

RESTORATION OF SHRUBLAND BIRD HABITAT IN THE NORTHERN APPALACHIAN MOUNTAIN BIRD CONSERVATION REGION

A. Project Objective

To improve the conservation status of shrubland habitat-dependent Species of Greatest Conservation Need in Bird Conservation Region 28 through habitat restoration and management on public and private lands.

B. Need

State Wildlife Action Plans in VA, MD, WV, PA and NY collectively identify 87 Species of Greatest Conservation Need (SGCN) that are dependent upon shrubland habitats in Bird Conservation Region 28 – Appalachian Mountains. Within the 87 shrubland dependent SGCN, there are 40 birds, 16 mammals, 16 amphibians/reptiles and 15 invertebrates identified. Conservation actions at a landscape scale on shrubland habitats will positively the conservation status of these species.

To address the decline in SGCN, this project was designed to increase the conservation status of shrubland habitats on public and private lands through the development of Best Management Practices (BMPs), establishment of BMP demonstration areas, monitoring of the response of selected shrubland species to habitat management, and outreach to public land managers and private landowners.

The decline of shrubland habitats in BCR 28 resulted from loss of land to development, maturation of successional habitats, suppression of natural disturbance, and lack of active management. Restoration of shrubland habitats will depend upon private landowner awareness of, knowledge of and interest in providing conservation benefits to the suite of species. We focused, therefore, on the lack of active management as a quantifiable measure of the success of project activities.

Short-term conservation benefits to shrubland SGCN from this initiative will arise from an increase in shrubland habitats. Long-term benefits will arise from successfully increasing the awareness by private landowners that the current and future actions they take on their land will determine if this suite of species remains imperiled.

Creation of shrubland habitats is technologically straight-forward but initiatives that promote shrubland habitats must responsibly frame the provision of shrubland habitats into the context of other critical SGCN habitats, especially mature and/or unfragmented forest blocks. BMPs must incorporate context and stress where -- and where not -- it is responsible to develop shrubland habitats. It is this context that makes the provision of shrubland habitat on a landscape scale a component of the larger vision of state wildlife action plans, i.e. the provision of all critical habitats for SGCN.

The scale of the proposed initiative was at the landscape level as defined by the northern terminus of BCR 28, including work proposed in five states. Success at that large a scale depends upon active partnerships with agencies and NGOs committed to advancement of state wildlife action plan conservation initiatives. Our intent was to increase the effectiveness of existing agency and NGO private landowner technical assistance programs by giving those programs access to demonstration

areas, coordinated response-monitoring data, BMPs, and outreach tools. Perhaps most importantly, we hoped to increase the utilization of existing technical assistance programs by effective outreach to private landowners.

C. Objectives

- a. Develop and create federal, state, and private partnerships of entities interested in the recovery of shrubland dependent species. Organize the partnership and operate under the title: ***“Appalachian Mountain Woodcock Initiative”***
- b. Develop science-based linkages between focal species and other species believed to be dependent upon shrubland habitat and define where overlap in habitat requirements created multi-species benefits from habitat creation.
- c. Define a suite of management practices that represent the best available science on habitat restoration and management for shrubland species.
- d. Create a network of technical assistance providers to advance project goals.
- e. Define monitoring protocols that allow assessment of accomplishments and implement monitoring protocols to document the population response of focal species at the site, region, and range-wide scale.
- f. Create multiple, high profile, on-the-ground stewardship or restoration projects that both implement the priorities of State Wildlife Action Plans and serve as demonstration or model projects that may be replicated in other places. Integrate State Wildlife Action Plan priorities for shrubland management with other land-use or natural resource planning efforts at the local, state, or federal level. Leverage state and federal funding from various incentive and grant programs potentially including State Wildlife Grants, NRCS Wildlife Habitat Incentives Program, North American Wetlands Council Act, USFWS Private Stewardship Grant Program, NRCS Fish and Wildlife Conservation Grant and NRCS Environmental Quality Incentive Program.
- g. Increase communication and outreach to public land managers and private landowners of the need for and benefits of shrubland restoration.

D. Methodology

- a. Partnership Development: Project personnel initiated contact with state wildlife agencies, federal land and wildlife management agencies, non-governmental organizations, corporations and individuals. Collaborations were developed through a partnership driven sharing of technical assistance, manpower, land management, land access, and financial resources.
- b. Focal Species: American Woodcock were chosen as the best SGCN species to represent the guild of shrubland dependent SGCN within the project area. Woodcock use a variety of shrubland habitats including young forest, old field, and shrub-scrub wetlands. The public is generally aware of the presence of woodcock either through spring territorial displays or fall hunting practices. There is an existing, focused annual range-wide population survey in place so that historical data are available on woodcock population trends. Lastly, the international Woodcock Conservation Plan provides scientifically-based population and habitat goals.
- c. Best Management Practices: A team of experienced biologists was formed to select those techniques that were believed to be especially valuable for restoration of shrubland habitats in BCR 28. BMPs were based on metapopulation theory to aggregate the variety of habitats important for SGCN species to create distinct source populations.
- d. Technical Assistance: One or two habitat biologists were contracted to advance initiative goals in each state in the region. Contractors were selected based on their experience in habitat management, monitoring, and/or communications and their previously established networking capability within the state.

- e. **Monitoring:** Monitoring protocols were developed to monitor the population response of American Woodcock and other selected SGCN species to habitat management.
- f. **Demonstration Areas:** Demonstration areas were developed to showcase habitat management BMPs and the response of American Woodcock and other selected representative SGCN populations to management.
- g. **Outreach to Private and Public Landowners:** With funding from the US Fish and Wildlife Service Webless Migratory Game Bird Research Program, a communications strategy was designed by D. J. Case and Associates. Following focus group interviews, surveys, message testing and analysis, the communications strategy emphasized messages that incorporated:
 - Enjoying natural beauty, scenery – these were the most popular reasons that focus group participants gave for buying their lands
 - Conserving wildlife and nature for future generations – this was a strong motivator for most landowners
 - Young forest habitat contains high plant and animal diversity – landowners want to contribute to healthy ecosystems
 - Iconic species of local or special interest to engage audiences – not all landowners will care about woodcock conservation, but there may be other species that will motivate them to take action

Messages should use this wording:

- “Young forests” – focus group participants liked this wording; it invokes a sense of a healthy, vigorous ecosystem
- “A diversity of wildlife requires a diversity of habitats” – this was the top-rated message as identified by focus group participants

Messages should NOT use this wording:

- “Early successional” – most people do not understand what this term means
- “Shrub” or “Scrub” – both these terms had negative connotations for most focus group participants
- “Woodcock” as the lead concept (except with the hunter audience) – many people do not know what a woodcock is, and may not care about woodcock conservation
- Jargon, such as SGCN, SWAP, etc. Nothing makes people lose interest in a message faster than seeing an acronym they don’t recognize. It tells them that they are not the intended target audience, so they don’t need to pay attention.

E. Results

- a. **Partnership Development:** Partners in the AMWI include the U.S. Fish and Wildlife Service; U. S. Forest Service; Doris Duke Charitable Foundation; Natural Resources Conservation Service; National Fish and Wildlife Foundation; U.S. Geological Survey; American Bird Conservancy; Northeast Association of Fish and Wildlife Agencies; fish, wildlife, and conservation agencies for New York, Pennsylvania, Ohio, Maryland, West Virginia, and Virginia; the Ruffed Grouse Society; Woodcock Limited of Pennsylvania; and the Wildlife Management Institute. Funding for the project was provided by the Doris Duke Charitable Foundation, National Fish and Wildlife Foundation, Wildlife Conservation Society, the Northeast Association of Fish and Wildlife Agencies, the U. S. Fish and Wildlife Service, the Natural Resources Conservation Service – Agricultural Wildlife Center, the U. S. Forest Service, the U. S. Geological Survey, the state agencies of VA, WV, PA, MD and OH and the Wildlife Management Institute.
- b. **Focal Species:** Collaboration with the Golden Winged Warbler Working Group allowed development of coordinated efforts to expand the benefits of habitat restoration of American Woodcock to provide ancillary benefits to Golden Winged Warblers. Project personnel provided technical and financial assistance to the working group.

- c. Best Management Practices: A team of experts experienced in habitat management in the northern Appalachians developed a set of BMPs for the region. Contributors to this publication include Steve Capel, WMI; Carl Graybill, WMI; Walt Lesser, WMI; Tom Mathews, WMI; Dave Putnam, WMI; Pat Ruble, WMI; Gary Donovan, WMI; Dan McAuley, USGS; Pat Corr, USGS; John Lanier, WMI; and Scot Williamson, WMI. BMPs were printed and made available to Partners. The publication: *American Woodcock Habitat Best Management Practices for the Central Appalachian Mountains Region* is available for free download from www.timberdoodle.org.
- d. Technical Assistance: the AMWI project team included
 - Habitat Management Coordinator: Gary Donovan
 - Ohio: Pat Ruble
 - West Virginia: Jim Rawson, Walt Lesser
 - Pennsylvania: Dave Putnam and Carl Graybill
 - Virginia: Steve Capel
 - Maryland: Tom Mathews
 - Region: Mark Banker, Ruffed Grouse Society
 - Assessment & Research: Dan McAuley, USGS
 - Communications: Charles Fergus
 - Administration: Scot Williamson, WMI
- e. Monitoring: Singing ground surveys were established on demonstration areas and woodcock density was evaluated. Some demonstration areas included intensive monitoring through telemetry tracking (Table 1; Appendix 1).
- f. Demonstration Areas: Demonstration areas were developed in each state on public and private lands (Table 1). Detailed descriptions of the areas, management treatments, and directions to visit can be found on www.timberdoodle.org.
 - Bald Eagle State Park, PA
 - Lake Raystown, PA
 - Polk Wetlands, PA
 - Clermont Track, PA
 - Steve Liscinsky Memorial Project, PA
 - William Goudy Memorial Habitat Project, PA
 - Montour Preserve, PA
 - Green Ridge State Forest, MD
 - T.M. Gathright WMA, VA
 - Sarah Fletcher Tract, WV
 - Wallkill River NWR, NJ
- g. Outreach to Private and Public Landowners: A web site www.timberdoodle.org was developed and populated with documentation of BMPs, demonstration areas and opportunities for technical assistance. The BMP document was printed and made available to partners providing technical assistance to land managers. Various workshops, “teach-the-teachers” instructional events, field sessions, speaking engagements, or one-on-one technical assistance was provided by project personnel (Table 1). A brochure: *Wildlife Needs Young Forest, The Woodcock Management Plan* was developed and distributed in the project states. Signage was developed to increase awareness of the reasons behind habitat management. A table top display featuring the contents of the brochure was purchased. In keeping with the recommendations of the communications strategy, new outreach materials emphasizing the role of young forest in ecosystem biodiversity are in preparation.

Table 1. Accomplishments of the Appalachian Mountain Woodcock Initiative from inception to March 2010.

Activity	State						Total
	MD	OH	PA	VA	WV	Other	
AMWI Presentations & Implementation Meetings	13	12	37	12	26		100
Properties Assessed for ESH Demonstration Areas	3	5	21	9	16		54
Total Acreage of Existing or Planned AMWO Habitat	910	86	19,000	6,020	10,344		36,360
Properties w/ History of Woodcock Surveys	1	5	4	2	12		24

Highlights of Accomplishments

Maryland – Two demonstration sites have been identified in the limited area of BCR 22 in the western portion of the state. A proposal is being developed to manage 660 ac. of Mt. Nebo WMA as the Alred Geis Memorial American Woodcock Habitat Demonstration Area.

Ohio – Five demonstration areas have been identified. Four areas have a combined 86 acres of early successional habitat management underway.

Pennsylvania – Ten properties have management prescriptions being implemented to benefit young forest wildlife species. Three management plans are currently being reviewed for approval on state properties and will be the basis of a Memorandum of Agreement with WMI. Dormant Aspen and alder cuttings (15,000) have been collected and are being held in cold storage at the Pennsylvania Nursery. They will be planted at Clermont tract and Collins Pine Pigeon Tract. A woodcock telemetry project has begun at Swatara State Park with a goal of radio equipping 30 woodcock.

Virginia – Memorandum of Agreements have been executed at the Gathright and Crooked Creek WMAs. Management will focus on improving field habitats and increasing woody shrubs for woodcock courtship, feeding and nesting. Discussions continue with staff at Ft. A. P. Hill on improving nearly 3,000 acres for shrubland wildlife species.

West Virginia – Meetings were held at the NRCS Plant Materials Center and Clements State Tree Nursery to investigate the feasibility of producing alder and aspen seedlings for planting. Management recommendations were made to plans for mowing, planting and forest harvesting at Stonewall Jackson and Greenbottom WMAs. WMI participated in the development of the first draft of the West Virginia Department of Natural Resources strategic and operational plan for early successional habitat that was recently distributed for review.