



# Wildlife Diversity Program 2018

## Pennsylvania's conservation of all birds and mammals

The Game Commission Wildlife Diversity Division wildlife biologists, regional wildlife biologists, and partners made great strides in 2018 toward several research and management priorities identified in the 2015-25 Pennsylvania Wildlife Action Plan, the state blueprint of conservation actions for Species of Greatest Conservation Need. We are grateful to a small army of eager volunteers and enthusiastic professionals who dedicate their time in support of the agency's mission to conserve all wild birds, wild mammals, and their habitats for current and future generations. Without them, our work would not be possible.

### Peregrine Falcons on Path to Recovery

Removing a species from the endangered and threatened list represents a powerful milestone and accomplishment for conservation. This was accomplished in recent years for bald eagle and osprey following years of efforts by the Game Commission and others. The peregrine falcon is the third of Pennsylvania's raptors making progress toward the same goal. The histories of these species follow a similar storyline: decline and listing due to environmental contaminants (namely, DDT), followed by recovery that included releasing birds into suitable habitats in Pennsylvania. Peregrine populations reached the population number targeted to upgrade its status from endangered to threatened, and the Game Commission's Board of Commissioners formalized that reclassification in January 2019.

Peregrine surveys documented 54 nesting pairs in the state in 2018—including a new high of 12 on natural cliff sites. Those pairs produced at least 107 young, of which 56 were banded with unique leg bands. Peregrines continue to face challenges. Many place their nests on buildings and bridges, resulting in human-caused hazards and conflicts. Nevertheless, the population continues to grow with our stewardship. The growing population reflects tremendous gains since 1960, when no peregrines nested in the eastern United States. Monitoring and conservation are still needed to achieve the goal of full recovery of this spectacular species.

### Forestry is for the Birds

Penn's Woods is a nursery for about 90 species of forest birds totaling millions of individuals. Most of Pennsylvania's native birds inhabit forested areas, but many are declining due to a range of factors here and abroad. Conservation programs in forested settings are attempting to prevent species from slipping to critically low levels. These programs often focus on a single species, like the golden-winged warbler, but benefit the suite of species that require similar forest conditions. Young forests, the nesting habitat for golden-wings, are targeted on public and private land to benefit this high-priority species. Similar efforts are in place that target the older forest conditions for cerulean warblers.



Peregrine falcon chicks banded in Berks County by Art McMorris

The Game Commission has undertaken a study to evaluate and refine forest management recommendations published for birds found in older forests, with wood thrush and scarlet tanager as the focal species. The project found 78 wood thrush nests among six study sites in south-central Pennsylvania and characterized the forest conditions in those sites. Using that information, forest treatments to improve habitat for wood thrush should ultimately increase the numbers of birds while sustaining good nesting success. The results of these tests will refine management recommendations that we hope will reverse long-term declines in this widespread species as well as improve habitat for other bird species associated with mature forests.

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.



## Getting in the Weeds for Grassland Birds

After wetland habitats, grasslands host the largest proportion of declining species, including upland sandpiper, short-eared owl, and sedge wren, which are listed as endangered within the state. The best information on these species is the last Breeding Bird Atlas (finished in 2009) and incidental reports by the public, provided on eBird.org. These sources leave an outdated or incomplete picture of the status of these rare birds.

To address this knowledge gap, the Western Pennsylvania Conservancy was contracted to conduct surveys of historic grassland locations. During the 2018 field season, surveys were completed at 517 locations, resulting in more than 20,000 birds being counted on two visits. Results include a single short-eared owl and 19 counts with upland sandpipers. Those low rates of observation provide a unique perspective on these species' populations and will help guide grassland management activities into the future.



Upland sandpiper by Jacob Dingel



Black-crowned night-heron by Joe Kosack

## Colonial Waterbirds Keep Close for Comfort

There are good reasons why birds sometimes “put all their eggs in one basket.” Although not literally the case, colonial birds do place their nests in tight groups for “safety in numbers” from predators. But, that protection can result in incidents at the colony having magnified impacts on the population. The Game Commission has a long history of monitoring the colonies of herons and egrets. Wade Island, in Harrisburg, is the state’s most notable heron colony. Last year’s count located 92 great egret, 14 black-crowned night-heron, and 53 double crested cormorant nests. That is an historic low count for the night-heron, which nested in only two other locations in the state. Our most common heron, the great blue heron, was found in 181 colonies totaling 1,672 nests during the last statewide assessment in 2017. The Barrows colony is the largest great blue heron colony in the state, containing 287 nests. That’s a big basket!

## Eavesdropping on Flying Squirrels

A range of new electronic monitoring tools are being used to monitor wildlife that otherwise are difficult to detect, such those active at night. In the past, labor-intensive trapping was the best mechanism to locate the rare northern flying squirrel. The vocalizations of northern flying squirrels have recently been distinguished from those made by their more common southern relative. To evaluate this method as a new survey technique, audio recorders were distributed in the Poconos to build a library of vocalizations. Analysis of the recorded calls is underway, testing if this is a more efficient method of delineating the range of the state endangered species. A similar tool is being deployed to detect northern goshawks – a rare, and declining, raptor of large forests!



Flying squirrel by Jacob Dingel

### Quick Takes

- Two breeding adults and four piping plover chicks reared on Presque Isle, Erie, in June 2018 were color-banded, marking the second year of successful nesting of this federally-endangered species in Pennsylvania.
- Habitat improvements seem to benefit Allegheny woodrats. Trapping during mid-August at The Nature Conservancy property in Clinton County was successful for this state-threatened mammal, where 16 woodrats were captured. A similar count was made at the site of a supplemental feeding experiment.
- Summer bat counts were up from previous years at one of the state’s largest maternity sites, with 616 bats emerging from a bridge (up from 400 in 2016) and 339 from the nearby bat box (up from 219 in 2016) in Huntingdon County.