

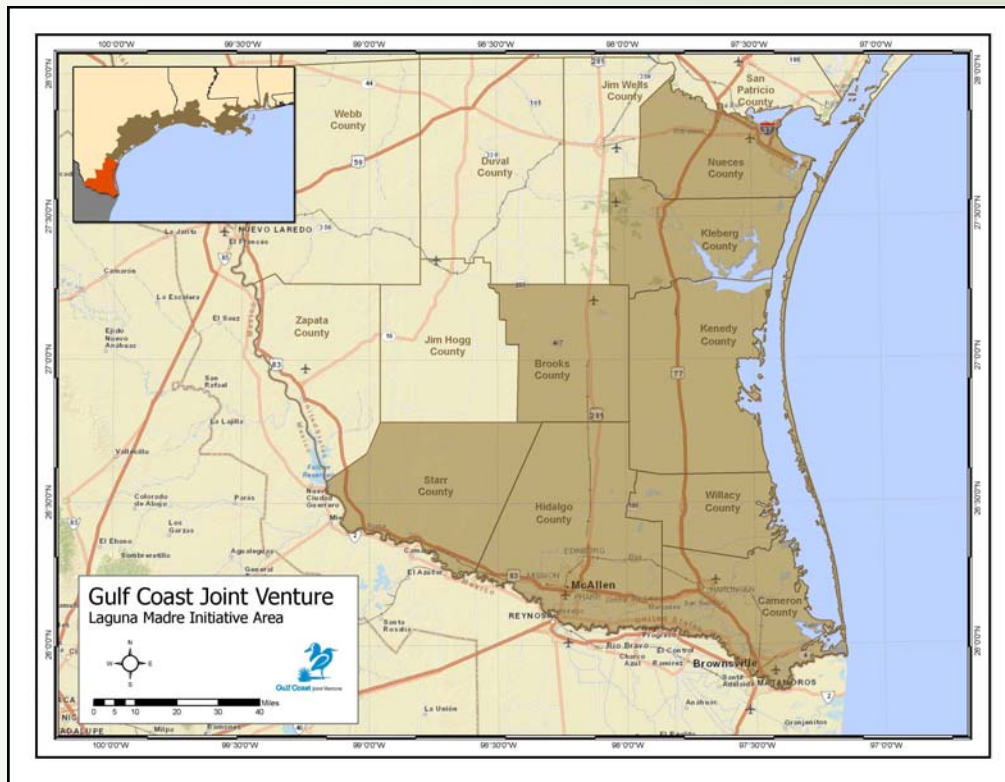
Gulf Coast Joint Venture Laguna Madre Initiative Area

Introduction

The **Gulf Coast Joint Venture** (GCJV) is a bird habitat conservation partnership that spans the coastal portions of Alabama, Mississippi, Louisiana, and Texas. The GCJV mission is to advance conservation of important bird habitats through biological planning, implementation of habitat conservation activities, and evaluating the planning and implementation process through monitoring and research. GCJV conservation activities focus on waterfowl, landbirds, shorebirds, and waterbirds. The GCJV promotes habitat delivery, research, and monitoring activities that address the priorities identified by the partnership.

For conservationists seeking to address GCJV priorities for the Laguna Madre, this document summarizes priority bird conservation actions for the area.

Detailed descriptions and derivations are available at www.gcjv.org/documents.php.



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Waterfowl

Migrating and Wintering Waterfowl

Species addressed in GCJV planning: Mallard, Northern Pintail, Gadwall, American Wigeon, Green-winged Teal, Blue-winged Teal, Northern Shoveler, Mottled Duck, Canvasback, Redhead, Ring-necked Duck, Greater & Lesser Scaup, Lesser Snow Goose, Greater White-fronted Goose, and Canada Goose

Population Objectives: 1,244,816 ducks and 44,881 geese; refer to Table 1 in the **Laguna Madre Initiative Area Plan** for objectives by species

Habitat Objectives: Table 1. Migrating/wintering waterfowl habitat objectives for the Laguna Madre IA.

Habitat Type	Aug-Oct Acres	Nov-Mar Acres
Seasonal, Palustrine Wetlands	4,096	18,434
Shoalgrass		57,237 ¹

¹Habitat objective is not temporally explicit. Majority of Redhead use is Nov. to Mar.

Biological Foundation:

Bio-energetic models yield acreage of foraging habitats necessary to meet dietary demands of population objectives. For Redheads, proximity to reliable freshwater wetlands influences availability of seagrass beds.

Conservation Activities:

- Management activities to protect or restore seagrass beds
- Protection, enhancement, and creation of fresh water wetlands within 10 km of seagrass beds
- Restoration and enhancement of seasonal wetlands in rangelands and pasturelands

Research Priorities:

- Nocturnal, diurnal, and seasonal habitat use of waterfowl
- Potential effects of wind energy development on waterfowl behavior and habitats

Breeding Waterfowl

Priority Species: **Mottled Duck**

Population Objective: Western Gulf Coast (i.e., GCJV-wide) population index of 105,816 individuals, including at least 35,322 in Texas and 70,132 in Louisiana, as measured from Mid-winter Surveys in coastal areas of these states

Habitat Objective: Not yet available

Biological Foundation: Factors limiting recruitment are primary constraints to population growth

Conservation Activities:

- Creating and/or restoring large blocks of nesting habitat in rangelands and coastal marsh
- Wetland restoration and water delivery to provide brood-rearing habitat from mid-April through July in rangelands
- Hydrologic restoration to maintain low salinity (<6–8 ppt) and enhance quality of brood-rearing habitats in coastal marsh
- Targeted predator removal

Research Priorities:

- Measuring the effectiveness of habitat conservation actions to benefit Mottled Duck breeding productivity, including breeding propensity, nest success, and brood survival





Landbirds



Priority Landbird Species: **BCR 37; BCR 25, 26, 27**

Northern Bobwhite

Population Objective: 525,050 birds; 43,754 coveys in TX portion of BCR 37

Habitat Objective: Improve 12,827,000 acres in TX portion of BCR 37 (5,009,900 cropland acres; 2,125,900 pasture/hay acres; 5,670,300 rangeland acres; and 20,900 CRP grassland acres)

Biological Foundation: Acreage of improved cropland, pasture/hay, rangeland, or CRP grassland required to produce a covey

Conservation Activities: Control but don't remove brush; convert exotic grass to native grass; Use appropriate cattle stocking rate to ensure adequate nesting cover

Loggerhead Shrike

Population Objective: 22,036 birds during winter (6,336 Resident, 15,700 Migratory)

Habitat Objective: 141,860 acres

Biological Foundation: Territory size(s) dictates acreage needed to support population objectives

Conservation Activities: Preserve native prairie areas; maintain low, thick shrubs in fields (3–10 shrubs or small trees per acre)

Le Conte's Sparrow

Population Objective: 18,110 birds during winter

Habitat Objective: 18,110 acres

Biological Foundation: Winter density estimates dictate acreage needed to support population objectives

Conservation Activities: Manage ≥500 acre blocks of native grassland with burned and unburned areas; prescribed burns should occur on a 3-year rotation

Seaside Sparrow

Population Objective: 65,000 birds in U.S. BCR 37 and GCJV portion of BCR 26

Habitat Objective: 650,000 acres in U.S. BCR 37 and GCJV portion of BCR 26

Biological Foundation: Breeding territory size dictates acreage needed to support population objectives

Conservation Activities:

- Creation and/or restoration of marsh habitat, in blocks ≥10,000 acres, containing areas of medium height smooth cordgrass, interspersed with ponds, tidal creeks, and bare ground areas
- Plug selected ditches in marshes that have been ditched
- Use of dredged material for creation of marsh-elevation islands with shallow water bodies, and scattered woody shrubs

Cerulean Warbler, Golden-winged Warbler, and Swainson's Warbler (migratory suite)

Population Objectives: Not yet available

Habitat Priorities: Large forest patches (≥10,000 acres) close to the Gulf of Mexico

Biological Foundation: Theoretical bio-energetic foraging needs of migrating warblers

Conservation Activities: Maintain, restore, or create large forest patches (≥10,000 acres) along the Texas coast

Landbird Research Priorities:

- Testing assumptions and refining parameter estimates used in population-habitat models
- Determining suitable grassland patch size, species composition, structure, and landscape habitat matrix needed to support wintering Le Conte's Sparrows
- Identifying habitat components of ideal migration stopover habitat
- Assessing effectiveness of GCJV priority landbird species planning and management in addressing the needs of other bird species of conservation concern



Shorebirds and Waterbirds



Shorebirds

Population Objectives: Table 2. Fall migrating shorebird objectives for inland-managed habitat in the Laguna Madre IA.

Priority Species	Population Objective	Inland/Managed Habitat Objectives, Acres
	Inland/Managed Habitat	
Long-billed Curlew	11,031	9,102
Western Sandpiper	170,439	8,356
Stilt Sandpiper	33,868	855
Buff-breasted Sandpiper	20,598	7,213
Short-billed Dowitcher	659	590
Total	236,595	26,116

Biological Foundation: Bio-energetic models yield acreage of foraging habitats necessary to meet the demand of population objective.

Other Shorebirds of Concern: Snowy Plover, Wilson's Plover, Hudsonian Godwit

Population Objective: Not yet available

Inland/Managed Habitat Objective: Not yet available

Biological Foundation: Not yet available

Conservation Activities: Provide habitat ranging from shallow, flooded fields to mudflats

Research Priorities:

- Evaluate assumptions used to derive inland/managed habitat objectives in GCJV shorebird plan
- Improve accuracy and precision of population estimates

Waterbirds

Priority species: Reddish Egret, Little Blue Heron, Wood Stork, King Rail, Black Rail, Gull-billed Tern, and Black Skimmer

Population Objectives:

- Reddish Egret: 2,000 breeding pairs in TX portion of the GCJV
- Little Blue Heron, Wood Stork, King Rail, Black Rail, Gull-billed Tern, Black Skimmer: Not yet available

Reddish Egret Biological Foundation: Estimation of breeding population impacts of specific management treatments applied to specific colonies

Habitat Objectives: Table 3. Recommended actions for Reddish Egret populations at known important nesting colonies in the Laguna Madre IA.

Colony Site	Recommended Action		
	Predator Control	Disturbance Management	Habitat Action
Shamrock Island		X	
East Flat Spoils		X	
Green Island	X	X	
Laguna Vista Spoils		X	X
Zigzag Island		X	X
Pita Island	X		X
Rabbit Island Complex		X	X
Pelican Island	X	X	X
South of South Bird Island	X	X	X

Not yet available for Little Blue Heron, Wood Stork, King Rail, Black Rail, Gull-billed Tern, Black Skimmer

Reddish Egret Conservation Activities:

- Application of colony-specific management actions
- Creation/improvement of alternate colony sites
- Improvement of foraging habitat within 10 km of existing colonies

Reddish Egret Research Priorities: Testing breeding population response assumptions for each management action