STATE OF THE BIRDS REPORT UNITED STATES OF AMERICA





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There are **96 million American birders**—37% of the adult population—according to the *Birding in the United States: A Demographic and Economic Analysis* report, published by the U.S. Fish and Wildlife Service in 2024.

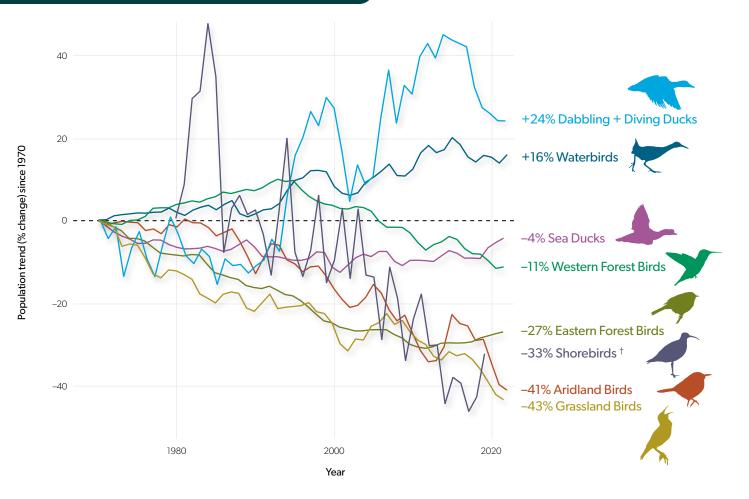
Altogether that birdwatching activity pumps **\$279 billion into the U.S. economy** every year, generates more than **\$38 billion in total tax revenue** (county, state, and federal combined), and supports **1.4 million jobs**. See pages 16–17 for an overview of the benefits that birds and birding provide to American communities.

STATE OF THE BIRDS EXECUTIVE SUMMARY

This 2025 edition of the State of the Birds report is a status assessment of the health of the nation's bird populations, delivered to the American people by scientists from U.S. bird conservation groups.

5 Years After the 3 Billion Birds Lost Research, America Is Still Losing Birds. A 2019 study published in the journal *Science** sounded the alarm—showing a net loss of 3 billion birds in North America in the past 50 years. The 2025 State of the Birds report shows those losses are continuing, with declines among several bird trend indicators. Notably duck populations—a bright spot in past State of the Birds reports, with strong increases since 1970—have trended downward in recent years. **Conservation Works.** Examples spotlighted throughout this report—from coastal restoration and conservation ranching to forest renewal and seabird translocations—show how proactive, concerted efforts and strategic investments can recover bird populations. The science is solid on how to bring birds back. Private lands conservation programs, and voluntary conservation partnerships for working lands, hold some of the best opportunities for sparking immediate turnarounds for birds. Bird-friendly Policies Bring Added Benefits for People, and Have Broad Support. Policies to reverse bird declines carry added benefits such as healthier working lands, cleaner water, and resilient landscapes that can withstand fires, floods, and drought. Plus birds are broadly popular—about 100 million Americans are birdwatchers, including large shares of hunters and anglers. All that birding activity stimulates the economy, with \$279 billion in total annual economic output generated by birder expenditures.





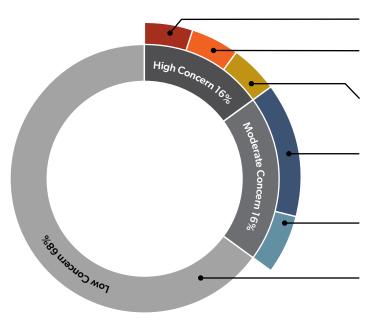
* Rosenberg, K.V., et al. 2019. Decline of the North American Avifauna. Science. 365 (6461). doi: 10.1126/science.aaw1313 † Shorebirds indicator trend data has not been updated since 2019.

THE STATE OF THE BIRDS IN THE U.S.A.

A Third of U.S. Birds Need Conservation Action

About a third of all American bird species are of high or moderate concern due to low populations, declining trends, or other threats. These 229 species should be prioritized in conservation planning to protect existing populations and build toward population recovery. Birds identified as Tipping Point species (see page 14) have lost more than 50% of their populations in the last 50 years. Tipping Point species include birds that need focused scientific research to identify drivers of decline, and immediate help through voluntary and proactive conservation action.

Status Assessment for all U.S. Birds



42 Tipping Point species—Red alert

Birds with perilously low populations and steep declining trends

37 Tipping Point species—Orange alert

Birds showing long-term population losses and accelerated declines in recent decades

33 Tipping Point species—Yellow alert

Birds with long-term population losses, but relatively stable recent trends

71 Watch List species

Birds that are vulnerable due to small or declining populations, limited distributions, and high threats, but haven't yet experienced steep population losses

46 Common Birds in Steep Decline

Stable

Declining

Birds with still-abundant populations (such as sparrows and blackbirds) that have nevertheless experienced large losses

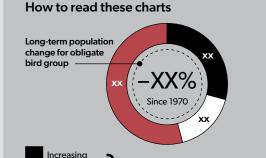
489 Low Concern

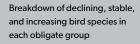
About half of bird species in the low-concern category have experienced long-term population declines, but fall short of the thresholds for priority conservation planning

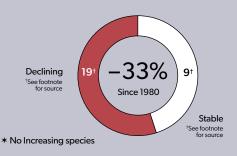
Findings from the updated Avian Conservation Assessment Database (ACAD), a resource produced by more than 150 science and conservation groups in the Partners in Flight network.

Habitat-Obligate Birds Are Indicators of Habitat Health

As with previous State of the Birds reports, this 2025 edition uses population trends of habitat-obligate bird species—or species that depend upon a single habitat for survival—as indicators of the overall health of their respective habitats. Key data sources include the U.S. Geological Survey's Breeding Bird Survey (BBS), Cornell Lab of Ornithology's eBird Status and Trends project, National Audubon Society's Christmas Bird Counts, U.S. Fish and Wildlife Service's waterfowl and woodcock surveys, and shorebird surveys conducted by Manomet Conservation Sciences and Environment and Climate Change Canada. Together, these datasets reveal bird species with significant declines over the past 50 years, identify where declines are occurring, and inform urgent conservation actions to protect vulnerable bird populations and their habitats.







SHOREBIRDS

Widespread declines with accelerating losses

A recent study[†] based on long-term participatory science data showed definitive negative population trends beyond confidence intervals for 19 of 28 shorebird species since 1980—with 18 shorebird species showing accelerated loss rates in recent years. Almost three-quarters of those declining shorebird species are suffering continued losses despite recent conservation efforts. Focused research is needed to identify causes of the declines, and conservation measures must be ramped up to protect critical shorebird habitats.

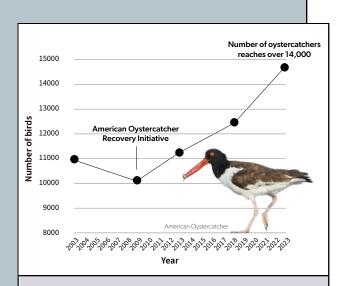


Shorebird conservation must be international and intercontinental. Tracking studies of tagged Whimbrels depict their epic annual migrations, and show why shorebird conservation efforts must span seasons and continents. A coalition of conservation groups led by Manomet Conservation Sciences, with support from the Knobloch Family Foundation, has launched a new Whimbrel Recovery Initiative to bring back this Tipping Point species.

The Most Imperiled Birds: Shorebirds have the most Tipping Point species (19) of any group of birds in North America. Rates of shorebird declines exceed thresholds for listing as vulnerable/endangered under national and international conservation standards. Research on limiting factors and conservation actions is urgently needed to reverse declines.

Biggest Losses at Coastal Sites: Surveys show steep shorebird declines at migratory staging sites along the Atlantic Coast from North Carolina to Nova Scotia, as well as the Gulf Coast. Conservation actions to restore these critical coastal habitats will protect shorebirds, people, and property from storms, flooding, and sea level rise.

Targeted Conservation Needed at Key Sites: Efforts to protect critical shorebird sites, like the Western Hemisphere Shorebird Reserve Network and Important Bird Areas program, need to be strengthened via private and public investments. Increased protections are also needed at places where shorebirds are hunted on their wintering grounds.



Bringing Back Oystercatchers

Fifteen years ago American Oystercatcher was a shorebird in serious decline along the Atlantic Coast. In 2009 the American Oystercatcher Recovery Initiative launched as a new approach to conservation that fundamentally changed the outlook for oystercatchers.

In partnership with the National Fish and Wildlife Foundation, Manomet Conservation Sciences led the initiative of state, federal, and private groups to coordinate funding and management strategies across 16 states all along the Atlantic and Gulf coasts.

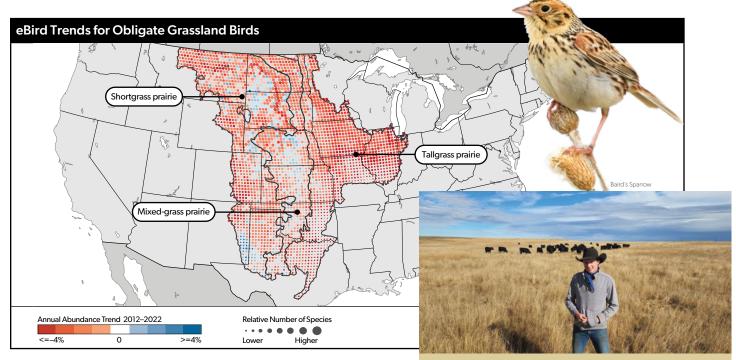
By changing the dynamic from isolated projects to a coordinated multi-state oystercatcher effort, the recovery initiative stopped declines and ignited a 43% increase in the regional breeding population for American Oystercatchers. Forecasts predict continued, strong gains well into the next decade.

GRASSLAND BIRDS



Long-term steep declines with several species at the tipping point

In America's Heartland, more than 320 million acres of grasslands support people's livelihoods, Indigenous cultures, and ecosystem functions. Yet this crucial biome is in collapse—and grassland birds are rapidly disappearing—due to conversion for row-crop agriculture, woody-plant invasion, and drought. Collaborative grassroots conservation initiatives across the Midwest and Great Plains are leading proactive efforts to defend what's left of America's grasslands, and to restore millions of acres through strategic and coordinated conservation planning and delivery at landscape scales.



A composite map of eBird Trends for grassland birds shows declines across the Midwest. LeConte's Sparrow, Lark Bunting, Western Meadowlark, and Bobolink are species showing some of the largest declines.

Losing Grasslands by the Millions: The Great Plains is losing grasslands at a rate of 1 to 2 million acres per year. Solutions—such as conservation easements, improved grazing practices, and invasive-plant removal—also improve groundwater, soil health, and economic resilience for farm communities.

Obligate Grassland Birds Are in Crisis: More than half of bird species that depend on grasslands for breeding habitat are in steep decline. Grasslands contain eight Tipping Point species, more than any other terrestrial biome. Mountain Plover, Chestnut-collared Longspur, and Baird's Sparrow have declined more than 67% in the past 50 years.

A Roadmap to Creating More Grasslands: The Central Grasslands Roadmap Initiative is an innovative coalition of landowners, government agencies, nonprofit groups, and Indigenous Nations. By catalyzing local, community-led actions guided by science, the initiative is targeting grasslands conservation investments where they're most likely to succeed. The Paul Ranch has an Audubon bird-friendly habitat certification.

Good Grazing for Birds and Herds

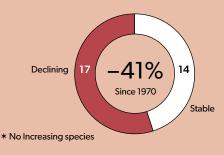
The National Audubon Society has rolled out two initiatives in the Great Plains to support working grasslands for birds—the Conservation Forage program, which restores marginal cropland back to grassland, and the Conservation Ranching program, which guides grazing practices to create a diverse mosaic of grasslands habitat.

More than 100 ranches have signed up to earn an Audubon Certified bird-friendly habitat designation—adding up to nearly 3 million acres of restored working rangelands from Wisconsin to California.

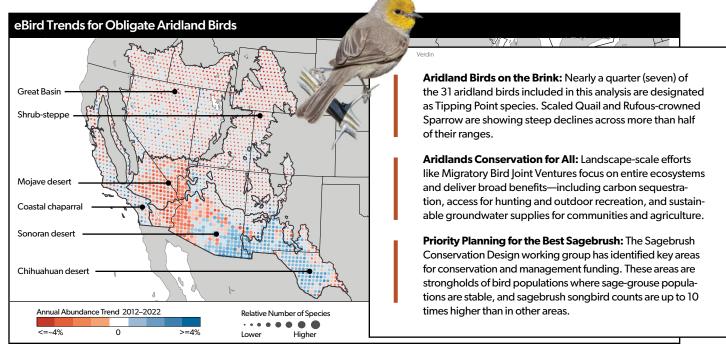
On the certified Paul Ranch in North Dakota, Audubon biologists helped design a rotational grazing regimen that created a patchwork of mixed-grass habitat and spurred a 20% increase in the local Baird's Sparrow population from 2017 to 2020.

ARIDLAND BIRDS

Habitat loss is accelerating bird declines



Since 1968 the West has lost almost half (46%) of aridland habitat from pressures such as drought, wildfires, and invasive plants. Renewable energy development adds to these pressures, which collectively contribute to widespread declines for birds such as Sagebrush Sparrow and Cactus Wren. Public/private/Indigenous partnerships are showing great promise in protecting aridlands habitat. Addressing pressures requires active management, including more voluntary, proactive conservation efforts that support healthy, intact aridlands for communities of birds, other wildlife, and people.



A composite map of eBird Trends for aridlands birds shows declines across the West. Allen's Hummingbird, Bendire's Thrasher, LeConte's Thrasher, Verdin, and Greater Sage-Grouse are showing the biggest losses.

Making Solar Energy Friendly for Thrashers

The Desert Thrasher Working Group has been conducting surveys across the aridlands region to fill in knowledge gaps about Bendire's and LeConte's Thrasher (both Tipping Point species).

What started as a localized effort in a single state has now expanded into a coordinated effort across multiple states in the southwestern U.S. and northwest Mexico, as well as by Indigenous Nations on both sides of the border. Recently the working group published a set of voluntary beneficial management practices for solar energy development sites to mitigate habitat fragmentation for thrashers and shrikes. The proactive measures are already being used by agencies to prevent further thrasher declines and reduce the need for regulatory measures and legal protections.



Bendire's Thrasher is a Tipping Point species that will benefit from the Desert Thrasher Working Group's recommendations for solar energy development sites. According to eBird data, nearly 80% of the global Bendire's Thrasher population breeds in the United States, mostly in southern Arizona.

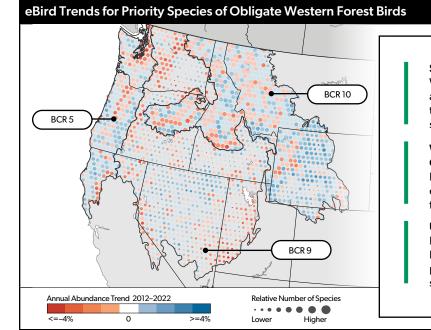
WESTERN FOREST BIRDS

Declining 23 -11% Since 1970 6 Stable

Recent moderate declines are steepening

Over 50% of western forest birds are declining due to habitat degradation from fire suppression and industrial timber management. Forest habitats have changed since pre-settlement conditions that included a mosaic of large old-growth areas and conifer and broadleaf forests that regularly burned at mixed

severities. These changes put rural communities at risk of fire and drought. Restoration efforts informed by bird habitat conservation plans now employ sustainable forest management and fire-use practices that increase watershed resilience and benefit birds and people.



Cak Hanouse

Scaling Up Conservation Investment Strategies: The Western Working Group Forest Birds Committee is using a tri-national, full-annual-cycle conservation framework to integrate bird conservation objectives into land-scape-scaled, all-lands regional restoration partnerships.

Western Joint Ventures (JVs) Lead Forest Bird Conservation Efforts: The Intermountain West JV and Pacific Birds Habitat JV are rallying long-term investments to build ecosystem and community resilience, reconnect people to forests, and integrate and advance tribal priorities.

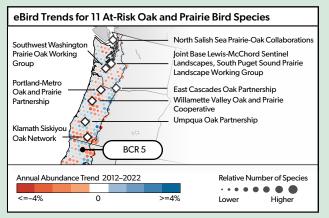
Using Science to Save Hummingbirds: The Western Hummingbird Partnership recently issued a Rufous Hummingbird report to provide decision-support tools for public and private forest managers, as part of their hemispheric investment planning effort.

A composite map of eBird Trends for western forest birds shows declines that signal conservation opportunity areas in Bird Conservation Regions (BCRs). In the Northern Pacific Rain Forest (BCR 5), broad-leafed forest restoration is needed post-disturbance to help birds such as Rufous Hummingbird, a Tipping Point species. Across the Great Basin and Northern Rockies (BCRs 9 and 10), information gaps are being filled by integrated monitoring within the Avian Knowledge Network to address management concerns for Tipping Point species such as Pinyon Jay.

Connecting Oaks, People, and Birds

Since time immemorial, Pacific Northwest oak ecosystems have been stewarded by Indigenous peoples. Today only 10% of historic oak woodlands and prairie remain on the landscape; much of it is degraded due to a lack of low-severity fire. Fire was an ecological process lost due to the forcible removal of Indigenous peoples and forest policies of fire suppression.

The Pacific Northwest Oak Alliance, led by the Pacific Birds Habitat Joint Venture, published the *Prairie, Oaks, and People Investment Strategy*, calling for \$300 million over the next five years to protect and restore 70,000 acres. This will add to the \$100 million invested in oak-prairie woodlands since 2020. Habitat gains, resulting from regional public/private/ tribal partnerships, are helping many birds, including Lewis's Woodpecker, a Tipping Point species.



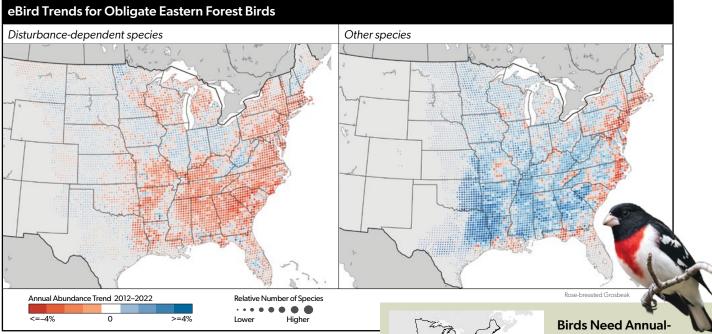
Among eight U.S. Oak Alliance partnerships working to build ecosystem resilience in Bird Conservation Region 5, the Klamath Siskiyou Oak Network is leading the southernmost project where bird declines are among the most pronounced.

EASTERN FOREST BIRDS

Increasing -27% 18 Declining Stable Since 1970

Some encouraging increases, yet widespread declines continue

Obligate eastern forest breeding birds have lost more than a quarter of their populations since 1970. Losses are widespread, with two-thirds of species declining across 40% of their breeding ranges. Differences in trends among species can be partly explained by changes in forest structure and composition related to harvesting practices, forest succession, and disturbance regimes like fire. Birds that breed in mature forests, such as Hooded Warbler, are generally doing well across much of their ranges since 2012, whereas species like the Prairie Warbler and Field Sparrow that need regenerating or disturbed forests continue to plummet.

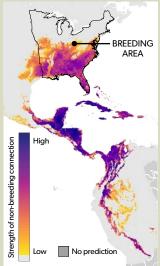


eBird Trends shows disturbance-dependent forest birds are faring poorly compared to other eastern forest birds. Obligate eastern forest birds that breed in early-successional habitats maintained by fire or tree harvests show more widespread declines than species that rely upon mature forests.

Disturbance-Dependent Birds Are in Trouble: Steep declines continue for birds that use shrubby areas or older forests with canopy gaps and diverse understories. Without disturbance or active management, forests progress toward closed-canopy conditions that lack the structural complexity and tree species needed by many disturbance-dependent birds.

A Hotspot of Loss in the Southeast: Tipping Point species such as Bachman's Sparrow are declining where pine forests face pressures from short-rotation harvesting and pest outbreaks. Most forests in the Southeast are on private lands, so conservation requires voluntary and incentive-based programs.

Big Losses Along the East Coast: Declines for eastern forest birds were especially prominent along the Atlantic Coast, partly due to habitat loss from residential development and agriculture. Efforts to conserve forest and natural areas in these regions can also enhance the resilience of coastal communities against storms and flooding.



eBird data show that the most important non-breeding locations for obligate eastern forest-breeding birds are in the Caribbean, Yucatan Peninsula, and Central and South America.

Cycle Conservation

More than 80% of birds that breed in eastern forests are migratory, including Baltimore Oriole and Rosebreasted Grosbeak—which spend more than half their year in Central and South America.

Because these birds depend upon multiple habitats across hemispheres, conservation efforts cannot be restricted to breeding areas. Cross-border bird conservation investments in Latin America can support U.S.-breeding birds after they migrate south to other nations.



Long-term gains level off, renewing conservation concerns

In past State of the Birds reports, waterfowl and waterbirds were the only groups that showed population gains, with waterfowl showing the greatest increases. Duck populations now are 24% higher than they were in 1970—the result of foundational policies (such as the North American Wetlands Conservation Act, Duck Stamp program, and Conservation Title of the Farm Bill) that have long safeguarded wetland resources and associated habitats.

But today this legacy is in jeopardy. Loss of wetlands and grasslands is accelerating in key regions for waterfowl, and wetland protections are being weakened. Environmental and land-use changes are driving recent duck and marsh bird declines in many areas. Protecting America's waterfowl and waterbird conservation legacy means living up to the policy pledge of no-net-loss of wetlands and delivering creative solutions that provide diverse benefits to wetland birds, agricultural producers, and broader society.

No-Net-Loss-Wetlands Policy Is Not Being Achieved

Bipartisan support for a "no-net-loss" of wetlands federal policy has been strong since it was first announced by President Bush in 1989. Yet the latest U.S. Fish and Wildlife Service Wetlands Status and Trends report shows that the annual rate of wetlands loss increased by more than 50% over past decades, with a staggering 670,000 acres of net loss among the vegetated wetlands that are crucial to the nation's ecological health.

The main drivers of wetlands loss include drainage and filling for agriculture, development, and silvicultural operations. Rebuilding America's wetland complexes begins with defending the wetlands policy protections that remain. In particular, the Swampbuster provision of the Farm Bill has been vital to retaining wetlands and supporting populations of waterfowl, waterbirds, and shorebirds in agricultural landscapes.

The long-term resiliency of duck populations and other wetland birds absolutely depends on keeping a strong base of wetlands intact.

Dabbling and Diving Ducks

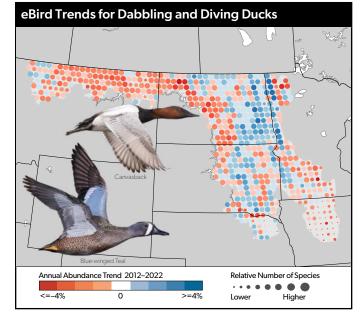
The Prairie Pothole Region (PPR) is North America's most important area for breeding ducks, supporting as much as two-thirds of the continental population. But over the past decade duck populations in the PPR have declined and are now 10% below the long-term average.

Declining

Stable

Increasing

+249



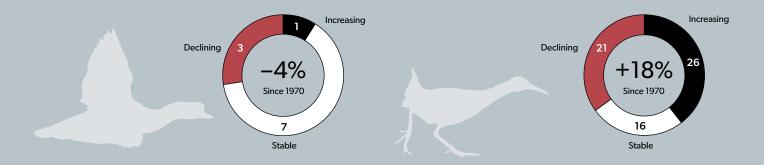
A composite map of eBird Trends for duck species shows short-term declines across the U.S. Prairie Pothole Region. Many waterfowl rely on grassland-wetland habitat complexes for breeding. The combination of grassland and wetland loss in the Dakotas and Montana is rolling back decades of waterfowl population gains built by conservation policies such as the federal Duck Stamp and North American Wetlands Conservation Act.

Duck Breeding Habitat at Risk: Recent duck declines in the Prairie Pothole Region (PPR) correspond with a period of deteriorating environmental conditions and unrelenting wetland and grassland loss, driven by the expansion and intensification of row-crop agriculture and erosion of wetland protections.

Farm Bill Conservation Programs Can Boost Ducks: Voluntary conservation programs implemented via the Farm Bill, such as the Conservation Reserve Program (CRP), have proven successful in supporting duck populations. But CRP acres have declined by half across the PPR since 2007.

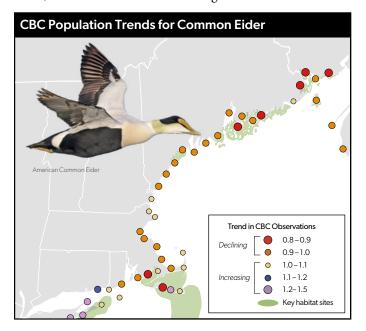
Voluntary Conservation Is Popular in Farm Country: More than 7 in 10 farmers support expanding voluntary conservation programs to provide financial support for healthy farms.* Local communities benefit, too, as PPR wetlands conserved by Farm Bill programs capture billions of gallons of floodwaters.[†]

* Morning Consult poll of 300 U.S. crop farmers, April 2023. † U.S. Geological Survey. 2008. Ecosystem services derived from wetland conservation practices in the United States Prairie Pothole Region with an emphasis on the U.S. Department of Agriculture Conservation Reserve and Wetlands Reserve Programs



Sea Ducks

Across the expansive range of sea ducks, from the Arctic tundra to seacoasts and the Great Lakes, rapidly warming waters are affecting crucial food resources. One-third of sea ducks are Tipping Point species, including Steller's, Spectacled, and King Eider, as well as Black Scoter and Long-tailed Duck.



Ocean conditions are strongly influencing sea duck populations. Christmas Bird Count (CBC) numbers for Common Eiders are declining along the Northeast coastline, as eiders shift their wintering range away from the Gulf of Maine—where water temperatures are warming at nearly three times the rate of global oceans. This eider population shift increases the importance of other key sea duck habitat sites along the Atlantic Coast.

Protecting Nearshore Coastal Habitats Is Crucial: The Sea Duck Joint Venture has identified 85 key habitat sites essential for sea duck populations. These critical habitats are at risk from warming ocean temperatures, wind energy, shipping, commercial fishing, aquaculture, and other industrial development.

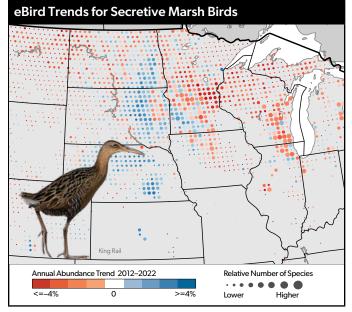
Indigenous Partnerships Can Strengthen Conservation

Efforts: There is an important opportunity for tribal partnerships in sea duck conservation, as many sea duck species are culturally significant to Indigenous peoples and can enhance food security for northern communities.

Improved Sea Duck Monitoring Is Greatly Needed: Scientists need reliable data to understand sea duck population declines and distributional changes, and to inform innovative solutions to help sea ducks survive in the changing oceans and northern habitats of the future.

Waterbirds

The upward trend for the waterbirds group is driven by growing populations of fish-eating species, such as pelicans—a testament to the lasting impact of the Clean Water Act. But more than a third of waterbird species are declining. Secretive marsh birds, such as King Rail and Black Rail, are affected by the loss of vegetated wetlands.



eBird Trends for secretive marsh birds show where they are declining due to wetland losses. Declines among secretive marsh birds are occurring in the Upper Midwest. Alternative strategies for remaining wetlands, many of which are actively managed for high-quality duck habitat, could provide shallow water and robust vegetation and benefit marsh birds while continuing to support duck populations.

Wetlands Management Needs to Do More for Birds: Given significant wetlands losses, creative management strategies are needed to ensure the nation's shrinking wetlands can support broad suites of wetland-dependent birds, including waterfowl and secretive marsh birds.

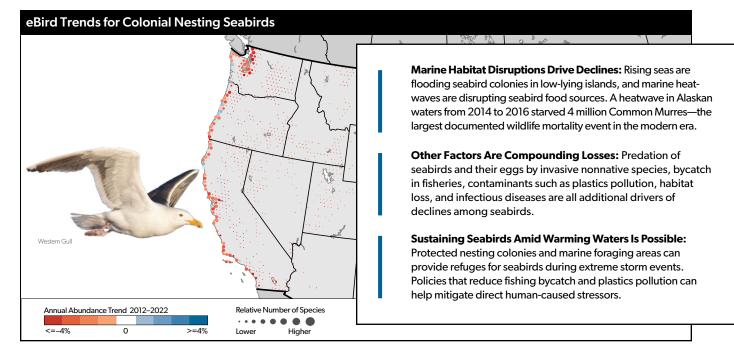
Proactive Management Can Avoid ESA Listings: More inclusive wetland management strategies can help keep at-risk wetland species such as King Rail off endangered species lists, thereby avoiding expensive regulations and litigation. The Eastern Black Rail was recently listed due to habitat loss.

Wetlands Can Benefit Every Bird and Everybody: Holistic wetlands management, delivered at larger scales, promotes full ecosystem health. Healthier wetlands deliver added benefits to people, including clean, abundant water and reduced flood risks.

SEABIRDS

Cascading declines, but recovery efforts show great promise

American seabird populations are in steep decline. Studies in Hawaii and Alaska show seabird populations down between 55% and 95% in recent decades. Analyses of eBird Trends show steep declines for nearly all North American seabird species throughout their ranges between 2012 and 2022. There are still many unknowns about the dynamics of seabird declines. Consistent, long-term monitoring of seabird numbers, as well as the number and distribution of active colonies, is needed to better document declines, assess the long-term population health, and design conservation solutions.



Seabird colonies are declining all along the West Coast. A subset of eBird Trends data for eight colonial nesting seabird species shows the pervasive nature of seabird declines. These eight species were chosen for their potential as indicators of trends for other seabird species that lack reliable monitoring data.



A translocation effort for seabirds (including Black-footed Albatross) on Hawaii's James Campbell National Wildlife Refuge is establishing a new breeding colony on higher ground and includes a predator-exclusion fence (seen in background).

Translocations Are Securing Seabird Populations for the Future

One promising strategy for protecting seabird populations from sea-level rise and storm-surge events has been translocation—moving seabird breeding colonies to higher ground.

A project in Hawaii—conducted by the nonprofit group Pacific Rim Conservation, in collaboration with the U.S. Navy and U.S. Fish and Wildlife Service—moved seabirds from low-lying areas in the Midway Atoll National Wildlife Refuge, Tern Island, and French Frigate Shoals to high-island habitat at the James Campbell National Wildlife Refuge on Oahu. The translocation area on the refuge included a mammal predator exclusion fence, so the newly moved seabirds don't fall victim to non-native predators such as rats and mongoose. Today there are four translocated species nesting on the refuge—Laysan and Black-footed Albatross, as well as Bonin Petrel and Tristram's Storm-Petrel.

Another seabird translocation project is offering a refuge from rising seas

HAWAIIAN BIRDS

Half of Hawaii's bird species are under ESA protection

Hawaii's birdlife includes some of the most imperiled species in the world. Half of the endemic species known from the archipelago are extinct. Of 53 species that persist today, almost half (25) are listed under the Endangered Species Act (ESA), and 16 more are designated as USFWS species of conservation concern.

There are hopeful signs: 21 Hawaiian bird populations are stable, and seven are increasing. Yet 20 species are in decline, with losses primarily driven by threats including disease, invasive species, and habitat loss. Many birds face multiple threats that compound each other.

Number of species affected by threats **Rising seas and** temperatures

Mosquitoes Threaten Hawaiian Landbirds: Diseases carried by non-native mosquitoes are a primary threat to landbirds, yet a mosquito-control program provides hope for some species. Without continued mosquito control, several Hawaiian honeycreepers will go extinct within a few years.

Akiapolaa

Invasive Species Threaten All Birds: Non-native predators (such as rodents) threaten landbirds, wetland birds, and seabirds. Predator-removal programs decrease predation, but must be continued. Predator fences provide longer-term protection, but require funding to build and maintain.

Collaboration Is Key to Save Habitats: Habitat loss from development, and habitat degradation by wildfires and invasive plants, pose additional threats to Hawaii's birds. Yet collaborative efforts are restoring lands for Indigenous agricultural use and bird conservation.

Multiple and compounding threats to Hawaiian birds. The threats to Hawaiian birds include rising seas and temperatures, habitat loss, invasive alien predators, and disease. Some bird species are affected by multiple threat types. Some threats interact with each other and exacerbate bird declines.

ENDEMIC LANDBIRDS

for Black-footed Albatross populations in the eastern Pacific Ocean. A partnership between government agencies and nonprofit groups of the United States and Mexico is moving albatross eggs and chicks from the Midway Atoll National Wildlife Refuge to Guadalupe Island off the coast of Mexico. The project began in 2021, and by 2024 the first chicks that fledged from Guadalupe returned to the island as 2- and 3-year-olds marking early success in the effort to establish an albatross colony on higher breeding grounds.

WETLAND BIRDS

According to the Seabird Restoration Database, there have been 851 seabird translocation and social attraction projects worldwide, with a very high success rate—76% of seabird species showed a positive response to these efforts. About 40% of these projects were conducted in U.S. islands and coastal areas, more than any other country. Given the steep threats facing seabirds, more translocation efforts are needed, and the high success rate shows that these efforts are a sound investment in securing seabird populations for the future.



About 40% of seabird colony restoration projects have been conducted in U.S. island and coastal areas, and these projects have a high success rate. Overall more than three-guarters of seabird species show a positive response to translocation and social attraction projects. Source: Seabird Restoration Database

Habitat loss

Disease

EABIRDS

Invasive predators

Major Threats to Hawaiian Birds

TIPPING POINT SPECIES

Immediate Conservation Needed for Birds That Have Experienced the Steepest Population Losses

Tipping Point bird species* have lost more than 50% of their populations within the past 50 years. The Road to Recovery initiative—a government/academic conservation collaborative that formed in response to the 3 billion birds lost research published in the journal *Science*—identified Tipping Point species in hopes of accelerating voluntary and proactive approaches to recover bird populations.

A recent reassessment sorted the Tipping Point species by different levels of urgency [†](Red, Orange, and Yellow) based on trajectory of declines, severity of threats, and security of core breeding populations. Some of these species lack sufficient monitoring to thoroughly investigate losses. Tipping Point species require focused scientific research to pinpoint drivers of declines, paired with fast action on conservation measures to bring these birds back.



Red Alert

Birds with perilously low populations and steep declining trends



Orange Alert

Birds showing long-term population losses and accelerated recent declines within the past decade



Yellow Alert

Birds with long-term population losses, but relatively stable recent trends; continued conservation efforts needed to sustain recovery

Red-Alert Tipping Point Species (42)

Mottled Duck Steller's Eider Spectacled Eider Gunnison Sage-Grouse [‡] Greater Sage-Grouse Greater Prairie-Chicken[‡] Lesser Prairie-Chicken[‡] Allen's Hummingbird Ridgway's Rail Black Rail[‡] Wilson's Plover Mountain Plover Bristle-thighed Curlew Hudsonian Godwit Kittlitz's Murrelet Scripps's Murrelet Craveri's Murrelet Guadalupe Murrelet Yellow-billed Loon Townsend's Storm-Petrel Ashy Storm-Petrel Band-rumped Storm-Petrel Band-rumped Storm-Petrel Black-capped Petrel Hawaiian Petrel Fea's Petrel Pink-footed Shearwater Red-faced Cormorant Florida Scrub-Jay[‡] Yellow-billed Magpie Bendire's Thrasher LeConte's Thrasher Bicknell's Thrush Brown-capped Rosy-Finch Cassia Crossbill Chestnut-collared Longspur Thick-billed Longspur **Bachman's Sparrow** Saltmarsh Sparrow Baird's Sparrow Tricolored Blackbird Golden-cheeked Warbler[‡]

Orange-Alert Tipping Point Species (37)

King Eider Long-tailed Duck Black Swift **Chimney Swift** Rufous Hummingbird King Rail Whooping Crane[‡] Black-bellied Plover American Golden-Plover Piping Plover[‡] Whimbrel Ruddy Turnstone Red Knot[‡] Stilt Sandpiper Sanderling Buff-breasted Sandpiper Pectoral Sandpiper Semipalmated Sandpiper Short-billed Dowitcher Long-billed Dowitcher Lesser Yellowlegs Greater Yellowlegs Dovekie Short-billed Gull Western Gull Glaucous Gull Great Black-backed Gull Least Tern

Pelagic Cormorant California Condor[‡] LeConte's Sparrow Sprague's Pipit Evening Grosbeak Eastern Towhee Bobolink Kirtland's Warbler Pyrrhuloxia

Yellow-Alert Tipping Point Species (33)

Northern Pintail Black Scoter Marbled Murrelet[‡] Horned Grebe Eastern Whip-poor-will Yellow Rail American Oystercatcher Snowy Plover[‡] Bar-tailed Godwit Rock Sandpiper Wandering Tattler Ivory Gull Short-tailed Albatross⁺ Manx Shearwater Audubon's Shearwater Reddish Egret Spotted Owl[‡] Lewis's Woodpecker Red-cockaded Woodpecker[‡] Olive-sided Flycatcher Henslow's Sparrow **Pinyon Jay** Wood Thrush Black Rosy-Finch Black-chinned Sparrow Field Sparrow Sagebrush Sparrow Chihuahuan Meadowlark Golden-winged Warbler Cerulean Warbler Prairie Warbler Grace's Warbler

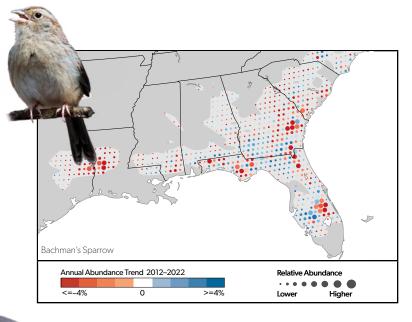
* Source: <u>r2rbirds.org/tipping-point-species/</u>

+ Red/Orange/Yellow alert levels correspond with Watch List categories in the Partners in Flight Avian Conservation Assessment Database

‡ Denotes bird species already protected under federal Endangered Species Act.

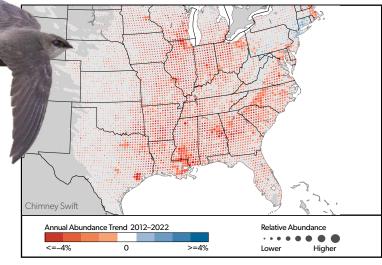
BACHMAN'S SPARROW

This little sparrow is a casualty of the degradation and loss of grassy, open pine woodlands in the American Southeast. American Bird Conservancy is leading an effort with Sustainable Forestry Initiative–certified groups to improve habitat conditions for Bachman's Sparrow and other birds, particularly on privately owned working forests. ABC uses science and partnerships with organizations like International Paper, National Fish and Wildlife Foundation, and the Lower Mississippi Valley Joint Venture to inform management practices—including harvests, intermediate thinnings, and prescribed fire—that support Bachman's Sparrows as well as other declining species like Prairie Warbler, Red-headed Woodpecker, and Northern Bobwhite.



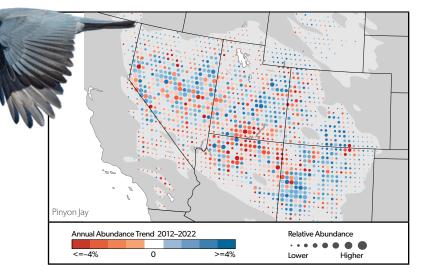
CHIMNEY SWIFT

Chimney Swifts are often seen swerving and swooping to feed on airborne insects above rooftops and chimney stacks in urban areas. Swift populations are in steep decline throughout most of their range, with the biggest losses around cities in the Upper Midwest, Gulf Coast, and southeastern Piedmont regions. Yet there are gaps in scientific knowledge about their full annual cycle, such as where specifically Chimney Swifts go on migration to South America. An organized research effort or working group is needed to investigate the causes of swift declines.



PINYON JAY

These jays travel widely in large flocks to feed in pinyon and other pine woodlands. About 70% of the Pinyon Jay population has been lost since 1970. Today Pinyon Jay is a Species of Greatest Conservation Need in most state wildlife action plans across the West. Despite long-term, broad-scale declines, Pinyon Jay population trends may be stabilizing at lower abundances in some places. The Pinyon Jay Working Group is a partnership of more than 35 federal/state/nonprofit groups with a broad goal of enhancing collaboration, sharing information, and coordinating research to advance conservation and recovery of the species and its habitats.



BIRDS STRENGTHEN AMERICAN COMMUNITIES

Nearly 100 million Americans are birdwatchers, more than a third of the adult U.S. population. No other outdoors recreational activity brings together so many people from multiple regions and demographics. The benefits of birding go beyond recreation—to supporting local economies, to uniting Americans across the outdoors spectrum, and to boosting mental health. Restoring bird populations and addressing causes of their declines therefore benefits millions of Americans.

Birding Is Big Business

Key economic indicators show the importance of birding to the American economy.

\$108 billion

Total annual amount spent on birding trips (such as food and lodging) and equipment (such as bird seed and binoculars)

1.4 million jobs

Total jobs related to birding trip and equipment expenditures, which generated more than \$90 billion in labor income



\$38 billion

Total annual tax revenue generated by birding activity:

\$7 billion in county taxes,\$9 billion in state taxes, and\$22 billion in federal taxes



\$279 billion

Total annual economic output generated by birder expenditures



Source: Birding in the United States: A Demographic and Economic Analysis; Addendum to the 2022 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, U.S. Fish and Wildlife Service

Birds Are a Shared Passion with Hunters and Anglers

Whether their preferred outdoors pursuit involves hook, bullet, or binoculars, large shares of the American sporting public enjoy and care about birds.



58% of anglers are birders

53% of hunters are birders

Source: Unpublished results from 2022 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. Lord, John, and Leonard, Jerry.

Birds Provide a Boost for Americans' Mental Health

Recently published research is showing how birds and birding have mental-health benefits for people:

- Encounters with birds have a proven beneficial effect on the mental well-being of people with depression, which is the leading cause of disability and sick leave.*
- Stress, anxiety, and depressive symptoms are significantly reduced by engaging with birds. The combination of being outdoors, focusing on the beauty and behavior of birds, and gentle exercise contributed to enhanced emotional well-being and a greater sense of peace.[†]
- A higher diversity of bird species also increases people's feelings of life satisfaction. Researchers found that a 10% increase in bird species had a comparable effect in life satisfaction to 10% growth in net household income.[‡]

On America's Top Priorities, Birds Can Help

Conserving birds can provide real returns for a strong economy and good health-two priorities for American voters across the political spectrum, according to recent polls. What is good for birds is good for people, too.

Investments in healthy habitats and thriving bird populations are investments in what matters most to Americans.









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METHODOLOGY

Summaries of Population Change for Birds by Habitat

Following the approach developed by Gregory and van Strien (2010), State of the Birds reports focus on composite summaries of population change for collections of species that share common primary habitat or taxonomic affinity. In this report, we provide composite indexes for habitat-obligate species as defined in earlier reports (Grassland, Aridland, Eastern Forest and Western Forest), for several taxonomic-based groups (Shorebirds, Waterbirds, Geese and Swans, Sea Ducks, and Dabbling/Diving Duck species), and for species on our Tipping Point list with adequate data. Lists of species included in each habitat-obligate group are presented as supplemental material at <u>StateoftheBirds.org</u>.

This report describes long-term population change for 246 species of North American birds (some of which were combined into species pairs for analysis) summarized from five surveys: the North American Breeding Bird Survey (BBS, 169 species, Hostetler et al., 2023), the Christmas Bird Count (CBC, 54 species, Meehan et al., 2022), the Waterfowl Breeding Population and Habitat Survey (WBPHS, 11 species, U.S. Fish and Wildlife Service, 2023), the American Woodcock Singing-ground Survey (SGS, 1 species, Seamans and Rau, 2023), and International Shorebird Surveys (ISS, 9 species, Smith et al., 2023). Earlier versions (or, for ISS, the same version) of all these data sources were used in Rosenberg et al. (2019), and we refer readers to that publication for additional details on the surveys. For each species, annual indices of abundance were obtained from published sources (WBPHS, SGS, ISS) or from data managers (BBS, CBC). In this analysis, we used results from the time period 1970–2022 for all surveys except for the ISS, for which results were only available for 1980–2019.

Statistical analysis of composite summaries follows methods used in earlier State of the Birds reports (e.g., North American Bird Conservation Initiative, 2022), except that we implemented a more accurate incorporation of uncertainty from BBS, CBC, and SGS estimates. A quantitative description of the statistical model was published in Sauer and Link (2011). It employs a hierarchical model, for which input data are collections of estimates of population change for a species (at the survey-wide scale of summary) from a base year (1970 or 1980) to each subsequent year. For each year, the collection of actual population changes for all species from the base year to the year of interest are assumed to be normally distributed on the log scale, and the latent mean change for the collection is estimated. The model is fit to all years post-base year, and the resulting model-based means form the composite trajectories of change for the species group.

The ratios of the annual indexes of each year, divided by the annual index of the base year, was used to estimate the cumulative change in the species population for that year. See Sauer and Link (2011) for additional details regarding the model and its fitting to BBS and other survey data.

In addition to compiling long-term trend indicators for habitat-obligate and taxonomic-based bird groups, this edition of the State of the Birds report also presents graphics using short-term eBird Trends from the most recent decade (2012–2022). eBird Trends provide a snapshot of annual population change for bird species within 27 x 27 km (16.7 x 16.7 miles) regions, each represented by a circle, for which the size is scaled by number of species (for biome maps) or abundance (for single-species maps). Multi-species maps show the average trend across the species falling into each cell and circle sizes are scaled to the number of species contributing to the average in each cell. These data products are created by the eBird Status and Trends team of data scientists at the Cornell Lab of Ornithology using bird observations submitted by volunteers to eBird. These trends allow scientists and practitioners to see precisely where declines or increases are happening and, thus, provide invaluable information to guide research and conservation.

eBird Trends are produced using a statistical method designed to account for changes in where people go birding and how the identification and detection skills of birders change over time—factors that can make estimating a population trend challenging (Fink et al, 2023). Another novel component of eBird Trends is the inclusion of habitat variables that account for the effect of habitat on population changes. eBird Trends have passed critical statistical tests to ensure they are robust and reliable. An important part of this process is quantifying the uncertainty of the trend estimate. Uncertainty is quantified by an 80% confidence interval. The 80% confidence interval indicates a range of values expected to contain the true (but unknown) trend that is being estimated. If an interval contains zero, then there is low confidence in the estimated direction of the trend (positive or negative). By default, circles with low confidence in the estimated direction are shown in white. For more information: <u>science.ebird.org/</u><u>en/status-and-trends/faq</u>.

Tipping Point species were identified by scientists, practitioners, and communities as part of the Road to Recovery (R2R) initiative. Assessments relied upon data provided in the Avian Conservation Assessment Database (ACAD)—a database maintained by Partners in Flight (PIF) and housed at Bird Conservancy of the Rockies. Tipping Point species are defined by high vulnerability to extinction and worrisome population declines. R2R assessments also identified three levels of alert to indicate the degree of urgency in addressing these declines: Red-, Orange-, and Yellow-Alert species. See <u>r2rbirds.org/tipping-point-species/</u> for more information on methods used to identify Tipping Point species.

eBird Status and Trends maps and data are freely available for non-commercial use at science.ebird.org/en/status-and-trends.

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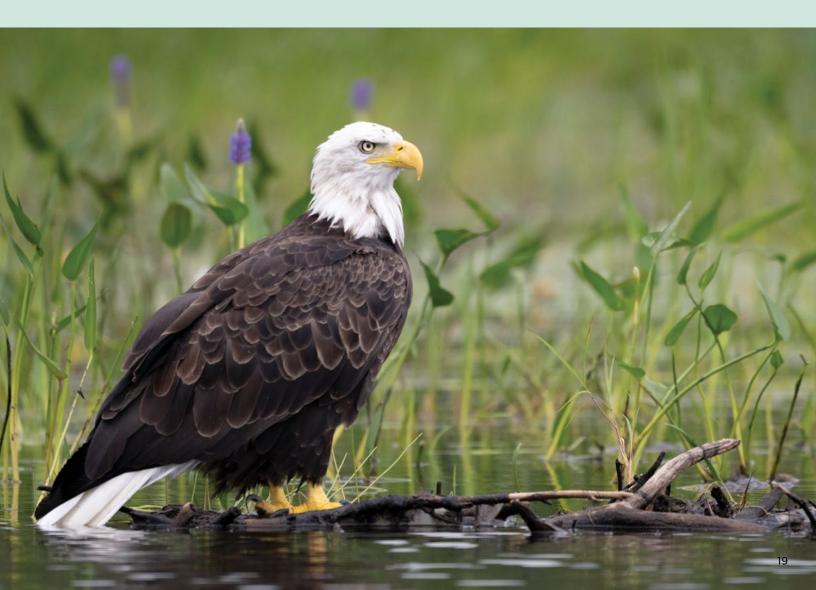
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