Development of a "Coastal Land Management Strategies for Wildlife Conservation" Brochure



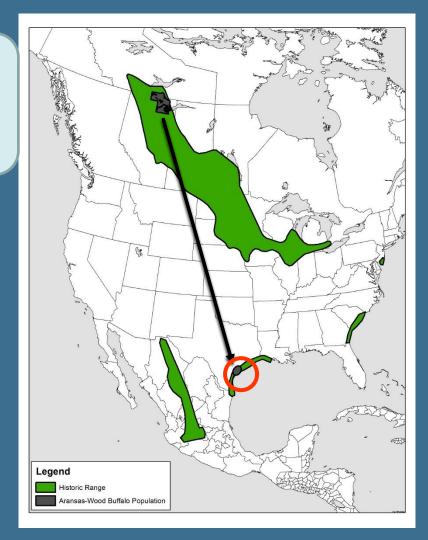
Elizabeth H. Smith
International Crane Foundation
North American Program Director
Texas Program Leader



Whooping Crane (Grus americana)



Aransas-Wood
Buffalo
Migratory
Population
(last, naturally
occurring)





Whooping Cranes in the world

826

-wild populations

Cranes in Captivity

159

Aransas-Wood Buffalo Migratory

504

Eastern Migratory

85

Louisiana Non-Migratory

reintroduced populations

69

Florida Non-Migratory

9

Population n rs reported in 2019. Number

y seasonally. ©2020 International Crane Foundation.

AWBP Wintering Grounds Vision

Whooping Cranes have sufficient quality habitat to grow beyond 1000 individuals and 250 breeding pairs, are downlisted from endangered to threatened, and are celebrated as an important economic and cultural asset to coastal Texas.



Conserve Essential Habitat for Whooping Cranes













~ 30% of Whooping Crane habitat is under protection



Waters for Wildlife Program













Landowner Engagement

Landowner Engagement

- 95% Texas privately owned
- Large tracts under private ownership along the coast; sizeable federal and state tracts
- Landowner Survey to develop a "Coastal Management Strategies for Wildlife Conservation"
- Focus on properties that support current population of wintering Whooping Cranes



Information-Rich Dataset

| 5 | Management Strategy | | | | | | | | | | | |
|-----|---|---------|----------|----------|-------------|-----|--------|-------|-----|-----|-----|-----|
| - 6 | Coastal Prairies Restoration | | | | | | | | | | | |
| 7 | Invasive Brush Mgmt (running live oak) burning, spraying, mowing | No | No | Yes | Yes | No | No | Yes | Yes | Yes | Yes | Yes |
| 8 | Cattle Grazing Mgmt - rotational grazing, water availability | No | No | No | No | No | No | Yes | Yes | Yes | Yes | No |
| 9 | Invasive Grass Mgmt (old world bluestem, quinea grass) - spraying, burning | No | No | Yes | Yes | Yes | No | No | No | No | No | No |
| 10 | Freshwater Marsh Management | | | | | | | | | | | |
| 11 | Invasive aquatic plant management (chinese tallow, cattail) - spraying, burning, shredding | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | No | Yes |
| 12 | pondledge management (invasive mesquite, salt cedar) - clearing, spraying, mowing | No | Yes | Yes | Yes | Yes | No | No | Yes | Yes | Yes | Yes |
| 13 | Install water wells for surface water management | No | No | No | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes |
| 14 | Invasive Animals | | | | | | | | | | | |
| 15 | Feral hog removal | No | No | No | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes |
| 16 | Coastal Marsh Protection | | | | | | | | | | | |
| 17 | Shoreline (articulated mat, concrete bags) | No | No | No | Yes | No | No | Yes | No | No | No | Yes |
| 18 | Offshore (jetties, reefs) | No | No | No | Yes | No | No | No | No | No | No | Yes |
| 19 | Elevated Boardwalks | No | No | No | Yes | No | No | No | No | No | No | Yes |
| 20 | Upland powerline visibility - install markers | No | No | No | No | No | No | No | No | No | No | No |
| 21 | Coastal Marsh Restoration | | | | | | | | | | | |
| 22 | Replant native species | No | No | No | Yes | No | No | No | No | No | No | Yes |
| 23 | annual beach/bay cleanup | No | No | No | Yes | No | No | No | No | No | No | Yes |
| 24 | hurricane debris removal | No | No | No | Yes | No | No | No | No | No | Yes | Yes |
| 25 | Coastal Marsh Creation | | | | | | | | | | | |
| 26 | Mitigation to replace habitat lost from development | No | No | No | Yes | No | No | No | Yes | No | No | Yes |
| 27 | Beneficial use of dredge material | No | No | No | Yes | No | No | No | No | No | No | Yes |
| 28 | Hudrologic Restoration | | | | | | | | | | | |
| 29 | Replant airboat trails | No | No | No | No | No | No | No | No | No | No | Yes |
| 30 | Install/maintain articulated mats/erosion control | No | No | No | Yes | No | No | Yes | No | No | No | Yes |
| 31 | Manage Water to Impoundments | No | No | Yes | No | No | No | No | No | No | No | Yes |
| 32 | Install culverts, low water crossings on roads | No | No | No | Yes | No | No | Yes | Yes | Yes | Yes | Yes |
| 33 | Advocate for Freshwater Inflows | No | No | No | Yes | Yes | Yes | No | No | No | No | Yes |
| 34 | Human Disturbance | | | | | | | | | | | |
| 35 | Limited public access | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 36 | limit boat access (recreational) | No | No | No | No | No | No | No | No | No | No | Yes |
| 37 | Maintain Boundary Signage | Yes | No | No | Yes | No | Yes | Yes | Yes | Yes | No | Yes |
| 38 | Construct Visual Barriers (blinds, walls on boardwalks, trails, viewing from dwelling only) | Yes | No | No | Yes | No | No | No | No | No | No | Yes |
| 39 | Provide wildlife etiquette/safety rules to visitors | No | No | Yes | Yes | Yes | No | No | No | No | No | Yes |
| 40 | Hunting Management - register, limited entry and access | No Hunt | t No Hun | t No Hun | t No huntin | Yes | No Hun | t Yes | Yes | Yes | Yes | Yes |
| 41 | Game Feeders (is this a strategy?) | Yes | Yes | No | No | Yes | No | Yes | Yes | Yes | Yes | No |
| | Industrial Management Plan - limited access during Whooping Crane season | No | No | No | Yes | No | No | No | No | No | No | Yes |
| 40 | | | | | | | | | | | / | |



Gulf Coast Prairies and Marshes Ecoregion
Calhoun and Aransas Counties

About This Project

 The Gulf Coast Prairie and Marsh ecoregion encompasses over 300 miles of the Texas coast. Most of the inland prairie was converted to farming in the early 1900s, and



any remaining prairies and marsh habitat is located along the coast and used for ranching and wildlife habitat. This region supports the growing population of endangered Whooping Cranes who are

expanding from their core range into areas along the Gulf Coast that they have not resided in for almost 100 years.

- The Waters for Wildlife Program is comprised of a diverse group of partners to provide fresh water for wildlife, particularly Whooping Cranes, on both private and public lands through drilling new wells or retrofitting existing windmills with solar power. This project was funded by Coastal Bend Bays & Estuaries Program to San Antonio Bay Partnership and International Crane Foundation to construct a new well and develop this informational guide.
- Interviews with managers of federal, state, and privately owned land within the current Whooping Crane habitat range were used to inform this guide. These stakeholder-guided practices are used to maintain high quality habitat and conditions for both wildlife and livestock. This guide summarizes key strategies which can be implemented on your land within the Gulf Coast Prairies and Marshes ecoregion.

Brought to you by...

These community organizations have provided expertise, resources, and funds to bring you this information.



Coastal Bend Bays & Estuaries Program is dedicated to protecting and restoring the health and productivity of the bays and estuaries in the Texas Coastal Bend, while supporting continued economic growth and public use of the bays. Visit CBBEP.org for more information.



The International Crane Foundation works worldwide to conserve cranes and the ecosystems, watersheds & flyways on which they depend. In Texas, they focus on the endangered Whooping Crane.

Visit SavingCranes.org for more information.

San Antonio Bay

The purpose of the San Antonio Bay Partnership is to create and sustain a working partnership of committed stakeholders in order to protect, restore and enhance the natural resources of the San Antonio Bay System for the benefit of the ecosystem and its human uses. Visit SABAyartnership or for more information.

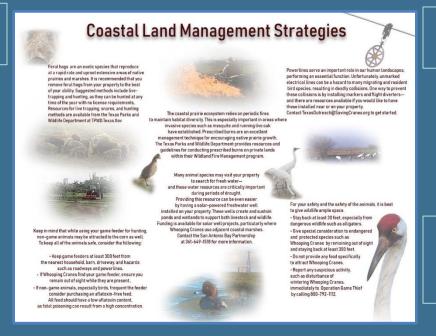


- 85% of public and private landowners with Whooping Cranes participated
- About 66% private with conservation easement
- About 55% encompassed all three habitat types (salt marsh, coastal prairie, woodland)
- 9 Management strategies, 6 highlighted in brochure

Invasive Brush Management

Feral Hog Management

Game Feeders



Powerline Markers

Wildlife Safety/ Guidelines

Freshwater Availability

Feral Hog Management



Feral Hog Management



Feral hogs are an exotic species that reproduce at a rapid rate and uproot extensive areas of native prairies and marshes. It is recommended that you remove feral hogs from your property to the best of your ability. Suggested methods include live-trapping and hunting, as they can be hunted at any time of the year with no license requirements, Resources for live trapping, snares, and hunting methods are available from the Texas Parks and Wildlife Department at TPWD.Texas.Gov

Invasive Brush Management



Invasive Brush Management

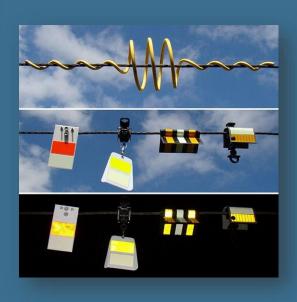


The coastal prairie ecosystem relies on periodic fires to maintain habitat diversity. This is especially important in areas where invasive species such as mesquite and running live oak have established. Prescribed burns are an excellent management technique for encouraging native prairie growth. The Texas Parks and Wildlife Department provides resources and guidelines for conducting prescribed burns on private lands within their Wildland Fire Management program.

Powerline Markers







Powerline Markers





Powerlines serve an important role in our human landscapes, performing an essential function. Unfortunately, unmarked electrical lines can be a hazard to many migrating and resident bird species, resulting in deadly collisions. One way to prevent these collisions is by installing markers and flight diverters—and there are resources available if you would like to have these installed near or on your property.

Contact TexasOutreach@SavingCranes.org to get started.

Fresh Water Availability

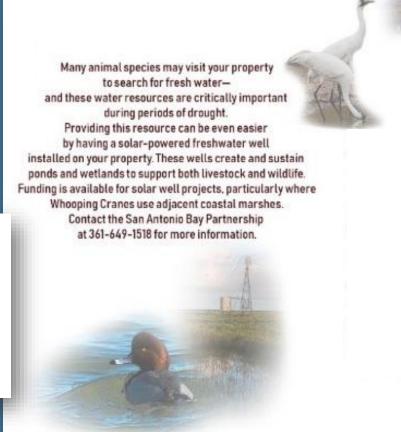








Fresh Water Availability





Game Feeders



Game Feeders





Keep in mind that while using your game feeder for hunting, non-game animals may be attracted to the corn as well. To keep all of the animals safe, consider the following:

- Keep game feeders at least 300 feet from the nearest household, barn, driveway, and hazards such as roadways and powerlines.
- If Whooping Cranes find your game feeder, ensure you remain out of sight while they are present..
- If non-game animals, especially birds, frequent the feeder consider purchasing an aflatoxin-free feed.
 All feed should have a low aflatoxin content, as fatal poisoning can result from a high concentration.

Wildlife Safety Guidelines



For your safety and the safety of the animals, it is best to give wildlife ample space.

 Stay back at least 30 feet, especially from dangerous wildlife such as alligators.

 Give special consideration to endangered and protected species such as Whooping Cranes by remaining out of sight and staying back at least 300 feet.

 Do not provide any food specifically to attract Whooping Cranes.

 Report any suspicious activity, such as disturbance of wintering Whooping Cranes, immediately to Operation Game Thief by calling 800-792-1112. "It is both an honor and a serious responsibility to have Whooping Cranes live on our property. We wouldn't want anything to happen to them anywhere, but especially when they are here with us."

THE "GOOD EGG" AWARD presented to Al and Diane Johnson In recognition for their visionary actions to save Whooping Crane habitat on the wintering grounds and their service as conservation leaders for other private landowners on the Texas Coast. By the International Crane Foundation, September 21, 2019



Liz Smith esmith@savingcranes.org

Anna Turkett aturkett@savingcranes.org