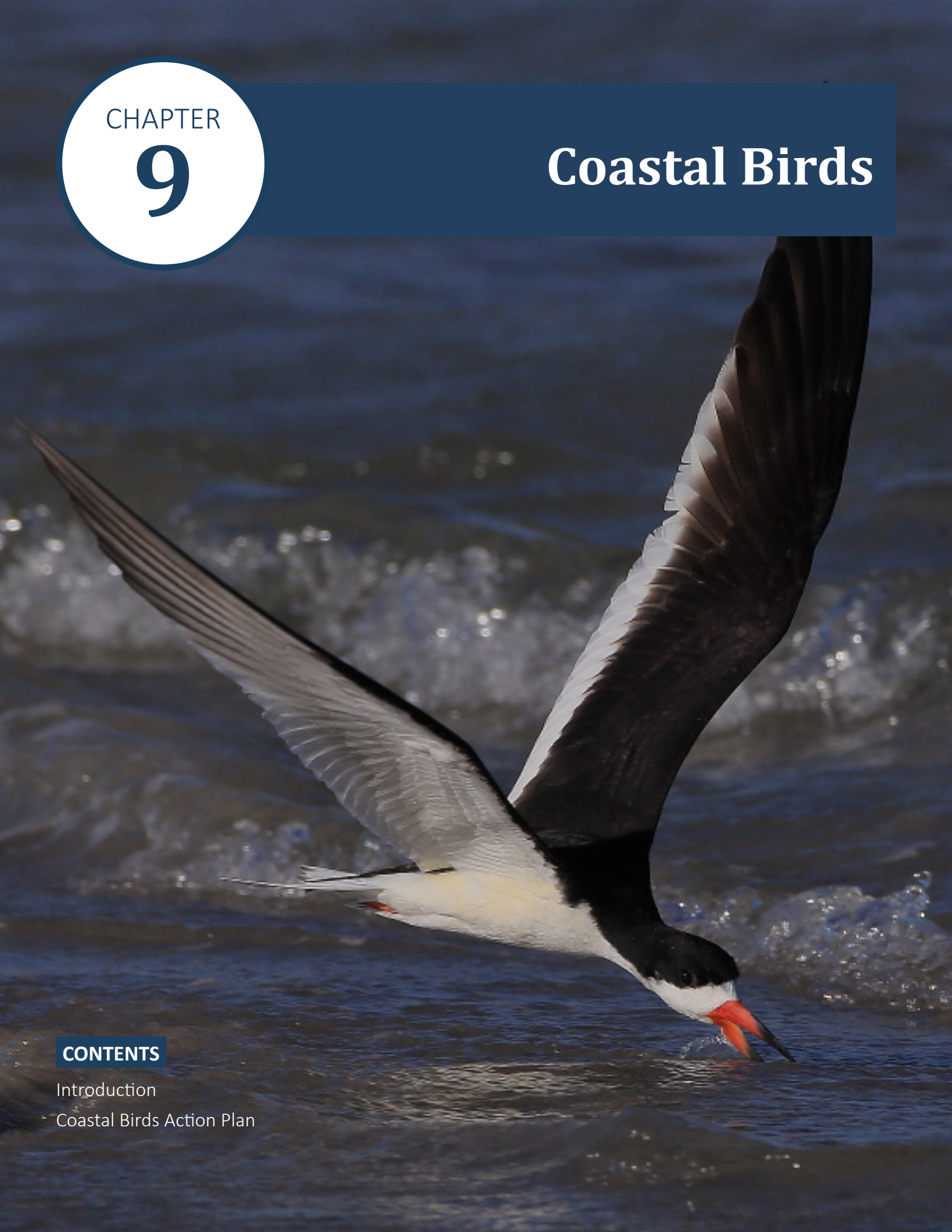
CHAPTER

# 9

# Coastal Birds



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# Introduction

The South Texas coast is one of the most unique areas in North America and is renowned for its exceptional bird life. This is attributable to a suite of fortunate circumstances: (1) its prime position in the central flyway and a crossroads for many migrants that span two hemispheres, (2) the uniqueness and productivity of the barrier island, lagoon, and coastal prairie habitats, and (3) the protection afforded to these landscapes by federal and state entities as well as private landowners who maintain working landscapes that preserve critical ecological functions.

The Coastal Bend bays are home to an entire guild of birds that are known for their beauty and were once hunted near to the brink of extinction. These birds – pelicans, herons, spoonbills, terns, skimmers and many others – made easy targets during the breeding season, when they gather in dense colonies on small islets in the middle of the bays and lagoons to breed. After legal protections at the turn of the 20th century assisted the birds in a strong recovery, the birds began to decline again in the latter half of that century.

The CBBEP Coastal Bird Program originated in 2001 with the goal of reversing regional declines and restoring waterbird populations by addressing known threats and causes of decline, closely monitoring waterbird populations, and promoting waterbird conservation by engaging the public through education and outreach. Since then, the Coastal Bird Program has worked on hundreds of islands throughout the Texas coast, while focusing most of their management efforts in the central and lower part of the Texas coast. The Coastal Bird Program has worked to identify causes of declines, develop methods for addressing those causes, and engage the public by implementing successful outreach programs. The 2017 Bays Plans calls for the Coastal Bird Program to continue implementing successful waterbird management strategies, such as rookery island habitat management, population monitoring, and education and outreach.

Conservation of highly migratory shorebird species has become an area of increased focus over the past five years. The CBBEP Coastal Bird Program has conducted numerous research projects on the abundance,

**BLACK SKIMMER** populations are declining along the Texas coast, and the Coastal Bird Program is conducting research to determine the causes of the declines. (Photo by XXXXXX)

## ACCOMPLISHMENT:

## Migratory Connectivity Project

The CBBEP Coastal Bird Program participated in an initiative called the Migratory Connectivity Project, led by the Smithsonian Conservation Biology Institute's Migratory Bird Center. As a project partner, the CBBEP was involved in tagging and placing satellite transmitters on 10 Long-billed Curlews during Spring 2016 - nine birds were tagged in the Coastal Bend, and one very special bird in Georgia.

Long-billed curlews are a highly migratory bird species that spend winters on the warm shores of the Gulf Coast and southeastern United States, California, and Mexico, and migrate north to the grasslands of the Great Plains and Great Basin to breed. Conserving migratory birds poses unique challenges since they often depend on numerous sites spread over several continents. With advances in technology like the satellite transmitters, researchers can now gain a great amount of information from a relatively small number of birds. The transmitters allow the birds to be tracked in near real-time, and provide connectivity information, such as migratory pathways, locations of stop-over and wintering areas, and the similarity (or dissimilarity) among individuals.

Prior to leaving on their migration, the satellite transmitters were able to report the birds local movements here in the Coastal Bend, which revealed that some of the birds used CBBEP's Nueces Bay Marsh Restoration Site and the Nueces Delta Preserve. Once migration is complete, the information provided by the satellite transmitters will be analyzed and ultimately help focus conservation efforts where needed for this species. This project was funded in part by the ConocoPhillips Charitable Investment Global Signature Program.

# ACCOMPLISHMENT:

## Expanding the Motus Network

Each spring, migratory birds fly from their wintering grounds in the south to their Arctic breeding grounds, sometimes travelling up to 14,000 thousand kilometers one-way. The productivity of our bays and estuaries makes the Coastal Bend a prime location for these travelers to stop and find nourishment during this long journey. As a result, many of the species we see on our beaches and tidal flats during the spring are not actually Coastal Bend residents - they are migratory birds like Sanderlings and Red Knots fueling up to travel to their breeding grounds.

On their journey these little birds face threats from both natural and human-caused sources including exhaustion, starvation, collisions, predators, disease, pollution, natural disasters and hunting to name a few. Declining populations have led to increased focus on conservation of these species in recent years. Their migratory nature, however, makes monitoring and understanding threats to populations more challenging.

To tackle this issue the CBBEP's Coastal Bird Program installed the first array of Motus telemetry stations in the Spring of 2015 along the Gulf Coast as part of a project to document shorebird migration along the Central Flyway through the Gulf of Mexico and the Prairie Pothole region. The CBBEP stations join a network of more than 300 other receiving stations that are a part of the Motus Wildlife Tracking System, a program of Bird Studies Canada in partnership with collaborating researchers and organizations. Each telemetry station can detect signals from active tags at distances of up to 15 km. When combined, this array can track animals across a diversity of landscapes covering thousands of kilometers.

distribution, nest success, habitat usage, migratory connectivity, and other aspects of this highly dynamic group of birds. These projects have been conducted both with in-house staff as well as in conjunction with national and international partners in Canada, Mexico and beyond. This level of coordination and cooperation among researchers and biologists is essential to foster conservation through a better understanding of habitat requirements throughout the full annual cycle. The Bays Plan calls for the Coastal Bird Program to serve as an anchor point for research projects focused on highly migratory shorebird species that utilize the Central Flyway and visit the Coastal Bend.

**THE CBBEP COASTAL BIRD PROGRAM** has been experimenting for over 15 years with a range of traditional and novel vegetation management methods to increase the available structure needed for successful nesting by wading birds. The Program has developed a full arsenal of equipment and knowledge to address the unique challenges of vegetation management on small islands with unique soils and highly variable rainfall. Staff collaborate with Texas Master Naturalists to grow the types of salt- and drought-tolerant shrub species that provide the structure necessary for wading birds.

# COASTAL BIRDS
## Action Plan

## GOAL

Conserve coastal birds and the habitats they depend upon in the Coastal Bend of Texas.

## OBJECTIVES

CB 1: Reverse population declines in colonial nesting waterbirds in the Coastal Bend.

CB 2: Advance the conservation of highly migratory shorebirds through research, monitoring, and stewardship.

## ACTIONS

CB 1.1: Implement successful waterbird management actions to reverse declines in colonial nesting waterbirds in the Coastal Bend.

CB 2.1: Conduct conservation-oriented monitoring and management actions to benefit shorebird species that utilize the Central Flyway and visit the Coastal Bend.

## Coastal Birds 1.1

Implement successful waterbird management actions to reverse declines in colonial nesting waterbirds in the Coastal Bend.

Colonial nesting waterbird species like herons, egrets, terns, skimmers, and pelicans nest in dense colonies on small, isolated islands along the Texas coast. While these islands offer colonies protection from predators, they are also threatened by erosion, heavy storms, exotic/invasive vegetation, sea level rise, coastal development, and chronic disturbance from an ever-growing human population. Legal protection allowed these populations to begin to recover after being hunted to near extinction at the turn of the 20th century, but more recent long-term data now suggest that many colonial waterbird populations in Texas have experienced declines of up to 75% since the early 1970's.

The CBBEP Coastal Bird Program originated in 2001 with the goal of reversing regional declines and restoring waterbird populations by addressing known threats and causes of decline, closely monitoring waterbird populations, and promoting waterbird conservation by engaging the public through education and outreach. The Coastal Bird Program has primarily focused its work in the Coastal Bend of Texas, within the CBBEP boundary, but has recently expanded to include the lower Laguna Madre, ensuring contiguous management and protection for rookery island habitat throughout the central and southern portions of the Texas coast. Working with a diverse set of partners, the Coastal Bird Program maintains an adaptive and innovative approach to waterbird conservation and continues to work towards its initial goal of restoring colonial waterbird populations.

**STEP 1:**
Manage and protect rookery island habitat throughout the program area. Management activities may include, but are not limited to: native vegetation propagation, treatment and removal of exotic vegetation, removal of harmful nest predators, and installation of protective signage.

**STEP 2:**
Monitor population trends of nesting colonial waterbirds. If necessary, identify potential causes of declines and develop management strategies to address those causes.

**STEP 3:**
Engage the public through dedicated education and outreach efforts to raise awareness of colonial waterbirds and the conservation actions citizens can take to support population recovery efforts.

**STEP 4:**
Support efforts to restore and enhance existing rookery islands and/or create new islands.

**STEP 5:**
Maintain an active role in the Texas Colonial Waterbird Society and participate annually in the Texas Colonial Waterbird Survey.

**STEP 6:**
Provide expertise and guidance to resource agencies, partners, and other stakeholders regarding colonial waterbirds and their habitats.

**STATUS**

**UNDERWAY:** The Coastal Bird Program continues its annual efforts to manage and protect rookery islands and colonial waterbirds while working to diversify and expand the program through partnerships and other initiatives.

**TIMEFRAME**

**2017-2037:** Steps are considered on-going and will be implemented on a regular basis throughout the applicable life of this plan.

## COST

**ESTIMATED COST:** Step 1 = $$; Steps 2-6 = $

**POTENTIAL FUNDING:** CBBEP Programmatic funds (EPA 320 funds), Federal and State grants, RESTORE Act, Private industry

## PARTNERS

**LEAD:** CBBEP - Coastal Bird Program

**POTENTIAL PARTNERS:** American Bird Conservancy; Audubon Texas; Gulf Coast Joint Venture; TGLO; TPWD; USFWS; USGS

## PERFORMANCE METRICS

1. Amount and quality of available rookery island habitat in the program area.
2. Dedicated annual monitoring of major colonies.
3. Engage the public and targeted user groups (e.g., number of presentations to public, social media statistics, and number of volunteer events).

## Coastal Birds 2.1

Conduct conservation-oriented monitoring and management actions to benefit shorebird species that utilize the Central Flyway and visit the Coastal Bend.

Migratory shorebirds comprise an astoundingly diverse group of birds, and a large proportion of them depend on coastal and upland habitats of the Texas Coastal Bend for significant parts of their annual cycles. Some nest here and winter elsewhere, some leave the area only briefly to breed in northerly latitudes and spend most of the year here, while yet others stop on their way north and/or south to refuel for the next leg of their migratory journey. Their challenges are legion – exhaustion, starvation, collisions, predators, disease, pollution, natural disasters, and hunting – to name a few. Their life histories emphasize the importance of this area as a vital link for their survival. As a group, they are among the most imperiled of birds. Protecting them means not only protecting the sites they use locally, but also gaining a better understanding of their full life histories so that appropriate efforts can be directed wherever they may be facing the greatest threats.

In recent years, the Coastal Bird Program has conducted numerous projects on the abundance, distribution, nest success, habitat usage, migratory connectivity, and other aspects of this highly dynamic group of birds. They also work with agencies and local landowners to ensure that habitats vital to these birds are protected, and provided guidance on management actions that can ameliorate threats. These projects have been conducted both with in-house staff as well as in conjunction with partners working at national and international levels such as the Smithsonian Migratory Bird Center, American Bird Conservancy, Conserve Wildlife Foundation of New Jersey, University of Saskatchewan, Canadian Wildlife Service, and Pronatura in Mexico, as well as US Fish & Wildlife Service, US Geological Survey, and Texas Parks & Wildlife Department. This level of coordination and cooperation among researchers and biologists is essential to foster conservation through a better understanding of habitat requirements throughout the full annual cycle, and leveraging range-wide interest and resources to support conservation efforts.

| STEP 1: | STEP 2: | STEP 3: | STEP 4: |
|---|---|---|---|
| Conduct monitoring of sites of local importance to shorebirds, assess their threats, and work with willing landowners/ managers to develop and implement appropriate management actions. | Conduct and facilitate projects that fill essential knowledge gaps related to migratory connectivity of species of conservation concern, through use of traditional methods, as well as innovative technologies. | Communicate results of shorebird projects to the public in a way that emphasizes the connectedness of bird populations and the importance of local protections in the larger scheme of their range-wide conservation. | Serve as a primary point of contact and representative for shorebird issues in regional, national and international forums aimed at shorebird conservation, and work with regional partners to build capacity within coastal communities to assist with monitoring and conservation activities. |

**STATUS**

**UNDERWAY:** The Coastal Bird Program currently has multiple projects underway associated with each of the four major steps. Many important relationships with collaborators have been developed and continue to grow.

**TIMEFRAME**

**2017-2037:** Steps are considered on-going and will be implemented on a regular basis throughout the applicable life of this plan.

## COST

**ESTIMATED COST:** Steps 1-2 = $$; Steps 3-4 = $

**POTENTIAL FUNDING:** CBBEP Programmatic funds (EPA 320 funds), Federal and State grants, RESTORE Act, Private industry

## PARTNERS

**LEAD:** CBBEP - Coastal Bird Program

**POTENTIAL PARTNERS:** American Bird Conservancy; Canadian Wildlife Service; Conserve Wildlife Foundation of New Jersey; Gulf Coast Bird Observatory; Gulf Coast Joint Venture; Local governments (e.g., city and county); Pronatura; Rio Grande Joint Venture; Smithsonian Migratory Bird Center; TGLO; USFWS; USGS; Universities

## PERFORMANCE METRICS

1. Amount of area protected and managed for shorebirds.
2. Number of shorebird education programs.
3. Number of partners in active collaboration with CBBEP Coastal Bird Program on shorebird projects.
4. Number of volunteers engaged in shoreline cleanups, monitoring and research.