

USACE Natural Resource Management Migratory & Non-migratory Birds



Purpose

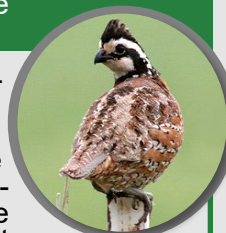
As the manager of over 12 million acres of public lands and waters, the U.S. Army Corps of Engineers (USACE) works to manage and conserve natural resources while providing quality outdoor recreation experiences to the public. The USACE employs both passive and proactive management which sustains healthy ecosystems, promotes vibrant biodiversity, and protects special status species. The following factsheets were developed by the USACE's Natural Resources Management (NRM) Program in order to highlight species specific bird conservation efforts occurring at Corps' projects.



Across USACE's projects there are over 300 unique, federally listed species for which conservation concerns exist. USACE expenditures relating to the Endangered Species Act average around \$230 million each year. Recognizing that USACE missions occur in a complex environment of regulations, compliance requirements, and high costs, the Engineering Research and Development Center (ERDC) and USACE Headquarters formed the Threatened & Endangered Species Team (TEST).

TEST works to accelerate the development of solutions for threatened and endangered species issues that will improve budget planning capabilities and operational flexibility to reduce future costs and adverse impacts to USACE mission execution. These factsheets are intended to complement the TEST initiative by highlighting unique project efforts and promote collaboration.

As part of this effort, the NRM based factsheets also highlight species which are not federally listed. A goal of the NRM program is to maintain a factsheet for each species reported annually through the NRM Assessment and those for which special conservation efforts at lake and river projects are ongoing. Often these species may be listed at the state level, in State Wildlife Action Plans, or are target species for specific conservation initiative(s).



N. Bobwhite Quail

Conservation occurs in a multifaceted, ever-changing set of circumstances which may challenge project-level efforts. For instance, unpredictable changes in temperature and precipitation stemming from climate change will likely influence species' distribution. This complicates planning for future impacts as species may emigrate from, or immigrate to, the project in unpredictable fashions. Similarly, habitat loss, degradation, and fragmentation on lands surrounding USACE projects will influence species' abundance and distribution at the local scale. Changes in habitat and climate may also allow for the increased spread of non-native, invasive species which have the potential to degrade habitat past the point of usability for a species. Funding can also be a hurdle to conservation efforts, as it fluctuates with fiscal years.



Left: A lock operator holds a young Peregrine Falcon during a 2013 banding effort. Nesting boxes for this species were installed near the lock and dam.

Photos Above (Left to Right): Golden-winged Warbler (All About Birds), Piping Plover (USACE -Albuquerque District), Whooping Crane (Friends of the Wild Whoopers), Least Bell's Vireo (USFWS)

These factsheets have been informed by the information provided by Cornell's Lab of Ornithology's Birds of the World and All About Birds, the Audubon Society, the USFWS, Birdlife International, and the NatureServe Explorer.

Natural Resources Management (NRM)

This fact sheet has been prepared as an unofficial publication of the U.S. Army Corps of Engineers (USACE). This online publication is produced to provide its readers information about best management practices related to special status species. Editorial views and opinions expressed are not necessarily those of the Department of the Army. Mention of specific vendors does not constitute endorsement by the Department of the Army or any element thereof.





Helpful Resources

Bird conservation is no simple task, but there are a multitude of resources available to aide land managers looking to have a positive impact on bird species. State Wildlife Action Plans (SWAPs) are developed by U.S. State and territories for conserving wildlife and habitat before they become too rare or costly to restore. Each plan includes the identification of Species of Greatest Conservation Need. States also have Natural Heritage Programs which maintain databases of information on rare and threatened species and natural communities. Natural Heritage Programs (sometimes known as Conservation Data Centers) are usually affiliated with state government agencies, but may also be maintained by universities or The Nature Conservancy's state office.

Another useful resource is the NatureServe Explorer. NatureServe is a nonprofit organization of biodiversity scientists that work to provide scientific knowledge to support informed decisions. The Explorer is a database which contains the life history of many of North America's species.

Internally, the USACE NRM Program has worked diligently to provide the field with the National Initiatives Viewer. The Viewer displays key information for management decisions from various national initiatives and highlights where there is overlap with USACE projects. Data, displayed spatially, can connect Projects where similar problems are occurring to foster collaboration and innovative solutions.



Partners in Flight (PIF)

PIF is a network of over 150 partner organizations working throughout the Western Hemisphere to conserve landbirds. The mission of PIF is to halt and reverse bird population declines before the species are federally listed. PIF aims to maintain healthy bird populations, in natural numbers, in healthy habitats and ecosystems. This is achieved via a life-cycle conservation approach with international partners. PIF also works to promote the value of birds as indicators of environmental health and human quality of life. PIF offers a variety of useful resources for those interested in bird conservation including species watch lists, species conservation profiles, and databases developed via voluntary collaboration of over 100 ornithological experts.



Oregon Vesper Sparrow

The decline of the Oregon Vesper Sparrow has been linked to the loss of grasslands.

Species Examples

Golden-winged Warbler

The Golden-winged Warbler has experienced significant declines in the southern portion of its breeding range.



Coastal California Gnatcatcher

A small songbird species that has declined with the loss and degradation of coastal sage scrub habitat.



Wood Stork

The Wood Stork once numbered over 150,000 in the U.S., but its population has dropped severely.



Red-cockaded Woodpecker

Endemic to the southeastern U.S., loss of longleaf pine stands has had a negative impact to the species.



Legend

- USACE Project

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Natural Resources Management

For USACE projects which fall into a species' breeding range, the Project's lands and/or waters may offer suitable nesting habitat. For instance, in the southeastern U.S., some projects manage for longleaf pine, a tree used by the threatened Red-cockaded Woodpecker for building nest cavities. Ground nesting birds such as the endangered Interior Least Tern or the endangered Piping Plover find the sparsely vegetated shorelines of USACE reservoirs an agreeable place to build their nest.

With over 400 projects across the nation, USACE offers a wide array of habitats which suit the needs of many bird species including migratory and non-migratory birds. Typically, migratory birds travel from wintering habitat to summer or breeding habitat. The routes these species use during their travel are not random. Instead, these birds will travel via routes known as flyways. In North America there are four major flyways: the Pacific Flyway, the Central Flyway, The Mississippi Flyway, and the Atlantic Flyway. USACE projects can be found in each of the Flyways. Bird species choose to utilize a particular flyway because it contains suitable habitat for resting and refueling during migration. These rest stops can be located on the USACE project lands, as is the case for the Whooping Crane in the Central Flyway.



Above: A whooping crane in feeding habitat. Photo by Friends of the Wild Whoopers.

Migratory Birds

2.5 BILLION MIGRATORY BIRDS LOST SINCE 1970

2 IN 5 BALTIMORE ORIOLES LOST SINCE 1970

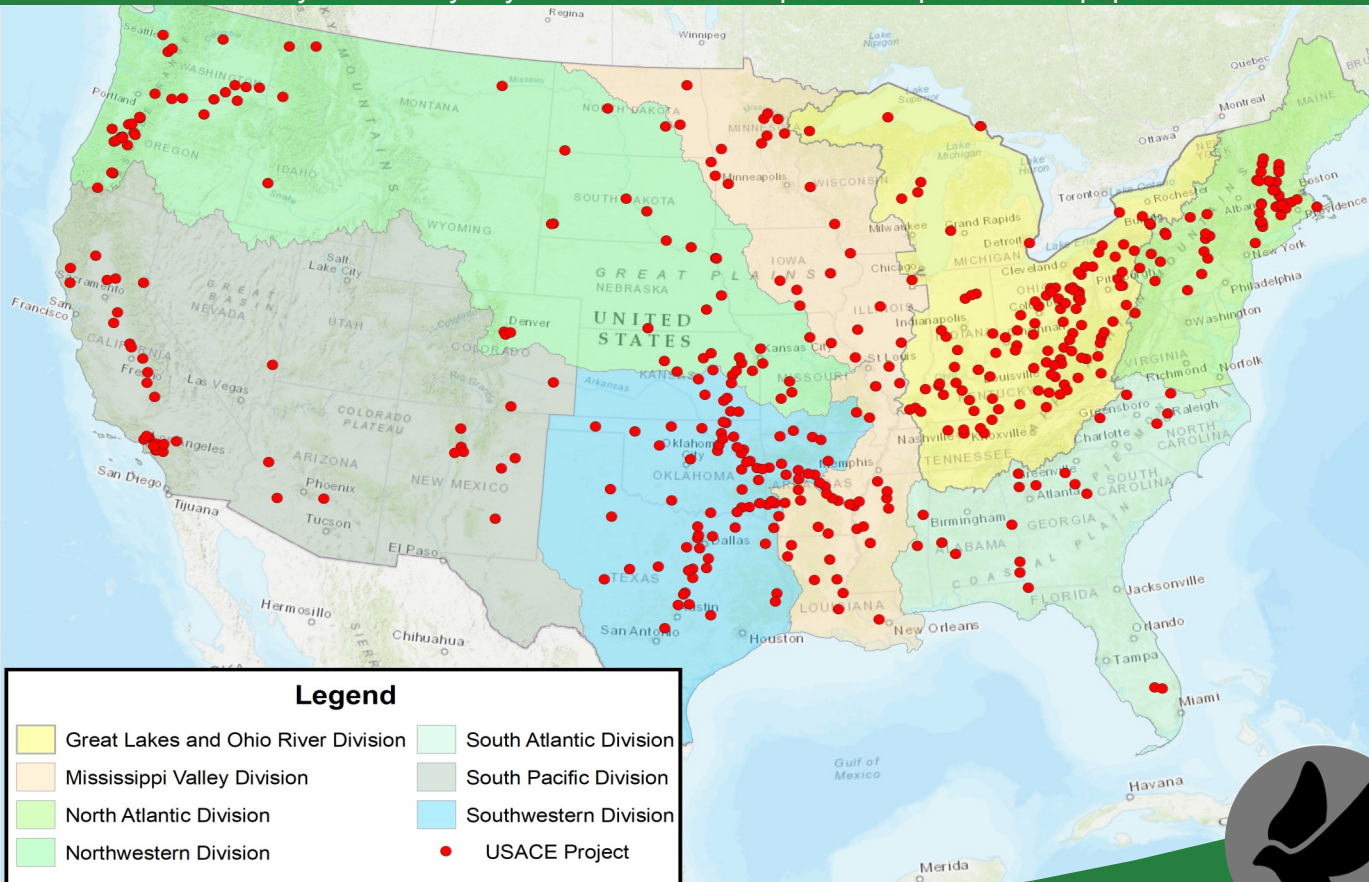
-28% POPULATION LOSS IN MIGRATORY BIRD SPECIES SINCE 1970



3 Billion Birds

That's the approximate number of birds lost in North America since 1970 according to a 2019 study published in *Science*. These losses have been noted across diverse habitats and the groups of birds that inhabit them. The disappearance of so many birds, even common species, is thought to be indicative of a shift in our ecosystem's ability to support bird-life.

This eye-opening study spurred the 3 Billion Birds Campaign. The campaign is a joint effort from the American Bird Conservancy, Audubon Society, Cornell Lab of Ornithology and others to bring attention to this widespread decline and share ways that every day actions can have a positive impact on bird populations.



Source: Map provided by Ashleigh Boss, ORISE Fellowship, Institute for Water Resources



Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) Map contributors, and the GIS User Community