

GULF COAST BIRD OBSERVATORY
SITE PARTNER NETWORK

Outcolook

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The mission of the Gulf Coast Bird Observatory is the study and conservation of birds and their habitat in and around the Gulf of Mexico.



Our purpose is to be a catalyst for bird conservation through individual and community partnerships and the sharing of expertise and knowledge.



We value...STEWARDSHIP of birds and their ecosystems, PARTNERSHIPS with all, and SHARING of expertise and knowledge.



Gulf Coust Bird Observatory's Site Partner Network:

LINKING THE LAND, BIRDS AND PEOPLE OF THE GULF OF MEXICO

ITH ITS CENTRAL POSITION between the Americas, the Gulf of Mexico is a natural obstacle faced by millions of migratory birds that must either cross or go around it each spring and fall as they travel between their breeding and wintering grounds. The habitats surrounding the Gulf are used by over 800

bird species. About 300 of those species are nearctic-neotropical migrants that rely on these habitats for their survival in order to rest and refuel enroute. The Gulf of Mexico region contains the Hemisphere's most important stopover habitat, but much of it is threatened by urbanization, destructive tourism development, and other land conversion activities.

The Gulf Coast Bird Observatory (GCBO) was founded in 1992 to address declining bird populations through avian research and the protection of Gulf coastal habitat utilized as stopover by migratory songbirds. The Gulf region is shared among three countries—the United States, Mexico, and Cuba—which includes eleven U.S. and Mexican states. To fulfill our mission, the GCBO has established a Site Partner Network and pledged to assist the conservation work of organizations and sites



throughout this region. This network of sites currently includes 54 locations and 30 partners around the Gulf who are responsible for over 7 million acres of coastal habitat. Fifteen of these partner sites protect Gulf coastal habitat outside the United States—seven in the Yucatan Peninsula, seven in the Mexican provinces of Veracruz and Tamaulipas, and one in western Cuba.

Many of the partner sites are staffed by trained biologists or have scientists carrying out studies at their sites. Other sites have good volunteers, and still others use seasonal assistance for land protection activities. Some of the Network sites are actively involved in environmental education and habitat management, and pass along their knowledge and skills to other partners via the Network listserve. The strength that the GCBO brings to the partnership is to coordinate the partnership network, provide biological information, assist with conservation and management activities, and provide technical assistance in public outreach, scientific research, development and conservation planning.

The GCBO is also involved in assisting site partners directly in their conservation projects and efforts, such as providing funding for private lands conservation efforts, habitat mapping, easements and acquisitions. The GCBO also recognizes the important role of education in accomplishing successful conservation, and we have facilitated training workshops in local communities of the Yucatan Peninsula and developed avian ecology classroom curriculum for students along the upper Texas coast. These educational ventures have been a remarkable success and have generated a spreading enthusiasm for bird conservation.

A new way in which the GCBO is encouraging international cooperation among Gulf coastal conservation organizations is through a Sister-site Partnership Program within the larger network of site partners. Sister-site partnerships are mutually beneficial relationships between two sites with commonly shared features. The birds themselves are shared features, but sometimes there are also similar threats or habitat issues that the two sites can help each other manage. Each sister-site benefits from the other's experiences and resources, which translates into greater efficiency and results. Four of these sister-site partnerships are already functioning to bring about greater conservation impact.

Over the life time of the project, the Site Partner Network has continued to grow and numerous joint conservation activities have been successfully completed involving habitat acquisition, restoration, environmental education, and technical assistance. Since signing the first Site Partner agreement in 1995, GCBO has been directly involved in facilitating: 13 land acquisitions, 5 land management plans, 4 ecotourism plans, 6 habitat restorations, 6 visitor access-enhancement projects, 16 avian inventories, and 10 educational workshops. These efforts, combined with the multitude of other important protection activities carried out independently by the Site Partners have made a significant contribution to the health and vitality of the Gulf of Mexico region.

This Sourcebook has been compiled so that you can learn more about each of the partner sites, their worthy conservation efforts, and goals for the future. We ask you to join us in supporting the conservation efforts of each Site Partner and encourage you to take an active role in the conservation of migratory birds...while we still have a chance to keep common birds common.

The Land

The landscape and habitat surrounding the Gulf of Mexico has been valued for centuries for its beauty, uniqueness, and abundance of natural resources. From the mangroves of south Florida to the tropical forests of the Yucatan Peninsula of Mexico, coastal lands have always been desirable locations for many human activities. In the last 75 years, ornithologists have begun to understand that these habitats are also critical to the millions of neotropical migrant birds that breed in North America, and spend the non-breeding season in the southern U.S. and Latin America. The coastal areas around the Gulf lie directly in the migration path of these birds, and provide critical stopover resting and feeding points in the long journey north in the spring and south in the fall.

From Florida westward around the Gulf in the U.S., to the eastern Mexican coast and the Yucatan Peninsula, the wooded habitats used by neotropical migrants are extremely diverse and variable. At least 19 different types of vegetation communities have been quantified in scientific publications. Generally, migration habitats, from east to west, can be described as follows. Mangrove and cypress swamps, pines, and hardwood hammocks (small wooded raised areas with a dense understory) are characteristic of the coast of Florida, Alabama, and Mississippi. The first great bottomland hardwood forests occur in the Pearl, Atchafalaya, and Mississippi River deltas in Louisiana, and are also found in the Columbia Bottomlands on the upper Texas coast. Between these Louisiana and Texas forests are expanses of chenier woods, narrow oak and hackberry woods that grow along old beach ridges near the Gulf. These chenier woods are some of the most important, and most imperiled neotropical stopover habitat. Further south along the central Texas coast, oak mottes (small oak woodlands) dot the landscape. As one moves into south Texas and northeastern Mexico, thornscrub and mesquite woodlands dominate. Along the central Mexican coast, mangroves, swamps, and tropical evergreen forests are found, especially in Veracruz, where a bottleneck is created by narrowing of the landmass and the intersection of the eastern edge of the Sierra Madre Oriental. This forest, though fragmented, funnels millions of raptors, swallows, and other migrants along the coast every spring and fall. The Yucatan peninsula of Mexico is a mixture of tropical dry forest, mangrove, and swamp forest. This area is a critical staging area for migrants as they prepare for their journeys to the north for the breeding season.

Unfortunately, most of the forests described above are threatened. Coastal areas are prime locations for development, especially along the eastern Gulf, central Texas, and the Yucatan. Agriculture, livestock grazing, and related activities have affected large areas of the chenier plain and coastal Mexico. Logging is prevalent in most coastal areas, and has greatly altered the landscape.

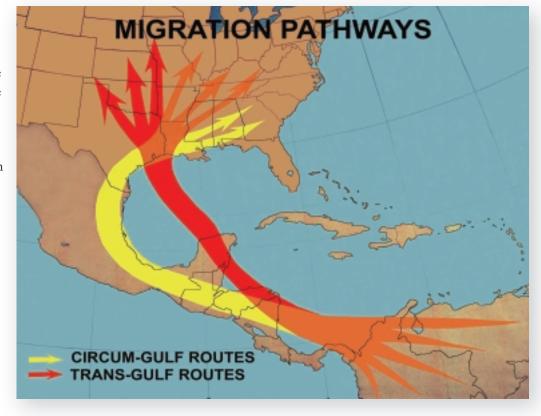
Many conservation organizations have divided these coastal areas into ecoregions, based on habitat type, climate, and plant and animal communities. The color-coding of our map of the coast of the Gulf of Mexico and our Site Partners is based on Partners in Flight ecoregions in the U.S. (www.blm.gov/wildlife/pifplans.htm), and in Mexico on broadly defined ecoregions as defined by the National Geographic Society and the World Wildlife Fund (www.nationalgeographic.com/wildworld/terrestrial.html).

The Birds

Each spring and fall, wooded areas around the Gulf of Mexico are witness to one of nature's greatest spectacles. Millions of birds who spend the North American winter months in the tropics head north for their breeding grounds in the United States and Canada. The journey is perilous, and many thousands of birds die each year attempting the flight. Many small songbirds fly directly from the Yucatan or Central America nonstop across the Gulf of Mexico, a journey of more than 600 miles. Others follow the coast around Mexico, or island-hop from the Caribbean to Florida. Migration routes of individual species are poorly known, and studies of the phenomenon are discovering surprising new details every year.

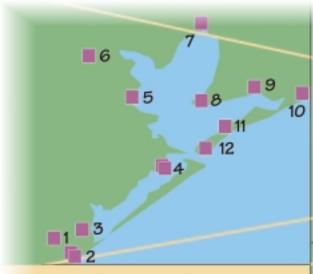
Why do birds migrate? Are these North American birds that fly south each fall to avoid the cold winters in the U.S. and Canada? Or are they tropical birds that move north in the breeding season to escape competition for nesting resources with other tropical birds? There is much disagreement on this topic, but the fact is that hundreds of species move from the tropics to the temperate zone to breed each year, and all of these birds need suitable habitat along the route to successfully complete the journey.

There are a considerable number of variables in the bird migration equation. The routes the birds select



(even individual populations of the same species may select different routes), the sites selected for wintering and breeding, the habitats utilized in route, the timing, and even whether a species or an individual returns to the same area each summer or winter. Many of these variables are yet to be discovered for a number of species. For example, it is known that Cerulean Warbler (one of the most imperiled species of wood warbler) winters in a narrow elevational band of upper tropical and subtropical forest in the eastern Andes of northern South America between 1,200 and 2,400 meters. Even the extent of this elevational range is not completely known—some claim that the range is actually between 600 and 1,400 meters. The species is a wide-spread, but local breeder throughout the eastern United States. Ceruleans are seen regularly along the Gulf Coast during migration, but, until recently, nothing was known of how this warbler completed its long journey from South America to the eastern United States. In the last decade, a few of these warblers have been observed in the mountain forests of Belize and Honduras during the month of April. It has been postulated that the species moves northward through the mountains of Columbia to northern Central America or western Mexico, where it possibly flies across a portion of the Caribbean to the Yucatan, and then across the Gulf to the northern Gulf coast. This theory has not been proven, but it highlights the lack of knowledge of how birds migrate, and illustrates some of the research directions that must be taken to save this and other declining species.

While there is much to learn about bird migration, the one variable that is not in question is the need to protect the fragile habitats around the Gulf that are used by birds in migration. Our Site Partners provide a valuable infrastructure to protect this habitat, and to facilitate the study of this fascinating phenomenon.



Galveston Bay Sites

- 1. Gulf Coast Bird Observatory Headquarters
- 2. Snow Woods

 Quintana Bird Sanctuaries
- Texas Midcoast National Wildlife Refuge Complex
- 4. Pierce Marsh Scenic Galveston Preserve Complex
- 5. Texas City Prairie Preserve
- 6. Herman Brown Park
- 7. Wallisville Lake Project
- 8. Candy Abshier Wildlife Management Area
- Texas Chenier Plain National Wildlife Refuge Complex
- 10. Smith Oaks Bird Sanctuary
 Eubanks Woods Bird Sanctuary
 S.E. Gast Red Bay Sanctuary
 Louis Smith Bird Sanctuary
 Mary Edna Crawford Bird Sanctuary
 Corrie Herring Hooks Bird Sanctuary
- 11. Elm Grove
- 12. Bolivar Flats Shorebird Sanctuary





Reliant Energy Osceola

dome and mixed prairie habitat surrounding a Reliant Energy plant in central Florida. This area has been protected through the efforts of Reliant Energy, and is a valuable migration stopover point for birds utilizing the eastern Caribbean migration pathway.

LOCATION: The protected area is located in Osceola County, Florida, southeast of Kissimmee.



SIZE: 168 ha (415 acres)

HABITAT: The
Reliant Energy
Osceola preserve is an area of cypress trees, scattered pines, and mixed prairie. The cypress trees grow tallest in the center to create the

in the center to create the "dome" effect. The area also has elements of bottomland hardwood forest scattered throughout.

BIRDS: This site is strategically located in the eastern migration pathway for neotropical migrants. The diverse, mixed habitat hosts many warblers in migration, including Black and white, Northern Parula, Palm, and Pine. Sandhill Cranes are resident in the area, and the Florida population of

Whooping Crane is nearby and may occasionally use the site. Other birds of interest include Swallow-tailed Kite, Bald Eagle, Great-crested Flycatcher, and several species of woodpeckers.



CONSERVATION: Reliant Energy has helped secure a habitat easement on the

property with the Florida Department of Environmental Protection. This will protect the site from further development. Since the site also hosts an energy facility, security is available, and site disturbances can be kept to a minimum.



Reliant Energy

CONTACT INFORMATION: P.O. Box 148, Houston, Tx 77001

WEBSITE: www.reliantenergy.com

Dauphin Island Bird Sanctuaries

auphin Island, long recognized as a migrant trap attracting large numbers of neotropical migrants each spring and fall, is often counted as one of the top ten sites visited by birders in the US during spring migration.

LOCATION: Located 4.8 km (3 miles) off the Alabama Coast, on the west side of the Mobile Bay Inlet, Dauphin Island is a barrier island about 22.5 km (14 miles) long and 2.4 km (1.5 miles) wide at its widest part. The seven sanctuaries included are Shell Mound Park,

BALTIMORE ORIOLE Goat Tree Reserve, Sea Point Saw Grass Marsh, Audubon Bird Sanctuary, Tupelo Gum

Swamp Reserve, Gorgas Swamp Reserve, and Steiner Block.

5 | Z E : 81.8 ha (202 acres)

HABITAT: The sanctuaries consist of maritime forest, marshes, and dunes, including a lake, swamps, and a beach. The named sites in the Sanctuary system include the following: Shell Mound Park and Goat Tree Reserve ancient live oak groves; Sea Point Saw Grass - a productive marsh system of black needle rush and spartina; Audubon Bird Sanctuary – a mixture of habitats including beach and dune, gum swamp, lake, and maritime forest with pine, yaupon, wax myrtle, and palmetto; Tupelo Gum Swamp and Gorgas Swamp Reserve – a mixed forest of tupelo gum, pine, yaupon, wax myrtle, and palmetto; Steiner Block: a saltmarsh habitat merging into an upland pine forest community.

BIRDS: During spring migration, the sanctuaries at Dauphin Island often host the first landfall for neotropical migrants after their long flight across the Gulf of Mexico from Latin America. Here these birds, often exhausted and weakened from severe weather during the flight, find their first food and shelter. For many it is the first land they see after a 600-mile trip from the Yucatan Peninsula. It also serves as a final feeding and resting place for migrants before their return flight each fall. There are 348 species on the sanctuaries' bird list, including 38 warbler species.

CONSERVATION: The Dauphin Island Bird Sanctuaries is a collaboration among conservation-minded agencies dedicated to protecting bird habitat and promoting ecotourism. Agencies included are the Alabama Department of

Conservation and Natural Resources, the Dauphin Island Park and Beach Board, and the Dauphin Island Bird Sanctuaries, Inc. Although

property on the island is very expensive, there are plans to continue acquiring Site Partner: habitat because even very Dauphin Island Bird small tracts in this area can Sanctuaries, Inc. mean the difference

between life and death for large numbers of migrants when faced with difficult

Island, AL 36528 weather conditions. (251) 861-2120

www.coastalbirding.org

CONTACT INFORMATION:

P.O Box 1295, Dauphin



Hamcock County Marshes Coastal Preserve

he Hancock County Marshes Coastal Preserve, located in extreme southwest Mississippi, is one of the most unique, continuous estuarine wetland systems along the Gulf of Mexico. The site contains a wide range of habitats, and is located on the north-central Gulf of Mexico, next to a critical migration pathway through the Pearl River Basin. The wide variety of habitats provide haven for many migrants, including shorebirds, waterfowl, and neotropical landbirds.

Mississippi, Hancock County, adjacent to the Mississippi Sound, between Bayou Caddy and the Pearl River.

SIZE: 8,468 ha (20,909 acres)

HABITAT: The Hancock County Marshes are part of an estuarine system bordering the Mississippi Sound from the Pearl River to Point Clear. Included within the marshes are several low ridges and small hummocks that are above mean high tide. Most important of these areas are Point Clear Island and Campbell Island,

which are sandy areas with characteristics similar to the barrier islands. The islands of this marsh support several rare plant species including one of the rarest shrubs in the United States, the tiny-leaved buckthorn *Sageretia minutiflora*, found on the shell midden. The Pearl River and associated river swamp are tidally influenced with bald-cypress and blackgum balancing the swamp canopy. The shallow areas of the swamp are comprised of dense stands of southern wild-rice and the deeper (10-20 m) pools are vegetated largely by pickerelweed.

BIRDS: The preserve is a unique coastal ecosystem comprised of an estuarine marsh surrounding two well-defined relic barrier islands, the state's only significant chenier ecosystems. These cheniers are critical stopover locations for neotropical bird species on their trans-Gulf migrations. The area also hosts Brown Pelican, Mottled Duck, Bald Eagle, and Peregrine Falcon. Although Bald Eagles haven't been recorded nesting, platforms have been installed, and the species is known to nest in the marshes just west of the Pearl River.



CONSERVATION: The Mississippi Department of Marine Resources has acquired a large amount of land along the coast to protect this sensitive habitat.

HOODED WARBLER

Like all coastal areas,
Mississippi has undergone
significant development in
recent years, and development pressures will continue.
Significant erosion has
also taken place, and having
an important site like
Hancock County Marshes
under the auspices of the
Department of Marine
Resources ensures that protection and restoration will
continue to occur.



Mississippi Department of Marine Resources

CONTACT INFORMATION: Jeff Clark, Site Manager 1141 Bayview Ave. #101 Biloxi, MS 39530 jeff.clark@dmr.state.ms.us

WEBSITE: www.dmr.state.ms.us/

Fischer Wildlife Sanchurry

his sanctuary helps preserve a natural, unleveed river system. It is home to swamp-loving flora and fauna like magnificent virgin bald cypress trees, a rare swamp jewel, the green fly orchid, river otters, Swallow-tailed Kite, alligator snapping turtles, the endemic ringed map turtle, and a rich variety of freshwater mussels.

LOCATION: Southeastern St. Tammany Parish in the lower Pearl River Basin of Louisiana. This forested wetland sanctuary is bounded to the

east by the scenic Morgan River. The Morgan River drains into the West Pearl River and the vast Honey Island Swamp. The sanctuary is northeast of Lake Pontchartrain, near the town of Slidell and 35 miles northeast of downtown New Orleans. It is only a mile away from the state owned Pearl River Wildlife Management Area and seven miles downstream from the federally protected Bogue Chitto National Wildlife Refuge.

SIZE: 35 ha (86.5 acres)

HABITAT: The sanctuary is set amid a landscape of braided streams that often overflow their banks. Its western boundary is an ecotone where the lower-elevation swamp of the sanctuary meets higher-elevation pine forest. Higher in elevation than the vast swamp to the east, the sanctuary's wetlands provide a transitional zone between bottomland hardwood forests and permanently flooded swamplands. The elevation gradient of this entirely forested and periodically flooded site supports a diverse flora dominated by various oaks and sweetgum in the higher areas, and bald cypress and water tupelo stands in the lower, wetter areas.

BIRDS: Swallow-tailed and Mississippi Kites nest near, roost on, and feed over the sanctuary. This wetland provides prime nesting habitat for a host of resident birds, including Wood Duck (which are extremely abundant), Red-shouldered Hawk, Barred Owl, Yellow-crowned Night-Heron, and Pileated Woodpecker. As an area of bottomland hardwoods along the Gulf, this area is a critical migration corridor for many neotropical migrants.

CONSERVATION: A long-term, ongoing study on the population demography and limiting factors of the Swallowtailed Kite incorporates the Fischer Wildlife Sanctuary as a study site. The sanctuary's proximity to other vast protected state

and federal areas ensures that large patches of uninterrupted forested wetlands are preserved. In this way corridors are maintained that allow for dispersal of species with large home ranges, and

area sensitive species are provided with suitable Sile Partner: expanses of habitat. In

Orleans Audubon Society

CONTACT INFORMATION: Jennifer Coulson, jacoulson@aol.com

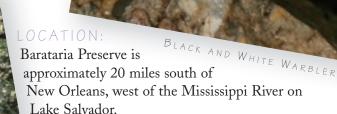
www.jjaudubon.net

addition, protection of large areas may help prevent expansion of nest parasites like the Brown-headed Cowbird into the forest interior. Threats to the site include infiltration of invasive exotics: Chinese tallow, privet, and Japanese climbing fern, as well as suburban runoff.



Baralaria Preserve

arataria Preserve is the nature-related unit of the Jean Lafitte National Historical Park and Preserve. It preserves a representative example of the Mississippi River delta natural environments, including levee forests, cypress/tupelo swamps, and marshes. Due to the proximity of the Preserve to the Gulf of Mexico, the area is vitally important to migrant birds, and supports a rich population of breeding and wintering birds.



SIZE: 8,100 ha (20,000 acres)

HABITAT: A variety of habitats exist, including levee hardwood forests with willow, live and water oak, ash, maple, elm, hackberry, and wax myrtle, cypress/tupelo swamp forests, and freshwater marsh along Bayou Des Families. The hardwoods occupy the elevated

natural levee, giving way to the cypress forested wetland at the bottom of the levee. About nine miles of hiking trails extend through the preserve.

BIRDS: Healthy populations of many southern species occupy the preserve, including at least six species of woodpeckers.

NEW ORLEANS BARATARIA PRESERVE

The Preserve is a critical breeding area for Prothonotary Warbler, a Partners in Flight Threatened and Declining species. Parula and Yellow-throated

Warblers also breed in the Spanish Moss of the oaks. The area provides a convenient and rich area for neotropical migrants to rest and refuel.

CONSERVATION:

Although the area is part of the Jean Lafitte National Park, encroachment by development is always a concern.

Site Partner:

U.S. National Park Service

CONTACT INFORMATION:

Wendy Rihner 6588 Barataria Blvd., Marrero, LA (504) 589-2330

www.nps.gov/jela/Barataria %20Preserve.htm

Lafillé Woods Preserve

afitte Woods encompasses some of the last remaining tracts of live oak and hackberry on the island of Grand Isle. This island, off the Louisiana coast just west of the mouth of the Mississippi River, is a critical stopover point for transgulf migrants, and has long been a favorite spot of Louisiana birders. The Nature Conservancy has constructed several walking trails in the woods, as well as an elevated boardwalk that overlooks 22 acres of tidal saltmarshes.

LOCATION: On the island of Grand Isle, Jefferson Parish, Louisiana.

SIZE: 14.17 ha (35 acres)

HABITAT: Lafitte Woods consists primarily of live oaks and and hackberry trees, and associated understory typical of barrier islands along the Gulf coast.

BIRDS: Over 300 species of birds have been recorded on Grand Isle, including over 30 species of neotropical warblers. Many rare birds for Louisiana, such as Gray Kingbird, have been recorded here.

CONSERVATION: The Nature Conservancy

Site Partner: The Nature Conservancy of Louisiana

CONTACT INFORMATION: The Nature Conservancy of Louisiana (225) 338-1040

nature.org/wherewework/ northamerica/states/ Louisiana/preserves/ art6853.html

is working to bring the various tracts of woods back to their original state. The development pressure on Grand Isle, as on any barrier island in the Gulf that is accessible, is tremendous. The island has been heavily populated for many years, and undeveloped land is scarce. The preservation of Lafitte Woods will ensure the survival of this unique habitat for future generations.



Pevelo Woods Migralory Bird Sanchuary

eveto Beach Woods (formerly Hollyman-Sheely and Henshaw Sanctuaries) is an important tract of coastal chenier which is a critical stopover habitat for migrating birds. The area has been used by ornithologists and birders since the early 20th century, and is the first chenier habitat preserved for migratory birds. Cheniers (which got their name from early French settlers, and means "place of oaks") are ancient beach ridges with stands of live oak and hackberry, and are a unique feature of the northern coast of the Gulf of Mexico.

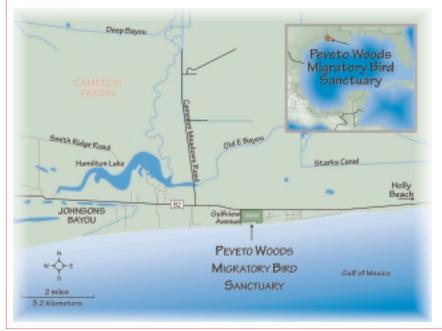


LOCATION: Cameron Parish, Louisiana, 8.5 miles west of Holly Beach.

SIZE: 20.25 ha (50 acres)

HABITAT: This coastal chenier consists mostly of live oak and hackberry trees. Other tree species include elm, green ash, toothache tree, red mulberry, and wax myrtle. Extensive stands of Yaupon are present as understory. There is a well-developed trail system for access to most areas.

BIRDS: Peveto Woods Sanctuary is a critical stopover oasis for neotropical migrants, especially in inclement weather. Cheniers provide abundant foraging, resting, and water habitat for migrants before and after their arduous Gulf crossing. Most eastern (and many western) U.S. migrants have been recorded in these woods.



CONSERVATION: Peveto Beach Woods was once a contiguous tract of coastal chenier, but it

was subdivided in the early 80's, and some land was sold to developers. Quick action by the Baton Rouge Audubon Society in the form of land purchases saved a significant portion of the remaining chenier. Coastal habitats are always subject to human disturbance and development, so permanent preservation of this important tract is vitally important.

Site Partner:

Baton Rouge Audubon Society

CONTACT INFORMATION:

Victoria Moseley Bayless Tel: 225.578.1838 Email: vmosele@lsu.edu

WEBSITE:

www.braudubon.org/index.asp

Sabinė Woods

abine Woods is a significant tract of chenier woods which consists mostly of live oaks, and a natural slough. Due to its location in extreme southeastern Texas just meters from the Gulf of Mexico, this refuge is one of the most important stopover oasis for neotropical migrants.

> LOCATION: Along Highway 87, 4.1 miles west of Sabine Pass, Texas.

5 | Z E : 12.15 ha (30 acres)

GOLDEN-WINGED WARBLER HABITAT: This coastal chenier woodlot is composed primarily of large live oaks, and willows, and hackberrys near wetlands. The understory is fairly open in places, and dense in others. Boardwalks provide convenient access to most parts of the sanctuary, and there are benches and viewing platforms in several places. Over a hundred new oak saplings (which are now 15-feet high) have been planted by the Texas

Ornithological Society, and they are thriving and add additional important bird habitat.

BIRDS: As with all coastal cheniers, Sabine Woods is critical stopover habitat for transgulf neotropical migrants.

This large oak motte is very isolated on the Texas coast, and attracts large numbers of migrants.

Sile Parlner:

Texas Ornithological Society

CONTACT INFORMATION: Dr. Brent Ortego brent.ortego@tpwd.state.tx

www.texasbirds.org/ sabine.woods.html

CONSERVATION:

Sabine Woods is owned by the Texas Ornithological Society, and therefore protected in perpetuity. TOS has taken active steps to maintain and enhance the facilities and habitat. These woods are now one of the premier birding spots in North America.



Sea Rim State Park

ea Rim's estuarine environment serves as an important nesting area for various marsh birds and provides an initial stopover for migratory species traveling the Central Flyway.

LOCATION: Sea Rim State Park is located on the upper Texas Gulf coast in southeastern Jefferson County on State Highway 87, 10 miles west of the town of Sabine Pass or 22 miles from Port Arthur.

SIZE: 1,677 ha (4,141.1 acres)

HABITAT: Sea Rim State Park is one of the few areas on the Texas coast located on the Chenier Plain, an expanse

of broad marsh prairies separated by higher ridges. The majority of the Park consists of marsh

wetlands dominated by cordgrass, cane, and other grasses and sedges. The Willow Pond

Trail is located in a small grove of black willows, salt cedars, and other small trees. The D. Roy Harrington Beach Unit includes 5.2 miles of sandy Gulf coast beachfront and grassy dunes.

CAPE MAY WARBLER

Rim's Willow Pond Trail provides a primary stopover point for many migratory birds during the spring and fall; the spring migration (mid-March through mid-April) is particularly spectacular. The Willow Pond trail is one of the best places on the Texas coast to see Cape May Warbler in the spring. During the late spring and summer, Barn Swallow, Cliff Swallow, and occasional Cave Swallow nest in the beams under the elevated Visitors' Center at the D. Roy Harrington Beach Unit. Sea Rim's Gulf beachfront provide ample space for viewing gulls, terns, pelicans, plovers, sandpipers, and various other shorebirds. Herons, egrets, ibis, rails, and Roseate Spoonbill can be viewed most of the year from the Park's Gambusia Nature Trail. Nelson's Sharp-tailed and Seaside Sparrows can be seen among the marsh grasses and Blue-winged Teal and other waterfowl in the marsh estuaries during winter.

CONSERVATION: Park staff maintains Sea Rim State Park and its facilities. Wildlife and natural resources are protected according to standards established by the Texas Parks and Wildlife Code. Controlled burns held in conjunction with the U.S. Fish & Wildlife Service help maintain the marsh prairies, allowing valuable nutrients trapped in old growth

Sea Rim
State Park

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PARK

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plants to return to the soil and encourage new growth. One primary conservation threat is the tremendous amount of ocean-borne trash that washes up on the

park's beachfront. Park staff counters this threat through continual beach raking and litter collection, as well as through biannual Adopt-A-Beach Cleanups sponsored by the General Land Office. A secondary threat comes from activity associated with the petroleum industry; although no sites are located on park grounds there are several in close proximity.



Sea Rim State Park

CONTACT INFORMATION:

Contact Information:

Jonothan Plant

PO Box 1066,

Sabine Pass, TX

77655-1066,

(409) 971-2559

WEBSITE:

www.tpwd.state.tx.us/park/ searim

Houston Andubon Society's High Island Sanctuary Complex

his site has gained national and international recognition as a premiere location to witness the phenomenon of migration. During certain parts of the migration seasons, thousands of colorful migrants can be viewed seeking food and shelter in this habitat oasis.

LOCATION: Northeast Galveston County on the upper Texas Coast. The four sanctuaries that make up the sanctuary complex are located in the town of High Island, about a mile from the Gulf of Mexico. The largest and most visited sanctuaries are Boy Scout Woods and Smith Oaks. The other two are Eubanks Woods Bird Sanctuary and S.E. Gast Red Bay Sanctuary.

SCARLET TANAGER SIZE: 99.6 ha (246 acres)

HABITAT: High Island is the highest point on the coast between the mouth of the Mississippi River and the Rio Grande. It is the surface expression of an underground salt dome, and thus it is an elevated island of wooded habitat surrounded by coastal wetlands. The sanctuary system consists of a variety of habitat types including woodlots, ponds, coastal prairie, brushy areas, and freshwater marshes. Wooded habitat is predominantly composed of oaks and hackberries. The understory is yaupon and invasive Chinese privet.

BIRDS: During the spring and fall migration seasons, this island of diverse upland habitat amidst a sea of prairie and marshes provides a critical resting and feeding area for many thousands of migratory birds. When stormy weather brings contrary winds, these woods often give refuge to a great abundance and diversity of weary migrants, providing an amazing spectacle to visitors. Additionally, Claybottom Pond in Smith Oaks sanctuary has a waterbird colony that provides nesting sites for over 1,000 pairs of birds. These include Great Egret, Snowy Egret, Cattle Egret, Little Blue Heron, Tricolored Heron, White Ibis, and Neotropic Cormorant. It is also an important roosting site during the nonbreeding season.

CONSERVATION: The sanctuaries at High Island are a favorite destination for thousands of birdwatchers and nature-lovers each year, especially during spring migration. Habitat has been enhanced to provide high quality habitat for

migrating birds. Visitor access includes trails, boardwalks, and other visitor facilities.

Ecotourism dollars generated by visitors to the sanctuaries gives local

> communities an incentive to protect bird habitat. There is concern over the future of coastal habitat in and around High Island making the potential for urban development. Also, structures such as communication towers and wind turbines in this area have the potential to kill large

numbers of migrants.



Audubon Society

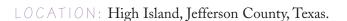
CONTACT INFORMATION: 440 Wilchester Houston, TX 77079, 713-932-1639

www.houstonaudubon.org



Texas Ornithological Society High Island Sanctuaries

arrie Herring Hooks Woods Sanctuary and Mary Edna Crawford Bird Sanctuary are part of the extensive preserved area of High Island, Texas. The Hooks Woods site was donated to the Texas Ornithological Society in 2001 by heirs of the Hooks family. This property has been owned by this family since the early 1900's. A popular hotel was constructed on the site in the 1920s and burned down during the 40's. The Hooks family has a long history with Texas Ornithology. They were the primary funders of Oberholser's "The Bird Life of Texas" and various family members studied birds through the years.



SIZE: 2 ha (5 acres)

HABITAT: The Hooks site is encircled by a cyclone fence and contains about 3 acres of wooded lots with dense shrub/vine understory. Canopy is comprised of liveoak, wateroak, hackberry, ash and to a lesser extent Chinese tallow and chinaberry with dominant trees being about 80 years old. Understory consists of privet, yaupon, beautyberry, English ivy, trumpet creeper, and green-brier. Crawford Sanctuary is primarily live oaks and grass. There are plans to plant additional trees here to improve the habitat.

BIRDS: High Island is known as one of the major neotropical migrant stopover sites on the Texas Coast and this is the first block of woods migrants will have access to when making landfall in the spring.



CONSERVATION: All forested areas on High Island are critical for transgulf migrants. The preservation of any remaining habitat,

ORCHARD ORIOLE

regardless of size, is of vital importance to these birds. TOS has plans to improve the habitat of Hooks Woods, and make it more accessible to birders.



www.texasbirds.org

Teras Chenier Plain National Wildlife Refuge Complex

his collection of National Wildlife Refuges includes Anahuac, McFaddin, Texas Point, and Moody. These coastal refuges harbor much of the coastal migratory bird habitat along the upper Texas coast.

LOCATION: Anahuac NWR is located on the far eastern edge of Galveston Bay in Chambers County, just north of the Bolivar Peninsula. The refuges McFaddin and Texas Point are located on the very southeast corner of the Texas coast in Jefferson County. Moody NWR is in Chambers county, between Smith Point, and Anahuac NWR.

SIZE: Anahuac – 13,895 ha (34,309 acres); McFaddin – 22,753 ha (56,180 acres); Texas Point - 3,626 ha (8,952 acres); Moody – 1,424 ha (3,517 acres).

HABITAT: These refuges offer a wide variety of habitats, from coastal wetlands, coastal prairie, croplands,

bayous, wood riparian zones, and small coastal woodlots. The woodland areas are especially important for migrant songbirds, since these limited woodlots are islands in a sea of marshes and prairie.

BIRDS: This complex of refuges includes some of the most important bird habitat on the Gulf Coast. The array of habitats is suitable for all migratory birds, including waterfowl, raptors, shorebirds, colonial waterbirds and song birds. Large numbers of waterfowl winter on these refuges. Migratory shorebirds and

neotropical warblers find ample habitat for resting and refueling in the woodlots and on the mudflats that are widespread. Threatened and endangered species utilizing Refuge Complex habitats include the Piping Plover,

Brown Pelican, Peregrine Falcon and Bald Eagle.

CONSERVATION: The greatest threats to these Refuges are land subsidence, saltwater intru-

Sile Partner: US Fish and Wildlife Service

CONTACT INFORMATION: Texas Chenier Plain NWR Complex

P.O. Box 278 Anahuac, TX 77514

www.fws.gov/

sion, spread of exotic plants, and erosion. The US Fish and Wildlife Service works actively to counter these effects, as well as taking an active role in land conservation, such as water management, prescribed burning, exotic plant control, and prairie restoration.



Candy Abshier Wildlife Management Area

he Candy Abshier Wildlife Management Area is strategically located at the east edge of Galveston and Trinity Bays near Smith Point, which contributes to its status as one of the country's premier locations for autumnal hawk migration. The area also contains a 24 ha (60 acre) stand of live oaks which attract numerous neotropical migrants in both spring and fall.

LOCATION: Southwestern Chambers County, Texas, approximately 64 km (40 miles) east of Houston, Texas. The community of Smith Point borders this wildlife management area to the north, east and west. East Bay is to the south.



SIZE: 83.8 ha (207 acres)

HABITAT: 24 ha (60 acres) of the WMA are in oak motte habitat with the remaining acreage in coastal prairie vegetation which includes little bluestem, brownseed paspalum, bushy bluestem, smutgrass, carpetgrass, wax myrtle, and wild indigo. Species found in the mottes include live oak, laurel cherry, yaupon, chinese tallow, and a number of other tree, shrub, and understory species. There are also several fresh-water ponds.

BIRDS: The oak motte on Candy Abshier is one of fewer than 30 mottes that can be found along the upper Texas Coast. These areas are of vital importance to spring migrants as they return from Central and South America. Candy Abshier is also an important site for overwintering grassland birds. Also, the area serves as an

important migration pathway for the southward movement of hawks and falcons in the fall. Twentytwo species of raptors use this site as a staging area prior to completing their migration to South America for the win-

dy Abshier anagement SMITH POINT CANDY ABSHIER WILDLIFE MANAGEMENT AREA

ter. Raptor migration at this nationally known site has been monitored annually since 1991. This long-term dataset provides insight into raptor demographics and is available on GCBO's

website.

CONSERVATION:

As a Texas Parks and Wildlife Management Area, Candy Abshier is preserved by the State for use in research, education, and outdoor recreation.



Texas Parks and Wildlife Department

CONTACT INFORMATION: 4200 Smith School Road Austin, TX 78744 Telephone: (512) 389-4995

www.tpwd.state.tx.us/

Wallisville Lake Project

he Wallisville Lake Project is a large area of protected wetlands, swamp forest, and bottomland hardwood forest created by the U.S. Army Corps of Engineers for salinity control, navigation, water supply, recreation, and fish and wildlife enhancement. The protection of this land is of vital importance to birds.

LOCATION: The Wallisville Lake Project stretches along both sides of the Trinity River and both north and south of Interstate Highway 10 about half way between Houston and Beaumont, Texas. Much of the Project is accessible by boat from boat launch facilities at Hugo Point Park (Gou Hole Road off FM 565 south from I-10), Trinity River Island Recreation Area (the Project Office area just south of I-10 on Lock and Dam Road from exits 806 and 807), under the high bridge over the Trinity River (accessed

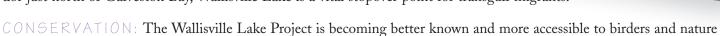
BLACKPOLL WARBLER from the Trinity River Boat Ramp Turnaround off I-10), and a hand-launch

canoe/kayak area at Cedar Hill Park (from I-10 take FM 563 north to Lake Charlotte Road west to the park).

SIZE: 9,315 ha (23,000 acres)

HABITAT: The Project, which protects the estuary of the Trinity River system, consists of riparian bottomland forests, fresh and brackish water marshes, cypress swamps, and several natural lakes and rivers, and smaller streams and pools.

BIRDS: This site is just beginning to be known for its variety of species, varied habitats, and ease of access. The Trinity River Mouth Waterbird Rookery is home to at least a dozen waterbird species. On the JJ Mayes Wildlife Trace all the waterbird species seen at the rookery, hawks, waterfowl, and songbirds can be viewed and enjoyed. At Cedar Hill Park songbirds and nesting bald eagles are known to inhabit the trees along the trails and lakeshore. As a major riverine corridor just north of Galveston Bay, Wallisville Lake is a vital stopover point for transgulf migrants.



lovers each year. As the Project brings more facilities on-line, additional benefits will be realized. Ecotourism generated for Chambers County

Site Partner: access from I-10 could US Army Corps of Engineers CONTACT INFORMATION: Ruth Milsaps 20020IH-10 East Feeder Road PO Box 293 the Project. Additional Wallisville, TX 77597

WEBSITE:

www.swg.usace.army.mil/pao/ newsrel/WallisvilleBirds.pdf/

encourages more access and further protection of these habitat areas. The ease of become too easy which is a concern. Variables in the Federal fiscal process and continued manpower adequacy are also concerns for potential threats are an encircled oil field, and numerous crossing pipelines.

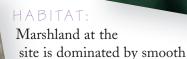


Elm Grove

emote and inhospitable, Elm Grove is seldom visited by man and is accessible only by boat. The coastal woodlot portion of the site is approximately 30 ha (75 acres) and is a prime example of high-quality migratory bird stopover and fallout habitat.

LOCATION: East Galveston Bay, Galveston County, Texas. The area was once part of the Bolivar Peninsula, but was severed when the Gulf Intracoastal Waterway was constructed in the 1930s.

SIZE: 172 ha (425 acres)



cordgrass. The woodlots on the upland have an understory composed of 1.8 – 2.1 meter (6- to 7-foot) dwarf palmetto and waxmallow. The largest Cedar Elms are 13.7-15 meters (45-50 feet) tall, with dead limbs and snags creating excellent habitat for cavity-nesting birds. Other trees include Southern Texas Sugarberry, Toothache Tree, Water Locust and Huisache. The area is especially important in the shelter it provides for birds during migratory periods.

BIRDS: During the migration season, migratory landbirds concentrate at Elm Grove since it is one of the few quality forested patches on the Bolivar Peninsula. Since the area is surrounded by water, it provides additional protection from human disturbance and predation. During summer visits, numerous colonial waterbirds, marsh birds, and shorebirds have also been documented.

CONSERVATION: Because of its relative inaccessibility, Elm Grove is unlikely to become a birdwatcher's destination.



However, this inaccessibility protects this stopover habitat from many of the threats and pressures faced by other similar coastal woodlots. Even as much of

the Bolivar Peninsula becomes more developed from urbanization, Elm Grove will remain as a museum of habitat and a sanctuary for traveling migrants.

Sile Parlner:

The Nature Conservancy of Texas

CONTACT INFORMATION: webmastertexas@tnc.org

WEBSITE:

nature.org/wherewework/ northamerica/states/texas/

Houston Audubon's Bolivar Flats Shorebird Sanctuary

olivar Flats Shorebird Sanctuary is an exceptionally productive complex of mudflats, salt marsh, uplands and beach. This ideal combination of habitats provides resting, feeding and/or breeding sites for hundreds of thousands of birds each year.

LOCATION: Adjacent to the Gulf of Mexico the sanctuary is located in the unincorporated community of Port Bolivar in Galveston County, on the south end of the Bolivar Peninsula.

SIZE: 464 ha (1146 acres)

HABITAT: Bolivar Flats Shorebird Sanctuary is a unique habitat complex that was created by the building of the North Jetty at the mouth of Galveston Bay in the late 1800's. The jetty has stopped the southward flow of the longshore current causing it to drop rich sediments. Sediments have accumulated and developed into mudflats full of invertebrates and salt

marshes that are nurseries for fish, shellfish and other marine organisms. Adjacent to the mudflats and salt marsh are coastal prairie uplands and open beach.

BIRDS: Bolivar Flats' special importance to 25 species of shorebirds prompted its designation as "Wetland of International Importance" by the Western Hemisphere Shorebird Reserve Network. Of particular significance are the large numbers of endangered Piping Plovers and threatened Snowy Plovers which use this area as a migratory stopover and wintering location. This area is also heavily used by thousands of feeding wading birds including Reddish Egret and Roseate Spoonbill. Large numbers of Brown Pelican roost on the mudflats and feed in the adjacent waters. Nelson's Sharptailed Sparrow and Seaside Sparrow, both on the Partners In Flight Watch List because of their restricted ranges, can be found in the sanctuary.

CONSERVATION: Bolivar Flats is visited by thousands of birders and fishermen each year and the regular disturbance

of roosting birds and nesting birds is a great concern. Interpretative signs have been erected

in the sanctuary to educate visitors about the value of the habitat to birds.

A vehicular barrier has been constructed to keep vehicles out of sensitive habitat and Least Tern nesting locations are fenced off. The Santuary's location, adjacent to the heavily used Houston Ship Channel, leaves it vulnerable to oil and chemical spills.

Site Partner:

Houston Audubon Society

CONTACT INFORMATION: 440 Wilchester Houston, TX 77079, 713-932-1639

www.houstonaudubon.org



Herman Brossn Park

park located on the northeastern edge of the city of Houston. The park offers most amenities of city parks, including tennis courts, playgrounds, and bike paths. Additionally, the center area of the park is an area of bottomland hardwood forest, with trails. This virtually undisturbed forest is an excellent oasis for wildlife, at the junction of Houston's two largest freeways.

LOCATION: The park is located in Harris County, Texas, just northeast of the I-10 and I-610 interchange.



SIZE: 303.75 ha (750 acres)

HABITAT: The park is part of the watershed for Buffalo Bayou, and is bisected by Hunting Bayou. The area is an isolated patch of forest amid extensive residential development. Typical trees are live oaks, black willow, and cypress. Common riparian understory plants like yaupon are abundant.

BIRDS: Herman Brown Park, as a wooded oasis in the city of Houston, is an important stopover point for neotropical migrants.

Migrants likely use the Buffalo Bayou corridor in their journey, and its tributaries like Greens Bayou and Hunting Bayou are utilized as well. Outside of the park, most of the riparian forest along these bayous is gone, but Herman Brown Park still has

these migrant corridors. Breeding species include Ruby-throated Hummingbird, White-eyed Vireo, Yellow-billed Cuckoo, and Northern Parula Warbler.



CONSERVATION: Habitat degradation from overuse is the greatest threat to this park. Pressure to

expand the facilities of the park will always be an issue. Another threat is potential highway expansion. It is imperative that the city of Houston continue to preserve these urban refuges for future generations.

Sile Parlner:

City of Houston, Parks and Recreation Dept.

CONTACT INFORMATION: 2999 S. Wayside Drive, Houston, TX 77023, 713-845-1000

WEBSITE: www.ci.houston.tx.us/pr/

Teras City Prairie Preserve

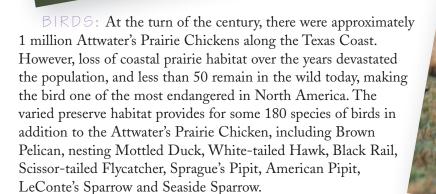
exas City Prairie Preserve is host to one of the last two remaining populations of the federally endangered Attwater's Prairie Chicken. A precious island of coastal prairie habitat, the preserve is surrounded by industry and urbanization.

LOCATION: The north side of Texas City, bordering Moses Lake to the east and Dickinson Bayou to the north.

SIZE: 931.5 ha (2,300 acres)

HABITAT: Intensive restoration efforts including prescribed burning and the removal of invasive, non-native Chinese tallow trees have resulted in a notable example of coastal tallgrass prairie, a vital wildlife habitat that is rapidly vanishing. The preserve also includes

intertidal marsh and post oak motts.



CONSERVATION: During the spring breeding season, visitors have a rare chance to see the mating display of the male Attwater's Prairie Chicken, likened to

the dances of some Native American prairie dwellers. In a demonstration of compatible agriculture, preserve management includes

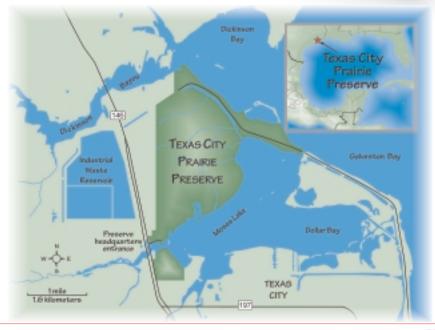
rotational grazing of cattle, prescribed fire, invasive

Site Partner: The Nature Conservancy of Texas CONTACT INFORMATION:

4702 Hwy. 146 North, Texas City TX 77590, 409-941-9114

www.nature.org/texas

species control and shoreline erosion protection. Restoration of the coastal prairie is a primary stewardship activity on the preserve. Cattle grazing, which has occurred on the prairie since the late 1800s, continues to provide a substitute for the wandering herds of bison that are no longer present.



Pierce Marsh Preserve

sierce Marsh Preserve is an intertidal marsh located within the Central Flyway of North America that provides important foraging, resting and breeding habitat for nearly 300 species of birds.

LOCATION: Near Hitchcock, Galveston County, Texas

SIZE: 551.2 ha (1,361 acres) - 454 acres owned by Galveston Bay Foundation; 816 acres owned by The Nature Conservancy.

HABITAT: This site contains a variety of wetland and upland habitats, including open water marine and estuarine areas, tidal marsh, salty prairie grasslands and typical coastal prairie uplands, as well as habitats characteristic of barrier islands (beach, dunes, grasslands, etc.), and bayous with riparian woodland.



Waterfowl including Northern Pintail, Redhead,

EASTERN KINGBIRD Canvasback, and Ring-necked Ducks use the site to winter, while Mottled Ducks are permanent residents. Tidal mud flats provide critical habitat for migrating shorebirds and provide yearlong habitat for wading birds. Species that use the site include: Reddish Egret, Black Rail, Black Tern, White-faced Ibis, Brown Pelican, Wilson's Plover, Marbled Godwit, Red Knot, Willet, Long-billed Curlew, Sanderling, Least Sandpiper, Black-

necked Stilt, American Avocet, Ruddy Turnstone and Seaside Sparrow. Migrating songbirds use the riparian woodland for stopover and refueling.

CONSERVATION: Threats to Pierce Marsh include reduced freshwater inflows, saltwater intrusion into the freshwater system, shoreline erosion, petroleum and other industrial activities, urban development, agricultural development, dredging, grazing pressure, water pollution and invasive exotic species. The management strategy for the site is to restore the area

BAYOU PIERCE MARSH

from open water to emergent marsh. This primary focus is habitat restoration and enhancement with the help of a growing preserve volunteer program.

Thus far, restoration efforts on the property have created 7 acres of emergent marsh. A restoration project that will protect an additional 1,600 acres and restore 40 acres of subsided tidal marsh is underway with the Galveston Bay Foundation.

Sile Parlner:

The Nature Conservancy of Texas, Galveston Bay Foundation

CONTACT INFORMATION: The Nature Conservancy of Texas P.O. Box 2563 Corpus Christi, TX 78403

nature.org/wherewework/ northamerica/states/Texas/ preserves/art6426.html

Scenic Galveston Preserve Complex

•he Scenic Galveston Preserve Complex is centered around the John M. O'Quinn I-45 Estuarial Corridor in the salt marshes flanking the highway approach to Galveston Island, Texas. The Preserve is expanding to included a number of adjacent bayshore areas with additional habitat types; the adjoining Virginia Point Peninsula Preserve was added to the complex in early 2004, almost tripling its size.

GRASSHOPPER SPARROW This preserve complex not only offers a stunning natural entrance to the island of Galveston, but also helps link up the other

preserved conservation areas around West Galveston Bay.

LOCATION: The Scenic Galveston Preserve Complex extends from the community of Bayou Vista and Texas City Hwy 146/Loop 197 southward to the Santa Fe railroad bridge at I-45 and to the tip of Virginia Point east of the bridge. It extends across the peninsula from Jones Bay (Highland Bayou) eastward to Galveston Bay (relict Campbell Bayou/Swan Lake).

SIZE: 972 ha (2,400 acres)

HABITAT: The combined Scenic Galveston Preserves contains intertidal marshes along I-45, and a full complement of coastal habitat types, grading from low to higher salt marsh to marsh hay meadow and undisturbed coastal prairie and freshwater wetlands. The Preserve complex also includes the undisturbed portions of the historic Virginia Point Peninsula, ensuring a permanent habitat corridor between Galveston and West Galveston Bays.

BIRDS: This area is an important stopover for migrating shorebirds, and wintering habitat for several threatened/ endangered species and high priority waterfowl. The Preserve also hosts vital wintering habitat for grassland birds.

CONSERVATION: In addition to saving this beautiful area from further development, the all-volunteer SCENIC GALVESTON organization is planning and executing extensive habitat restoration and improvement in degraded sections

of the preserve. Approximately 80 acres of replacement wetlands have been constructed in the

O'Quinn Corridor since 1999. Ongoing efforts

of volunteers are directed toward returning the area to its pristine original state, to permanent management to protect and sustain these restored and enhanced habitats and to continuing land

acquisition work.



Scenic Galveston, Inc.

CONTACT INFORMATION: Lalise Whorton Mason,

lalise@earthlink.net

www.scenicgalveston.org/



Texas Midcoast National Wildlife Refuge Complex

and Big Boggy National Wildlife Refuges, and encompasses a wide variety of habitats along the upper Texas coast. The area is home to thousands of wintering Snow Geese, and is recognized as an internationally significant shorebird site. Scattered woodlots in the refuges, as well as the remaining portions of the Columbia Bottomlands forest in San Bernard are vital stopover points for neotropical migrants. Radar studies have identified the Columbia Bottomlands as a primary and central place for large numbers of these migrants.

his refuge complex consists of Brazoria, San Bernard,

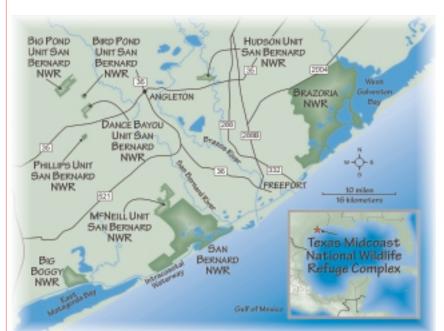
LOCATION: Along the upper Texas coast in Brazoria and Matagorda counties.

SIZE: 30,517 ha (75,351 acres)

HABITAT: The wide variety of habitats include saline and non-saline prairie, mudflats, fresh and salt marsh, fresh and saltwater lakes, bottomland hardwood forest, and two intermittent freshwater streams. A 5,000 acre tract of native bluestem prairie on Brazoria NWR respresents one of the last coastal prairies in Texas.

BIRDS: A tremendous variety of birds use these refuges. The refuge is one of the principal wintering areas in North America for snow geese. Hundreds of thousands of shorebirds utilize the mudflats during spring and fall migration. Over 30 species of neotropical passerine migrants have been recorded. Among the birds that nest on the refuge

complex incude ten species of herons and egrets, White Ibis, Bald Eagle, Roseate Spoonbill, Mottled Duck, Black-shouldered Kite, Clapper Rail, Horned Lark, Seaside Sparrow, Black Skimmer, and Scissor-tailed Flycatcher.



CONSERVATION: Ongoing management is necessary to maintain these important and varied habitats. Water management projects help maintain

WORM-EATING WARBLER

the shallow, freshwater ponds that are used by many birds, especially during times of drought. Controlled burning of grasslands recycles nutrients and helps control the spread of exotic brush. Efforts related to preservation of the remaining Columbia Bottomland forests continue.



U.S. Fish and Wildlife Service

CONTACT INFORMATION: Brazoria National Wildlife Refuge Complex 1212 North Velasco, Suite 200 Angleton, TX 77515

WEBSITE: refuges.fws.gov/

Fulf Coast Bird Observatory

he Gulf Coast Bird Observatory headquarters is located on a parcel of Columbia Bottomland forest along the edge of Buffalo Camp Bayou. The land was donated to GCBO by Dow Chemical Texas Operations and hosts staff office space, educational events, a nature bookstore, hiking trails, and banding and bird feeding stations. This site serves as the International Headquarters for the Site Partner Network.

LOCATION: 103 W. Hwy 332, Lake Jackson, Texas.

SIZE: 13.7 ha (34 acres)

HABITAT: Mostly Columbia Bottomland hardwood forest and edges. A recently constructed wetland provides roosting, feeding, and nesting opportunities for colonial waterbirds

and other wetland dependent species.

BIRDS: GCBO headquarters and surrounding areas are a significant stopover destination and staging area for millions of birds during their migration across the Gulf of Mexico (unpublished research data from radar imagery by Dr. Sidney Gauthreaux). Dr. Gauthreaux's work shows us that these bottomland forests are important resting and refueling habitat for these birds. Initial investigations of the importance of these habitats found that 237 species of birds totaling 239 million individuals migrate through the area annually. The area is also an important habitat for resident breeding birds.

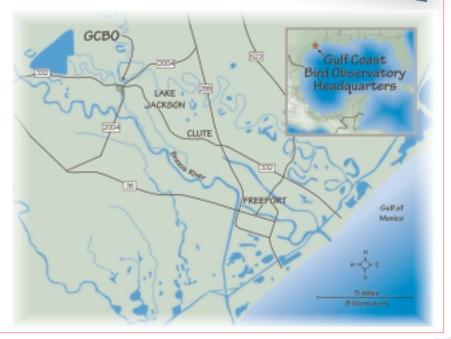
YELLOW-BILLED CUCKOO

CONSERVATION: The protection of critical bottomland habitats has become a conservation priority throughout the eastern US states. Bottomland hardwood forests and associated

Site Partner: Gulf Coast Bird Observatory CONTACT INFORMATION: Cecilia Riley Executive Director

103 W. Hwy 332, Lake Jackson, TX 77566

habitats occur in significant amounts along the floodplains of the rivers and bayous of four coastal counties west of the eastern forest section of Texas. Historically, these seasonally flooded forests were contiguous along the river and bayou corridors, but they are now fragmented by human activities.



Anost Woods

now Woods is the southernmost remnant of Columbia Bottomland forest existing today. This site, which is only four miles inland from the Gulf of Mexico, provides an extensive expanse of diverse stopover habitat for neotropical migrants.

LOCATION: Snow Woods is in the town of Oyster Creek, southern Brazoria County, Texas. Most of this area is now occupied by industrial development.

SIZE: 101.25 ha (250 acres)

HABITAT: Most of Snow Woods is bottomland hard-

wood forest along an oxbow

NASHVILLE WARBLER lake that was once part of Oyster Creek.

Much of the understory has been reduced by grazing, but portions of the woods are fenced off, and the understory has returned. The woods are dominated by mature Live Oaks, with some other hardwoods such as Hackberry and Pecan.

BIRDS: Snow Woods lies four miles inland from the Gulf of Mexico, and is the most prominent forested area that transgulf migrants would encounter as they make landfall around the Columbia Bottomlands. The area is especially important when

strong storms force migrants down into the first available wooded area. It is also a valuable site in winter and is included in the annual Freeport Audubon Christmas Bird Count, always one of the highest counts in the nation.

CONSERVATION: Snow Woods is privately owned. It has been in the family since the 1800's, and there are no current plans for development. Portions of the property are owned by different family members however, so there is always a chance



that the property will eventually be divided and/or sold for development. However, the Snow family has a strong interest in conservation, and it is hoped that the property will

be preserved for future generations.

Site Partner:

The Joseph Snow Family

CONTACT INFORMATION:

Please contact the Gulf Coast Bird Observatory for information.

Quintana Bird Sanctuary System

 he island of Quintana is located 16 km (ten miles) south of Lake Jackson on the Gulf of Mexico, between the mouths of the Old Brazos and the New Brazos Rivers. This man-made island (created with the construction of the Intercoastal Waterway in the 1920's) is located directly in the flyway of most neotropical migrant birds. Although wooded vegetation on the island is scarce, a critical sanctuary exists, and more land is being preserved and revegetated by GCBO.

LOCATION: Just south of Freeport, and southwest of Surfside, Brazoria County, Texas.

SIZE: The Sanctuary system is approximately 1.62 ha (4 acres). The recent addition of a new city nature park

HABITAT: Most of Quintana Island consists of depressional wetlands and prairie, scrub-shrub, and upland habitat that contains toothache tree, saltcedar, and other woody vegetation.

added several more acres.

BLACKBURNIAN WARBLER

BIRDS: The Quintana Neotropical Bird Sanctuary is approximately six lots, and has been planted with toothache trees and other woody vegetation that can be used by neotropical migrants. During migration, the sanctuary is utilized heavily by migrants as an oasis in a sea of prairie, wetlands, and chemical plants. An additional nine lots on Quintana have been purchased by Gulf Coast Bird Observatory and the Houston Audubon Society with plans to increase the available habitat for birds.

CONSERVATION: While only the existing Neotropical Bird Sanctuary is heavily used by migrants, efforts are underway to vegetate the

file Parlner : The City of Quintana, Gulf Coast Bird Observatory, and

CONTACT INFORMATION: 814 N. Lamar Quintana, TX 77541

the Houston Audubon Society

www.quintana-tx.org/

remaining lots so that wooded habitat is increased on the island. Unfortunately, the area has come under pressure from new industrial development and some of the woody cover will be lost. Gulf Coast Bird Observatory is working with developers to mitigate the loss of habitat associated with the construction.

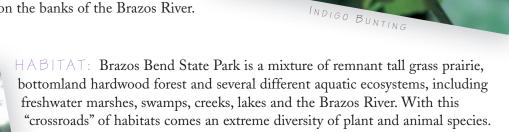


Brazos Bend State Park

razos Bend State Park opened to the public in April of 1984, and quickly became one of the most popular parks in Texas. Since then Brazos Bend has received over 8 million visitors from around the world. The park offers nearly 100 campsites, 21 miles of hiking and biking trails, picnic areas, playgrounds, a nature/education center, gift shop, an award winning ADA accessible trail, interpretive programs, special events and the George Observatory.

LOCATION: About 80.5 km (50 miles) southwest of Houston in Fort Bend County, Texas. The towns of Sugar Land, Richmond/ Rosenberg, Angleton and West Columbia are all about 48.3 km (30 miles) from the Park. The Park is situated about 64.4 km (40 miles) from the Gulf of Mexico on the banks of the Brazos River.

SIZE: 2,016 ha (4,977 acres)



BIRDS: Over 290 species of birds have been documented at Brazos Bend State Park. In the winter the park's prairies are utilized by wintering sparrows, including Le Conte's and Henslow's, and the park's wetlands provide habitat for wintering waterfowl, as well as Bald Eagle. In the Spring and fall, the park acts as a resting and refueling stop for migrating birds, including warblers, tanagers, orioles and During the summer months, the park provides breeding habitat for many more species.

including Painted and Indigo Buntings, Summer Tanager, three species of vireos, Prothonotary and Yellow-throated Warblers, Common Yellowthroat and Northern Parula. The park's wetlands provide breeding and nesting habitat for herons, egrets, Roseate Spoonbill, Anhinga, Purple Gallinule, Black-bellied Whistling Duck, Wood Duck, and Least Bittern.



CONSERVATION: With the close proximity to major metropolitan Houston, the park is faced with unique problems such as urban sprawl, as well

as light and noise pollution. With the rapid growth of Harris and Fort Bend Counties, Brazos Bend State Park is playing an increasingly important role in providing an oasis of natural habitat for both birds and people.



Texas Parks and Wildlife Department

CONTACT INFORMATION: David Heinicke 21901 F.M 762, Needville, TX 77461

www.tpwd.state.tx.us/ park/brazos

Wimmer Hummingbird Sanctuary

 he Wimmer Hummingbird Sanctuary is a tract of Columbia Bottomland hardwood forest located along the banks of the San Bernard River. The land was a gift to the Gulf Coast Bird Observatory from Martin Wimmer of Houston, Texas to be conserved for birds and for the enjoyment of the public. A Sanctuary task force was formed, and these Task Force members, including: Fort Bend County Master Gardeners Inc., Texas Cooperative Extension at Fort Bend County County, USDA Natural Resources Service, other Fort Bend County offices, the City of Kendleton, and Fort Bend 4-H County

Outdoor Sports Club has provided site planning and soil surveys,

flora and fauna inventories, assisted with trail and interpretive signage design, and helped develop and implement educational activities for the sanctuary. Recently, Gulf Coast Bird

Observatory transferred title of this property to the U.S. Fish and Wildlife Service, protecting this riparian corridor in perpetuity.

LOCATION: The sanctuary is located in Ft. Bend County, Texas, on the banks of the San Bernard River.

SIZE: 8.9 ha (22 acres)

RUBY-THROATED HUMMINGBI

HABITAT: The Sanctuary is part of the Columbia Bottomlands, one of the last and largest forested areas remaining along the western Gulf of Mexico. This bottomland hardwood forest once covered over 285,000 ha (700,000 acres), but only around 100,000 ha (250,000 acres) remains. This 22-acre parcel of land is surrounded by farmland, pasture, and rural residential development.

BIRDS: The Columbia Bottomlands is one of the most important stopover points for neotropical migrants. Radar studies have shown that migrating birds often follow riparian zones during their journeys—Wimmer is located strategically along

the San Bernard River. Over 200 species of neotropical migrants use Wimmer each spring and fall, and other species have been recorded nesting there, such as Ruby-throated Humming-

bird, White-eyed Vireo, Yellow-billed Cuckoo, and Northern Parula Warbler.

Site Partner:

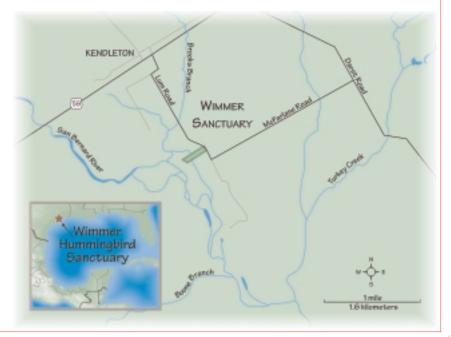
U.S. Fish and Wildlife Service

CONTACT INFORMATION: Brazoria National Wildlife Refuge Complex 1212 North Velasco, Suite 200 Angleton, TX 77515

refuges.fws.gov/

CONSERVATION:

This parcel of important land has been purchased and added to adjacent areas owned by the US Fish and Wildlife Service, and will contribute to a continuous corridor of protected habitat along the San Bernard River.



Clive Runnells Family Mad Island Marsh Preserve

ad Island Marsh Preserve is part of a network of coastal wetlands that once stretched from the mid-coast of Texas to the central Louisiana coast. The preserve is an integral part of maintaining a healthy, functioning ecosystem in Matagorda Bay. The combination of fresh and saltwater wetlands, along with thousands of acres of native prairie act as a nursery for thousands of species of plants and animals.

LOCATION: Situated around Mad Island Lake on West Matagorda Bay, the preserve is located off FM 1095 in Matagorda County, southeast of Collegeport.

SIZE: 2,860 ha (7,063 acres)

VERMILION FLYCATCHER HABITAT: Mad Island Marsh is a mosaic of habitats. Upland native coastal prairies are crisscrossed with freshwater wetlands on the north end of the preserve. As one moves toward the south end, the wetlands become more brackish, finally terminating into Mad Island Lake, a tidal saltwater lake fringed with saltmarsh vegetation. A corridor of native shrub-land growing atop an ancient shell ridge is also found on the south end of the preserve. This rare strip of trees, shrubs, vines and flowers is especially attractive to songbirds.

BIRDS: Over 300 species of birds have been found at the preserve. During the winter months large numbers of Sandhill Cranes flock to the site along with numerous waterfowl including: Cinnamon Teal, Blue-winged Teal, Northern Pintail, Canada Goose and Snow Goose. Winter also brings various birds of prey such as White-tailed Hawk, Peregrine Falcon, White-tailed Kite and Bald Eagle. During the spring, Mad Island is a primary stopover point for neotropical songbird migration. The heat of the summer slows down the species count, but it is the time to find Wood Stork and several species of nesting waterbirds, including Little Blue Heron, Tricolored Heron, Great Egret, Roseate Spoonbill, Yellow-crowned Night Heron, Mottled Duck and Black-bellied Whistling Duck.

CONSERVATION: Mad Island Marsh Preserve is always undergoing habitat restoration or enhancement. Prescribed fire is used during the summer and winter to keep the coastal prairies healthy and productive. Freshwater wetlands are managed to suppress invasive species such as cattail, Chinese tallow trees and giant cane. Erosion control keeps salt

CLIVE RUNNELLS Clive Runnells FAMILY MAD ISLAND MAR Aarsh Preserve

marshes from being inundated from the neighboring bay. This site also serves as a demonstration for combining compatible agriculture with

conservation. Cattle are raised on native prairie using a rotational grazing program and about 400 acres of rice are grown each year. The rice fields are left flooded during the winter to provide additional wetland habitat for migrating and wintering waterfowl and shorebirds.



The Nature Conservancy of Texas

CONTACT INFORMATION:

P.O. Box 163 Collegeport, TX 77428, (361)972-2559

www.nature.org/texas

William Henry Schroeder Island Sanchuary

chroeder Island Sanctuary is a tract of land along the Guadalupe River on the edge of the town of Victoria, Texas. The land is mostly old growth hardwood forest, which is extremely rare in the Victoria area. The land was originally used in the 1800's by the Schroeder family for firewood and as a source for pecans. The sanctuary is bordered on three sides by an oxbow lake and on the fourth by the river. Public access is via Tagliabue Road. The sanctuary is currently open to the public.

LOCATION: West side of the Guadalupe River and directly across from River Side Park, Victoria County, Texas.

SIZE: 16.2 ha (40 acres)

HABITAT: Schroeder Island has some of the last old growth hardwood forest left in the Victoria area. The eastern end near the river is a much more disturbed setting with many old sandbars and sloughs from changing river courses. One unique aspect of the habitat is that the oxbow has been colonized by dense swamp privet which is used by many migrants and brings the birds much closer to the birder.

BIRDS: In addition to hosting many species that prefer old growth forest, Schroeder Island is a haven for migrants, both transgulf and circumgulf.

CONSERVATION: Floodplain forested areas on the central Texas coast are shrinking, and

WILSON'S

unique habitat which has been preserved by the Texas Ornithological Society. There is substantial development in the area, and it is possible that this prime land would have

been destroyed if it had

not been preserved.

Schroeder Island is a

Site Partner:

Ornithological Society.

CONTACT INFORMATION:

Dr. Brent Ortego brent.ortego@tpwd.state.

www.texasbirds.org



Magic Ridge Sanchuny

agic Ridge is an ancient beach ridge made up mostly of shell deposits that lies between a broad tidal slough and the tidal flat just inland from Lavaca Bay between Indianola and Magnolia Beach in Calhoun County, Texas. The location of the vegetated ridge along Lavaca Bay near the Gulf makes this area an important stopover point for neotropical migrants.

LOCATION: Just off Zimmerman Rd and Texas Hwy 316E, Calhoun County, Texas.



SIZE: 31.99 ha (79 acres)

HABITAT: Magic Ridge contains about 45% Tamaulipan scrub growing on top of the shell ridge, and the remainder is a broad tidal slough on the east which adjoins the beach ridge of Lavaca Bay. To the west, is a broad tidal flat used daily by hundreds of shorebirds, gulls and terns and is within view of birders on the Magic Ridge.

BIRDS: The area is a well known site for observing neotropical migratory songbirds, shorebirds, as well as some south Texas species on the northern edge of their range. The Golden Crescent Nature Club ranks this site and the adjoining land within

the top five birding destinations near Victoria. This site is one of the main reasons Calhoun County

MAGNOLIA MAGIC migration count in 2004.

was able to amass 243 species during the spring

CONSERVATION:

TOS plans to expand the size of the sanctuary by acquiring adjoining land important to birds and preventing it from being developed.



Ornithological Society.

CONTACT INFORMATION:

Dr. Brent Ortego brent.ortego@tpwd.state.tx.us

www.texasbirds.org

Hoan and Scott Holt Paradise Pond Birding Center

he Joan and Scott Holt Paradise Pond Birding Center (Paradise Pond) is located within the Port Aransas city limits, and is the only natural, permanent freshwater wetland on Mustang Island. This small area has long been recognized by birdwatchers as an important stopover site for migratory birds along the central Texas coast.

LOCATION: The birding center is located in the city of Port Aransas, Nueces County, Texas

SIZE: 0.41 ha (1 acre)

HABITAT:

Paradise Pond consists of a small, freshwater lake and marsh, surrounded by dense black willow. The

CHESTNUT-SIDED WARBLER area is surrounded by open fields

and development, and is a true oasis for migrating birds.

BIRDS: As a wooded oasis in the middle of development, Paradise Pond is a natural attraction for migrating birds. Birders have long visited the spot to see migrant landbirds. A four year study from 1998-2001 produced 119 migratory species, with 5,456 individuals counted. Thirteen Partners in Flight Watch List species have been counted, including nine species of warblers.

CONSERVATION: Paradise Pond is an excellent example of the results of a targeted and focused approach to saving important migratory

> habitat. Grant money from the Great Texas Birding Classic was used to secure challenge funds from the Coastal Bend Bays and Estuaries Program. Local landowners donated land, and the City of Port Aransas donated many in-kind services.



City of Port Aransas

CONTACT INFORMATION:

City of Pt. Aransas 710 W. Avenue A Port Aransas, TX 78373

www.cityofportaransas.org/



Fred B. Hones Sandwary

the north edge of Nueces Bay, near
Corpus Christi, Texas, and is managed
by the Audubon Outdoor Club of Corpus
Christi. It represents the only defined area
of shrubs and native vegetation in a sea of
farmland in this heavily agricultural area.
As with all coastal areas with remaining
native vegetation, Fred B. Jones is an important stopover point for transgulf migrants
and wintering grassland birds.

sanctuary is located in San Patricio
County, near
Portland, Texas,
on the north edges of
Nueces Bay.

SIZE: 3.65 ha (9 acres)

HABITAT: The sanctuary consists of mesquite, blackbrush acacia, agarita, Texas olive, and also includes a small, defined area of tall Texas ash. There is a creek that divides the property. A great many wildflowers are present in the spring.

SWAINSON'S THRUSH

BIRDS: Due to its strategic location along Nueces Bay, and its isolation amid farmland, Fred B. Jones is a natural stopover point for both transgulf and circumgulf migrants. Wintering sparrows are present here in numbers. Many western and southern species that prefer drier habitats can be found here, such as Lesser Nighthawk, Golden-fronted and Ladder-backed Woodpeckers,

Groove-billed Ani, Curve-billed and Long-billed Thrashers, and Olive Sparrow.



CONSERVATION: The Sanctuary has been plagued by vandalism in the past, but this has

decreased recently because new home construction has increased in the area, which reduces its isolation. Oil and gas wells on adjacent properties have affected the runoff of water, which has caused erosion along the stream. Audubon Outdoor Club has plans to maintain and enhance the habitat, and to start a program of invasive grass control.



Audubon Outdoor Club of Corpus Christi

CONTACT INFORMATION:

Leah Pummill Audubon Outdoor Club of Corpus Christi pumml@juno.com

WEBSITE: www.ccbirding.com/aoc/

Leonabelle Turnbull Birding Tenter

-he Leonabelle Turnbull Birding Center (formerly known as the Port Aransas Birding Center) is an area of fresh and saltwater marshes adjacent to the Nueces County Water Control and Improvement District's waste water treatment plant in Port Aransas, Texas. The Center was created and dedicated in 1994 by the city, as mitigation for a ferry loop road through Robert's Point Park. Tom Brooks, who was city manager at the time, conceptualized the birding center as a fitting mitigation project for the land.

LOCATION: The birding center is located in Port Aransas, Nueces County, Texas.

SIZE: Approximately 4 ha (10 acres)

HABITAT: The center is primarily freshwater marsh, with cattails. There is also a salt marsh area, with natural mudflats and spartina. Bird viewing is facilitated by a 500 ft. boardwalk which traverses the marsh, with a 25-foot observation tower. At the entrance to the boardwalk, a row of black willows often attracts migrants and other landbirds. Across from the willows is a hummingbird and butterfly garden installed by the Port Aransas Garden Club.

BIRDS: The area is a haven for all marsh birds, including Reddish Egret, grebes, rails, wintering ducks, spoonbills, and shorebirds. In the 2004 "Big Sit" competition, 100 species of birds were recorded from the tower in one day. The area is an excellent source of freshwater, and often attracts terns and frigatebirds.

CONSERVATION: The Birding Center is a permanent reserve, and is maintained by the city

Site Partner: CONTACT INFORMATION:

COMMON YELLOWTHROAT

www.cityofportaransas.org/ recreationalfacilities.html

City of Port Aransas

City of Port Aransas

710 W. Avenue A

Port Aransas, TX 78373

for conservation and educational purposes. Adding to the uniqueness of the site is a large mural painted on the waste water tanks. Weldon Hight's painted images are of the birds that are found at the Center. The Center also overlooks the proposed 2,000 acre Charlie's Pasture Preserve, which will open in the spring of 2006.



Packery Channel Oak Motte Sanctuary

he Packery Channel Oak Motte Sanctuary, also commonly called just "Packery Channel", is a series of residential lots which have been purchased by the Audubon Outdoor Club of Corpus Christi on Padre Island. The area contains several oak mottes, and is an excellent place to see neotropical migrants in the spring and fall. Due to the paucity of similar habitat in the area, migrants often congregate in the oak mottes during spring and fall.

LOCATION: Packery Channel Sanctuary is adjacent to the Packery Channel waterway on Padre Island, in Nueces County, Texas.

> SIZE: 3.7 ha (2.3 acres)

> > HABITA

Packery Channel

Sanctuary consists

LEAST FLYCATCHER of a dense stand of coastal live

oaks adjacent to the Gulf of Mexico. Surrounded by prairie and freshwater and marine wetlands, this habitat serves as a critical stopover for land birds.

BIRDS: Being situated on an island along the Gulf of Mexico makes Packery a natural spot for neotropical migrants. The area has a history as one of the best places on the central Texas coast to see passerines during migration. As well, rarities such as Golden-crowned Warbler, Red-Faced Warbler, Varied Bunting, and multiple Cape May

Warblers have been seen here.



CONSERVATION: The Packery Channel

area is highly desirable for development, due to the oaks and the proximity of the area to the Gulf. Audubon Outdoor Club has wisely purchased 17 lots for permanent preservation. Dredging in the adjacent Packery Channel is also a potential disturbance to the habitat.

Site Partner:

Audubon Outdoor Club of Corpus Christi

CONTACT INFORMATION:

Leah Pummill Audubon Outdoor Club of Corpus Christi pumml@juno.com

/www.ccbirding.com/aoc/

Shamrock Island Preserve

his island preserve in Corpus Christi Bay, owned by The Nature Conservancy of Texas, is an important colonial waterbird and wader nesting site. Sixteen bird species, including Reddish Egret and White-faced Ibis, nest here. The grasslands of the island also host good numbers of temperate grassland migrants.

LOCATION: A quarter mile off Mustang Island, Corpus Christi Bay, Nueces County, Texas.

SIZE: 44.4 ha (110 acres)

BLUE-GRAY GNATCATCHER HABITAT This coastal island is

dominated by salt cedar brush, mesquite, and grassland. Other vegetation

communities include bluesteam grass, gulfdune crowngrass, sea oats, woody glasswort, and shoalgrass. Important beach habitat is also present.

BIRDS: This preserve is a prime nesting location for many colonial waterbirds, including Black-crowned Night Heron, Roseate Spoonbill, Reddish Egret, five species of Terns, Black Skimmer, White-faced Ibis, and Laughing Gull. Sooty Tern has

been recorded here as a nester. Many southbound migrants stop here, and temperate grassland birds such as Sedge and Marsh Wrens, Lincoln's, Song, Savannah, Le Conte's, and Sharp-tailed Sparrows spend the winter on the island.

CONSERVATION: The Nature Conservancy has closed the island between the months of February and August to protect the nesting birds.

Site Partner: The Nature Conservancy of Texas

CONTACT INFORMATION:

Mark Dumesnil The Nature Conservancy of Texas P.O. Box 2563 Corpus Christi, TX 78403

/nature.org/wherewework/ northamerica/states/Texas/preserves/art6428.html

Shamrock is regularly patrolled to minimize impacts from disturbance by boaters and fishermen. A constant problem is debris from the bay that must be collected. The Conservancy has an agreement with Bristol Resources to help clean up and patrol the waters around the island.



Held Moran Walure Sanchuary

he Held Moran Nature Sanctuary is a dense patch of woods in a heavilypopulated area south of Corpus Christi Bay. This coastal oak motte is surrounded by development, and represents an oasis of wooded habitat in the Corpus area.

LOCATION: The sanctuary is located in the area known as Flour Bluff, in southeastern Corpus Christi, next to Waldron Naval Air Field, and less than a mile from Laguna Madre.

SIZE: 36.5 ha (90 acres)

HABITAT: Held Moran is composed almost exclusively of dense coastal oaks. The area contains two small ponds, and a low-lying wet area. There are few trails here, and the majority of the woods

are too dense for access.



BIRDS: As with all sites in the

Corpus area, Held Moran is a natural stopover point for both transgulf and circumgulf migrants. The proximity of the site to Laguna Madre would enhance its appeal to these migrants. Many birds characteristic of south Texas can be found here, including Buffbellied Hummingbird, Groove-billed Ani, and Olive Sparrow.

CONSERVATION: Held Moran is on the edge of a new subdivision, and development pressure will always be an issue. The difficulties in penetrating into the site will ensure that the habitat is undisturbed until proper management can begin. An avian inventory of the site is needed to determine exactly which birds

> use the site during the different seasons. Audubon Outdoor Club would like to eventually create a few trails, and open the site to birders.



Site Partner:

Audubon Outdoor Club of Corpus Christi

CONTACT INFORMATION:

Leah Pummill Audubon Outdoor Club of Corpus Christi pumml@juno.com

www.ccbirding.com/aoc/

Winters Bayon Bird Sanchary

inters Bayou is an important area of varied habitats for migrants and for breeding of threatened birds, such as the Louisiana Waterthrush (documented by James Stewart). The habitat also forms a buffer zone for the Sam Houston National Forest, which supports the endangered Red-cockaded Woodpecker.

LOCATION: The sanctuary is located in San Jacinto County, 11 miles northwest of Cleveland, Texas and is adjacent to the Sam Houston National Forest.

SIZE: 66.83 ha (165 acres)

HABITAT: The property is in the transition zone between the Gulf Coastal Prairie, the Piney Woods, and the Blackland Prairie ecoregions. It is dominated by mature pine forest habitat with a mature oak subcanopy layer. Winters Bayou forms the western boundary of the sanctuary. The sanctuary is made up of two adjacent tracts, divided by a residential road. The northeastern tract is 36 acres of large pines and woody underbrush. The larger 130-acre tract is upland pine forest and mixed pine/hardwood bottomland. There are 3 intermittent streams flowing into Winters Bayou, with riparian habitat bordering the bayou. An acid seep divides the upland and bottomland ecosystems.

RED-EYED VIREO

BIRDS: The property is adjacent to the Sam Houston National Forest, which presently supports approximately 160 Red-cockaded Woodpecker groups. This population in Sam Houston National Forest represents one of the largest populations west of the Mississippi River. The Winters Bayou Bird Sanctuary is approximately 0.5 miles from six active nesting clusters. The property has the potential for providing population expansion and foraging sites for the Red-cockaded Woodpecker. Louisiana Waterthrush is also a prominent breeder here.

CONSERVATION: The Houston Audubon Society is protecting the property from encroach-

ing development. Poachers and off-road vehicles are current threats, as well as overcrowding in the pine stand that leaves it vulnerable to Southern pine beetle infestations and wildfires.

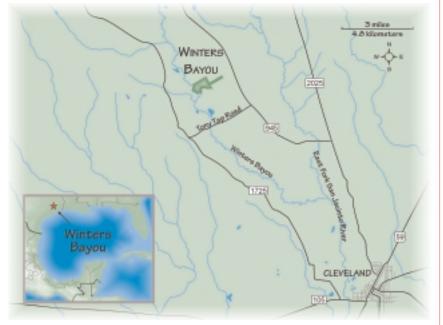


Houston Audubon Society

CONTACT INFORMATION:

440 Wilchester Blvd. Houston, TX 77079 713-932-1639

WEBSITE: www.houstonaudubon.org/ index.cfm/MenultemID/199.htm



Danuth Sandwary

his site is an inland example of diverse mixed pine-hardwood forest which transitions from coastal prairie habitat. Many neotropical migrants that pass the coast may utilize this area as stopover habitat.

LOCATION: The sanctuary is located in northern Liberty County, Texas, 2 miles southeast of Cleveland. It lies in the eastern portion of the San Jacinto River Basin, draining into Tarkington Bayou, a tributary of the East Fork of the San Jacinto River.

SIZE: 249.9 ha (617 acres)



The property is in the tran-

sition zone between

the Gulf Coastal Prairie and the Piney

Woods ecoregions, also designated as in the Western

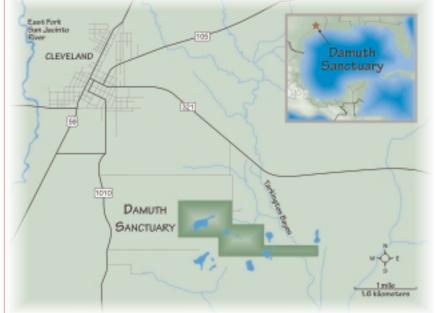
Gulf Coast Flatwoods land resource area. The plant diversity found at Damuth Sanctuary attracts botanists and native plant enthusiasts.

Tarkington Bayou meanders along the eastern boundary while three large and several small ponds are added water resources in Damuth Sanctuary.

BIRDS: Many species of birds, butterflies, mammals and reptiles reside or migrate through Damuth Sanctuary. The forest offers magnificent viewing of diverse flora and fauna.

CONSERVATION: The Houston Audubon Society has partnered with Ducks Unlimited in a Texas Prairie Wetlands Project, building a levee that will provide 12.1 ha (30 acres) of wetland habitat for wintering migratory birds and

other wildlife. The sanctuary is protecting the land from development. Off-road vehicles and poachers are current threats to the sanctuary.





Kenedy Ranch

he Kenedy Ranch is a privatelyowned ranch in south Texas, which has been managed for wildlife and grazing for its entire history. The ranch was founded in the 1860's by riverboad captain Mifflin Kenedy, and is adjacent to the famous King Ranch (founded by Kenedy's partner, Capt. Richard King). The expansive Kenedy Ranch hosts a rich diversity of habitats typical of south Texas, and is the northern limit for many subtropical species of birds. A museum

in the nearby town of Sarita displays a wonderful history of the ranch and the area.

LOCATION: Along the Laguna Madre, near the town of Sarita, Kenedy County, Texas

FLYCATCHER

SIZE: 95,175 ha (235,000 acres)

SCISSOR-TAILED

HABITAT: The ranch has over 120,000 acres of native coastal prairie with grasses such as big bluestem, indiangrass, and switchgrass. Other ecosystems found on the Kenedy include 3,000 acres of migrating sand dunes, 40,000 acres of oak woodlands, mesquite woodlands, and miles of coastline stretching from Baffin Bay to the Laguna Madre. Numerous artesian wells flow into natural depressions which form important water sources for wildlife.

BIRDS: Over 300 species of birds have been recorded on the ranch, including several south Texas specialties which reach their northern limit here, including Ferruginous Pygmy-owl, Tropical Parula, Botteri's Sparrow, and Northern Beardless Tyrannulet. Other south Texas birds such as Green Jay, Green Kingfisher, and Buff-bellied Hummingbird are common breeding birds. The live oak mottes

are used extensively by migrant songbirds.

Site Partner:

The John C. and Marie Stella Kenedy Memorial Foundation

CONTACT INFORMATION:

Clayton Wolter ccw@kenedy.org

www.kenedymuseum.org

CONSERVATION: The Kenedy Foundation Ranch implements a closely monitored range management program. Regular vegetation transects are conducted, and the effects of grazing are actively monitored. Kenedy County's only Breeding Bird Survey route is conducted yearly by GCBO staff on the ranch. This is the only route in the unique coastal sand sheet habitat in Texas.



Rancho Rincon de Anacabuitas

ancho Rincon de Anacahuitas is a 12, 150 ha (30,000 acre) ranch in northeastern Mexico along the Laguna Madre that retains a large portion of richly diverse native habitat, due to 60 years of conservation by the Reyes and Martinez families. Despite pressure to convert the land to agriculture, the families recognized that the land was more suited to ranching, especially if many small ponds were created as a source of fresh water. Today the ranch serves as a prime example of how ranching and conservation can go hand in hand.

LOCATION: About 72 km (45 miles) south of Matamoros in the Mexican state of Tamaulipas, fronting the upper Laguna Madre of Mexico.



SIZE: 12,150 ha (30,000 acres)

HABITAT: Rancho Rincon de Anacahuitas has the largest remaining blocks of Tamaulipan thornscrub in northeastern Mexico. The ranch also contains many freshwater ponds, seasonally flooded coastal grasslands, mesquite woodlands, and salty prairie grasslands. There are salt-tolerant communities grading into mudflats, wetlands, and open waters of the Laguna.

BIRDS: This area of Laguna Madre is critical for wintering waterfowl such as Redhead and Northern Pintail. The extensive mudflats play host to hundreds of thousands of shorebirds during winter and migration, and is a primary wintering ground for Piping Plover. Since

extensive scrub habitat remains, the area is an oasis for neotropical migrant songbirds, and the endangered Peregrine Falcon. The ranch has been considered as possible site for the reintroduction of the endangered Aplomado Falcon.



CONSERVATION: Most areas surrounding Rancho Rincon de Anacahuitas have long been cleared for agriculture. This has led to extensive

erosion. Ongoing drought conditions have created additional stress on remaining natural areas, freshwater sources, and wildlife. The Martinez family has proven that native habitats can be preserved while the land is utilized for ranching. Their model of conservation is one that should be copied throughout Mexico.



CONTACT INFORMATION:

Miguel Angel Cruz mcruz@pronaturane.org

N/FBSITE.

www.pronaturane.org/ principal2.htm

Laguna Madre

aguna Madre de Tamaulipas is an extension of the big Laguna Madre in the U.S and Mexico. This shallow, saline lake extends from Matamoros in the north to La Pesca in the south, the northern 241 km (150 miles) of coast in the state of Tamaulipas, Mexico. Its widest point, on the northern end, is nearly 48 km (30 miles) wide. It is separated from the Gulf of Mexico by barrier islands which vary from about 200 meters to over three kilometers in width.

LOCATION: Northeastern Tamaulipas, Mexico.

SIZE: 2,465,554 ha (1,531,400 acres)

HABITAT: Laguna Madre is a hypersaline aquatic system unique to all of North America. It is a complex mosaic of habitats, including shallow open waters, lagoons, shallow bays, sea grass beds, mud and tidal flats, coastal barrier dunes, islands, seasonally flooded grasslands, mangroves, thornscrub, mesquite woodland and salt tolerant communities, dominated by Gulf cordgrass. Over 45% of the scrub and forested lands outside the preserve have been converted into grazing and agriculture since the 70's and are now highly degraded, eroded, salted and polluted, with very few areas of vegetated thornscrub forest and mesquite woodlands left intact.

BIRDS: This area hosts some of the largest undisturbed wetland complexes in the Western Hemisphere, and as a result is part of the Western Hemisphere Shorebird Reserve Network. Laguna Madre is recognized as one of Mexico's most valued Important Bird Areas. The area hosts millions of overwintering waterfowl, including over 80% of the global population of Redheads. Many circumgulf migrant songbirds also use the remnant woodlands in route to their northern breeding grounds.

CONSERVATION: The Lower Laguna Madre receives significant quantities of agricultural pesticides and other

environmental contaminants from the Arroyo Colorado, an irrigation drainage of the Lower Rio Grande Valley. Oil spills from barges,

Side Parlner:
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WFBSITF

www.pronaturane.org/ principal.htm discharge from the Mexican side of the Rio Grande, and hydrocarbon extraction are the threats posed by the high volume of commercial activities taking place on the Laguna Madre. Accidental release of exotic shrimp or effluent from commercial shrimp farms are also a concern.



Barra del Tordo

arro del Tordo is an area of deciduous and tropical forest along the San Rafael River in Tamaulipas, Mexico. The lush tropical forest hosts several species of threatened parrots, and serves as prime wintering and migration habitat for neotropical birds.

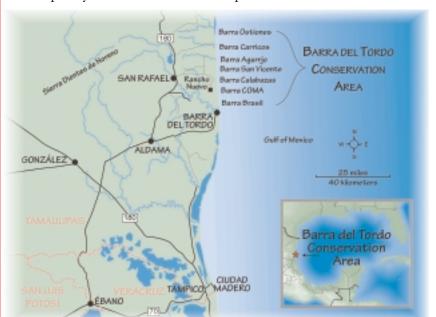
LOCATION: Barra del Tordo is 432 km (270 miles) south of Brownsville, Texas, via Mexico 180, in the Mexican state of Tamaulipas.

SIZE: 6,652 ha (16,426 acres)

HABITAT: The area is a wide mixture of tropical deciduous forest, scrubland, pasture, beaches, and marshland. The forest begins upstream from the heavily grazed coastal plain.

PIRDS: In addition to the many colorful tropical resident species present, twenty-four species of neotropical migrant warblers have been recorded. This indicates the importance of Barra del Tordo as a wintering and stopover point for neotropical migrants. Over 220 species of birds have been recorded in the winter, a majority of which are neotropical migrants.

CONSERVATION: The area is used heavily for cattle ranching, and forest clearing for housing is a problem in Mexico. The protected areas around the lodge El Paraiso, upstream from town, are privately owned, and depend completely on ecotourism for their preservation. Pronatura's conservation efforts in this region are focused on working



with private landowners on best management practices for ranching, and on monitoring changes in bird populations.



Tentro de Investigaciones Tosteras La Mancha

his site is recognized nationally and internationally as an ideal place for research, monitoring of wildlife and teaching. Its location along the central Mexican coast is key for the monitoring of the continent's annual bird migration. Thousands of birds—including various types of birds of prey and passerines—as well as various insect species, pass through this reserve every year.

LOCATION: The La Mancha Coastal Research Center (CICOLMA), also known as La Mancha, is located in Actopan,

BLACK-THROATED GREEN WARBLER Veracruz, 30 km northwest of José Cardel, Veracruz.

HABITAT: The CICOLMA includes a large number of plant communities in a small area. The coast has dune vegetation, beach vegetation, sub-deciduous jungle, and deciduous jungle, wetlands with aquatic herbaceous plants, and mangroves. Inland, there are fields of sugar cane, corn, mango orchards and pasturelands. The most studied environments are the coastal dunes, the richest of their kind in the Gulf of Mexico. The CICOLMA also has the only patch of medium jungle on sand dunes that remains standing on the coast.

BIRDS: La Mancha is home to 270 species of birds and wildlife. The region is especially attractive to birds because of its location along the continent's main migration route. Thousands of raptors can be seen during daytime migration. Studies carried out by Pronatura in the central region of Veracruz in the fall of 2000 reported 4,233,144 individuals

representing 22 species of birds of prey. Other migrants include sandpipers, swallows, doves, flycatchers, several species of sparrow, White Pelican, Anhinga, and Wood Stork.

CONSERVATION: The La Mancha Coastal Research Center and its surroundings is a superb place for bird watchers and nature lovers interested in the spectacular migration of birds of prey in the fall and spring, as well as the observation

of native tropical birds. Local residents, working

through Ecoguías en Movimiento (Ecoguides in

Motion), have developed the infrastructure for tourism. The region's ecotourism generates wealth that gives local communities a compelling reason to protect the birds' habitats and even encourages children to get involved in conservation activities.



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Rió de Rapaces

he Veracruz River of Raptors is the most important flyway in the world for migratory raptors. With an average of five million raptors each fall, visitors can witness up to 35 raptor species, with sightings of 100,000 to 500,000 birds a day during the fall and spring peak periods.

LOCATION: Coastal plain of central Veracruz. Raptors are monitored through-

out the fall from the following three locations: Cardel, Chichicaxtle and La Mancha. There will be a fourth location in Cansaburro, where Pronatura Veracruz will soon build a bird observatory.

SIZE: The Veracruz River of Raptors is best thought of as a route along the central coast of Veracruz through which the migrants fly roost a

Veracruz through which the migrants fly, roost, and feed.



HABITAT: Central Veracruz is a geographic bottleneck formed at the intersection of the eastern slope of the Sierra Madre Oriental and the Central Volcanic Belt. These two mountain systems reduce the coastal lowlands to a very narrow area where migrants concentrate in order to find conditions favorable for soaring. Due to its significant altitude variation, this area has a rich diversity of habitats. There are 19 vegetation zones, many of which provide important stopover habitat for migratory birds.

BIRDS: This geographic bottleneck contains a rich diversity of birds. There are 465 species found in this region, 220 of which are neotropical migrants. Some of the raptor species seen in largest numbers during fall migration include the Turkey Vulture (2,000,000 on average), Broad-winged Hawk (1,7000,000 on average) and Swainson's Hawk (1,200,000 on average). Other species include the Gray Hawk, and Golden and Bald Eagles. The bottleneck landscape also causes other bird species to funnel through this area, such as the American White Pelican, Wood Stork, Anhinga and many species of songbirds.

CONSERVATION: Pronatura Veracruz has conducted monitoring at Cardel and Chichicaxtle since 1991, thus making this the longest continously running monitoring station in Latin America. Part of the monitoring now includes a raptor banding station at La Mancha—the only such station in Mexico. Pronatura Veracruz also runs environmental education programs in six different communities. Ecotourism is being used as a means of providing an incentive for local habitat protection. There are virtually no protected areas in this region where 75% of the diverse natural habitats have

PRONATURA VERACRUZ
BIRD OBSERVATORY

CHICHICAXTLE CARDEL

River of Raptors

VERACRUZ

been converted into agriculture and pastures. The remaining areas of forest and native vegetation are increasingly under pressure from agricultural development. At Cansa-burro, Pronatura has a 6 ha (15)

acre) reserve in a unique coastal dune system. The first bird observatory in Mexico will be constructed here, with a special focus on bird migration, and with a conservation program that will involve other community landholders and organizations. Pronatura Veracruz is taking steps in order to establish a bird sanctuary of around 600 ha (1482 acres).



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Humedales Alvarado

The Alvarado Area wetland complex is the largest wetland system in the Gulf of México. The wetland forms as a drainage basin for some of the main rivers in Veracruz. Inhabiting the area are approximately 105,000 people who engage primarily in ranching, sugar cane cultivation, and fishing. Alvarado is within an important terrestrial, hydrological and marine priority area designated by the National Commission for Awareness and Use of Biodiversity. It is also a designated Important Bird Area.

LOCATION: Along the central coast of Veracruz, Mexico.

SIZE: 243,000 ha (600,000 acres)

HABITAT: In the Alvarado wetland system there are at least 12 different ecosystems. In the coastal areas there are sand

dunes and small lagoons. Close to the coast, a dark

green curtain of mangroves fringes Alvarado's channels and lagoons. Other prominent features of Alvarado include seasonally-flooded grasslands, islands of evergreen shrubs, and palm savannahs.

BIRDS: There are at least 356 species of birds, of which at least 30 are included as having a protection category under CITES. These unique wetland forests provide important wintering habitat for impressive numbers of migrant warblers, such as Black-and-White, American Redstart, Northern Waterthrush, and Hooded. Inland from the mangrove fringe, freshwater lagoons support tens of thousands of aquatic birds.

Although many grasslands are used for cattle grazing, these habitats support numerous bird species. Seasonallyflooded pastures provide stopover habitat for arctic-nesting shorebirds. Previous work in collaboration with the Canadian Wildlife Service and McMaster University showed that 60% of the birds found here were originally from the Northwestern part of the continent and 40% from the Eastern portion of North America which raises the value of this land as stopover area and refuge during winter for all the neotropical migrants.

CONSERVATION: Since 1998 Pronatura Veracruz has been working in the Alvarado wetlands system. Pronatura runs an

environmental education program where each year approximately 300 4th grade students are reached through work at schools. In 2002, community

development work started

in the communities of Costa de la Palma, La Playa and Los Cantaros by providing environmental education workshops with the women from the communities. Since 1998 a songbird banding station has been operated in Playa Salinas and a monitoring effort through 56 km of transects

the system.

in different habitats along

Site Partner: Pronatura Veracruz

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Selva Zoque

he Selva Zoque, located at the juncture of the states of Chiapas, Oaxaca and Veracruz, supports a biological divesity not to be compared with any other in Mexico. It is the largest remaining tract of tropical rainforest in Mexico. According to the National Commission for Awareness and use of Biodiversity, this region hosts the majority of terrestrial biodiversity in Mexico. The challenge to conservation with the sustainable use of natural resources.

conservation with the sustainable use of natural resources for the benefit of local human populations.



LOCATION: The Selva Zoque is located in the eastern-central region of the Isthmus of Tehuantepec and includes the

southernmost portion of the state of Veracruz, northeastern Oaxaca and eastern Chiapas. El Ocote is the only area that is federally protected under a Biosphere Reserve Category.

SIZE: 1,000,741 ha (2,470,966 acres)

HABITAT: There are a variety of habitat types, such as rainforest, cloud forest, pine forest and riparian vegetation, along with great diversity of agroecosystems resulting from human settlement. Much of the region is now covered with grassland for cattle.

BIRDS: It is estimated that more than 600 species of birds live in this region. Great Curassow, Crested Guan and Ornate Hawk-Eagle are but a few species that one can find there. Many neotropical passserines also winter in this area that has been identified as a stopover site for over 200 migratory species.

CONSERVATION: Due to its biological importance, as well as providing significant environmental services, Pronatura has promoted sustainable development projects through a participative approach and involvement of local communities. In El Ocote Biosphere Reserve, Pronatura Chiapas has worked on several projects, and from 2000 to 2003 Pronatura facilitated an ecoregional conservation planning process that involved different organizations, academic institutions and

Selva Zoque

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government agencies looking for ways to develop a common conservation and sustainable agenda for the region. The plan that resulted from this process is now

a guide for decision makers to target their investments and tailor their policies toward long term conservation of the region. Proantura Veracurz is completing this process with a conservation site plan and with the integration into the Coatzacoalcos Watershed, whose upper parts are located in the heart of the Selva Zoque.



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Reserva de la Biosfera Calakmul

he Calakmul Biosphere Reserve lies just north of the Guatamala/Mexico border, and encompasses almost 1.8 million acres of some of Mexico's best remaining tropical forest. The area hosts numerous neotropical migrants, and many of the Yucatan's endemic birds. There are also extensive Mayan archeological sites in the area. The Reserve represents the most extensive area of tropical forest in Southeastern Mexico, and together with the tropical forest of Guatemala and Belize is considered the second most important tropical forest in the continent after the Amazon.

LOCATION: Calakmul is located in the Mexican State of Campeche, and borders with the State of Quintana Roo to the East, and with the Country of Guatemala to the south.

SIZE: 721,957 ha (1,787,022 million acres)

BLUE-WINGED WARBLER

HABITAT: Tall, evergreen tropical forests and low deciduous tropical forest, flood forest known locally as 'Akalche', and associated seasonal water holes and savannas. The predominant human activities are seasonal agriculture and ranching. The majority of the reserve is made up of tropical forest which is somewhat undisturbed.

BIRDS: More than 350 species of birds have been recorded in the reserve, of which 25% are migrants. A little more than 70% of all of the birds in the Yucatán that are considered endangered are found in Calakmul. Among these species, the following are identified as common in the area: King Vulture, Great Black Hawk, Ornate Hawk-Eagle, Great Curassow, Ocellated Turkey, White-crowned Parrot, Black-and-White Owl, Keel-billed Toucan, and Chestnut-colored Woodpecker. Common migratory species are Wood Thrush, Yellow, Blue-winged, Tennessee, Magnolia, Blackburnian, Worm-eating, Swainson's, and Kentucky Warblers.

CONSERVATION: The Federal Government manages the Reserve through its National Commission of Natural Protected Areas. It is also partially funded by the Global Environmental Fund from the World Bank. For more than

10 years, Pronatura Peninsula de Yucatan and The Nature Conservancy have been working together

to support the management and conservation of

this important tropical forest. Currently there is strong collaboration among local and international research and conservation institutions such as the Center for Studies of the Southern Frontier of Mexico, the National University of Mexico, the Mesoamerican Biological Corridor and the German

Agency GTZ.



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Reserva de la Biosfera Sian Ka'an

ian Ka'an, which is Mayan for "Where the sky is born", was created in 1986. It emcompases a large area of the Mexican state of Quintana Roo. Biosphere Reserves such as Sian Ka'an are intended to preserve the flora and fauna of a region in a way that is integrated with the needs of the local inhabitants by allowing rational and long-term sustainable use of the resources.

LOCATION: Along the east central coast of the Yucatan peninsula of Mexico, in the state of Quintana Roo.

5 | Z E : 648,000 ha (1.6 million acres)

HABITAT: Sian Ka'an encompasses a wide variety of wetlands and coastal habitats such as seasonally flooded forest, savannas, mangroves, fresh water canals, and other marine habitats. About a third of the Reserve is covered by tropical forest, a third by marine habitat, and a third by wetlands and savannah.

BIRDS: The Yucatan Peninsula is a critical staging area for migrants before they attempt the harrowing flight across the Gulf of Mexico. Over one million Neotropical migrants are estimated to use the forest zone of Sian Ka'an during the winter according to a three year study carried out by the Smithsonian Institute. The coastal dune vegetation has also been singled out as important to the migration of landbirds between North and Central America. Locally, the reserve contains important populations of threatened wading bird species,

including Wood Stork and Jabiru. The area has recorded 371 species of birds, including resident species.

CONSERVATION: Sian Ka'an is an excellent model of the Biosphere Reserve concept. The "Core Zone" contains the

best habitat, and is used only for conservation and research. The "Buffer Zone" allows low-impact human activities and sustainable use of natural resources within the Reserve boundary. The

"Cooperation Zone" is located next to the preserve where proven conservation techniques can be applied to enhance the existing habitat. The biggest obstacle to continued preservation of the area is the intense development pressure in this beautiful coastal area.





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Reserva Especial de la Biosfera Ria Celestun

ia Celestun is located along the northwestern coast of the Yucatan Peninsula, and encompasses a wide variety of habitats. Since the area is located in one of the primary staging areas for neotropical migrants that cross the Gulf of Mexico, its importance is critical as a food-rich zone to help migrants prepare for their Gulf crossing.

LOCATION: Northwestern Yucatan Peninsula, located primarily in the state of Yucatán, Mexico, overflowing slightly into the bordering state of Campeche.

SIZE: 81,545 ha (201,346 acres)

NORTHERN PARULA HABITAT: Habitat types include beach and coastal dune vegetation, salt flats, coastal marshes, mangrove swamps, seasonally flooded forest areas and pastures, in addition to hardwood hummocks (petenes) and aquatic vegetation. Most of the reserve is in good condition because the lack of access roads has inhibited disturbance. The vegetation of the coastal dunes and part of the seasonally inundated forest has been affected to some degree by human activities. The swamps and the

petenes are among the least disturbed.

BIRDS: Of the more than 350 species of birds that occur in the area, about 35% are migrants. A number of important migrant waterfowl species have been recorded in the reserve. Some of the most common include Blue-winged Teal, Lesser Scaup and Northern Shoveler. Several at-risk species also occur. These include Reddish Egret, Northern Harrier, Merlin, Peregrine Falcon, Piping Plover, Greater Flamingo, Muscovy Duck, Ocellated Turkey, Least Tern, and Orange Oriole. Some common migratory species in the reserve are the Osprey, Ruby-throated Hummingbird, Belted Kingfisher, Northern Parula, Yellow, Magnolia, and Black-and-white Warblers and Northern Waterthrush. The endemics and species of limited distribution include the Black-throated Bobwhite, Yucatan Wren, Yucatan Woodpecker, Zenaida Dove, White-lored Gnatcatcher, Yucatan Flycatcher and Mexican Sheartail.

CONSERVATION: The natural area of Ría Celestún Biosphere Reserve is threatened by tourism development, overfishing, inappropriate

> waste management, and building of roads. Pronatura Península de Yucatán and partner organizations are working with the local community to promote sustainable practices such as ecotourism.



Pronatua Peninsula de Yucatán A.C.

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Reserva Ecologica Municipal Curtal

is located on the southern edge of the city of Merida, the capital of Yucatan. It is composed of the following properties: Henequenaras; Santa Cruz Palomeque; Xmatjuil; San Ignacio Tesip; Hunxectamás; San Pedro Chimay; San Antonio Tahdzibichén and San Nicholas Dzoyaxché. The area has a variety of archeological sites, recreation areas, and natural forest. Due to its location in the center of the Yucatan Peninsula, this reserve is a critical stopover and staging point for neotropical migrants.



LOCATION: Southern part of the city of Merida, Yucatan Peninsula, Mexico.

SIZE: 10,761 ha (26,570 acres)

HABITAT: The 231 plant species found within the Reserve are distributed within the area's low deciduous forest, traditional Maya home garden areas, sisal and cornfields, and grasslands. All of these areas provide cover, food, and resting places for migrating songbirds. Although much of the reserve is inhabited, there are some regulations in place to protect the habitat from further degradation.

BIRDS: Among the 175 species of birds registered to date, the reserve provides habitat to 6 endemic and quasi-endemic species, including: Black-throated Bobwhite, Yellow-lored Parrot, Yucatan Woodpecker, Yucatan Flycatcher, Yucatan Jay, Orange Oriole, along with resident seedeaters, tanagers and migratory warblers from fall through spring.



CONSERVATION: The Cuxtal Reserve is under constant pressure due to its proximity to the city of Merida. The area is increasingly used for

recreation, and development continues. Efforts must be made to preserve the remaining forest, and maintain the gardens and water sources for migrating birds. Fortunately, banding and monitoring efforts are conducted at the reserve on a regular basis.



Municipal Government of Merida, Yucatán.

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WFBSITE

http://thematrix.sureste.com/ cityview/merida1/tours/ ecoturismo/cuxtal1.htm

Reserva de la Biosfera Ría Lagarlos

northeastern coast of the Yucatan Peninsula of Mexico. In addition to its value as a staging area for migrants that cross the Gulf of Mexico, the mudflats and salt ponds are critical for migratory and resident shorebirds. The Reserve provides breeding and feeding habitat for the only mainland population of Caribbean Flamingos in Meso America, which nests between the months of April-September.

LOCATION: Southern Mexico, along the northern coast of the Yucatan Peninsula and Gulf of Mexico.

SIZE: 149,057 acres (62,603.94 hectares).

HABITAT: Ría Lagartos has a great diversity of vegetation

communities, including coastal dune, low tropical forest with cacti and medium tropical forest. The area also has seasonally flooded lowland forests, mangroves, hummocks and wet grasslands.

SUMMER TANAGER

species of birds have been recorded in the Ría Lagartos Reserve, including 142 species of migratory birds. Almost 95% of the nesting pairs of Caribbean Flamingos are found here. This diversity, along with the area's importance as a staging area for neotropical migrants, makes Ría Lagartos one of the premier Preserves in the Western Hemisphere.

CONSERVATION: Most threats to Ría Lagartos are related to non-sustainable human activities, such as vegetation

clearance, cattle ranching expansion, and overfishing. Staff activities include bird monitoring at 4 different habitat types, 2 Christmas Bird

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Niños y Crías

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Counts, the Yucatan Bird Festival in November, Flamingo nesting and feeding population surveys, and conservation education projects using symbolic bird species such as the Yucatan Wren to prevent forest fires, and the Caribbean Flamingo to foster solid waste management.



Parque Nacional Isla Contoy

he Parque Nacional Isla Contoy is a small island located off the very northern tip of the Yucatan Peninsula of Mexico. Although much of the Park's importance revolves around the haven it provides for pelicans and other water birds, the area is in a critical staging location for birds that cross the Gulf, and those that island-hop around the eastern edge.

LOCATION: 32.3 km (14.7 miles) from Cabo Catoche at the northeast corner of the Yucatan Peninsula, in the Mexican state of Quintana Roo.

SIZE: 177 ha (437 acres)



island is composed mostly
of mangrove zone surrounding inlets and
lagoons. Next importance is the coastal dune system, containing 56
different plant species. A smaller area contains coconut trees and low
deciduous forest. All together, there are 98 plant species found in these
3 plant communities.

BIRDS: Isla Contoy is home to the largest colony of Brown Pelicans on Mexico's east coast in addition to other important seabird and wading bird colonies. Its location just off the northeastern coast of the

Yucatan Peninsula also makes it a prime candidate for receiving migratory landbirds in route to and from Central and South America. A more intense monitoring effort is needed to confirm the extent of usage of the island by landbird migrants.



CONSERVATION: Bird studies follow recommendations outlined in a site management plan and

include monitoring and population studies of the Brown Pelican and Least Tern, among others. Authorized boats make day trips to the reserve from Isla Mujeres and Cancún, Quintana Roo. Special permits for overnight stays are provided by the reserve office in Cancún, and workshop facilities for special groups are available.



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Guanahacabibes Peninsula Biosphere Reserve

MAGNOLIA WARBLER

located on the southwestern tip of Cuba, in a critical path for birds migrating from Central and South America to the U.S. The Reserve is the closest point in Cuba to the mainland of Central American, and is only 130 miles from Mexico's Yucatan Peninsula. This proximity makes the Reserve a logical "stepping-stone" for migrants that spend the winter in the eastern Carribean. Guanahacabibes also is home to many resident and endemic Cuban species.

LOCATION: On a peninsula on the extreme southwestern tip of Cuba.

SIZE: 101,250 ha (250,000) acres

HABITAT: Guanahacabibes consists of dense tropical forest in the southern section, and mangroves along the northern coast. The Reserve is exceptionally diverse in plant species and habitat types. Over 665 plant species have been identified, and 20% of those are endemic to Cuba.

BIRDS: Cuba is uniquely located between the forests of Central and South America, and the southeast coast of the United States. At least 23 species of neotropical migrant warblers have been recorded on the Reserve, underscoring its importance to migrants. Over 191 total species of birds have been identified, including nine of Cuba's 22 endemics.

CONSERVATION: Due to the sensitive nature of the politics involved, funding for research and conservation is limited for this

Reserve. The Cuban population is expanding, and, especially since Cuba is an island, this site will always be subject to pressure from settlers and development.

Paradoxically, if U.S.-Cuba relations normalize, more funding would be available, but the pressure for development would

increase dramatically.



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Reserva de la Biosfera Banco Chinchorro

anco Chinchorro is a federallyowned land and marine reserve created in 1996. The Reserve consists of three cays off the southeast coast of Mexico's Yucatan Peninsula. Two of the cays are heavily vegetated and suitable as stopover or wintering habitat for migratory birds.

LOCATION: The Reserve is located in the Caribbean Sea, 30 km. off the southern coast of Quintana Roo on the Yucatan Peninsula's east coast, near the Belize border.

> 512E: 144,112 ha(356,714 acres)

HABITAT: Banco Chinchorro is composed of three cays, one of which is a small sand island with a couple of

coconut palms and a small amount of dune vegetation. The other two cays are quite large and are composed

predominately of mangrove species. However, both contain sizable beach berms on which there is a healthy mix of coconut palms and coastal deciduous woodlands.

TENNESSEE WARBLER

BIRDS: Almost 70 species of neotropical migrant birds have been documented using the islands. The location of the Reserve on the coast of the Yucatan makes it an important initial stopover point for neotropical migrants, most of which winter in South America.

CONSERVATION: A study of habitat selection by neotropical migrant landbirds was carried out in 2004. Reforestation with native vegetation on the small island has been indicated as a priority. Since the land is federally-owned, it is critical

that the Mexican government continue to protect

the islands.



Sile Parlner:

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Sourcebook Photographers

KATHY ADAMS CLARK is a professional photographer and the owner of KAC Productions, a photo agency specializing in nature. She started the company in 1995 after a career in human resources. Her photos have appeared in many places including Birder's World, Ranger Rick, The New York Times and National Geographic Books. Kathy has photos appear every Saturday in the Wonders of Nature column in the Houston Chronicle written by husband, Gary Clark. Kathy's has provided corporate photography for Compaq Computer, South Texas Electrical Project, and The Woodlands Corporation. Her years of college teaching experience are put to good use teaching photo classes and workshops. Kathy also leads tours for Strabo Tours. She speaks frequently at association meetings and nature festivals. In addition, she is a member of the Board of Directors of the North American Nature Photography Association.

LARRY DITTO is well-known in south Texas as a photographer and wildlife biologist. Larry was the manager of the Santa Ana National Wildlife Refuge in the Rio Grande Valley for years. His photos have been on the cover of National Wildlife, Texas Parks & Wildlife, Birder's World, Wild Bird and others. Larry placed third in the 2004 Valley Land Fund Photo Contest. In 2000, he teamed-up with Greg Lasley to win the contest. He's placed in several major categories in past contests.

PETER GOTTSCHLING combines photography and birdwatching skills to produce outstanding photographs of birds. Peter's photos have appeared in Birds & Blooms, Bird Watcher's Digest, Birder's World, Sierra Outings and many other publications. Peter lives in Canada.

MICHAEL L. GRAY has been an avid birder for more than 20 years. Most of his wildlife photography has focused on birds with over 460 plus species photographed in the United States plus many species in Norway, England, Spain, Mexico, and Belize. Mike's photos have appeared in Birdscapes, Texas Ornithological Society-Texas Birds, Birders Guide to Brazoria County, and most recently in the newly published Oklahoma Breeding Bird Atlas.

GLENN HAYES' photos have appeared in a variety of magazines and books. Glenn and Bill Draker teamed-up to place second in the 2000 Valley Land Fund Photo Contest and have placed in several major categories in past contests. Glenn's photos have been published in Texas Parks & Wildlife, North American White-tail, Texas Hunting Directory, and Audubon calendars.

GREG LASLEY is well-known in the birdwatching community as the long-time compiler of the Texas Bird Records Committee and as a tour leader for Victor Emanuel Nature Tours. He has combined his birding knowledge with photography skills to win the 2000 Valley Land Fund Photo Contest and is fast becoming one of the best bird photographers in the country. Greg's photos have appeared in numerous birdwatching guides and in magazines such as National Wildlife, Birding, American Birds, Texas Highways, Texas Parks & Wildlife, The Nature Conservancy, Birder's World and Bird Watcher's Digest and on the cover of four books put out by Gulf Publishing. Audiences in Texas and around the country enjoy Greg's presentations and workshops.

WAYNE NICHOLAS grew up on the Louisiana Gulf Coast and has been in Houston for 14 years. He enjoys all nature photography, but prefers to photograph in our coastal marshes and estuaries, as he's always enjoyed the diversity of life to be found there. He took up photography in June, 2001 and focuses mainly on avian subjects. In 2002, he won Houston Photochrome's "Nature Photograph of the Year", with a photograph of a Redwing Blackbird taken at Anahuac NWR and again in 2004, with a photo of an Osprey feeding in flight. He strives to show each subject in its natural surroundings using his own perspective. His images have appeared in various publications including Texas Sporting Journal.

ROLF NUSSBAUMER won the 2004 and 2002 Valley Land Fund Photo Contests. He is the only two-time winner in the history of this prestigious event. This native of Switzerland offers a wide variety of European and U.S. birds plus 35mm and medium format landscapes.

ROLAND H. WAUER retired from the National Park Service in 1989, after a 32-year career as a park ranger at five National Parks and an 11-year post in Washington, DC. Since then, Ro has spent much time traveling, writing, and pursuing his interest in wildlife photography. He has authored more than 170 nature articles for magazines and journals and 21 books. Ro remains an active birder and biologist, completing a number of field studies, and documenting the various habitats and birds he studies along the way. Current projects include completing a butterfly site guide for Texas, a manuscript on the American Kestrel, and visiting Mexico every few months to photograph butterflies that eventually will be incorporated into a Mexican butterfly book.

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