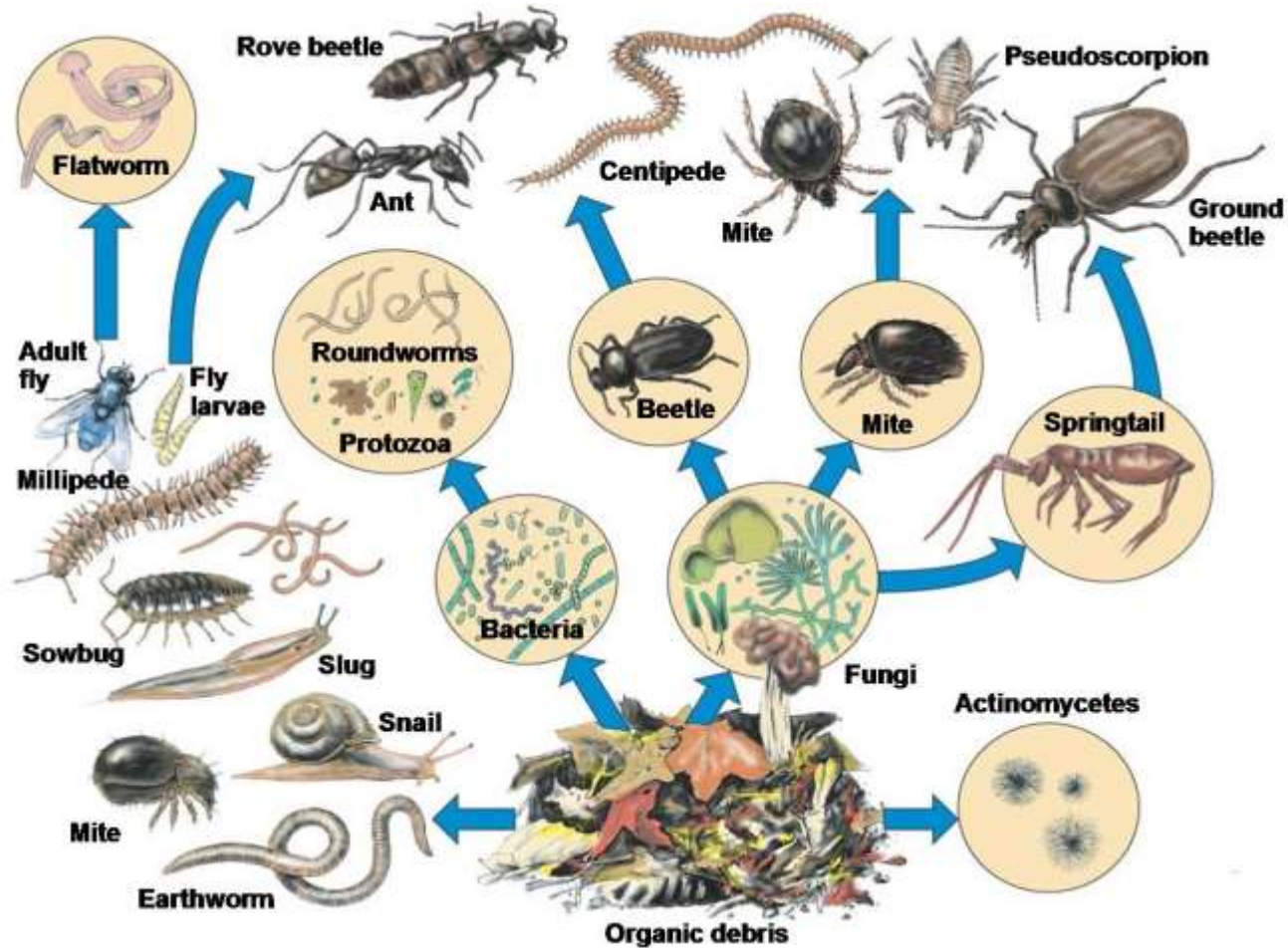
- |  |   |  |
|--|---|--|
| 1.1. Tobacco - Black Grama Grassland             | 116. Mesquite - Salsobara Brush/Woods                       | 34. Juniper - Mixed Brush                          |
| 1.2. Blue Grama - Bulbousgrass Grassland         | 117. Mesquite - Hackberry Brush/Woods                       | 35. Elm - Hackberry Parks/Woods                    |
| 1.3. Western Grassland                           | 118. Mesquite - Live Oak - Bluewood Parks                   | 36. Water Oak - Elm - Hackberry Forest             |
| 1.4. Silver Cholla - Texas Wintergrass Grassland | 119. Mesquite - Live Oak - Mesquite Parks                   | 37. Cottonwood - Hackberry - Salsobara Brush/Woods |
| 1.5. Yucca - Ocotillo Shrub                      | 120. Hardwood Shrub Oak - Mesquite Brush                    | 38. Pecan - Elm Forest                             |
| 1.6. Creosotebush - Tarbush Shrub                | 121. Sanguine - Mesquite Brush                              | 39. Salt Cypress - Water Tupelo-Sweetgum           |
| 1.7. Creosotebush - Lechuguilla Shrub            | 122. Oak - Mesquite - Juniper Parks/Woods                   | 40. Ponderosa Pine - Douglas Fir Park/Forest       |
| 1.8. Creosotebush - Mesquite Shrub               | 123. Live Oak - Mesquite Parks                              | 41. Young Forest/Grassland                         |
| 1.9. Fourwing Saltbush - Creosotebush Shrub      | 124. Live Oak Woods/Parks                                   | 42. Pine - Hardwood Forest                         |
| 1.10. Centrop - Blackbrush - Creosotebush Shrub  | 125. Live Oak - Ashe Juniper Parks                          | 43. Marsh/Barrier Island                           |
| 1.11. Mesquite Shrub/Grassland                   | 126. Live Oak - Mesquite - Ashe Juniper Parks               | 44. Crope  |
| 1.12. Mesquite Brush                             | 127. Live Oak - Ashe Juniper Woods                          | 45. Other Native and/or Introduced Grasses         |
| 1.13. Mesquite - Loblolly Shrub                  | 128. Hardwood Shrub Oak Brush                               | 46. Urban  |
| 1.14. Mesquite - Loblolly Shrub                  | 129. Gray Oak - Pinyon Pine - Alligator Juniper Parks/Woods |  |
| 1.15. Mesquite - Juniper Shrub                   | 130. Post Oak Parks/Woods                                   |  |
| 1.16. Mesquite - Juniper Brush                   | 131. Post Oak Woods, Forest, and Grassland Mosaic           |  |
| 1.17. Mesquite - Juniper - Live Oak Brush        | 132. Post Oak Woods/Forest                                  |  |
| 1.18. Mesquite - Sanguine Shrub                  | 133. Willow Oak - Water Oak - Blackgum Forest               |  |
| 1.19. Mesquite - Blackbrush Shrub                | 134. Sanguine - Hardwood Shrub Oak Brush                    |  |
| 1.20. Mesquite - Granjeno Parks                  | 135. Ashe Juniper Parks/Woods                               |  |

Map units are derived from the 1984 map  
The Vegetation Types of Texas published by  
the Texas Parks and Wildlife Department.



# Who's using the plants in our landscape

- ◎ Insects & Micro organisms



# Livestock



# Wildlife





# Example of Biodiversity



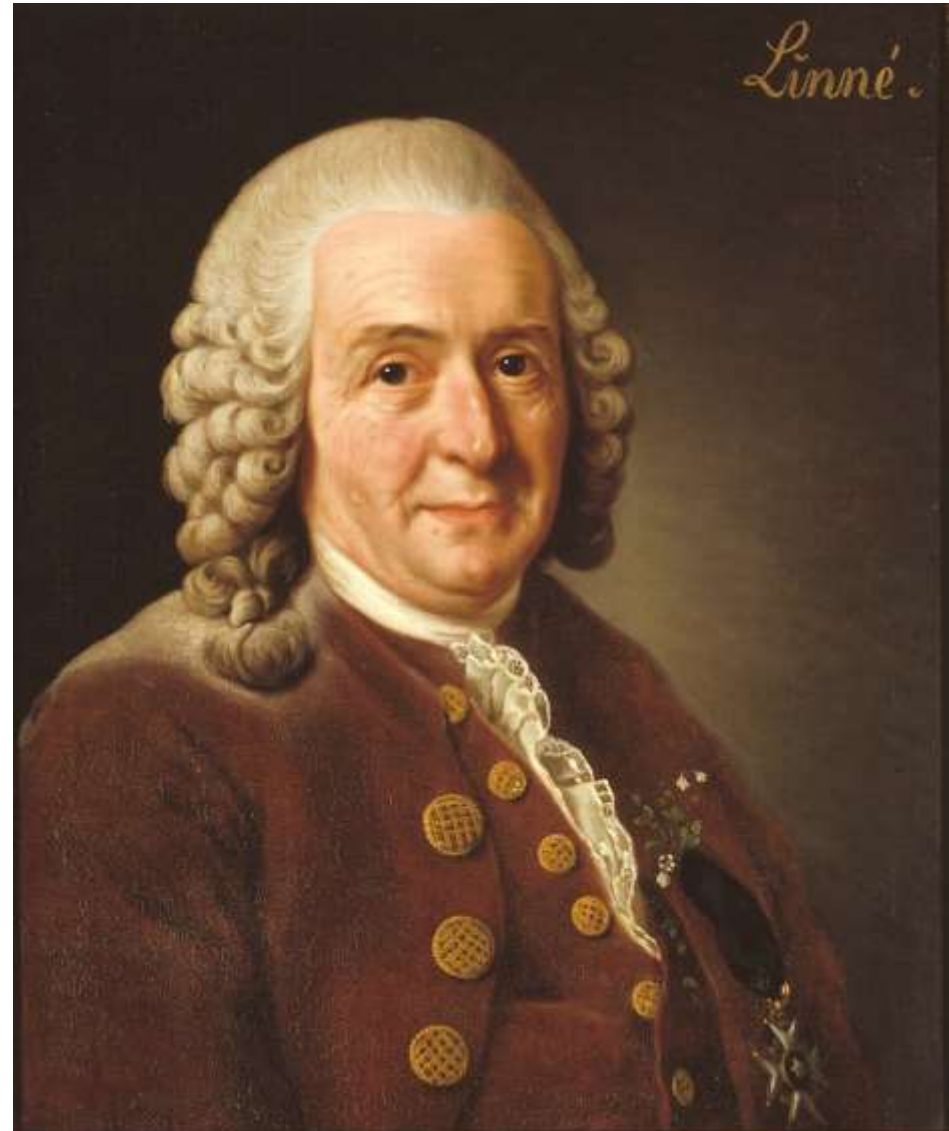
# How the plants got their Names

- Common names given by settlers
- Native Americans
- Based on characteristics of the plant
  - Green
  - Prickly
  - Big, Small, etc...



# Naming Plants

- ◎ Carl Linneaus (1707-1778)
- ◎ Binomial System of nomenclature
- ◎ Based on flower parts
- ◎ Kingdom, Phylum, Division, Class, Order
  - ◎ Family
  - ◎ Genus
  - ◎ Species



# Categorizing Plants

- ⦿ **Plant Categories**

  - Angiosperms

    - Monocots
    - Dicots

- ⦿ **Growth Habits**

  - Herbacious

    - Grasses
    - Grass-Like
    - Forbs

  - Woody

    - Deciduous
    - Evergreen



# Life Cycles

- ⦿ Annuals – 1 year life cycle, reproduce from seed, eg henbit,
- ⦿ Biennials – 2 year life cycle, eg common mullein
- ⦿ Perennials – live for many years, eg Little Bluestem



Henbit



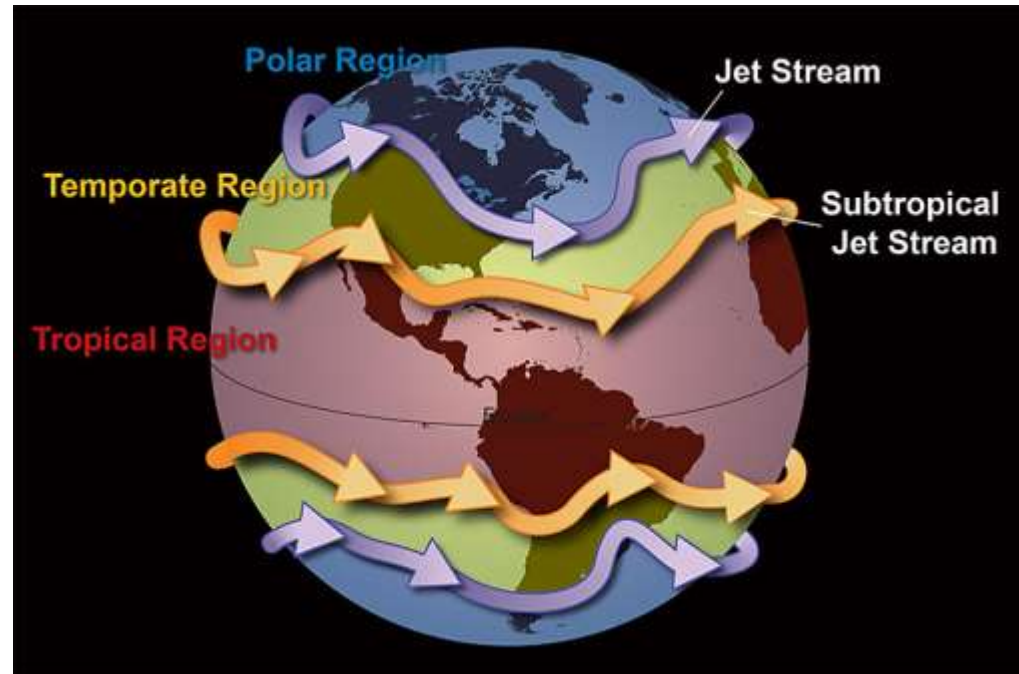
Common Mullein



Little Bluestem

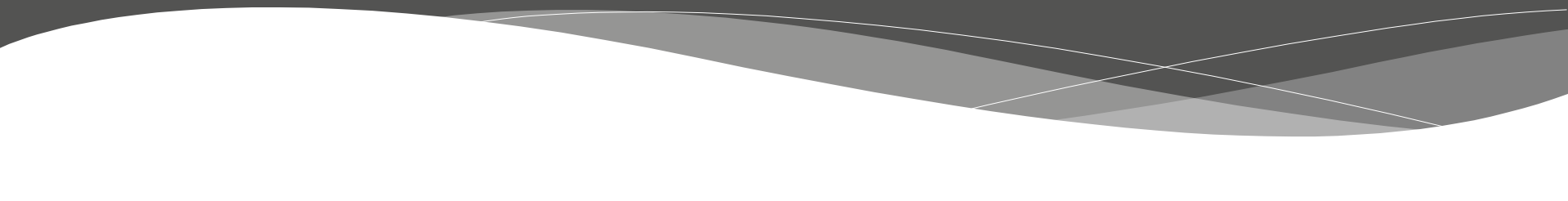
# Temperature Tolerance

- ⦿ Polar
- ⦿ Tropical
- ⦿ Sub-Tropical
- ⦿ Temperate
  - ⦿ Cool Season
  - ⦿ Warm Season



# Plant Identification

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# Plant Succession

## ⊙ Decreaser

- ⊙ Plants that decreased over time due to mans management
- ⊙ Yellow Indiangrass, Eastern Gammagrass, Big Bluestem

## ⊙ Increaser

- ⊙ Plants that at first increase under mans management and slowly decline over time
- ⊙ Silver Bluestem, Sideoats Grama

## ⊙ Invader

- ⊙ Plants that take over once more desirable plants are removed
- ⊙ Common Bermuda, King Ranch Bluestem, Prickly Pear Cactus



# Grasses

- ⊙ Poaceae or Grass Family
- ⊙ Monocots
- ⊙ Parallel venation
- ⊙ Fibrous root system
- ⊙ Divided into Native or Introduced
- ⊙ 545 species in Texas
- ⊙ Most important plant for livestock
- ⊙ Excellent soil holder

# Bermudagrass

*Cynodon dactylon*

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Introduced
- ⦿ Invader
- ⦿ Sod Forming, most well adapted turf/forage grass in North America
- ⦿ Varieties include; Common, Tifton 85, Jiggs, Alicia, Callie, +100's more



# King Ranch Bluestem

## *Bothriochloa ischaemum*

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Introduced
- ⦿ Invader
- ⦿ Widely seeded for erosion control, seeded by the Texas Department of Transportation until 2006



# Side Oats Grama

*Bouteloua curtipendula*

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Native
- ⦿ Increaser
- ⦿ State Grass of Texas



# Yellow Indiangrass

## *Sorghastrum nutans*

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Native
- ⦿ Feathery Seedhead
- ⦿ Decreaser, and provides good grazing for livestock



# Eastern Gammagrass

## *Tripsacum dactyloides*

- ⊙ Perennial
- ⊙ Warm Season
- ⊙ Native
- ⊙ Prefers moist soils, can withstand multiple flooding events
- ⊙ Decreaser, and provides good grazing for livestock, excellent fawning cover for deer



# Little Bluestem

## *Schizachyrium scoparium*

- ⊙ Perennial
- ⊙ Warm Season
- ⊙ Native
- ⊙ Decreaser, fair grazing for livestock
- ⊙ Erosion control, widely adapted and deep rooted
- ⊙ Wildlife, seeds eaten by birds and nesting cover for ground dwelling birds such as quail



# Big Bluestem

## *Andropogon gerardii*

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Native
- ⦿ Distinctive “Turkey’s Foot” seed head
- ⦿ Decreaser, excellent grazing value for livestock 16-18% CP
- ⦿ Excellent value for wildlife, grazed by large animals and seeds consumed by birds





# Bahiagrass

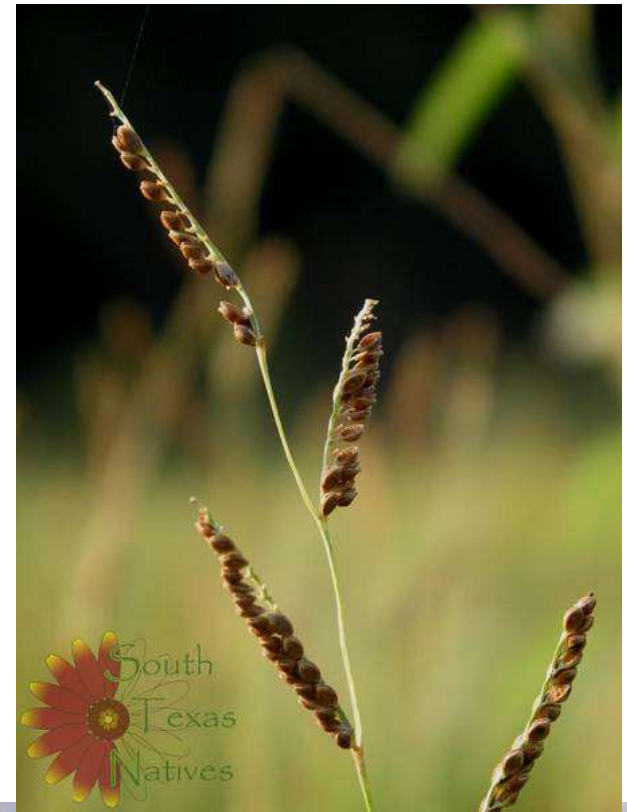
## *Paspalum notatum*

- ⊙ Perennial
- ⊙ Warm Season
- ⊙ Introduced
- ⊙ Invader
- ⊙ Distinctive forked seed head
- ⊙ Sod forming
- ⊙ Fair livestock grazing value, very poor for wildlife
- ⊙ Varieties include; Common, Pensacola, Argentine, Paraguay, Tifton 9, and more



# Brownseed Paspalum

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Native
- ⦿ Increaser, provides fair grazing for wildlife and livestock
- ⦿ Prefers sandy high pH soils
- ⦿ Made a comeback in 2012



# Dallisgrass

## *Paspalum rugulosum*

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Introduced
- ⦿ Increaser, good grazing for livestock
- ⦿ Fair value for wildlife
- ⦿ 4-5 rows of seeds
- ⦿ Can get an Ergot and cause the “Staggers”



# Kleingrass

## *Panicum coloratum*

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Introduced
- ⦿ Increaser, good grazing for livestock
- ⦿ Fair value for wildlife
- ⦿ Can cause photosensitization in sheep and goats



# Silver Bluestem

## *Bothriachloa laguroides*

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Native
- ⦿ Increaser, fair grazing for livestock
- ⦿ Poor value for wildlife
- ⦿ Indicator of an improving range site



# Johnsongrass

## *Sorghum halapense*

- ⊙ Perennial
- ⊙ Warm Season
- ⊙ Introduced
- ⊙ Invader, good grazing for livestock
- ⊙ Fair value for wildlife
- ⊙ Can become toxic during certain stages of growth producing prussic acid



# Switchgrass

## *Panicum virgatum*

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Native
- ⦿ Decreaser, good grazing for livestock
- ⦿ Fair value for wildlife
- ⦿ Large and robust
- ⦿ Can grow on any soil type



# Rescuegrass

## *Bromus catharticus*

- ⊙ Annual
- ⊙ Cool Season
- ⊙ Introduced
- ⊙ Good grazing for livestock
- ⊙ Good value for wildlife
- ⊙ Distinctive seed head – sergeants stripes





# Annual Ryegrass

## *Lolium perenne*

- ⊙ Annual
- ⊙ Cool Season
- ⊙ Introduced
- ⊙ Good grazing value for livestock
- ⊙ Fair value for wildlife
- ⊙ Over seeded in grazing pastures for supplemental forage during the winter



# Texas Wintergrass

## *Nassella leucotricha*

- ⦿ Perennial
- ⦿ Cool Season
- ⦿ Native
- ⦿ Increaser, fair grazing for livestock
- ⦿ Fair value for wildlife
- ⦿ AKA – “Spear Grass”



# Canada Wildrye

## *Elymus canadensis*

- ⦿ Perennial
- ⦿ Cool Season
- ⦿ Native
- ⦿ Decreaser, good grazing value for livestock
- ⦿ Fair value for wildlife
- ⦿ Typically seen along river banks and streams and often in forest understory



# Inland Seaoats

## *Chasmanthium latifolium*

- ⦿ Perennial
- ⦿ Cool Season
- ⦿ Native
- ⦿ Decreaser, fair grazing for livestock
- ⦿ Fair value for wildlife
- ⦿ Commonly found in forest understories in damp soils



# Field Sandbur (Grassbur)

## *Cenchrus pauciflorus*

- ⦿ Annual
- ⦿ Warm Season
- ⦿ Native
- ⦿ Invader
- ⦿ Fair grazing for livestock
- ⦿ Poor value for wildlife
- ⦿ Occurs typically on sandy soils low in nutrition



# Grass-like

- ⦿ Often found around water
- ⦿ No nodes on the stems
- ⦿ Parallel veins
- ⦿ Leaves at the base of the plant
- ⦿ Sedges have triangular stems
- ⦿ Rushes have round stems

# Sedges

*Cyperus spp.*

- ⊙ Tuber-forming
  - ⊙ Yellow nutsedge
  - ⊙ Purple Nutsedge
- ⊙ Non-tuberous
  - ⊙ Globe sedge
  - ⊙ Texas sedge
  - ⊙ Annual sedge



# Nutsedge





# Deeprooted Sedge

*Cyperus entrerianus*



# Bull Rush

*Scirpus spp*



# Serrated tussock

*Nassella trichotoma*



# Cattail

*Tipha latifolia*



# Giant Reed

*Arundo donax*



# Japanese dodder

*Cuscuta japonica*



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# Forbs

- ⦿ Dicots
- ⦿ 5000+ species in Texas
- ⦿ Broadleaf
- ⦿ Either net veined or parallel veins
- ⦿ Referred to as a Weed
- ⦿ Utilized by Wildlife

# Western Ragweed

## *Ambrosia psilostachya*

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Native
- ⦿ Poor grazing for livestock
- ⦿ Good value for wildlife
- ⦿ Can become very invasive





# Woolly Croton

## *Croton capitatus*

- ⦿ Annual
- ⦿ Warm Season
- ⦿ Native
- ⦿ Poor grazing for livestock
- ⦿ Good value for wildlife



# One-seed Croton (Prairie Tea)

## *Croton monanthogynus*

- ⦿ Annual
- ⦿ Warm Season
- ⦿ Native
- ⦿ Poor grazing for livestock
- ⦿ Good value for wildlife
- ⦿ Often referred to as “Goat Weed”



# Common Broomweed

## *Xanthocephalum Sarothrae*

- ⦿ Annual
- ⦿ Warm Season
- ⦿ Native
- ⦿ Poor value for livestock and wildlife



# Bitter Sneezeweed

## *Helenium amarum*

- ⦿ Annual
- ⦿ Warm Season
- ⦿ Native
- ⦿ Loves hot dry weather
- ⦿ Poor value for both livestock and wildlife
- ⦿ Name derived from bitter milk
- ⦿ Poisonous



# Henbit

## *Lamium amplexicaule*

- ⊙ Annual
- ⊙ Cool Season
- ⊙ Native
- ⊙ Whorled leaf arrangement
- ⊙ Square stem
- ⊙ Common in compacted turf grass areas



# Cocklebur

## *Xanthium pennsylvanicum*

- ⦿ Annual
- ⦿ Warm Season
- ⦿ Native
- ⦿ Poor grazing for livestock
- ⦿ Fair value for wildlife
- ⦿ Velcro



# Snow-on-the-Mountain

## *Euphorbia marginata*

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Native
- ⦿ Poor grazing for livestock
- ⦿ Fair value for wildlife
- ⦿ Variegated leaves



# Horsemint

## *Monarda punctata*

- ⊙ Perennial
- ⊙ Warm Season
- ⊙ Native
- ⊙ Poor grazing for livestock
- ⊙ Fair value for wildlife
- ⊙ Utilized by Native Americans for perfume, head aches and acne wash
- ⊙ Square stem, whorled leaf arrangement





# Prickly Poppy

## *Argemone albiflora*

- ⦿ Annual
- ⦿ Warm Season
- ⦿ Native
- ⦿ Poor grazing for livestock
- ⦿ Good value for wildlife
- ⦿ Seeds used as a lubricant



# Texas Thistle

## *Cirsium texanum*

- ⦿ Annual
- ⦿ Warm Season
- ⦿ Native
- ⦿ Poor grazing for livestock
- ⦿ Fair value for wildlife
- ⦿ Overtakes disturbed areas



# Curly Dock

## *Rumex crispus*

- ⊙ Perennial
- ⊙ Warm Season
- ⊙ Introduced
- ⊙ Poor grazing for livestock
- ⊙ Good value for wildlife
- ⊙ Leaves and Seeds can be consumed by humans
- ⊙ Found along road ditches and waterways



# Antelope Horn Milkweed

## *Asclepias asperula*

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Native
- ⦿ Poor grazing for livestock
- ⦿ Excellent value for wildlife, Monarch Butterflies



# False Indigo

## *Amorpha fruticosa*

- ⊙ Perennial
- ⊙ Warm Season
- ⊙ Native
- ⊙ No value for Livestock or Wildlife
- ⊙ Contains amorphina, a contact and stomachic insecticide that also acts as an insect repellent (Huxley 1992).
- ⊙ Contains indigo pigment that can be used to make a dye
- ⊙ Referred to as “Tumble bush”



# Sensitive Briar

## *Mimosa quadrivalvis*

- ⊙ Perennial
- ⊙ Warm Season
- ⊙ Native
- ⊙ Good grazing for livestock
- ⊙ Good value for wildlife
- ⊙ Member of the mimosa family
- ⊙ Leaves clasp together when touched



# Dogfennel

## *Eupatorium capillifolium*

- ⊙ Perennial
- ⊙ Warm Season
- ⊙ Native
- ⊙ Poor grazing for livestock
- ⊙ Good value for wildlife
- ⊙ Creates a colony
- ⊙ Often referred to as “Yankee Weed”



# Goldenrod

## *Solidago*

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Native
- ⦿ Poor grazing for livestock
- ⦿ Excellent value for Wildlife
- ⦿ 24 different species in Texas





# Texas Bullnettle

## *Cnidoscolus texanus*

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Native
- ⦿ Poor grazing for livestock
- ⦿ Excellent value for wildlife
- ⦿ Seeds can be consumed by several species
- ⦿ Spines on leaves



# Silverleaf Nightshade

## *Solanum elaeagnifolium*

- ⊙ Perennial
- ⊙ Warm Season
- ⊙ Native
- ⊙ Poor grazing of for livestock
- ⊙ Poor value for wildlife
- ⊙ Poisonous
- ⊙ Member of the Tomato/potato family



# Burmedic/clover

## *Medicago polymorpha*

- ⊙ Annual
- ⊙ Cool Season
- ⊙ Introduced
- ⊙ Good grazing for livestock
- ⊙ Excellent value for wildlife
- ⊙ Can cause bloat in livestock
- ⊙ Grows prostrate
- ⊙ Well adapted



# Woody Plants, Shrubs and Trees

- ⦿ Perennials
- ⦿ Can be deciduous or evergreen
- ⦿ Referred to as browse plants for wildlife
- ⦿ Defined trunk

# Pecan

## *Carya illinoensis*

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Native
- ⦿ Deciduous
- ⦿ State Tree of Texas
- ⦿ 1000's of different varieties
- ⦿ Not native to Georgia or New Mexico



# Hickory

## *Carya texana*

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Native
- ⦿ 10 different varieties occur in North America



# Eastern Red Cedar *Juniperus virginiana*

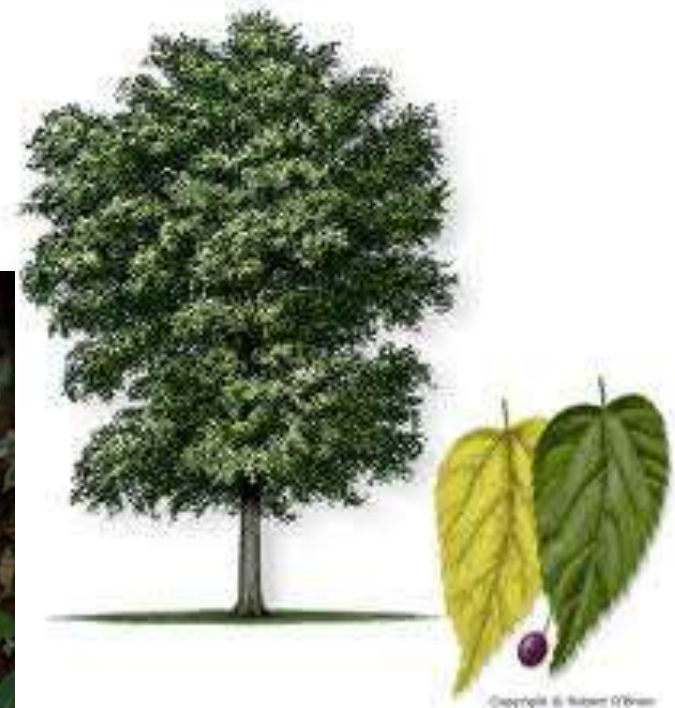
- ⊙ Perennial
- ⊙ Warm Season
- ⊙ Native
- ⊙ Evergreen
- ⊙ Songbird habitat
- ⊙ Heavy water user
- ⊙ Christmas tree shape



# Hackberry

## *Celtis occidentalis*

- ⊙ Perennial
- ⊙ Warm Season
- ⊙ Native
- ⊙ Fast Grower
- ⊙ AKA “Sugarberry”
- ⊙ Lots of dead wood and mistletoe





# Live Oak

## *Quercus virginiana*,

- ⊙ Perennial
- ⊙ Warm
- ⊙ Native
- ⊙ Evergreen
- ⊙ Lives for many years
- ⊙ Good mast (acorn) producer for wildlife
- ⊙ Very hardy



# Post Oak

## *Quercus stellata*

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Native
- ⦿ Deciduous
- ⦿ Good mast (acorn) producer for wildlife
- ⦿ Suffers from Hypoxylon Canker



# Honey Mesquite

## *Prosopis glandulosa*

- ⦿ Perennial
- ⦿ Warm season
- ⦿ Native
- ⦿ Beans consumed by both livestock and wildlife
- ⦿ Can become very invasive
- ⦿ Thorny
- ⦿ Bud zone below soil surface



# Huisache

## *Acacia farnesiana*

- ⦿ Perennial
- ⦿ Warm season
- ⦿ Native
- ⦿ Can become very invasive
- ⦿ Prefers moist climates
- ⦿ Bright showy puff ball flowers in the spring



# Yaupon Holley *Ilex vomitoria*

- ⦿ Perennial
- ⦿ Warm season
- ⦿ Native
- ⦿ Evergreen
- ⦿ Ingestion of berries causes nausea and vomiting.
- ⦿ The only plant native to North America that contains caffeine



# Chinese Tallow

## *Triadica sebifera*

- ⊙ Perennial
- ⊙ Warm Season
- ⊙ Introduced
- ⊙ Very invasive
- ⊙ Bright fall color
- ⊙ Seeds consumed by wildlife



# American Elm

## *Ulmus americana*

- ⊙ Perennial
- ⊙ Warm
- ⊙ Native
- ⊙ Deciduous
- ⊙ One of the first to drop leaves in the fall



# Cedar Elm

## *Ulmus crassifolia*

- ⊙ Perennial
- ⊙ Warm
- ⊙ Native
- ⊙ Deciduous
- ⊙ Prefers lowland soils along flood plains, creeks and river bottoms





# Bois D'Arc/Osage Orange/Horse Apple *Maclura pomifera*

- ⦿ Perennial
- ⦿ Warm
- ⦿ Native
- ⦿ Deciduous
- ⦿ Very dense wood
- ⦿ French for “bow wood”
- ⦿ Orange color to the wood



# Macartney Rose

## *Rosa bracteata*

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Introduced
- ⦿ Invasive
- ⦿ Native to Asia, brought to Texas as living fence
- ⦿ Seeds consumed by livestock and wildlife
- ⦿ Excellent escape cover



# Dewberry

## *Rubus*

- ⊙ Perennial
- ⊙ Warm Season
- ⊙ Native
- ⊙ Poor grazing value for livestock
- ⊙ Excellent value for wildlife
- ⊙ Known for its tasty fruit in the spring



# Mustang Grape

## *Vitis mustangensis*

- ⊙ Perennial
- ⊙ Warm Season
- ⊙ Native
- ⊙ Deciduous
- ⊙ Commonly found along fence lines and along creeks and streams
- ⊙ Excellent for wildlife
- ⊙ Very stringent grapes, but excellent for wine and jelly



# Green Briar

## *Smilax rotundifolia*

- ⦿ Perennial
- ⦿ Warm Season
- ⦿ Native
- ⦿ Monocot
- ⦿ Heart shaped leaves
- ⦿ Thorny stems
- ⦿ Climbs up trees, fencelines
- ⦿ Excellence cover for wildlife
- ⦿ Berries and leaves consumed by



# Resources for Plant Identification

- ⦿ <http://texnat.tamu.edu>
- ⦿ <http://noble.org/apps/plantimagegallery/index.aspx>
- ⦿ <http://essmextension.tamu.edu/plants/>
- ⦿ <http://foragesoftexas.tamu.edu>
- ⦿ <http://plants.usda.gov>
- ⦿ [www.foragingtexas.com](http://www.foragingtexas.com)
- ⦿ BRIT Guide Texas Range Plants download app for \$1.99
- ⦿ Know Your Grasses B-182
- ⦿ Toxic Plants of Texas B-6105
- ⦿ Brush and Weeds of Texas Rangelands B-6208

The End

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