



Wildlife Diversity Program

2019



Conserving all wild birds, wild mammals, and their habitats

The Game Commission Wildlife Diversity Division made great strides in 2019 to address priorities identified in the 2015-25 Pennsylvania Wildlife Action Plan, the state blueprint of conservation actions for Species of Greatest Conservation Need. Technological advancements to facilitate conservation delivery, innovations to boost desperate hibernating bat populations, and applied research to improve habitat for declining forest birds are a few highlights. We thank our many dedicated conservation partners, volunteers, and public wildlife enthusiasts for their active engagement to make these accomplishments possible.

3 Billion Birds

The [2019 State of the Birds](#) reported that North America has nearly 3 billion fewer birds today than in 1970, a staggering 29 percent fewer birds overall! Declines are similar in Pennsylvania. Agriculture-associated birds (like the eastern meadowlark) showed the greatest continental declines. Losses were also seen in Eastern forest birds (though forest area remained stable) that comprise the core of Penn's Woods' bird community. For example, one of our most iconic forest birds with a melodic song, the wood thrush, declined by nearly 50 percent during this period.

But the news is not all bad. Some bird populations, like waterfowl and raptors, improved due to focused efforts to understand their problems and develop science-based solutions. Also, bald eagle and osprey were removed from state endangered species lists and waterfowl populations are stable in response to long-term habitat and recovery efforts.

The primary source of these findings was the 54-year old North American Breeding Bird Survey, which the Pennsylvania Game Commission coordinates within the state. And, we are actively involved in turning these declines around. For example, in collaboration with Penn State University, we are evaluating forest management practices that may benefit nesting wood thrushes and related species. If confirmed, creating small canopy gaps could be a tool for public and private forest landowners to help declining songbirds.

Hope for Bats

Over 10 years ago, white nose syndrome, an introduced fungus that grows on the skin (including the nose) of hibernating bats, began spreading in North American bat populations. Infected bats deplete their energy reserves during the winter before insects are available, ultimately resulting in death.



In Pennsylvania, this has resulted in a dramatic 99% loss of all hibernating bats. But there is reason for hope! In 2012, Game Commission staff discovered a small proportion of bats hibernating in the coldest parts of their winter hibernacula survived the disease. However, availability of cold sites was limited statewide. To address this need, working with several partners, traditional sites were modified to decrease the temperature. In 2015, an entrance to an abandoned mine on a state park was opened to trap cold winter air. The average winter temperature dropped by 13°F, putting it into the beneficial range...the bats responded! Four years later, bat counts at the site increased to 72 individuals (4 species) from a low of seven individuals (two species).

Before: PGC, USFWS, partners at an abandoned mine entrance prior to modification, Canoe Creek State Park, Blair Co. (PGC photo/ G. Turner)

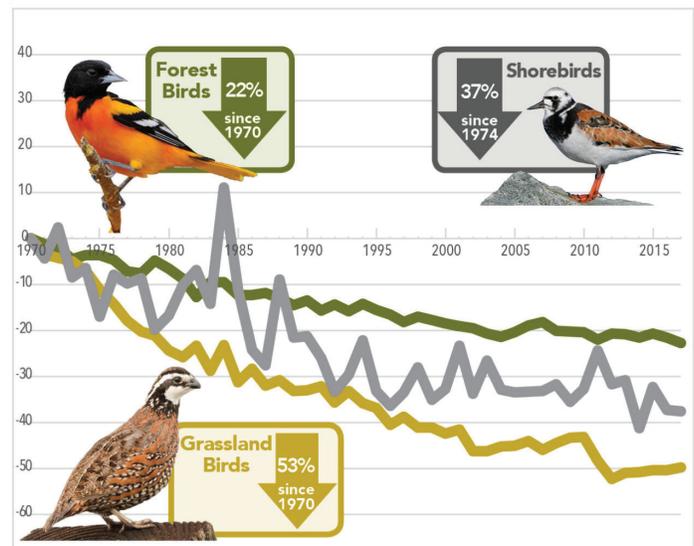


Image courtesy of the 2019 State of the Birds report. Photos from Macaulay Library: Baltimore Oriole/Bryan Calk; Ruddy Turnstone/Daniel Iron; Northern Bobwhite/Kenny Miller.

Financial support for these projects is provided in part by U.S. Fish and Wildlife Service State and Tribal Wildlife Grants, Endangered Species, and Pittman-Robertson funding.

We are embracing this technique and applying it to other sites across the Commonwealth. These sites are already seeing an increase in bat abundance and species diversity! The intrinsically low reproductive rate of bats means the recovery will be slow, but these and other innovations provide hope for these beleaguered species.

After: The abandoned mine entrance was opened to improve air flow and gated minimize human disturbance. Stone was piled to decrease the cave temperature at Canoe Creek State Park, Blair Co. (PGC photo/ G. Turner)



Tweets and Chatter

- A trapper reported the presence of **Allegheny woodrats** last year in Northumberland County, where they had not been seen in a decade. Follow-up surveys with camera traps documented a small population nearby. This is good news for a species that's in a steep decline!
- The **northern goshawk** is a large forest raptor that's always been uncommon in Pennsylvania, and full of mystique! It recently disappeared from many known nesting sites, so we sponsored additional surveys in 2019 and a graduate research project to better inform survey techniques. The result? This iconic bird is in trouble!
- The world's fastest animal, the **peregrine falcon**, continues its slow but steady recovery! In 2019, 44 nests produced nearly 100 young! About a dozen cliff sites were documented.
- Confirming the specific reason for a species' decline is difficult. But recent analysis of bird population declines suggests that many common birds (like American crow, tufted titmouse) have been impacted by West Nile Virus outbreaks! **Wildlife disease** is a growing concern, and the Game Commission's Wildlife Futures program may help address this and related issues.
- **Barn owls** live up to their names. They nest in barns (and silos) and hunt in agricultural fields. Having declined like most grassland species, we continue to monitor nest boxes and band young. The first confirmed nesting in Westmoreland County in over 30 years was discovered in 2019. For unexplained reasons, statewide numbers continue to decline, despite boxes we've placed on dozens of farms. We will investigate potential management actions to reverse the trend.
- We continue to gain amazing insights into the lives of wildlife by tracking individuals through space and time! The **Motus network** continues to receive private funding and federal grants to place receiver stations that can detect birds, bats, and even dragonflies that fly by. The Game Commission is playing a big role in the Motus Mid-Atlantic network.



Conservation Opportunity Area Tool



Home Map My Projects Statewide Search Data Info Terms & Conditions Our Thanks Help

My account Feedback Log out

Switch Basemap Add Resources Create Area Of Interest Report (Max Size = 5500 acres)

Layers Make a Map Feature Search

Species of Greatest Conservation Need

- County Range
- Watershed Range

Conservation Planning

- TNC Resilient and Connected Networks
- National Wetlands Inventory
- Modelled Wetlands
- Natural Heritage Area: Core Habitats
- Natural Heritage Areas: Supporting Landscapes
- Important Bird Areas (Audubon Pennsylvania)
- Designated Use Streams (Chapter 93, Water C)
- Existing Use Streams (Chapter 93, Water Qual)
 - PA DEP Integrated Streams List (Attaining)
 - PA DEP Integrated Streams List (Non-Attaining)
- Streams Supporting Natural Trout Reproduction
- Class A Wild Trout Streams
- Wilderness Trout Streams
- Abandoned Mine Locations

Protected Lands

- Local Parks
- Protected Lands (PALTA data)
- State Parks
- State Forests
- State Wild and Natural Areas (DCNR)
- State Game Lands

Reference Layers

- Counties

Draw/Edit

Draw Mode: Polygon
Total Area: 70.642 acres
Total Perimeter: 6,615.019 ft

Cancel Accept

There's a map for that!

The Pennsylvania Game Commission, along with the Fish and Boat Commission, transformed the Pennsylvania's 2015 Wildlife Action Plan into an interactive map called the **Conservation Opportunity Area Tool**. This new Tool delivers the heart of the Action Plan as a free, web-based map application built on location data for 523 (of 664) Species of Greatest Conservation Need (SGCN). It is driven by over 375,000 wildlife observations, and fine-scaled to summarize species' occurrences in 10-acre cells that cover every corner of the state. The user creates a self-defined Area of Interest report that summarizes those wildlife data, general habitats, and conservation actions that would benefit the species and their habitats. This web application is available at <https://wildlifeactionmap.pa.gov>.

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