



Texas Wetland News

and WETLAND CONSERVATION PLAN UPDATE

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TEXAS
PARKS &
WILDLIFE

JANUARY 2003

Texas Coastal Wetlands Guidebook Now Available on the Web

The *Texas Coastal Wetlands Guidebook*, written by Dan Moulton of Texas Parks and Wildlife Department and John Jacob of Texas Sea Grant/Texas Agricultural Extension Service is now available on the Web at www.texaswetlands.org. This publication is an excellent resource describing the general evolution and structure of coastal plain wetlands, in addition to a description of the functions these wetlands perform as well as current threats and major causes of wetlands losses. The guidebook can be a valuable resource to individuals interested in learning or teaching about the values of Texas' coastal plain wetlands.

Within the guidebook, each major wetland type is described, with an emphasis on each types' general location, geology, soils, hydrology, vegetation, animals, threats, ecological functions and values. Much of the 66-page bulletin is devoted to the descriptions of 111 wetland sites that are located on the coastal plain from Louisiana to Mexico, which are accessible to the general public. Site descriptions are organized by region and include such data as ownership,


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Wetland Conservation within the West Gulf Coast Plain Initiative

BACKGROUND

Formed in the spring of 2001, the West Gulf Coastal Plain Initiative (WGCP) is a biological planning effort focused on the conservation of all bird species occupying all habitat types within the West Gulf Coast and Ouachita Mountain Physiographic Provinces of southeastern Oklahoma, southwestern Arkansas, western Louisiana and eastern Texas. This Initiative is a partnership of the American Bird Conservancy, Arkansas Game and Fish Commission, Ducks Unlimited, National Park Service, Louisiana Department of Wildlife and Fisheries, Oklahoma Department of Wildlife Conservation, Texas Parks and Wildlife Department, The Nature Conservancy, U.S. Fish and Wildlife Service, U.S. Forest Service and the U.S. Geological Survey.

The Initiative is a component of the Lower Mississippi Valley Joint Venture (LMJV), which encompasses portions of seven states within the Mississippi Alluvial Valley and the WGCP. The partners will assist in the development of a landscape-level conservation plan that is targeted



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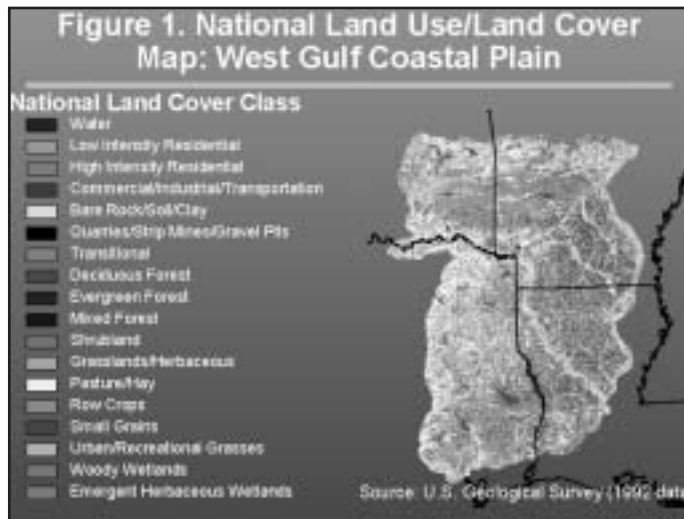
West Gulf Coast Plain Initiative, continued

towards meeting the goals and objectives of the North American Waterfowl Management Plan, Partners In Flight, U.S. Shorebird Conservation Plan and the North American Colonial Waterbird Plan in the WGCP. The partners will build on the conservation vision described in the North American Bird Conservation Initiative (NABCI) to target resource opportunities associated with the WGCP. Namely, the LMVJV will implement the NABCI vision of “regionally based, biologically-driven, landscape-oriented partnerships delivering the full spectrum of bird conservation” in the WGCP.

Information developed through this initiative will be made available to assist landowners in enhancing and restoring habitats valuable to populations of priority bird species. The identification of priority species, their habitat requirements, relationships, and primary limiting factors will be used to develop models for characterizing habitat suitability for priority species. Habitat suitability models will enable private and public land managers to develop adaptive management strategies to conserve wetland, slope and upland sites of value for bird species.

MAPPING PRODUCTS

A comprehensive planning atlas (CPT), covering the entire West Gulf Coast Plain, is being developed. The atlas will include geographic boundaries, soils, geology, wetlands, watershed boundaries, public lands, roads and highways and other landscape information. A seamless National Land Cover Data classification map for the West Gulf Coastal Plain has been completed (see Figure 1). Furthermore, a detailed ecological classification and mapping system has been initiated to further refine National Land Use classification and to assist in the development of potential or historic land classification maps that will be used to develop population goals for priority bird species and their habitats. In addition, this map can identify habitat corridors with high conservation potential to connect with other quality habitat areas.



RED RIVER FOREST WETLAND RESTORATION FOCUS AREAS

Forest Wetland Restoration Focus Areas have been completed for the Red River and immediate, adjacent tributaries in Louisiana, Arkansas, Oklahoma and Texas. This model is designed to identify conservation areas where forested wetland patches of 5,000 acres (2,000 hectares) or greater with a core of 2,500 acres (1,000 hectares) can either be developed or conserved. These conservation areas will be placed near or adjacent to existing patches of bottomland hardwoods and areas of public ownership. The intent of these focus areas is to encourage forest restoration on those public and private lands that are most beneficial to forest landbird conservation. The Natural Resource Conservation Service (NRCS) and other potential cooperators will use the designated focus areas to establish priority sites for the Wetland Reserve Program (WRP) and other programmatic conservation funding.

In the four states, 19 focus areas have been designated. Five of these focus areas occur in Texas: Lake Crockett (Fannin County), Big Pine Creek (Red River County and adjacent areas of Oklahoma), Red Slough (Red River and Bowie counties and adjacent areas of Oklahoma), Little River (Bowie County and adjacent areas of Arkansas) and the Sulphur River (Bowie and Cass counties and adjacent areas of Louisiana).

PRIORITY BIRD SPECIES AND HABITAT REQUIREMENTS

A list of priority waterfowl and landbird species and habitat requirements for these species has been developed. Efforts to develop lists for colonial waterbirds and shorebirds are beginning and teams will be formed to develop the lists in the summer of 2003.



OTHER WETLAND CONSERVATION EFFORTS

Of the 52.7 million acres with the WGCP, approximately 3.8 million acres (7.3 % of the total area) are forested wetlands and emergent herbaceous wetlands. Because of the significant losses to these wetland types, and the high potential for future losses, the development of locally-implemented, landscape-based conservation plans for bird species utilizing these habitats will receive a high priority. As mentioned earlier, the designation of priority restoration areas on the Red River is complete; a similar effort is ongoing along the Arkansas River of Oklahoma and Arkansas. Future similar priority area designations will occur along other river basins within the WGCP, including eastern Texas.

CONSERVATION DELIVERY

A number of conservation delivery strategies for landowners have been proposed. The East Texas Wetlands Project Initiative, a joint effort of Texas Parks and Wildlife, U.S. Fish and Wildlife, Natural Resource Conservation Service and Ducks Unlimited, is providing expertise and money to implement conservation strategies within the West Gulf Coastal Plain of Texas. The West Gulf Coast Conservation Team is studying the possibility of using carbon sequestration credits to reforest agricultural lands and implement conservation management schemes on existing forest lands.

There are a number of other incentive programs including the Texas Parks and Wildlife Department's Landowner Incentive Program and the U.S. Fish and Wildlife Service's Partners for Wildlife Program that may also play significant roles in this process. Upon completion of the WGCP planning effort, there will be a clearing-house of potential conservation projects for both governmental and private sector projects. This planning effort will help identify critical needs for conservation across the WGCP landscape, and will provide information to help ensure that limited conservation dollars are spent where they can do the most good on the landscape for all bird species and their habitats, and ultimately for all animal and plant species collectively.

WHO TO CONTACT FOR MORE INFORMATION

You may contact the following persons for more information concerning this effort:

Mr. James A. Neal, Director West Gulf Coast Plain Initiative, U.S. Fish and Wildlife Service, Nacogdoches, Texas, (936) 569-6129.

Mr. Jeffrey A. Reid, Fish and Wildlife Biologist, U.S. Fish and Wildlife Service, Lufkin, Texas, (936) 639-8546.

Mr. Carl Frentress, Region 3 Waterfowl-Wetland Biologist, Texas Parks and Wildlife Department, Athens, Texas, (903) 675-4177.

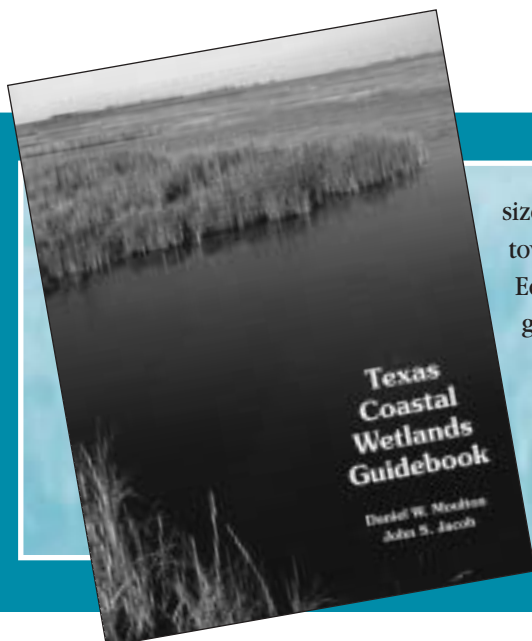
Mr. Ricky W. Maxey, Region 3 Wildlife Diversity Biologist, Texas Parks and Wildlife Department, Nacogdoches, Texas, (936) 564-0234.

Mr. Bill Bartush, Ducks Unlimited, East Texas Regional Biologist, 11942 FM 848, Tyler, TX 75707.

Wetlands Guidebook Available on the Web, continued

size, type of wetlands, recreational and educational opportunities, nearest town, Web site address, contact telephone number, and travel directions. Educational and informational resources are identified throughout the guidebook.

Free paper copies of the guidebook are still available from TPWD. Contact Janet Nelson, Texas Parks and Wildlife Department, Coastal Conservation Branch, 3000 South IH-35, Suite 320, Austin, TX 78704; (512) 912-7190; janet.nelson@tpwd.state.tx.us.



Like Father, Like Sons

Bob and Doc Pearson made a pact as children to restore their father's land to benefit wildlife. Today, the Pearsons are making good on that promise.



By Debbie F. Slobe,
Playa Lakes Joint Venture



Over the past several years, the Pearson brothers have protected and restored 360 acres of native wetlands and vegetation on the 960-acre property that has been in the family since 1945.

But if you ask Bob and Doc, they'll say they are just carrying on their father's legacy of conservation.

"My father was one of the original members of the North Plains Groundwater District in 1955," Bob Pearson said. "He won some conservation awards and took care of his land."

Bob and Doc Pearson are following in their father's footsteps, and in 2000 they were given the Lone Star Land Steward award in the High Plains Ecological Region of Texas for conservation work on their land.

Since 1998, the Pearsons have planted more than 1,700 native plants, fenced in a 70-acre playa, constructed three buffered waterways that feed the playa, and flash-grazed a pasture to restore native shortgrass - all the while harvesting 50 bushels of dry farm wheat

and grazing about 250 head of cattle each year.

"The Pearsons are living proof that the needs of wildlife can be accommodated in the midst of intensive agriculture," said David Haukos, a regional migratory bird biologist with the U.S. Fish and Wildlife Service who assisted in conservation projects on the Pearson property.

The Pearsons' efforts have resulted in land that has become an oasis for wildlife. This year, Bob Pearson has already spotted 39 antelope, 100 mule deer and 22 white-tailed deer, plus numerous bird species such as pheasant, blue and bobwhite quail, turkey, mallard, teal, geese, and cranes.

"When you see those birds coming back in - the mallards, Canada geese and cranes - it makes it all worthwhile," he said.

Wildlife is so plentiful, in fact, that this year the Pearsons began hunting on their land for the first time in four years.

"This year, we got to hunt quail," Bob Pearson said. "We've got two coveys of 30 birds each."

The Pearsons were able to implement these conservation projects with the help of several organizations, including the Playa Lakes Joint Venture (PLJV), Texas Parks and Wildlife Department (TPWD), Partners for Wildlife, Natural Resources Conservation Service and BP Amoco.

"It's kinda rare for all these entities to work together without a fight," said Bob Pearson.

That might have been true in the past, but today agencies and organizations often work together to conserve habitat for wildlife. For example, the PLJV has worked in the Texas Panhandle since 1990 to bring together wildlife agencies, corporations, conservation organizations, sportsmen groups and private landowners to protect prairie wetlands such as playa lakes for wildlife.

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Bessie Heights Marsh Restoration

Andy Tirpak, TPWD

The Bessie Heights Marsh lies within an area that has experienced the most extensive loss of coastal wetlands in Texas. The loss of these coastal wetlands, estimated to be in excess of 6,000 acres, can likely never be restored to the conditions that were present prior to human influence. However, wetlands can be restored in the form of estuarine-emergent marsh by working within the system's existing hydrologic and salinity regime

Formerly, the Bessie Heights Marsh was most likely an intermediate, largely emergent-marsh system, in which salts in the water typically didn't exceed more than about eight parts per thousand. The area received sediment from the Neches River when floodwaters would flow across the marsh and then recede. Storm events originating in the Gulf of Mexico and extremely high tides pushed salt water into the area historically, but the marsh seemed to have weathered these episodic events relatively well.

The highly degraded condition of the marsh today can be attributed to several factors. The Neches River was dredged to twice its original depth, which allows salt water to intrude further up the river. In addition, sediment delivery and freshwater sheet-flow across the marsh was reduced by the spoil deposits. The Nelda Stark Unit, in which the Bessie Heights Marsh is located, has been developed extensively for oil and gas, extraction of

which, in the past, has contributed to marsh loss through subsidence.

As previously mentioned in the July 2002 Wetland Newsletter, the Bessie Heights Marsh Restoration project will utilize terracing as the primary means of habitat restoration. Terracing is a wetland restoration technique used to convert shallow, subtidal bottom to marsh. This method uses existing bottom sediments to form terraces or ridges at marsh elevation. A terrace field composed of these ridges is arranged in some pattern that maximizes the intertidal edge and minimizes fetch between ridges is constructed, and the intertidal area is planted with marsh vegetation.

*Track hoe with terraces
in the background*



*Terrace field upper left hand
portion of the image*



As of the 1st of December 2002, the construction phase of the project has been completed and a total of 110 terraces were built. The terraces are being planted and will be closely monitored over the next year for success rates on vegetation growth, percent vegetative cover, and loss of sedimentary material from the terraces.

The construction was done by Affolter Contracting of La Marque, Texas who had set a fairly ambitious construction schedule for this project. Once the weather permitted, the project was quickly completed by Affolter and ahead of schedule. Affolter used three track hoes during the construction to build the terraces.

As terraces were completed they were reviewed by TPWD project managers Mike Rezsutek and Andy Tirpak along with Mo Saleh of Professional Engineering and Environmental Consultants (PEEC), the project engineer. The terraces had to meet previously established construction standards and most of the terraces met these standards on the initial inspection and were accepted with little need for additional work.

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Like Father, Like Sons, continued

In 2001, the PLJV signed a 10-year agreement with Bob and Doc Pearson to contribute \$12,180 to construct a fence around the 70-acre playa, create terraces to divert water into the playas and prevent erosion, and to establish a grassed waterway that feeds into the playa.

Even before the terms of the PLJV agreement have expired, the Pearsons have signed on for yet another conservation

project with TPWD to restore shortgrass prairie for rare species.

With each project, the Pearson brothers have contributed a large portion of their own money, including \$5,055 for the PLJV project and they expect to contribute \$11,641 to the TPWD project.

"If there's anything you can cut in stone, it is that our [conservation] efforts will

persist," Bob Pearson said. "There's nothing that gives you a better rush than this."

Bob Pearson has passed along the value of stewardship to his children and grandchildren, who undoubtedly will carry on his legacy of conservation.

"My grandchildren love to be on our land because of all the game. Plus, I have three daughters and they love it there too."

Bessie Heights Marsh Restoration, continued



Review of the project site. Driving the boat Mike Rezsutek TPWD, Mo Saleh, project engineer seated on the right, Dennis Ricord Affolter project manager seated on the left.

Terraces and wrack line



This phase of the project provided many challenges, ranging from sloughing of material off the terraces to old oilfield debris and pipelines in close proximity of the job site. All these challenges were met by Dennis Ricord and Mo Saleh, and were only minor issues in the progress of the project.

While the restoration for this project yielded approximately 110 acres of restored/enhanced habitat, it is a step towards a larger restoration effort for the Nelda Stark Unit.

Presently, planting of the terraces is being done and should be finished by the middle of December. The primary species planted are: smooth cordgrass, giant bulrush, marshhay cordgrass and a some giant cutgrass. Harvesting and planting has gone well so far, although low tides have hampered efforts to access the site.

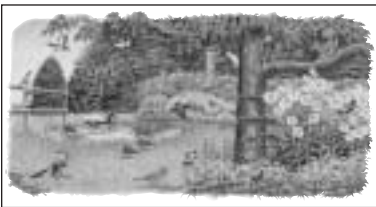
As you can see, we have a long way to go in replacing more of the 6,000 acres lost in this marsh complex since the early 1900s. Future work is scheduled

for the area in early 2003 in conjunction with maintenance dredging of the Neches River.

Funding for this restoration project was provided by the GLO, USFWS Texas Coastal Ecosystem Program, and the Natural Resource Trustees in conjunction with a USFWS National Coastal Wetlands Conservation Grant.

Poster and Fact Sheet Sets

These wildlife posters and fact sheets are produced by Texas Parks and Wildlife Department with a grant from the Environmental Protection Agency. All posters are large, full color artist illustrations of Texas habitats highlighting native plants and animals. The 8.5 X 11-inch fact sheets include full color photographs with fascinating information about each species on the reverse side. Order each set for only \$7.50, which includes shipping and handling. Use the order form below.



Urban Wildlife Poster/Fact Sheets

Blue Jay, Butterfly weed, Cardinal Flower, Downy Woodpecker, Eastern Bluebird, Eastern Fox Squirrel, Eastern Gray Squirrel, Inca Dove, Maximilian Sunflower, Monarch Butterfly, Northern Cardinal, Northern Mockingbird, Painted Bunting, Red-bellied Woodpecker, Red-eared Slider, Ruby-throated Hummingbird, Wood Duck



Pineywoods Poster/Fact Sheets

Spotted Gar, Dragonfly, Largemouth Bass, Red-shouldered Hawk, Louisiana Milk Snake, Timber Rattlesnake, Yellow-billed Cuckoo, White-tailed Deer, Western Cottonmouth Snake, Southern Leopard Frog, Bald Cypress, Catfish, Marbled Salamander, Big-eared Bat, Giant Floater, Warmouth, Bronze Frog, Copperhead, Flier, Hellgrammite, Dogwood, Sweetgum, Northern Flicker, Pine Warbler, Redfin Shiner, Red Swamp Crayfish



Coastal Wetlands Poster/Fact Sheets

Reddish Egret, American Oystercatcher, Black-necked Stilt, Long-billed Curlew, Fiddler Crab, Stone Crab, Roseate Spoonbill, Eastern Oyster, Common Blue Crab, Piping Plover, Kemp's Ridley Turtle, Barnacle, Lighting Whelk, Whooping Crane, Common Raccoon, Texas Diamondback Terrapin, Northern Harrier, Atlantic Croaker, Atlantic Bay Scallop, Sheepshead Minnow, Sea Grasses, Spotted Seatrout, Red Drum, Gulf Salt Marsh Snake

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