Waterbird Conservation Plan Summary

East Gulf Coastal Plain Joint Venture VERSION 1.0 Oct 2024



# East Gulf Coastal Plain Waterbird Conservation Plan Summary

The Waterbird Conservation Plan is part of a broader effort by the East Gulf Coastal Plain Joint Venture (EGCPJV) to provide partners with a suite of plans for landbirds, waterbirds, and waterfowl focused on sustaining healthy populations of birds in the East Gulf Coastal Plain (EGCP). It is a product of the initial step in a multi-phased process of biological planning, conservation delivery, and evaluation. The Plan provides a list of high priority waterbird species, numerical population objectives for those species, and habitat objectives to meet population objectives in key habitats.

These questions are addressed:

- How many birds are needed to sustain populations?
- How much habitat is needed to support these populations?
- Where is current habitat and where is more habitat needed?

The Plan provides a list of 23 priority species and 11 priority habitats, along with 10- and 30-year population and habitat objectives (Waterbird Conservation Plan, Tables 3.1 and 3.2). The objectives provide a foundation for developing additional tools that will refine spatial priorities. Population and habitat objectives are allocated by state (Table 1).

Population and habitat objectives for priority species:

- Serve as conservation targets, allocated among partners and to be met through collaboration
- Serve as metrics to assess accomplishments and measure success across the geography
- Prioritize conservation to maximize investments with clear numerical outcomes (acres and birds)
- Justify use of resources by showing how conservation projects contribute to objectives
- Communicate and market demonstrated needs for conservation to various audiences.

For the purposes of the Plan, a waterbird is defined as any bird species except waterfowl that is



Cover photo Green Heron/ Sam Boatman dependent on water-based ecosystems and habitats for the majority of its lifecycle needs. Population trends among waterbird species vary greatly by taxa group, species within a taxa group, and sometimes even regionally within a species. Almost all shorebird species are declining, with several species having declined by more than 50% since the 1970s. Some species of colonial-nesting birds, particularly ground-

nesting seabirds, have faced similar declines, while most long-legged wading birds are either stable or increasing, though there are exceptions.



Regardless, all waterbirds face increasing pressures, including land conversion and urbanization, threats to water quality and quantity, habitat degradation, and various aspects of climate change.

While the ECGP geography is dominated by upland systems, it also has a rich diversity of waterbird habitats. Conservation in the JV will provide tangible benefits to waterbird species. The Big Bend region of Florida is also included in the Plan due to similar political, biogeographical, and species concerns, and because no waterbird plan exists for this area.



Map's shaded area indicates the EGCPJV along with the extended planning area for the Waterbird Conservation Plan



Some priority bird species of the East Gulf Coastal Plain, from left: Wilson's Plover/Bill Summerour; Yellow Rail/ Dominic Sherony; Sandhill Crane & chick/Sam Boatman; Purple Gallinule/Sam Boatman

# **Population and Habitat Objectives**

Table 1. Ten- and thirty-year habitat objectives by priority habitat and state in the EGCPJV waterbird planning area. Numbers reflect goals for additional habitat acres. Habitat objectives for Nearshore Open Waters were not set, because the conservation actions needed for this habitat are not related to an increase of acreage.

	Alabama		Florida		Kentucky		Louisiana		Mississippi		Tennessee	
Priority Habitat	10-year goal (ac)	30-year goal (ac)										
Freshwater Herbaceous Emergent Marsh	3,266	9,332	18,780	53,658	272	778	544	1,555	3,538	10,109	817	2,333
Freshwater Shrub- scrub	206	589	281	804	0	0	31	89	100	286	6	18
Bottomland Hardwood	46,877	133,933	22,205	63,442	2,467	7,049	3,701	10,574	35,774	102,212	12,336	35,246
Riparian Woodland	37,811	108,031	27,380	78,230	1,304	3,725	7,823	22,351	48,242	137,833	7,823	22,351
Savanna	3,705	11,115	6,312	18,937	0	0	549	1,647	3,156	9,469	0	0
Fresh and Oligohaline Tidal Marsh	0	0	6,594	18,841	0	0	0	0	0	0	0	0
Marine Shrub-scrub	0	0	453	453	0	0	0	0	0	0	0	0
Salt and Brackish Tidal Marsh	0	0	37,607	47,755	0	0	0	0	0	0	0	0
Beaches and Dunes	0	0	2,559	2,559	0	0	0	0	0	0	0	0
Tidal Flats	0	0	827	827	0	0	0	0	0	0	0	0

# **Selecting Priority Species**

Priority species were selected based on inclusion in 15 existing conservation plans, lists, and datasets including the Partners in Flight (PIF) Avian Conservation Assessment Database (ACAD), the EGCPJV Implementation Plan, the North American Waterbird Conservation Plan, Southeast United States Regional Waterbird Conservation Plan, State Wildlife Action Plans, U.S. Fish & Wildlife Service's Birds of Conservation Concern, and adjacent joint venture plans. Emphasis was placed on birds listed as Watch List species in the PIF ACAD. The process resulted in a list of 23 priority species assigned to 11 habitats prioritized in the EGCPJV Waterbird Conservation Plan.

### **Freshwater Herbaceous Emergent**



- American Bittern
- Black Rail
- Green Heron
- King Rail
- Least Bittern
- Little Blue Heron
- Purple Gallinule
- Sandhill Crane
- Wood Stork
- Yellow Rail
- Yellow-crowned Night-Heron

# Fresh Shrub-scrub



- Green Heron
- Little Blue Heron
- Yellow-crowned Night-Heron

# **Bottomland Hardwood**



- Wood Stork
- Little Blue Heron
- Green Heron
- Yellow-crowned Night-Heron

# **Riparian Woodland**



- Green Heron
- Little Blue Heron

#### Marine Shrub-scrub



Reddish EgretYellow-crowned Night-Heron



Savanna

- Black Rail
- Yellow Rail

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# Fresh/Oligohaline Tidal Marsh



- American Bittern
- Green Heron
- King Rail
- Least Bittern
- Little Blue Heron
- Purple Gallinule
- Yellow Rail
  - Yellow-crowned Night-Heron

# Salt/Brackish Tidal Marsh



- American Oystercatcher
- Black Rail
- Green Heron
- Gull-billed Tern
- Least Bittern
- Least Tern
- Little Blue Heron
- Reddish Egret
- Sandhill Crane
- Seaside Sparrow
- Wilson's Plover
- Wood Stork
- Yellow Rail
- Yellow-crowned Night-Heron

### **Beaches and Dunes**



- American Oystercatcher
- Gull-billed Tern
- Least Bittern
- Least Tern
- Piping Plover
- Purple Gallinule
- Red Knot
- Reddish Egret
- Semipalmated Plover
- Snowy Plover
- Wilson's Plover

# **Tidal Flats**



- American
  Oystercatcher
- Piping Plover
- Red Knot
- Reddish Egret
- Semipalmated
  Sandpiper
- Snowy Plover
- Wilson's Plover

# **Nearshore Open Waters**



- Black Tern
- Common Tern
- Least Tern

#### **Priority Species Photo Credits**

American Bittern/Bill Summerour; Green Heron/ Allen Sparks; Wood Stork/Christy Hand; Little Blue Heron/Anne Macias; Black Rail/Mike Gray; Yellow-crowned Night-Heron/Tim Keyes; King Rail/unknown; Seaside Sparrow/ Bill Summerour; American Oystercatcher/Bill Summerour; Piping Plover/AL Audubon; Least Tern/Larry Goodman

# **Setting Population and Habitat Objectives**

Population and habitat objectives were developed for priority species assigned to ten of the eleven priority habitats using a process described in Chapter 3 of the Waterbird Conservation Plan. Habitat objectives for Nearshore Open Waters were not set, because the conservation actions needed for this habitat are not related to an increase of acreage. To establish population objectives, the Waterbird Working Group estimated the current population size of each species using multiple sources of data, density estimates reported in the literature, and the PIF ACAD. The species were then assigned to one of three groups: Coastal Specialists, Interior Critical, and Interior Vulnerable. Population objectives differed across the three groups.

### **Coastal Specialists**

Defined as species with life cycles that are nearly or completely dependent on coastal habitats during their presence in the JV.

# 10-year population objectives

- 15% population increase for species that breed within the planning area AND are federally listed, on the Red or Yellow Watchlists, or are ranked as high-priority Species of Greatest Conservation Need (SGCN; usually S1/S2 or equivalent state ranking) in one or more of the state wildlife action plans
- 10% population increase for all other breeding species in the planning area
- 5% population increase for all migratory and nonbreeding species



#### <u>30-year population objectives</u>

• Maintain all populations at the levels of the 10-year gain

#### **Interior Critical**

Defined as species that are imperiled and either live primarily in inland habitats or have significant inland populations.

# 10-year population objectives

- 35% population increase for species that breed within the planning area AND are federally listed, on the Red or Yellow Watchlists, or are ranked as high-priority SGCN in one or more the state wildlife action plans
- 30% population increase for all other breeding species in the planning area
- 25% population increase for all migratory and nonbreeding species



<u>30-year population objectives</u>

- 100% population increase for species that breed within the planning area AND are federally listed, on the Red or Yellow Watchlists, or are ranked as high-priority SGCN in one or more state wildlife action plans
- 90% population increase for all other breeding species in the planning area
- 75% population increase for all migratory and non-breeding species

#### **Interior Vulnerable**

Defined as species that are not currently listed and either live primarily in inland habitats or have significant inland populations.

10-year population objectives

• Maintain populations at current levels and/or halt current population declines

<u>30-year population objectives</u>

• 10% population growth for all species



Habitat objectives were set for individual species by each habitat in which they occur. For species that use multiple habitats, the Waterbird Working Group estimated the proportion of each habitat required by a species to carry-out its annual life cycle. For some species, a population of birds may shift use of habitats seasonally. In others, relatively sedentary populations may occur in and use several habitats.

Regardless of how a species allocates its time among available habitats, it was assumed that all the current habitat amounts represented the required amount to maintain the current population. Therefore, habitat increase calculations are directly linked to the current amount of habitat in the planning area, with the assumption that a percent increase in the current amount will produce an equal percent increase in the total bird population. A habitat objective was calculated for each species for each habitat type.

#### Process for Setting Habitat Objectives:

- 1. Estimate current species' population.
- 2. Set population objectives for 10- and 30year periods.
- 3. Determine habitat use percentages for each species.
- 4. Establish habitat objective by species for each habitat.
- 5. Use species with greatest habitat need in each habitat as the final habitat goal.

For example, the secretive marshbird taxa group estimated habitat use by Least Bitterns during their annual life cycle; in this case, Least Bitterns use 50% of Fresh and Oligohaline Tidal Marsh, 30% of Freshwater Herbaceous Emergent Marsh, 15% of Salt and Brackish Tidal Marsh, and 5% of Interdunal Wetlands. The 10-year objective for Least Bitterns is to increase the population by 30%. Thus, the WWG calculated the requisite 10-year increase in habitat by multiplying the current amount of habitat available by the total population increase and the proportion of that habitat required by this species.

![](_page_8_Picture_0.jpeg)

#### Fresh and Oligohaline Tidal Marsh

10-year habitat objective for Least Bittern: 26,916 current acres \* 30% population increase \* 50% habitat use = 4,037 additional acres

#### Freshwater Herbaceous Emergent Marsh

10-year habitat objective for Least Bittern: 111,093 current acres \* 30% population increase \* 30% habitat use = 9,998 additional acres

# **How Conservation Planning Improves Delivery**

The EGCPJV Waterbird Conservation Plan provides useful information to a diversity of conservationists, including administrators, land managers, and conservation planners alike. It can be used at various spatial scales by organizations with local- or state-based missions and by those who work across multiple states in the EGCP. The Plan also informs decisions about investments in key programs and projects, allows collaborators to commit to goals and integrate outcomes in a meaningful way, and promotes evaluation of success using both acreage and bird populations. We encourage those seeking more detailed information to consult the East Gulf Coastal Plain Joint Venture's Waterbird Conservation Plan.

![](_page_8_Picture_7.jpeg)