

**PENNSYLVANIA GAME COMMISSION  
BUREAU OF WILDLIFE MANAGEMENT  
PROJECT ANNUAL JOB REPORT**

**PROJECT CODE NO.:** 06797

**TITLE:** Wildlife Diversity Research/Management

**JOB CODE NO.:** 79701

**TITLE:** Regional Wildlife Diversity Program

**PERIOD COVERED:** 1 July 2015 to 30 June 2016

**COOPERATING AGENCIES:** U.S. Fish and Wildlife Service

**WORK LOCATION:** Statewide

**PREPARED BY:** Tammy Colt, Rich Fritsky, Mario Giazzon, Clayton Lutz, Daniel Mummert, Stacy Wolbert, and Daniel Brauning

**DATE:** 20 July 2016

**ABSTRACT** From 1 January 2015 to 30 June 2016, Regional Wildlife Diversity Biologists (RWDBs) consulted 158 private properties totaling 21,697 acres. Regional Wildlife Diversity Biologists produced 129 written management plans providing recommendations for the conservation of Species of Greatest Conservation Need on 19,254 acres. Written management plans included recommendations for 1,404 acres of grasslands, 1,208 acres of agricultural land, 13,802 acres of forest, 2,108 acres of early successional habitat, 1,523 acres of wetlands, and 44.66 miles of riparian corridor. The RWDBs facilitated project implementation through multiple funding sources for 45 projects on over 3,200 acres in this reporting period. The RWDBs contributed to 41 comprehensive State Game Lands plans, which comprise 202,901 acres. Six landowner workshops were conducted by RWDBs, and 74 presentations were given at various speaking engagements. In addition, RWDBs assisted with numerous research and planning activities involving species of greatest conservation need. Notably, the RWDBs continued their work on the Barn Owl Conservation Initiative and Bat Acoustic Transect Survey project.

**OBJECTIVES**

1. Review results of private lands technical assistance and implementation under the Private Landowner Assistance Program (PLAP) from the past 10 years, and propose improvements to conservation delivery under this program.

2. Draft technical assistance and facilitate implementation for 30 landowners totaling 1,000 acres that could support Species of Greatest Conservation Need (SGCN) management guidance.

3. Conduct field surveys for targeted SGCN on 12 PLAP properties for which technical guidance was implemented over the past 10 years.

4. Develop Voluntary Public Access and Habitat Incentive Program (VPA-HIP) plans for conservation of SGCN on 18 private properties and assist implementation.

5. Integrate conservation priorities into State Game Lands Plans for SGCN guilds and assemblages supporting high priority species within hibernacula, coniferous forests, early-successional habitats, mature forests, and wetlands.

6. Implement conservation actions for highest priority category SGCN including high state or regional responsibility, through direct recovery, habitat improvement, and other high-priority actions. Analyze data and report accomplishments; support agency survey accomplishments of bird and mammal programs; and assist with at least 15 prescribed burns in the statewide fire program.

## **INTRODUCTION**

This program has enabled the Pennsylvania Game Commission to target SGCN on public and private lands for the past 10 years with a network of regional biologists working with private landowners to enhance conservation practices on thousands of acres annually. Because over 80% of Pennsylvania land is in private ownership, the future of many of the species at risk in Pennsylvania is dependent on land-use decisions made by private landowners. Private Landowner Assistance Program is critical to helping stabilize or reverse population declines of mammal and bird SGCN in Pennsylvania.

The PLAP has continued to grow through consultation with landowners and managers of both private and public lands, demonstrating its potential to enhance management of SGCN with the intention to forestall the listing of additional species as endangered and threatened. This work addresses several needs identified in the Pennsylvania Wildlife Action Plan (WAP). Specifically, it addresses management guidance, including the call for conservation planning for priority birds and mammals listed. In addition, PLAP addresses the Pennsylvania Game Commission Strategic Plan, specifically Strategic Objectives 1.1 and 2.2 which address the management of SGCN and private lands habitat.

## **METHODS**

The Regional Wildlife Diversity Biologists (RWDBs) work closely with other Game Commission biologists and the staffs of the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), county conservation districts, the Pennsylvania Department of Conservation and Natural Resources (DCNR), various conservancies, and others via providing technical assistance to landowners on SGCN, developing management plans for interested landowners, and identifying and evaluating lands for conservation protection and management.

The RWDB positions are strategically located throughout the state, 1 in each of the Game Commission's 6 regions. All 6 regional positions were staffed for the entirety of 2014. The team consisted of Stacy Wolbert (northwest), Tammy Colt (southwest), Mario Giazzon (northcentral), Clayton Lutz (southcentral), Rich Fritsky (northeast), and Dan Mummert (southeast).

Focal habitats for improvements are wetlands, riparian areas, old-field shrublands, grasslands, caves, vernal pools, and interior forests throughout Pennsylvania. Specific sites, offered voluntarily by landowners for improvement, are evaluated based on current habitat conditions; potential for improvement; habitat targets; regional, statewide, and local species priorities; and potential integration with funding or implementation partners, such as Chesapeake Bay Financial Assistance Program and NRCS. In all cases, species and habitats of greatest conservation concern are the priority for habitat protection, improvement, or restoration efforts.

## RESULTS

### Private Lands Management

*Planning.*--From 1 January 2015 through 30 June 2016, RWDBs consulted 159 private landowners (Fig. 1 and 2) totaling 21,697 acres (Table 1; Objective 2). Regional Wildlife Diversity Biologists produced 129 written management plans totaling 19,254 acres. Management plans included recommendations for 1,404 acres of grasslands, 1,208 acres of agricultural land, 13,802 acres of forest, 21,108 acres of early successional habitat, 1,523 acres of wetlands, and 44.66 miles of riparian corridor (Table 2). Targeted SGCN for these plans included, but were not limited to, American woodcock, Allegheny woodrat, bat species that occur in Pennsylvania, barn owls, and many songbirds such as golden-winged warbler, cerulean warbler, Henslow's sparrow, and scarlet tanager.

*Implementation.*--While funding for implementation of PLAP plans has not been provided through State Wildlife Grants, RWDB leveraged funds through external sources such as USDA Farm Bill Programs (e.g., Working Lands for Wildlife, Environmental Quality Incentive Program). Tasks included selecting treatment sites, developing treatment proposals, initiating contracting procedures (soliciting bids, conducting site inspection tours), designing and marking treatments, contract administration (monitoring contractors and work progress), follow-up site visits, technical assistance, consultations with NRCS and other program partners (e.g., DCNR, Indiana University of Pennsylvania, National Wild Turkey Federation), certification of completed practices to satisfy NRCS contracts, and providing additional information (e.g., maps, acreages, seeding rates, soil amendments, and recommended plant species). In this reporting period, 14 projects were approved through Farm Bill Programs as a result of technical assistance provided by RWDBs. Approved projects have focused early successional habitat management and control of invasive species. Additionally, 1 project (51 acres) was funded through a grant from the Sinnemahoning Watershed to control invasive species while promoting native species in riparian habitat.

Acquiring implementation data from third parties such as USDA-NRCS has been inconsistent and difficult to track due to information-sharing issues and documenting multiyear projects. Importantly, funded acres reflect only a portion of actual implementation conducted by PLAP participants.

Regional Wildlife Diversity Biologists coordinated with the Bureau of Wildlife Habitat Management (BWHM) to improve habitat on Public Access Cooperator properties through the use of VPA-HIP funds. In 2015-16, proposals were written by RWDBs for 30 VPA-HIP projects on cooperator land, for a total of 3,221 acres (Objective 4). Habitat improvement practices for these projects included creation and management of early successional habitat, grassland habitat improvement, wetland restoration with associated buffer plantings, forest habitat improvement, and invasive species control. Targeted SGCN for these projects include, but are not limited to, American woodcock, Allegheny woodrat, golden-winged warbler, and cerulean warbler. Regional Wildlife Diversity Biologists are currently overseeing the bidding, contracting, and implementation of these projects.

*Program Assessment.*--To better assess implementation of PLAP and to evaluate how conservation delivery through this program can be improved, RWDBs developed and distributed a survey to landowners in 2015. In early 2016, the survey was converted to an electronic format allowing for data management and future on-line deployment. Currently, data-entry from completed surveys is underway; analyses and results are forthcoming (Objective 1).

To monitor the success of PLAP in improving habitat for SGCN, RWDBs conducted surveys for SGCN species on PLAP properties where recommendations from the PLAP plan have been implemented. Survey types varied depending on the targeted species and the practices implemented and included surveys for songbirds, small mammal trapping, mist netting bats, and woodcock surveys. Twenty-seven surveys were completed by RWDBs. At least 1 SGCN species was detected in 24 of the 27 surveys.

### **Public Lands Management Planning**

The RWDBs continued to make contributions to the Pennsylvania Game Commission's Comprehensive Game Land planning process. This comprehensive planning takes advantage of interdisciplinary expertise to create long-term management plans for approximately 1.48 million acres in the Commonwealth. The RWDBs contribute to these plans by determining likely habitat use by SGCN, providing guidance on habitat management, and assisting with marking and conducting treatments. They also have written narratives for comprehensive plans (predominantly Wildlife Resources and Management Priorities sections), created bird and mammal species lists, provided modifications to forestry prescriptions, identified opportunities for research (linking biological research to land management practices), incorporated management guidance for sensitive areas and critical habitats previously identified by County Natural Heritage Inventories, and have edited completed plans.

In 2015-16, RWDBs contributed to this process on 41 SGLs that comprise 202,901 acres (Objective 5). Examples of species benefitting from RWDB involvement in SGL planning include American woodcock, northern goshawk, grassland birds, cerulean warblers, golden-winged warblers, ruffed grouse, Allegheny woodrat, cave bats, waterfowl, and beavers. Special management in which RWDBs were involved included uneven-aged forest management, habitat prescriptions for golden-winged warbler and Allegheny woodrat sites, management and monitoring of four-toed salamanders, and recommendations for American woodcock, red-headed woodpecker, small-footed and Indiana bats, northern flying squirrel, bald eagle, and osprey. The RWDBs have toured state game lands with land managers, foresters, and regional office staff to

observe and discuss management options to incorporate in comprehensive plans, as well as visits for specific projects such as reviewing timber sales. The RWDBs were consulted by DCNR for input on the management plan for a High Conservation Value Area on state forest land.

Regional Wildlife Diversity Biologists have contributed to implementation of habitat improvements on SGLs by felling trees to release pitch pine, planting American chestnut hybrids, and planting trees and shrubs for wetland and upland habitat restorations. They participated in 34 prescribed fires on public and private land for grassland, forest, shrub, and scrub oak habitats, serving in positions including fire effects monitor, weather monitor, hand crew, and engine crew (Objective 6d).

### **Outreach**

Public education and outreach requirements are being met by RWDBs in a variety of ways. From 1 January 2015 to 30 June 2016, the RWDBs conducted 6 landowner workshops. More than 245 people attended these workshops covering various aspects of habitat management for SGCN of focusing on species such as golden-winged warbler and purple martin. The RWDBs gave interviews for 8 newspaper articles and 3 radio shows. In addition, RWDBs gave 74 presentations, reaching approximately 3,940 people. Topics included PLAP and public access, forest management, barn owls, wildlife careers, bats (ecology, acoustic surveys, and white-nose syndrome), golden-winged warblers, and northern flying squirrels.

One RWDB contributed the species reports for barn owl, marsh wren, and prothonotary warbler for the current WAP.

### **Research and Conservation Activities**

From January 2015 through June 2016, RWDBs assisted the BWM, university researchers, DCNR, and other agencies with numerous research and management activities involving SGCN. Surveys and monitoring were done for songbirds (point count surveys), grassland birds, marsh birds, colonial nesting birds, waterfowl, bats (including roost counts, hibernacula counts, mist netting, harp trapping), golden-winged warbler, ruffed grouse, bald eagle, osprey, black duck, sandhill crane, common tern, American woodcock, purple martin, spotted skunk, Allegheny woodrat, snowshoe hare, and Appalachian cottontail (Objective 6c).

### **PNDI Environmental Reviews**

Regional Wildlife Diversity Biologists continue to assist BWHM, Environmental Review section with Pennsylvania Natural Diversity Index (PNDI) reviews as needed. In this reporting period, the RWDBs conducted 6 PNDI reviews and 1 field survey to evaluate potential impacts to threatened, endangered, and special concern species, and special concern resources.

Table 1. Number of Private Landowner Assistance Program properties consulted and management plans written by Pennsylvania Game Commission Regional Wildlife Diversity Biologists, 1 January 2015 – 30 June 2016.

<b>Region</b>	<b>Properties Consulted (Acres)</b>	<b>Management Plans (Acres)</b>
Northwest	23 (2,563)	23 (2,563)
Southwest	27 (2817)	20 (2,556)
Northcentral	34 (6,087)	24 (3,704)
Southcentral	23 (2,016)	19 (1,946)
Northeast	12 (4,619)	11 (5,160)
Southeast	40 (3,595)	32 (3,325)
<b>TOTALS</b>	<b>159 (21,697)</b>	<b>129 (19,254)</b>

Table 2. Number of acres per habitat type and miles of stream corridor in written Private Landowner Assistance Program management plan recommendations by Pennsylvania Game Commission Regional Wildlife Diversity Biologists, 1 January 2015 – 30 June 2016.

<b>Region</b>	<b>Grassland Acres</b>	<b>Ag. Acres</b>	<b>Forest Acres</b>	<b>Early Successional Acres</b>	<b>Wetland Acres</b>	<b>Riparian Miles</b>
Northwest	104	9	1,954	482	14	8.9
Southwest	188	66	1,824	381	3	4.15
Northcentral	518	184	2,828	122	51	10.86
Southcentral	192	39	1,522	570	18	5.60
Northeast	15	251	3,989	303	358	13.9
Southeast	387	659	1,685	250	79	1.25
<b>TOTALS</b>	<b>1,404</b>	<b>1,208</b>	<b>13,802</b>	<b>2,108</b>	<b>1,523</b>	<b>44.66</b>

Private Landowner Assistance Program (PLAP)  
Consultations January 2015 to June 2016

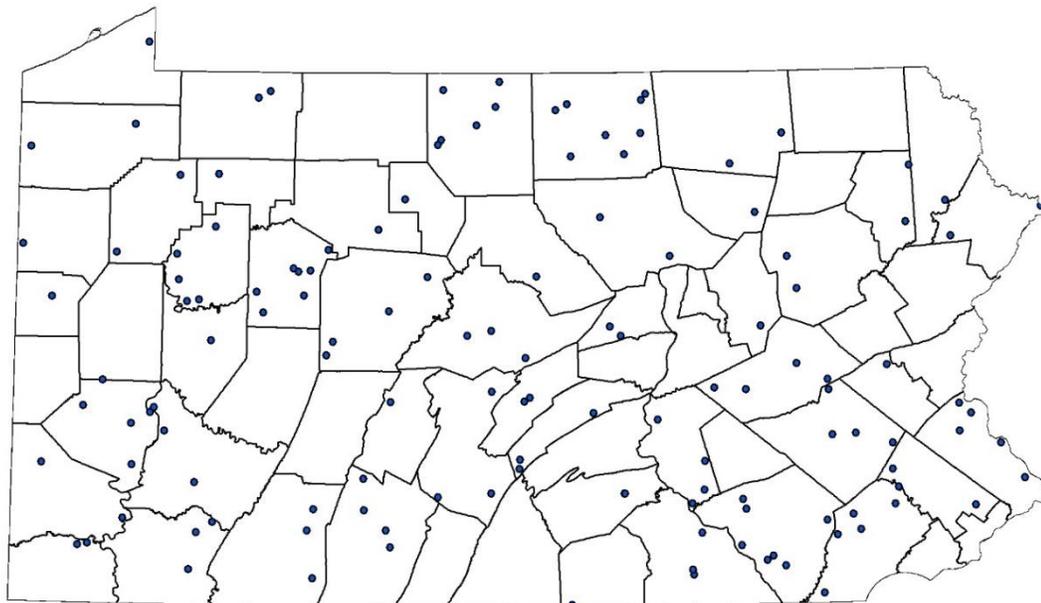


Figure 1. Locations of landowners visited under the Pennsylvania Game Commission's Private Landowner Assistance Program, 1 January 2015 – 30 June 2016. A total of 21,697 acres were visited on 159 properties.

Private Landowner Assistance Program (PLAP)  
Total Consultations through June 2016

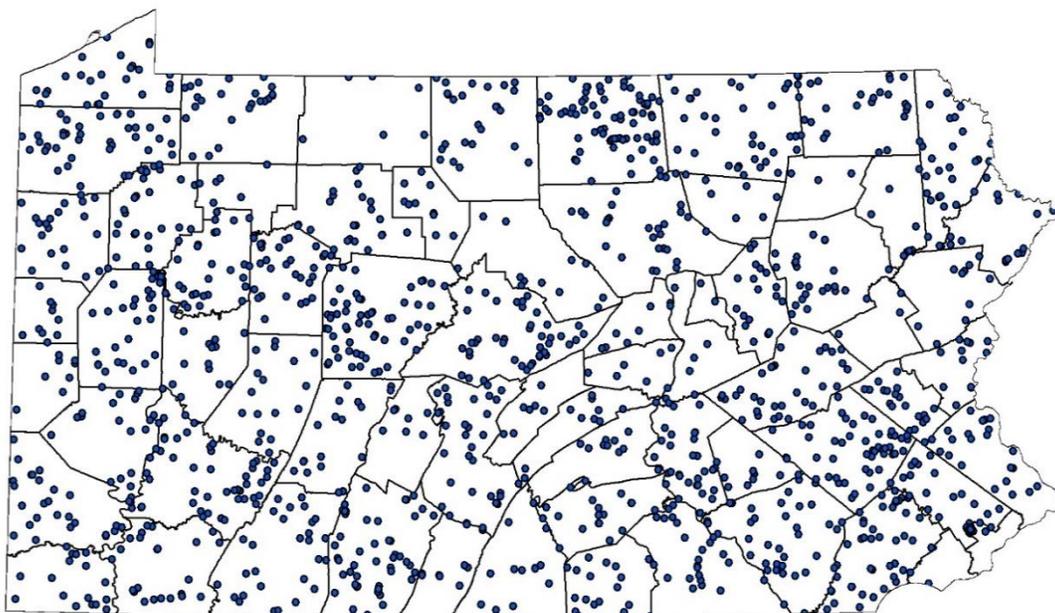


Figure 2. Locations of landowners visited under the Pennsylvania Game Commission's Private Landowner Assistance Program, 2004 – June 2016. A total of 227,229 acres on 1,481 properties were consulted.