



TEXAS

“We have accomplished more through our association with Partners for Fish and Wildlife than we have with any other organization... you guys give the Federal government a good name!” -- Evelyn Rhodes, Rhodes Farms, Raymondville, Texas

Ms. Rhodes is one of hundreds of Texas landowners who have forged a mutually enjoyable working relationship with the U.S. Fish and Wildlife Service through its Partners for Fish and Wildlife Program.

Based upon the increasing number of requests for technical and financial assistance, we know that this landowner-friendly program has grown in popularity in the Lone Star State each year since its inception in Texas in 1990.



Introduction and General Description

Texas is approximately 97 percent privately owned, leading to the tremendous potential for private lands habitat conservation work.

Because there is an incredible variation in the many ecosystems and/or vegetational communities found in the State, Texas supports one of the most diverse plant and animal populations in the United States. General ecosystems include the coastal ecosystems areas along the Gulf Coast, the piney woods of east Texas, the rolling plains of the Panhandle, the cross timbers and prairies of north central Texas, the hill country of central Texas, the brush country of south Texas, and the arid and mountainous areas of southwest Texas. Each of these areas offer their own unique challenges in trying to accomplish habitat restoration.

There are several national wildlife refuges scattered across the State with the majority located along the Texas Coast. A goal of the Partners Program in Texas is to

restore wildlife habitat near refuges or other permanently protected areas.

The Partners Program in Texas initially targeted wetland habitat for restoration and enhancement work. However, because of landowner interest, the program’s objectives were expanded to include projects that would benefit habitats for all Federal trust resources, including migratory birds and candidate, threatened, or endangered species.

Texas Restoration Activities

- ★ Wetlands
- ★ Native prairie
- ★ Riparian
- ★ Habitat for imperiled species
- ★ In-stream habitat
- ★ Longleaf pine
- ★ South Texas Brush
- ★ Other Declining Habitats

Habitats of Special Concern

Habitats of special concern include bottomland hardwood and longleaf pine communities in east Texas, the short- and mixed-grass prairies of the Panhandle, coastal wetland and prairie areas, the brush country of south Texas, and specific habitats that support federally listed, candidate, and other imperiled species.

The Partners Program has worked with landowners and other partners to restore and enhance habitat for several federally listed and



Above: Louisiana pine snake

candidate species. For example, the restoration of longleaf pine communities in east Texas has provided habitat for the endangered red-cockaded woodpecker and for the Louisiana pine snake, a candidate species.

Working through the multi-State partnership group known as the High Plains Partnership, the Partners Program is actively involved in restoring habitat for the threatened Arkansas River shiner, the lesser prairie-chicken and the black-tailed prairie dog (both candidate species), and for other imperiled species in the Texas Panhandle.



Above: Arkansas River shiner

Also known as the Tamalipan brushland, the brush country of extreme south Texas is a unique ecosystem found nowhere else in the United States. It is estimated that 95 percent of the original ecosystem has been cleared or altered for agriculture and urban development. It is home to 21 threatened or endangered species and 36 species of concern. The Central and Mississippi Flyways come together to funnel millions of neotropical migratory birds to this area, pinched between the Gulf of Mexico and deserts to the west.

The coastal tall grass prairie of the Texas coast once covered 7 million acres. Today, less than 7 percent of it remains and the Attwater's prairie-chicken, an indicator species for the health of the prairie, is on the brink of extinction. The Partners Program assists with the delivery of the Coastal Prairie Conservation Initiative which provides landowners with financial and technical assistance to restore coastal prairie habitat.

To restore wetlands in east Texas (including bottomland hardwood areas) and along the Texas coast, the Partners Program entered into two formal agreements with the Natural Resources Conservation

Service, the Texas Parks and Wildlife Department and Ducks Unlimited. As a result, two partnerships known as the Texas Prairie Wetlands project and the East Texas Wetlands Project were formed. The goal of each of these partnerships is to work with private landowners to reverse the decline in wetland and associated wildlife habitat losses along the Texas coast and in east Texas, respectively.

Threats

Although Texas is still a land of vast open spaces, much of the State's fish and wildlife habitat has been degraded directly or indirectly by human activities. Most of the original native grasslands in the State has been converted to agricultural lands or the native grassland plant communities have been altered by improper livestock grazing.



Recently cleared upland forest will be converted to agricultural and urban use.

Thousands of acres of wetlands have been drained or otherwise impacted to promote agriculture practices, development, and for other purposes. It is estimated that Texas has lost more than 50 percent of its original wetlands.

Riparian areas and bottomland hardwood areas have been degraded by improper livestock grazing, logging, and flooded by the many reservoirs constructed in Texas in the 20th century.

Longleaf pine was the predominant forest type of the Southeastern United States. It is estimated that only 45,000 acres remain in Texas, covering less than 3 percent of its historic range. Conversion to non-native pine plantations, fire suppression and conversion to other agriculture purposes are the primary threats to this ecosystem.

Many large Texas ranches are being sold and converted into smaller “ranchettes,” contributing to direct habitat loss and to increased habitat fragmentation.

“Urban sprawl” poses a significant



Urban sprawl

threat to fish and wildlife populations in general, but in particular in Texas to several imperiled species and their habitats. For example, habitat for 10 federally listed species in the City of Austin area is at risk for direct or indirect degradation.

Vast stretches of major rivers in Texas, such as the Trinity and Sulphur Rivers, have been channelized or otherwise altered. These actions have led to problems with river and associated stream incising, lowering of groundwater along associated riparian systems, erosion problems, increased sedimentation in coastal areas, and degradation of

water quality.

Conservation Strategies

Wetlands

Because wetlands are critical to the survival of many migratory birds, they are emphasized in the Partners Program. Restoration techniques include plugging drainage ditches and removing levees to restore



Restored playa in Texas Panhandle

flood prone areas. Small levees are often constructed to establish shallow-water impoundments which are managed to promote the growth of native wetland vegetation. In these cases, projects are designed to blend into the landscape to appear as natural as possible. Fencing to control livestock grazing is another restoration technique often used.

Texas Prairie Wetlands Project: Initiated in 1991, the Texas Prairie Wetland Project is intended to develop wetland projects with private landowners in 28 Texas Gulf Coast counties. This project has been a partnership effort of the Texas Parks and Wildlife Department, Ducks Unlimited, and the Natural Resources Conservation Service and the



Restored coastal wetland

Partners Program since the beginning.

Accomplishments to date include 475 wetland sites on 22,074 acres under long-term management agreements with private landowners and over 10,000 additional acres of wetland restoration and management that have resulted from technical assistance provided through the project.

East Texas Wetlands Project: Initiated in 2001, the objective of the East Texas Wetlands Project is to work with private landowners to restore, enhance, or establish wetlands (including bottomland hardwoods) and associated upland habitats within the Texas portion of the Lower Mississippi Valley Joint Venture (46 counties in east Texas). The Partners Program has made a commitment to this initiative.



Bottomland hardwood forest wetland in east Texas.

Wetland improvement costs vary by project type:
wetland enhancement - \$50 per acre, wetland
restoration - \$200 per acre and bottomland hardwood
restoration \$400 per acre.

Native Prairie/Grasslands

With the decline/degradation in native prairie habitats across the United States, there has been a concurrent decline in grassland dependent birds. The Partners Program in Texas is working to reverse that downward trend in bird populations. Prairie restoration projects often involve the conversion of fallow agricultural fields to native prairie communities through the planting of native grasses and forbs (wildflowers and other leafy, non-woody plants).



Prairie in north Texas, 2 years after restoration.

To enhance existing degraded prairies or newly established prairies, management techniques include the installation of cross-fences for rotation of livestock between pastures for better forage utilization (followed-up by a grazing management plan), controlled burning, mowing, and invasive species control. The cost of native prairie improvement projects range from less than \$25 per acre for fencing to about \$250 per acre for restoration projects (including brush or invasive species control, seed bed preparation, seeds and planting).

The High Plains Partnership (HPP): Wildlife in the High Plains of Texas face a multitude of challenges today. Natural fires no longer exist. Exotic, invasive species such as saltcedar and Russian olive are becoming increasingly common. Key natural



Lesser prairie-chickens on lek in Texas Panhandle

components of the this former short- and mid-grass prairie ecosystem, such as the bison, are gone. Other species, such as the black-tailed prairie dog, have been removed from much of their historic range. The HPP has received funding from within the Service to begin to restore the prairie and riparian ecosystems in the High Plains. The Partners Program is the Service's instrument for delivering the HPP in Texas. Aside from implementing habitat improvement projects, Partners Program personnel are also actively involved in intra- and interstate planning efforts in support of the HPP goals and objectives, such as the Texas Black-Tailed Prairie Dog Working Group and the Lesser Prairie-Chicken Interstate Working Group.

South Texas Brush Country

Work in this ecosystem involves efforts to restore the wildlife corridor along the Rio Grande River, connecting fragmented habitat areas, and putting areas back to habitat that can serve as stopover sites during migration. Restoration techniques include planting woody plant species in former agriculture fields and controlling invasive species. The planting of native grasses and forbs is utilized in those areas where a brush savannah was historically the habitat type. The cost for these restorations is typically \$600 per acre.



Tamaulipan Coastal brushland

Streams and Riparian Areas

Healthy streams and associated riparian areas support a broad array of plants and animals. These diverse areas support numerous resident fish and wildlife species, including key game species such as deer and turkey. Migratory birds use these areas intensively as they migrate through Texas. With proper management, riparian areas often have the potential to provide the highest quality wildlife habitat in an area. Simply constructing a fence to control livestock grazing and trampling is often all that is necessary to begin the process of restoring these important ecosystems. Riparian restoration projects cost about \$100 per acre.

Longleaf Pine Restoration

The longleaf pine community is one of the rarest plant communities remaining in Texas and across the West Gulf Coastal Plain that supports a number of rare animal and other plant species. The longleaf pine is a tree species that produces the highest quality timber of all southern pines and is more insect, disease, and fire resistant. The Partners Program began its first longleaf



Healthy longleaf pine savannah in east Texas.

pine restoration project in Texas in 2001. We are seeking to expand this initiative through improved partnering with Texas Forest Service and Texas Parks and Wildlife. The cost for longleaf pine restoration is typically \$410 per acre.

Outdoor Classrooms

A high priority is placed on educating future generations of Texans on the importance of fish and wildlife habitat. Throughout the State, the Partners Program has participated in projects seeking to educate the public regarding the benefits of wetland and other wildlife habitat by providing funds to develop outdoor environmental classrooms. Costs for outdoor classrooms vary greatly depending on the site however the total cost for a project averages \$4,000 per acre.

“Our school has been able to expand our influence and resources through the dedication and expertise



Outdoor classroom, Madisonville, Texas

enthusiastically offered by the Partners Program.” - Ms. Bobette Heaton, Yellowrose/Crossroads School, Madisonville, Texas

Invasive Species

With buffel grass in south Texas, Chinese-tallow trees, McCartney rose, and giant salvinia in southeast Texas, water hyacinth and hydrilla in east Texas, and common bermuda across the State, invasive species are having an increasingly negative affect on fish and wildlife populations in Texas. The Partners Program in Texas places a high priority on projects which seek to control invasive species. Invasive species control costs about \$250 per acre.

Threatened, Endangered, and Other Imperiled Species

The Partners Program has been active in restoring habitat for declining species in Texas. Several projects intended to benefit federally listed or otherwise imperiled species have already been described. Other imperiled species such as the endangered black-capped vireo and golden-cheeked warbler have benefitted from Partners Program activities. The cost of improving habitat for specific imperiled species varies greatly, averaging about \$500 per acre.



Physical and chemical control of Chinese tallow, an exotic, invasive species.

Technical Assistance

Many landowners are not necessarily interested in receiving cost-share money from the Partners Program or any other entity. They simply want a qualified biologist to spend a little time on their property with them to discuss the best way to manage their property for Federal trust resources specifically and also for wildlife in general. These types of landowner contacts may ultimately produce almost as much on the ground habitat improvement as projects where we actually have signed Private Lands Agreements.

Partners

Natural Resources Conservation Service
Bureau of Reclamation
Texas Parks and Wildlife Department
Texas Forest Service

Texas Tech University
University of Texas at Arlington
Austin College
Texarkana College
Wiley College
Environmental Institute of Houston, University of Houston, Clear Lake
North Central Texas Community College
Local Soil and Water Conservation Districts
City of Arlington
City of Granbury
City of Bowie
City of Glenn Heights
Armand Bayou Nature Center
Ducks Unlimited
Heard Museum
Austin College
Dallas Nature Center
National Wild Turkey Foundation
Oakridge School
Reliant Energy
Galveston Bay Foundation
Katy Prairie Conservancy
The Nature Conservancy of Texas
Various School Districts
National Fish and Wildlife Foundation
Northeast Texas Intercultural Alliance
Audubon Society of Texas

Accomplishments

Through FY 2000, the Partners Program in Texas has:

- ★ entered into 646 partnerships with private landowners restoring approximately 103,000 acres of fish and wildlife habitat
- ★ restored, established, or enhanced approximately 50,000 acres of wetlands
- ★ restored or enhanced 108 miles (2000 acres) of riparian corridors
- ★ restored or enhanced approximately 2 miles of in-stream habitat
- ★ restored or enhanced approximately 51,000 acres of native prairie and other upland habitats

Future Needs

The Partners Program in Texas has the following goals:

- 200,000 acres of wetlands to be enhanced or restored
- 1,000,000 acres of native prairies to be enhanced or restored, including continued work through the High Plains Partnership to restore and properly manage 500,000 acres in the Texas Panhandle to benefit Federal trust species, including the lesser prairie-chicken, prairie dog, swift fox, and other resident and migratory species.
- 3000 miles of riparian corridors to be restored
- 200,000 acres of bottomland hardwood forest to be restored
- 200,000 acres of habitat for federally listed species to be restored
- work with 50,000 Texas private landowners

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