

US Fish and Wildlife Service and the Partners for Fish and Wildlife ...



Texas Master Naturalists
El Camino Real Chapter
Milam County, TX
6 December 2013

Chris Harper and Doug Phillips



Introduction



☞ Different Modules

☞ 1) History of the USFWS

☞ 2) Texas Naturalists

☞ 3) Partners for Fish and Wildlife



Conservation Laws: How We Got Here

History of the U. S. Fish and Wildlife Service

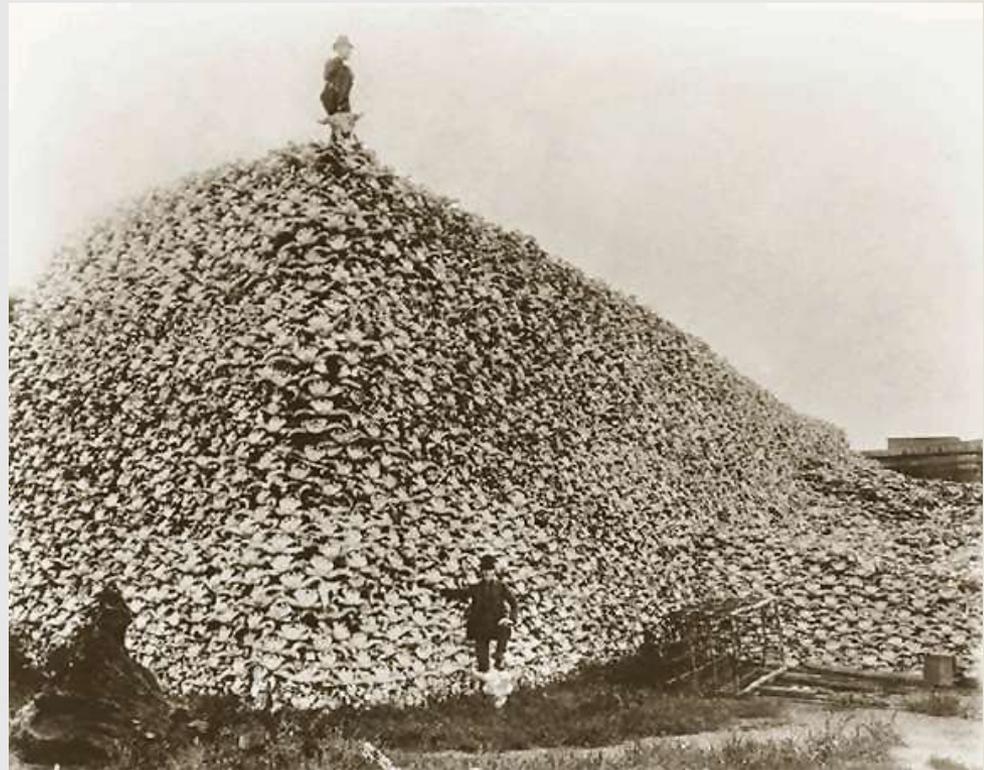
Background

❧ Late 1800's-Early 1900's

❧ American Bison

❧ Plume Hunting

❧ Passenger Pigeon





History of the U.S Fish and Wildlife Service

☞ Chronology

☞ 1871: U.S. Commission on Fish and Fisheries

☞ Decline in food fishes and to promote fish culture

☞ 1885: Division of Economic Ornithology and Mammalogy

☞ Study positive effects of birds controlling pests and defining distributions of plants and animals

☞ Later renamed Bureau of Biological Survey

☞ **North American Fauna #25

USFWS



❧ Chronology Cont'

❧ 1900: Lacey Act

- ❧ First Federal law protecting game, prohibiting the interstate shipment/importation of wildlife
- ❧ 2009: Gibson Guitar Corp: (Rosewood and Ebony)
- ❧ 2012: Importation/interstate transport of four species of constrictors

❧ 1903: First Federal Bird Reservation (Pelican Island)

- ❧ Protection from Plume Hunters
- ❧ Originally 5.5 acres
- ❧ Today 5,413 acres

USFWS



❧ Chronology Cont'

❧ 1918: Migratory Bird Treaty Act (MBTA)

- ❧ Law implementing the Convention Between the United States and Great Britain (for Canada), Mexico, Russia and Japan for the Protection of Migratory Birds.
- ❧ The Act, a landmark in wildlife conservation legislation, provides for the regulation of migratory bird hunting
- ❧ > 800 species are protected (commercial trade in birds and bird feathers)
- ❧ Dead or Alive Birds? Bird Parts?

❧ 1934: Migratory Bird Hunting Stamp Act (Duck Stamp)

- ❧ Since its inception, the program has resulted in the protection of approximately 4.5 million acres of waterfowl habitat.

USFWS



❧ Chronology Cont'

- ❧ 1940: The Bureaus of Fisheries and Biological Survey are moved to the Department of the Interior and combined to create the Fish and Wildlife Service.

- ❧ 1973: The Endangered Species Act
 - ❧ Passed by Congress to protect endangered plants and animals. Building upon legislation passed in 1966 and 1969, the new law expands and strengthens efforts to protect species domestically and internationally.

 - ❧ Provides for the conservation of ecosystems upon which threatened and endangered species of fish, wildlife and plants depend

U.S. Fish & Wildlife Service



❧ The Mission:

working with others to conserve, protect and enhance **fish, wildlife, and plants and their habitats** for the continuing benefit of the American people



- ❧ Refuges (>540; 150M-ac)
- ❧ Fisheries (70 NFH, 7 FTC, 9 FHC)
- ❧ Migratory Bird Program
- ❧ Law Enforcement – Special Agents, Inspectors
- ❧ Wildlife & Sport Fish Restoration Program (WSFR)
- ❧ Ecological Services
- ❧ Contaminants
- ❧ Partners for Fish and Wildlife

Naturalists of Texas



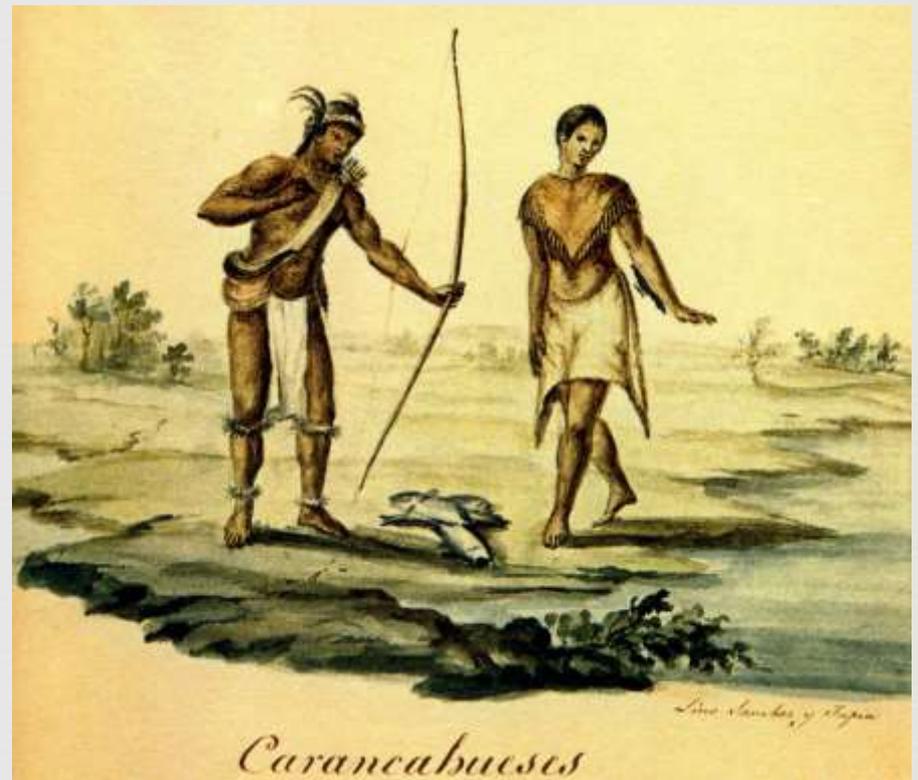
These beautiful little animals appear to be quite common in the sandy black oak region south of the Medina River in Bexar County. Their burrows seem to be most numerous in the poorest, sandy soil." H.P. Attwater. 1896



Jean-Louis Berlandier



- ❧ 1805-1851
- ❧ French Naturalist
 - ❧ Trained as Botanist in Geneva
- ❧ Mexican Scientific Expedition (Collecting Trips)
- ❧ Spats with other Naturalists (Asa Gray)



Jean-Louis Berlandier



- ❧ Contributed to early knowledge of Plants, animals and Texas Indian Tribes
- ❧ Collections still in herbariums worldwide
 - ❧ Harvard and Geneva
- ❧ Due to his knowledge of South Texas/Mexico worked to distinguish international boundary

Today



Rio Grand Leopard Frog
(*Lithobates berlandieri*)



Texas Tortoise (*Gopherus berlandieri*)

Ferdinand Lindheimer



1801-1879

German Immigrant

(Arrived at San Jacinto
day after)

Settled in New
Braunfels (1844-1879)



Ferdinand Lindheimer



- ❧ Father of Texas Botany
 - ❧ First Permanent Resident to be considered a Naturalist
- ❧ Collected many plants for Harvard (Asa Gray)
- ❧ Collected over 1500 Species in Texas (Some new to Science)- 30 years
- ❧ 20 Species and 1 Genus bear his name
- ❧ Books- A Life Among the Texas Flora

C. Hart Merriam



- ☞ 1855-1942
- ☞ Yale University
- ☞ first chief of the Division of Economic Ornithology and Mammalogy
- ☞ Bureau of Biological Survey (USFWS)



Vernon Bailey



❧ 1864-1942

❧ Known for Biological
Surveys of Texas

❧ (North American
Fauna #25; USWS)

❧ Collected 13,000
specimens throughout
SW



Vernon Bailey



- ❧ Appointed by C. Hart Merriam as a Field Agent in 1887
- ❧ By 1890, he was known as the Chief Field Naturalist for the US Biological Survey.
 - ❧ Held title until his retirement in 1933
- ❧ Many Publications and early descriptions of field conditions in S. Texas before conversion to Ag.



A Big Gray Wolf in the Snow
Caught and Held in Two No. 2, Steel Traps
Feet Frozen but no less Painful



Yes, He killed Cattle, to Eat, But,
Did He Deserve This?
A Big Wolf in a No. 4 Steel Trap

☞ Colle

☞ Hum

☞ De
ca

☞ Le

☞ Marr

s to

Vernon Bailey



- ❧ Vernon Bailey Papers (Smithsonian)
- ❧ Many Plant and Animal Names
- ❧ Mexican Wolf (*Canis lupus baileyi*)
- ❧ *North American Fauna* N. 25; 1905
 - ❧ *First comprehensive treatment of mammals for the state*

Joseph Grinnell



∞ 1877-1939

∞ Conservationist

∞ Professor (Berkeley)

∞ Editor: Condor and
Auk



J. Grinnell



☞ University of California

☞ Head of Vertebrate Collection 1907

☞ 1909 Donated Mammal Specimens

☞ 1920 Donated Bird Specimens (8,000)

☞ Specimens are still on display today (tagging and preserving system)

☞ Grinnell Method of Note taking

Grinnell Method



- ❧ Most often used by Field Biologists

- ❧ The method has four components:
 - ❧ A field notebook to directly record observations as they are happening.
 - ❧ A field journal of fully written entries on observations and information, transcribed from the notes.
 - ❧ A species account of the detailed observations on chosen species.
 - ❧ A catalog is the record of where and when specimens were collected.

Grinnell Method



- ❧ Journal (written afterwards)
- ❧ Notebook- Record observations (weather, veg types, vocalizations, PICTURES)
- ❧ Researchers still use his notes today (California fauna)

Mount San Jacinto



❧ Grinnell Transect 1908

❧ 2013 Resurvey Grinnell Points/ Transects

❧ 60 Surveys across 20 points

❧ Forest Much thicker after 100 years.

❧ Loss of 3 species

❧ Increase in Brush species (Birds)

❧ Why????

Fire on Mount San Jacinto

- ⌘ Very little to no leaf litter/ very little ground cover
- ⌘ The research team was forced to evacuate due to the Mountain Fire (July 2013)
 - ⌘ Burned for 16 Days
 - ⌘ 27,531 acres
 - ⌘ 3500 Firefighters
 - ⌘ "We got a fantastic house cleaning. Someone finally vacuumed the rugs." Rich Minnich, fire scientist

What's the Point



- Field Notes can be beneficial years down the road
 - How has things changed
 - Species Lost/ Species Gained
 - Understanding of population distributions

Others



- ❧ John J Audubon (Galveston; 1837)

- ❧ H.P Attwater (Bexar and surrounding Counties; 1896)

- ❧ Many papers are on the Public Domain
 - ❧ National Archives
 - ❧ Smithsonian Institute
 - ❧ Early Journals



*U.S. Fish & Wildlife Service:
Voluntary Wildlife Habitat
Restoration on Private Lands.*



Chris Harper
Private Lands Biologist
Austin, Texas

chris_harper@fws.gov

(o) 512-490-0057 x245
(c) 512-363-6862

Doug Phillips
Private Lands Biologist
Austin, Texas

douglas_phillips@fws.gov

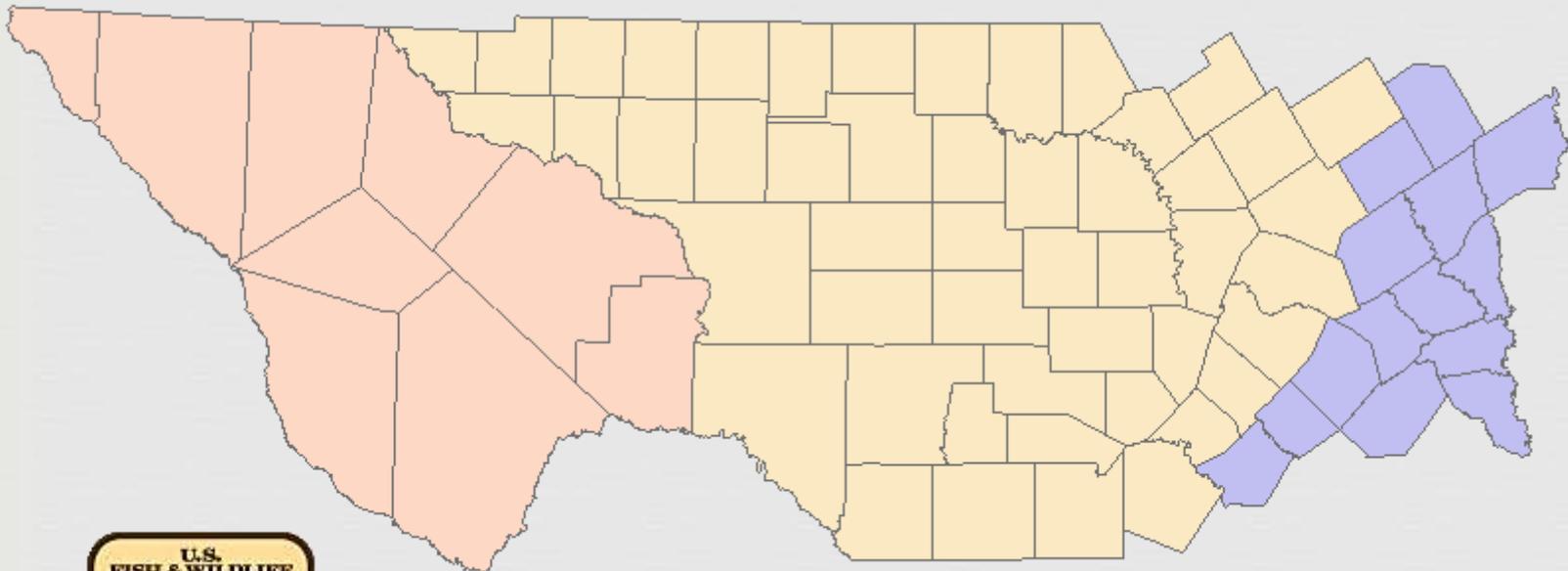
(o) 512-490-0057 x244
(c) 512-200-6104

Partners For Fish and Wildlife





*U.S. Fish & Wildlife Service:
Voluntary Wildlife Habitat
Restoration on Private Lands.*



fws.gov/partners

tpwd.state.tx.us/landwater/land/private/lip/

Mission Statements



U.S. Fish and Wildlife Service

- Working with others to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people
- “public trust” resources



Partners for Fish and Wildlife



- To efficiently achieve **voluntary habitat restoration on private lands**, through financial and technical assistance, for the **benefit of Federal Trust Species**



Federal Trust Species and Trust Resources

Migratory Birds

- ❧ Songbirds
- ❧ Waterfowl
- ❧ Wading birds
- ❧ Shorebirds
- ❧ Raptors

Interjurisdictional Fish

Wetlands

Threatened & Endangered Species

- ❧ Threatened
- ❧ Endangered
- ❧ Candidate

Marine Mammals

Other Species of Concern

FWS-owned lands

Why Partners and Why Private Lands?



- ❧ It is estimated that 73% of our Nation's land is privately owned and that the majority of our fish and wildlife resources occur on those lands.
- ❧ Because **the habitat needs of all Trust Species cannot be met solely on public lands**, public funds are also expended on private lands to accomplish habitat improvements through cooperative conservation programs such as the Partners Program.

PFW Program History



- ❧ 1970's – Severe drought, in combination with conversion of wildlife habitats to agriculture, resulted in a **crash in waterfowl populations** in the Midwest prairie pothole region and bottomland hardwood forests of Mississippi Delta.
- ❧ 1980's – farm and environmental lobbies cooperate and the Farm Bill (Food Security Act of 1985) is passed with “**Swampbuster**” and other conservation provisions (CRP, etc.) The Fish and Wildlife Coordination Act allowed public funding for private lands work to restore these wetlands.
- ❧ Efforts by Refuge biologists evolved into an independent program, culminating with the **Partners for Fish and Wildlife Act** of 2006.





Waterfowl Conservation



- ❧ Federal Migratory Bird Hunting and Conservation “Duck” Stamps, 1934-
- ❧ \$0.98 of \$1.00 used to purchase/lease wetland habitats for the NWRs (> 6M-acres)
- ❧ Serves as an entrance pass for NWRs with admission fees
- ❧ 1/3 or T&E species utilize NWRs established with Federal Duck Stamp funds
- ❧ Wetlands provide important feeding, breeding, migration habitat for ~50% of migratory bird species and over 30% of plants and animals listed under the ESA





The "Swampbuster" discourages the conversion of wetlands to cropland. This wetland, which was converted to cropland at one time, has been restored. (Photograph courtesy of the U.S. Fish and Wildlife Service.)

Habitat Restoration



Habitat Restoration & Enhancement

A firefighter in full gear is seen from behind, walking through a dry, hilly landscape. The ground is covered in brown, dry grass and low-lying shrubs. In the background, a large fire is burning, with thick white smoke rising into the air. The sky is clear and blue. The overall scene depicts a controlled fire used for habitat restoration.

- Prescribed fire
- Brush thinning
- Grazing management
- Tree planting
- Native seed planting
- Invasive species control
- In-stream restoration
- “Fish passage”
- Wetlands

2011/01/27 12:50

Focus Areas



U.S. Fish & Wildlife Service
Partners for Fish & Wildlife

Austin Texas Ecological Services
Partners for Fish & Wildlife Program
Work Area & Priority Species Focus Areas



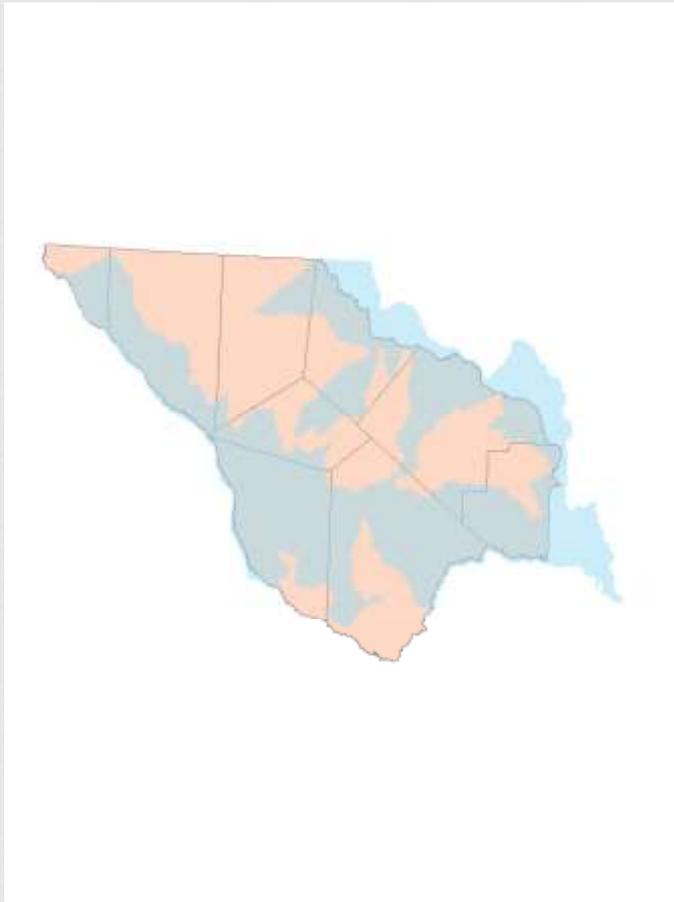
Chihuahuan Desert Focus Areas
West Texas Counties

Edwards Plateau Focus Area
West Central Texas Counties

Houston toad Focus Areas
East Central Texas Counties

Trans-Pecos

Chihuahuan Desert



- ❧ Aquatic species
 - ❧ Rio Grande Silvery Minnow
 - ❧ Devil's River Minnow
- ❧ Wintering grassland birds
 - ❧ Aplomado falcon (E)



Photo © Brian K. Wheeler



Photo © Brian K. Wheeler

Baird's sparrow



Chestnut-collared longspur



Loggerhead Shrike



Lark Bunting



Grassland Restoration







07/12/2012 18:00



07/18/2012



07/13/2012 11:13



2361

TY-BAR

FIRE

2010/01/27 17:37

Desert fishes

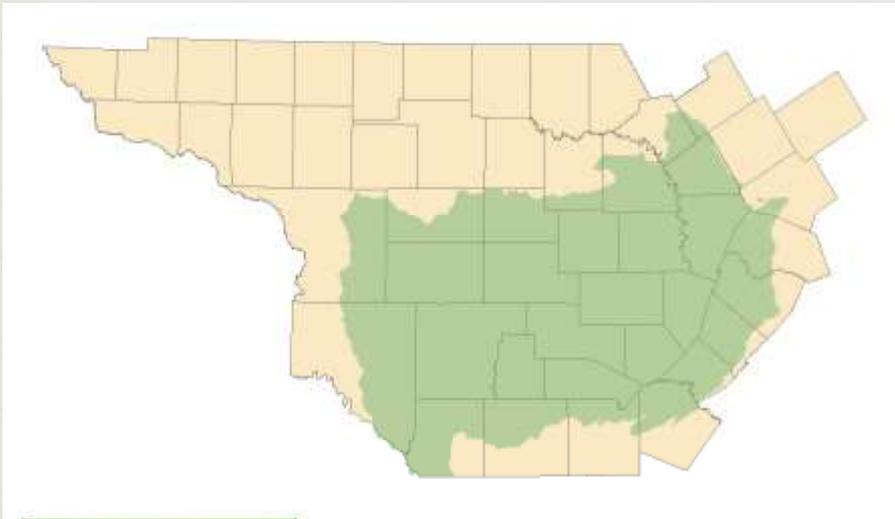




Hill Country



The Hill Country



⌘ Edwards Plateau T&E

⌘ GCWA, BCVI

⌘ Aquatic Resources

⌘ Karst Environments

⌘ Rare Plants

⌘ *Watershed Enhancement*

– water quality, water quantity



Two Endangered Songbirds



Golden-cheeked warbler, GCWA

http://www.manybirds.com/TexasRare_1/htms/ManyBirds_20050421PM014025.htm



Black-capped vireo, BCVI

http://www.manybirds.com/TexasRare_1/htms/ManyBirds_20050529PM011922.htm





golden-cheeked warbler

Strips shedding-bark of mature Ashe juniper (cedar) to build its nest in juniper, oaks, ash, cedar elm, and other hardwood trees. The nest made of fine bark strips woven together with spider webs and lined with feathers, fine grass, or hair.

Texas blind salamander



- live in total darkness
- only found in Edwards Aquifer
- First discovered in a flowing artesian well in San Marcos National Fishery (TXST)
- listed as endangered in 1967
- active predator – snails, shrimp, invertebrates
- Require clean water



Tobusch fishhook cactus



- ❧ *Ancistrocactus tobuschii*)
- ❧ gets its unique name from the spines that are hooked at the tip, like a fishhook. This beautiful small, round cactus grows in limestone soils in the eastern part of the Edwards Plateau. Habitat alteration, livestock trampling, over-collecting and development are the reasons for its decline.





04/30/2012 11:48



12/15/2011 12:08









05/13/2010

Female hybrid
2010 Clear Creek
Genetics

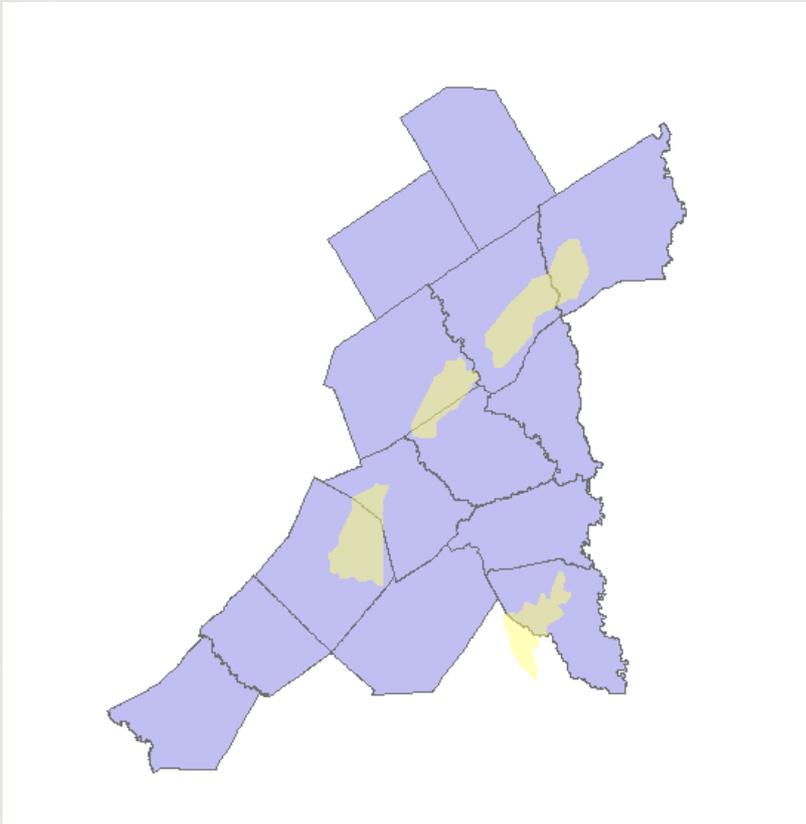
Female
2010 Clear Creek
Genetics



East Central Texas



East Central Texas



Houston toad



Post oak savanna woodland

Managing for forest health: a partially-closed canopy, mostly-open understory and a diverse herbaceous ground cover.

Habitat management to benefit the endangered Houston toad in East Central Texas.



Habitat management to benefit the endangered Houston toad in
East Central Texas.



Texas A&M Forest Service



Gyrotrac forestry mulcher/mower

















03/05/2012 15:37

**LOST PINES
HABITAT CONSERVATION PLAN
PARTICIPANT**



Supporting
Houston Toad
Recovery



Native grassland/savanna restoration Pastures for Upland Birds



Outdoor Classrooms & Other Projects





Green circular logo with text: "The Wilderness Center" and "University of Texas at Austin"

04/22/2010

Austin, TX



Austin, TX





North Arrow



- ROOMS**
- 11. 11.11.11
 - 12. 12.12.12
 - 13. 13.13.13
 - 14. 14.14.14
 - 15. 15.15.15
 - 16. 16.16.16
 - 17. 17.17.17
 - 18. 18.18.18
 - 19. 19.19.19
 - 20. 20.20.20
 - 21. 21.21.21
 - 22. 22.22.22
 - 23. 23.23.23
 - 24. 24.24.24
 - 25. 25.25.25
 - 26. 26.26.26
 - 27. 27.27.27
 - 28. 28.28.28
 - 29. 29.29.29
 - 30. 30.30.30
 - 31. 31.31.31
 - 32. 32.32.32
 - 33. 33.33.33
 - 34. 34.34.34
 - 35. 35.35.35
 - 36. 36.36.36
 - 37. 37.37.37
 - 38. 38.38.38
 - 39. 39.39.39
 - 40. 40.40.40

- LABORATORY**
- 1. 1.1.1
 - 2. 2.2.2
 - 3. 3.3.3
 - 4. 4.4.4
 - 5. 5.5.5
 - 6. 6.6.6
 - 7. 7.7.7
 - 8. 8.8.8
 - 9. 9.9.9
 - 10. 10.10.10
 - 11. 11.11.11
 - 12. 12.12.12
 - 13. 13.13.13
 - 14. 14.14.14
 - 15. 15.15.15
 - 16. 16.16.16
 - 17. 17.17.17
 - 18. 18.18.18
 - 19. 19.19.19
 - 20. 20.20.20
 - 21. 21.21.21
 - 22. 22.22.22
 - 23. 23.23.23
 - 24. 24.24.24
 - 25. 25.25.25
 - 26. 26.26.26
 - 27. 27.27.27
 - 28. 28.28.28
 - 29. 29.29.29
 - 30. 30.30.30
 - 31. 31.31.31
 - 32. 32.32.32
 - 33. 33.33.33
 - 34. 34.34.34
 - 35. 35.35.35
 - 36. 36.36.36
 - 37. 37.37.37
 - 38. 38.38.38
 - 39. 39.39.39
 - 40. 40.40.40

- GENERAL**
- 1. 1.1.1
 - 2. 2.2.2
 - 3. 3.3.3
 - 4. 4.4.4
 - 5. 5.5.5
 - 6. 6.6.6
 - 7. 7.7.7
 - 8. 8.8.8
 - 9. 9.9.9
 - 10. 10.10.10
 - 11. 11.11.11
 - 12. 12.12.12
 - 13. 13.13.13
 - 14. 14.14.14
 - 15. 15.15.15
 - 16. 16.16.16
 - 17. 17.17.17
 - 18. 18.18.18
 - 19. 19.19.19
 - 20. 20.20.20
 - 21. 21.21.21
 - 22. 22.22.22
 - 23. 23.23.23
 - 24. 24.24.24
 - 25. 25.25.25
 - 26. 26.26.26
 - 27. 27.27.27
 - 28. 28.28.28
 - 29. 29.29.29
 - 30. 30.30.30
 - 31. 31.31.31
 - 32. 32.32.32
 - 33. 33.33.33
 - 34. 34.34.34
 - 35. 35.35.35
 - 36. 36.36.36
 - 37. 37.37.37
 - 38. 38.38.38
 - 39. 39.39.39
 - 40. 40.40.40

Surface Openings

San Marcos, TX





05/06/2011





This is where the

WILD

things are

QUESTIONS

