

EAST GULF COASTAL PLAIN

Landbird Conservation Plan Summary



The **Landbird Conservation Plan** summarized here 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, shorebirds, and waterfowl focused on sustaining healthy populations of birds in the East Gulf Coastal Plain (EGCP). It is the product of the initial step in a multi-phased process of biological planning, conservation delivery, and evaluation. Specifically, the Plan provides a list of high priority landbird species, numerical population objectives for those species, and habitat objectives to meet population objectives in five 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 29 prioritized species and 10- and 30-year population and habitat objectives (see Landbird Conservation Plan, Table 6). While it does not define focal areas, the objectives provide a foundation for developing additional tools that will refine spatial priorities. Population and habitat objectives are allocated by state and Bird Conservation Region (BCR).

Population and habitat objectives for priority species:

- Serve as conservation targets, allocated among partners and 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

The Landbird Conservation Plan sets biologically-derived habitat and population objectives, which partners can use—as individuals and in collaboration—to focus on-the-ground conservation projects.



Population & Habitat Objectives

Geographically allocated habitat objectives plus habitat condition inform how individual organizations can implement conservation efforts to meet local and regional objectives.

Ten-year habitat objectives (ac) and shortages by priority habitat and state in the East Gulf Coastal Plain.

STATE-LEVEL HABITAT OBJECTIVES

		Eastern Interior Grasslands-Prairie	Eastern Interior Grasslands-Improved Ag	Eastern Shrub-Scrub	Freshwater Forested Wetlands	Upland Hardwood & Pine Hardwood	Pine-Dominated Woodland and Savanna
Alabama ¹	10-year Habitat Objective	43,000 - 204,000	1,011,600 - 3,661,000	37,300 - 62,500	431,500 - 863,000	4,433,000 - 5,615,100	230,600
	Habitat Needed to Meet Objective	3,100 - 150,700	0 - 898,600	Maintain current levels	1,000 - 22,800	767,300 - 1,791,100	61,800
Florida	10-year Habitat Objective	16,500 - 78,600	389,700 - 1,410,400	15,000 - 25,200	133,500 - 266,900	159,300 - 201,800	128,400
	Habitat Needed to Meet Objective	Maintain current levels	0 - 350,200	Maintain current levels	Maintain current levels	58,200 - 100,700	Maintain current levels
Kentucky	10-year Habitat Objective	2,600 - 12,400	61,400 - 222,000	50 - 100	31,500 - 63,100	270,600 - 342,700	Maintain current levels
	Habitat Needed to Meet Objective	2,600 - 12,400	0 - 43,800	Maintain current levels	20,400 - 52,000	234,200 - 306,300	Maintain current levels
Louisiana	10-year Habitat Objective	5,200 - 24,900	123,400 - 446,600	3,600 - 6,000	61,400 - 122,900	130,900 - 165,800	42,000
	Habitat Needed to Meet Objective	5,100 - 24,800	0 - 79,900	Maintain current levels	Maintain current levels	48,400 - 83,300	14,000
Mississippi	10-year Habitat Objective	67,900 - 322,600	1,600,000 - 5,790,500	31,500 - 52,800	551,900 - 1,103,800	4,545,400 - 5,757,500	207,600
	Habitat Needed to Meet Objective	0 - 188,200	0 - 1,798,500	Maintain current levels	Maintain current levels	2,005,600 - 3,217,700	64,900
Tennessee	10-year Habitat Objective	12,700 - 60,400	299,800 - 1,084,900	2,900 - 4,900	149,000 - 298,200	1,371,500 - 1,737,200	1,400
	Habitat Needed to Meet Objective	11,900 - 59,600	0 - 227,200	Maintain current levels	0 - 167,700	997,600 - 1,363,300	1,300

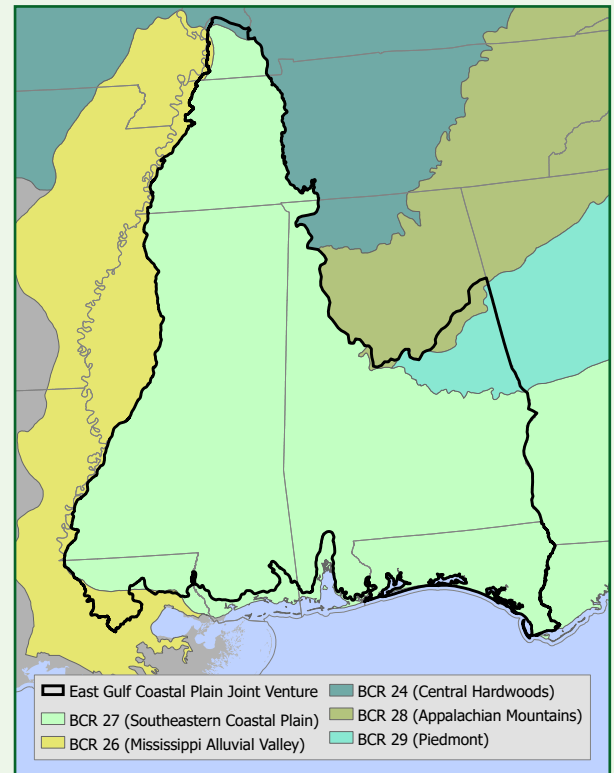
¹BCR 27 and 29 are combined for Alabama's habitat objectives.

The East Gulf Coastal Plain

This diverse landscape encompasses over 62 million acres across portions of six southeastern states (see map below). Primary land cover types include pine-dominated forests, forested wetlands, pasture and hay, and deciduous forests and mixed forest, with lesser amounts of developed land, cultivated cropland, native grasslands, emergent wetlands, and barren land (see Land Cover table below). The bird conservation community developed physiographic-based BCRs for planning purposes. This plan establishes population and habitat objectives for the portion of BCR 27 (Southeastern Coastal Plain) that lies west of the Alabama-Georgia state line and the Alabama portion of BCR 29 (Piedmont). Objectives for smaller portions of other BCRs were not established and are covered by adjoining joint ventures (shown on the map).

East Gulf Coastal Plain Cover Type
(source: National Land Cover Database 2016)

LAND COVER	ACRES	%
Evergreen Forest	14,339,521	23.2
Woody Wetlands	8,835,996	14.3
Hay/Pasture	7,806,249	12.7
Mixed Forest	7,714,899	12.5
Deciduous Forest	7,535,298	12.2
Cultivated Crops	4,638,882	7.5
Developed, including Open Space	4,116,908	6.7
Shrub/Scrub	3,640,524	5.9
Herbaceous	2,400,130	3.9
Emergent Herbaceous Wetlands	526,678	0.9
Barren Land	135,995	0.2
Total	61,691,080	100



A recent study indicates that abundance of North American avifauna has declined precipitously and that landbirds account for 2.5 billion of the **overall loss of 3 billion birds**. Impacts to birds are widespread, and conservation attention is needed in a diversity of habitats in the EGCP. The **Partners in Flight (PIF) 2016 Landbird Conservation Plan** reported that the two most pervasive threats to North American landbirds are habitat loss from urbanization and habitat degradation from changing forest conditions. It is likely these threats also drive regional landbird declines in the EGCP. Urbanization impacts priority habitats and species directly through permanent habitat loss and indirectly through alteration of ecological processes such as hydrology and fire regimes.

While much of the geography is forested, relatively little forest exists in a condition productive for declining bird populations, and many modern silvicultural practices fail to provide the diversity of tree species, canopy structure, or groundcover needed by priority birds. Policies that prevent natural fire and limit prescribed fires have severely altered habitat composition and structure to the detriment of priority bird species. Habitat loss from agricultural conversion is another significant threat identified by PIF, which impacts grassland-dependent birds in particular. The majority of native grassland habitat in the EGCP has been lost to historic agricultural conversion, and efforts to restore grasslands face economic challenges and cultural barriers.



Selecting Priority Species

Priority species were selected based on inclusion in 16 existing conservation plans, lists, and datasets including the PIF Landbird 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 Landbird Conservation Plan. The process resulted in a list of 29 priority species assigned to one or more of the five terrestrial systems prioritized in the EGCPJV Landbird Conservation Plan.

Eastern Interior Grasslands



- **Eastern Meadowlark**
- American Kestrel
- Eastern Kingbird
- Field Sparrow
- Grasshopper Sparrow
- Henslow's Sparrow
- Loggerhead Shrike
- Northern Bobwhite

Eastern Shrub Scrub



- **Prairie Warbler**
- Eastern Kingbird
- Eastern Towhee
- Indigo Bunting
- Painted Bunting

Freshwater Forested Wetland



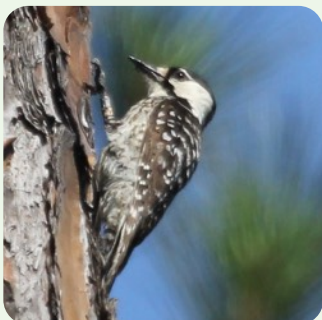
- **American Woodcock**
- Cerulean Warbler
- Kentucky Warbler
- Louisiana Waterthrush
- Prothonotary Warbler
- Rusty Blackbird
- Swainson's Warbler
- Swallow-tailed Kite
- Yellow-billed Cuckoo

Upland Hardwood & Pine-Hardwood Woodlands and Forests



- **Yellow-billed Cuckoo**
- Cerulean Warbler
- Chuck-will's-widow
- Eastern Whip-poor-will
- Eastern Wood-Pewee
- Kentucky Warbler
- Red-headed Woodpecker
- Wood Thrush
- Worm-eating Warbler

Pine-Dominated Woodlands & Savannas



- **Red-cockaded Woodpecker**
- American Kestrel
- Bachman's Sparrow
- Northern Bobwhite

The final priority landbird list includes 29 species all of which breed in the EGCP, are in need of conservation, and are assumed to be representative of species requiring similar habitats.

Setting Population and Habitat Objectives

Population and habitat objectives were developed for priority species assigned to five broadly defined terrestrial systems using a seven-step process described in detail in the EGCPJV Landbird Conservation Plan. To establish population objectives, estimates of current population size were determined using the [Partners in Flight Avian Conservation Assessment Database](#) (ACAD). The population estimates in ACAD are derived primarily from the North American Breeding Bird Survey. Current population estimates were developed for each species by habitat type.

Red-cockaded Woodpecker and American Woodcock population and habitat objectives were assigned with information from a recovery plan and a species conservation plan, respectively. For several other EGCPJV priority species, population objectives were established based on the species assignment to a continental concern group in the Partners in Flight Conservation Plan. Population objectives were aligned with 10- and 30-year targets established in that Plan for three continental concern groups: [Red Watch List](#), [Yellow Watch List](#), and Common Birds in Steep Decline. For species with no assignment to a category of continental concern, maintenance objectives were assigned. To calculate population objectives, population estimates were multiplied by the targets shown below for each species based on its assignment to one of the three continental concern groups.

Population and habitat objectives for each species were developed using a seven-step process:

1. Estimate current population sizes
2. Determine population size in each habitat type
3. Calculate population objectives
4. Determine range of species densities
5. Calculate habitat objectives
6. Apportion habitat objectives to State-by-BCR areas
7. Calculate State-by-BCR habitat shortage by subtracting objective from the habitat availability

Red Watch List ("Recover")

- 10-year objective: Recovery plan target or increase population 25-35%
- 30-year objective: Recovery plan target or increase population 75-100%

Yellow Watch List ("Reverse Decline")

- 10-year objective: Reduce rate of decline, allowing 2-22% short-term decline
- 30-year objective: Increase population 5-15%

Common Birds in Steep Decline ("Stabilize")

- 10-year objective: Slow rate of decline, allowing 5-25% short-term decline
- 30-year objective: Limit population decline to 10-25%

Habitat objectives were calculated for each species based on the population objectives and the estimated density for a species determined by a systematic literature search. The densities indicate how many acres are needed as an expression of habitat objectives to support the population objective for each species. Because densities in the literature represented a range, habitat objectives are also presented as ranges. Habitat objectives were then apportioned to each state and BCR based on an area's potential for restoring those habitats. Finally, habitat shortages were calculated by subtracting current habitat from the 10-year and 30-year habitat objectives for each State-by-BCR region.



Objective Setting Process: From Priority Birds to Associated Population and Habitat Targets

UPLAND HARDWOOD & PINE-HARDWOOD WOODLANDS AND FORESTS

Upland Hardwood & Pine-Hardwood Woodlands and Forests occur in all six states of the EGCP, with significant amounts in the Loess hills, Piedmont, and Tennessee Plateau. As such, we chose this system to illustrate how the objective setting process works. Land-use forecasts indicate substantial loss of these habitats through 2060 due to urbanization and changing timber markets. Conservation of these upland woodlands and forests is critical to meet population objectives for the nine priority bird species that depend on these systems.

9	Priority birds based on Partners in Flight, SWAPs, & other plans
1	Representative species: Yellow-billed Cuckoo
441,500 - 559,300	Yellow-billed Cuckoo: 10-Year population objective
11 - 14 million	Acres needed to support priority birds
7 million	Existing acres of habitat supporting priority birds
4 - 7 million	Additional acres of quality habitat needed to meet objectives

The EGCPJV Landbird 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.



Photos and credits

p.1: [Prairie Warbler-Matt Tillett](#); Painted Bunting-Michael Seymour p.2: Prescribed fire-LDWF p.3: Mixed Pine Hardwoods-John Gruchy/MDWFP; Bachman's Sparrow-Eric Soehren p.4: American Kestrel; Eastern Meadowlark-FotoRequest; [Prairie Warber-Andy Reago & Chrissy McClarren](#); American Woodcock-Carlos Guindon/USFWS contractor; Yellow-billed Cuckoo & Red-cockaded Woodpecker-Larry Goodman p.5: Field of Rudbeckia-Julie Tew; Loggerhead Shrike-Ed Schneider p.6: Mixed Pine Hardwoods-USDA Forest Service; Red-headed Woodpecker-Michael Carlo/USFWS; Cerulean Warbler-Ed Schneider; Chuck-will's-widow-Alan Schmierer