

Reporting Period: 01/01/04 – 12/31/2005

USDA-NRCS/MSU Northern Bobwhite Habitat Restoration Project

NRCS Agreement No. 68-7482-3-121

EXECUTIVE SUMMARY

The *USDA-NRCS Bobwhite Restoration Project* is a cooperative effort among multiple agencies mutually interested in achieving the goals of the Northern Bobwhite Conservation Initiative (NBCI). NRCS-WHMI has the lead role establishing and overseeing the NRCS Northern Bobwhite Restoration Project. NRCS-WHMI is utilizing Mississippi University, Department of Wildlife & Fisheries as the umbrella institution to coordinate the efforts with other partners. The mission of the *USDA-NRCS Bobwhite Restoration Project* is to develop technology that assists NRCS field staff in future planning and to support research and demonstration projects that, within the context of NBCI habitat and population goals, evaluate the efficacy of NRCS conservation practices in restoration of northern bobwhite habitat and populations. This support is being provided through a Grants-in-aid program that provides fiscal resources to institutions designing and implementing research and demonstration projects that specifically evaluate the efficacy of NRCS conservation practices and resource management systems deployed in a manner that achieves the habitat goals of the NBCI. In January 2004, a Guidance Committee and Technical Advisory Board were established to provide independent oversight of the project. These committees established research priorities and developed a proposal evaluation process. A project coordinator (Dr. Mark Smith) was hired on 1 July 2004 to provide managerial support for the Bobwhite Project. A total of 20 proposals were submitted from 14 states within the range of northern bobwhite. Eleven proposals, totaling \$1,191,878, were selected by the Technical Committee and subsequently approved by the Guidance Committee to for funding. All 11 subcontracts were executed by January 4, 2005. Approximately 25 state and private resource management agencies are active participants in the Bobwhite Project. Overall, 30 NRCS personnel are actively involved in the Bobwhite Project; involving expertise and guidance of NRCS State Wildlife Biologists, District Conservationists, and Rangeland Management, Grassland, and Soil Conservation Specialists. Approximately 11 graduate research assistants are directly supported by the Bobwhite Project. Over 100 landowners are involved in the Bobwhite Project. Twenty one oral presentations, 13 poster presentations, and 2 publications (popular or technical) have originated from this research.

PROJECT DEVELOPMENT AND ORGANIZATION

Identification of Goals and Objectives.—The *USDA-NRCS Bobwhite Restoration Project* is a cooperative effort among multiple agencies mutually interested in achieving the goals of the Northern Bobwhite Conservation Initiative (NBCI). Partners in this venture include U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), Mississippi State University, Forest and Wildlife

Research Center, Department of Wildlife and Fisheries (MSU), Quail Unlimited, Inc. (QU), and the Southeastern Association of Fish and Wildlife Agencies (SEAFWA). NRCS-WHMI has the lead role establishing and overseeing the NRCS Northern Bobwhite Restoration Project. NRCS-WHMI is utilizing Mississippi University, Department of Wildlife & Fisheries as the umbrella institution to coordinate the efforts with other partners.

The NBCI is a quantitative, habitat-based plan prepared by the Southeast Quail Study Group Technical Committee at the request of the Directors of the Southeastern Association of Fish and Wildlife Agencies for the purpose of providing a roadmap to restore regional bobwhite populations. The NBCI identifies national, regional, and state-level population and habitat goals and provides a timeframe in which these goals should be accomplished. The NBCI is organized to delineate population and habitat objectives for 15 Bird Conservation Regions that comprise the majority of the bobwhite's range. This approach was selected in recognition of regionally varying limiting factors and to facilitate coordination and cooperation with other bird management plans, (e.g., NABCI, Partners in Flight, etc.). The goal for this plan is to restore range-wide northern bobwhite populations to an average density equivalent to that which existed on improvable acres (lands potentially amenable to management) in the baseline year of 1980. The NBCI predicted that restoring northern bobwhites to 1980 density on remaining land base will require the addition of 2,770,922 coveys to the current population. Achieving this population will necessitate impacting the habitat on 81.1 million acres of farm, forest, and range land. However, the recommended land management practices would change the primary land use on only 6% to 7% of this acreage.

The mission of the *USDA-NRCS Bobwhite Restoration Project* is to develop technology that assists NRCS field staff in future planning and to support research and demonstration projects that, within the context of NBCI habitat and population goals, evaluate the efficacy of NRCS conservation practices in restoration of northern bobwhite habitat and populations. This support will be provided through a Grants-in-aid program that provides fiscal resources to institutions designing and implementing research and demonstration projects that specifically evaluate the efficacy of NRCS conservation practices and resource management systems deployed in a manner that achieves the habitat goals of the NBCI. Note that grants may be used for *evaluation* of, but not *implementation* of, conservation practices and initiatives designed to accomplish the goals of the NBCI.

Selection of Committee members.—On January 23, 2004, a 7-member Guidance and a 9-member Technical Committees were established. The Guidance Committee consisted of representatives of NRCS (3), Mississippi State University (1), Quail Unlimited (1), Mississippi Fish and Wildlife Foundation (1), and the Northern Bobwhite Conservation Initiative Coordinator (Appendix A). The Technical Committee consisted of representatives from NRCS (3), Mississippi State University (1), Delta Wildlife (1), Missouri Department of Conservation (1), Georgia Department of Natural Resources (1), Texas Parks and Wildlife (1), and the Northern Bobwhite Conservation Initiative Coordinator (Appendix A).

Project Coordinator Position.—The USDA-NRCS/MSU Bobwhite Restoration Project coordinator position was advertised on the Texas A&M Jobs Board and The Wildlife Society listserv in early January 2004. Closing date for applications was 31 March. We received 6 applications, however, no suitable applicant was identified. The position was subsequently re-advertised and Dr. Mark Smith was hired as the project coordinator on July 1, 2004.

RESEARCH PRIORITIES

Proposals submitted for consideration for funding were evaluated with regard to the conceptual framework (breadth, scope, focus, and experimental design) under which the proposed research is to be conducted and the ecological context in which the work will be carried out.

Conceptual Context (ranked in priority order)

1. Projects that evaluate large scale habitat/population restoration initiatives that employ state and federal conservation programs to achieve habitat changes
 - a. For example: State-, BCR, or Focal area-level implementation of NBCI.
2. Projects that evaluate specific NRCS conservation practices used as part of a resource management system in conservation planning.
 - a. For example: Practices from list of resource concerns and solutions in NBCI pages 59-82 (including but not limited to the following examples)
 - o Field borders
 - o Mid-contract recurring practices
 - o Exotic grass conversion to Native Warm Season Grasses
 - o Forest management regimes (i.e. thinning, prescribed fire, herbicidal control of invasive hardwoods, savanna restoration)
 - o Rangeland management regimes (exotic control, brush management)
3. Projects that evaluate specific elements of NBCI (assumptions, implementation, efficacy).
 - a. For example: NBCI assumes that the recommended landscape changes, stepped down to some sub-state spatial scale (focal areas) will in fact alter bobwhite trajectory
 - b. For example: NBCI assumes that 4 acres of native grassland will produce 1 covey of birds in the fall

Funding priority was given to evaluations of resource management systems (multiple NRCS conservation practices) replicated across multiple BCRs/states and priority will be given to evaluation of multiple resource concerns (e.g. bobwhite and early successional songbird response, water quality, soil quality, herbicide retention).

Ecological Context

Within each ecological system (major land use) the NBCI identifies specific resource issues and appropriate management practices (pages 59 -82). Projects that evaluated efficacy of these practices, developed or refined innovative application of these practices, or quantified relationships between intensity of management and population response were deemed appropriate.

PROPOSAL SUBMISSION AND EVALUATION

Request for Proposals.—The request for proposals (RFP) was distributed through the Southeast Quail Study Group membership email list and The Wildlife Society listserv on June 1, 2004. The RFP provided a brief description of the Bobwhite Restoration Project Grants-in-aid Program and referenced a website (<https://hdclel.cfr.msstate.edu/nbc/default.html>) we developed further detailing the mission, research priorities, personnel, participating agencies, and the Grants-in-aid Program of the USDA-NRCS/MSU Bobwhite Restoration Project. This website will be used in the future to post annual reports and news updates as the project progresses. All proposal submissions were required to be made via the electronic submission form available at the website. Deadline for submission of proposals was midnight June 25, 2004.

Proposal Evaluation.—A total of 20 proposals were submitted from 14 states within the range of northern bobwhite. Most proposals were from universities ($n = 16$) with 2 submissions from state wildlife agencies and 2 submissions from private research organizations. Electronic copies (pdf) of each proposal and supporting documentation were distributed to the Technical Committee for evaluation. A standardized evaluation form (Appendix B) was used to evaluate each study based upon 21 criteria within 5 main categories (Purpose and Goals [5 criteria], Soundness of Design [10 criteria], Project Management [4 criteria], and Project Products [3 criteria]). Technical Committee members were given 1 month to complete the evaluations. Seven of the 9 members of the Technical Committee returned completed evaluations. Scores from these 7 evaluations were compiled into a spreadsheet and tallied, and projects were ranked based on overall mean score. Criteria scores were given equal weighting when computing the overall mean score.

Selection of Proposals.—The 20 submitted proposals had requested \$2,062,870 over the 3 years of the project. However, only \$1,200,135 was available to commit to the Grants-in-aid program. Therefore, not all submitted proposals could be fully funded. Furthermore, only the first 2 years of the 3 year agreement had been appropriated (\$801,340), of which \$45,000 was committed to supporting the NBCI national coordinator position. This left \$756,340 available to commit for the first 2 years of the project with an additional \$398,795 potentially available, pending congressional appropriation and NRCS allocation.

After consultation with NRCS-WHMI leadership at the Southeast Quail Study Group meeting in Arkansas during the first week of August 2004, there was agreement that there was a reasonable likelihood of receiving the 3rd year installment of funds. Therefore, we recommended that existing monies be used to fund the first 2 years of the top 11 proposals, with funding for the 3rd year pending congressional appropriation of the remaining \$398,795 of the USDA-NRCS/MSU agreement. The 11 top scoring proposals were submitted from 9 states. Seven proposals were from universities whereas 2 proposals were from state agencies and 2 from private research organizations (Appendix C).

On August 9, 2004, the Oversight and Technical committees were notified of the results of the proposal evaluation and selection process. Each member of each committee received an electronic file containing a spreadsheet of mean scores for each of the 5 main evaluation categories for each proposal. Individual reviewer scores (with reviewer names omitted) for each criteria for each project were available upon request. Comments were solicited from all members of both committees.

EXECUTION OF SUBCONTRACTS

Notification of Awards.—Principal investigators of selected proposals were notified via email immediately after Agriculture Secretary Ann M. Veneman’s announcement of the USDA’s funding of the Bobwhite Restoration Project studies in Washington D.C. on August 24, 2004. Formal award letters were mailed to each of the 11 principal investigators on August 25, 2004. Likewise, letters were mailed to principal investigators whose proposals were not accepted. All 11 award offers were accepted.

Processing of Subcontracts.—Information regarding subcontracts was sent to principal investigators upon receiving their acceptance of the award. The project coordinator served as the liaison between MSU Office of Sponsored Programs and contractual agents of the award recipients to expedite research account establishment. All 11 subcontract accounts were executed by January 4, 2005.

DELIVERABLES COMPLETED TO DATE

Quail Poster.—Two thousand copies of an 11.5” x 10” poster titled “*Bobwhite Quail-National Treasure-National Priority*” were printed and distributed to NRCS offices (Appendix D).

Quail Exhibit.—A self-standing 8’ x 10’ display showcasing the USDA-NRCS/MSU Bobwhite Project and each of the 11 studies was completed in August (Appendix E). A draft version of this display was setup at the annual NRCS biologist meeting in Sacramento, CA in June to receive NRCS feedback. Several suggestions were incorporated before the final version was completed in August. The final display was then used at the Southeast Quail Study Group meeting in Gilbertsville, KY, during the *Habitat Conservation Accomplishments of the Farm Bill* and the *CRP Mid-Contract Management and Benefits for Wildlife* symposiums at the Wildlife Society annual

meeting in Madison, WI, the Southeastern Association of Fish and Wildlife Agencies annual conference in St. Louis, MO, and during the Forest and Wildlife Research Center Advisory Committee meeting at MSU.

Small Grants.—The Grants-in-aid program was developed and executed in 2004. Monitoring and management of projects will continue through 2007.

Demonstration Field Days.—Demonstration field days were required components (deliverable) in the subcontracts. Field Day guidelines were sent to each principal investigator in early January 2006. Principal investigators may elect to hold the field day in either 2006 or 2007.

ADDITIONAL PRODUCTS

Bobwhite Project website.—A website detailing the USDA-NRCS/MSU Bobwhite Restoration project was created in May 2004. The website (<https://hdclel.cfr.msstate.edu/nbc/default.html>) provides information on the Project's overall mission and objectives, descriptions of funded studies, and news and updates. The website was also used for electronic submission of proposals and will continually be used to post reports, forms, etc.

Poster Presentations.—A special poster session was held during the annual meeting of the Southeast Quail Study Group in Gilbertsville, KY for project investigators to present their research to members of the SEQSG. This one-evening session facilitated communication among researchers and was collectively well received by the SEQSG.

SUMMARY OF PROJECT REPORTS

Approximately 25 state and private resource management agencies are active participants in the Bobwhite Project (Appendix F). In addition to NRCS, state wildlife agencies were the most frequent partner. Overall, 30 NRCS personnel are actively involved in the Bobwhite Project (Appendix G). On average, 2-3 NRCS personnel were involved in at least 1 aspect of each study. Projects involved the expertise and guidance of NRCS State Wildlife Biologists, District Conservationists, and Rangeland Management, Grassland, and Soil Conservation Specialists. NRCS involvement ranged from providing guidance regarding study objectives, design, and sampling protocol, serving as an initial contact point between landowners and principal investigators, providing practice history information, and data collection. Approximately 11 graduate research assistants are being supported by the Bobwhite Project. Over 100 landowners were involved in the Bobwhite Project. Most landowners provided use of their properties to conduct research, assistance in field operations or, as in the case of one project, provided input regarding the role of Federal conservation programs. Approximately 21 oral presentations, 13 poster presentations, and 2 publications (popular or technical) have originated from this research.

APPENDIX A

APPENDIX A

Guidance Committee

Bruce Leopold, Head, Department of Wildlife and Fisheries, Mississippi State University
Dave Gagner, Assistant to the Chief, Natural Resources Conservation Service
Dave Howell, Director of Agricultural Wildlife Services, Quail Unlimited
Leonard Jordan, State Conservationist, Natural Resources Conservation Service-Georgia
Pete Heard, Director, NRCS-Wildlife Habitat Management Institute
Breck Carmichael, Northern Bobwhite Conservation Initiative Coordinator
James Cummins, Executive Director, Mississippi Fish and Wildlife Foundation

Technical Committee

Ed Hackett, Wildlife Biologist, NRCS-Wildlife Habitat Management Institute
L. Wes Burger, Avian Ecologist, Department of Wildlife and Fisheries, MSU
Trey Cooke, Wildlife Biologist, Delta Wildlife
Bill McGuire, Missouri Department of Conservation
Mike Hansborough, Area Biologist, Natural Resources Conservation Service-Tennessee
Hank Henry, Terrestrial Ecologist, NRCS-Watershed Science Institute
Reggie Thackston, Coordinator, Georgia Bobwhite Quail Initiative
Don McKenzie, Southeast Field Representative, Wildlife Management Institute
Steve DeMaso, Upland Gamebird Coordinator, Texas Parks and Wildlife

APPENDIX B

APPENDIX B

NRCS-WHMI Bobwhite Restoration Project Criteria for Proposal Evaluation

Proposal Title:
Principal Investigator:
Reviewer:

For each of the criteria described below, please rate the proposal using the following scale. Reviewers should make an entry only in clear boxes.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Review Criteria	Score
Purpose and Goals	
1. The project states the purpose and goals and adheres to the major habitat areas identified by the Northern Bobwhite Conservation Initiative.	
2. Addresses identified research priorities.	
3. Addresses resource management system instead of single practice.	
4. Part of multi-state or multi-BCR research effort?	
5. Project evaluates multiple resource concerns (soil, water, other wildlife)	
Purpose and Goals Summary	
Soundness of Design	
1. The project adheres to sound science in its design and implementation.	
a. Clearly testable hypotheses or estimable parameters	
b. Rigorous experimental or sampling design	
c. Manipulative	
d. Replication, randomization, and controls	
e. Appropriate analytical procedures	
f. Does the design adequately characterize the weather, landscape, and predator context.	
2. Project has reasonable likelihood of achieving objectives	
3. Budget consistent with objectives, scope, and methods	
4. The project involves landowners willing to use or using NRCS planning and conservation practices to improve quail habitat and agricultural production.	
5. The project can implement NRCS conservation practices or needed practices that provide quail habitat.	
Soundness of Design Summary	
Project Management	
1. The project has clear milestones, designated staff, and shows collaboration.	
2. The project staff has experience to conduct the work.	
3. The budget is reasonable and shows strong contributions from other sources.	
4. The project shows clear cooperation among NRCS, State Agency, and other Partners(wildlife and agricultural)	
Soundness of Design Summary	
Project Products	
1. The project will develop tools that are useable by NRCS field staff to assist with conservation planning or training conservation planners to assist landowners wanting to provide quail habitat on a farm or ranch.	
2. The project results will be applicable to other parts of the northern bobwhite range and will motivate other producers implement the technology.	
3. The project clearly identifies techniques and tools to be developed that will bring working landowners, commodity groups, quail and other wildlife interests into educational discussions.	
Project Products	
Summary	

Additional comments regarding merit, relevance, and budget request

APPENDIX C

APPENDIX C

Contractual commitments as of 01/01/05

Contractual Budgeted	\$1,200,135.00
Funded Studies	
Carner (Arkansas)	\$149,995.44
Dabbert (Texas)	\$137,713.00
Dailey (Missouri)	\$71,600.00
Dinsmore (Mississippi)	\$147,920.00
Harper (Tennessee)	\$28,000.00
Moorman (North Carolina)	\$50,000.00
Palmer (Florida)	\$148,364.34
Rollins (Texas)	\$149,999.00
Sparling (Illinois)	\$122,997.16
Wiggers (South Carolina)	\$90,850.00
Yarrow (South Carolina)	\$49,440.00
NBCI Coordinator	\$45,000.00
Contractual commitments	\$1,191,878.94
Contractual non-committed	\$8,256.06

Bobwhite Quail

National Treasure, National Priority

Ask your NRCS, FSA, State Wildlife Agency or University Extension Specialist how you can use farm bill programs to restore Bobwhite Quail habitat!



NRCS Natural Resources Conservation Service

Call 1-888-LANDCARE for the Bobwhite publication. It's free! Visit our publications page at <http://209.234.81.2/> and enter "Bobwhite" in the search engine to download an electronic version.

Image provided courtesy of Maynard Reece and the Maynard Reece Gallery, Des Moines, IA. USDA is an equal opportunity employer and provider.

NORTHERN BOBWHITE HABITAT RESTORATION PROJECT

The Northern Bobwhite Habitat Restoration Project (Bobwhite Restoration Project) is a cooperative effort among multiple agencies committed to achieving the goals of the Northern Bobwhite Conservation Initiative (NBCI). Partners in this effort include the United States Department of Agriculture-Northern Bobwhite Conservation Service (USDA-NBCS), the Forest and Wildlife Research Center at Mississippi State University, Quail Unlimited, and the Northeastern Association of Fish and Wildlife Agencies. USDA-NBCS has the lead role in establishing and overseeing the Bobwhite Restoration Project and convening the Department of Wildlife and Fisheries at Mississippi State University to coordinate efforts with other partners.

The mission of the Bobwhite Restoration Project is to develop technology that assists NBCS field staff in better planning and to support research and demonstration projects that, within the context of the NBCI, evaluate the efficacy of Farm Bill conservation practices in the restoration of northern bobwhite habitat and populations. A Game-to-Go program was

established to competitively allocate \$1.2 in fiscal resources. Research priorities for the Game-to-Go program included: 1) evaluation of large-scale population restoration demonstration areas and habitat conservation programs to achieve desired habitat changes; 2) evaluation of specific Farm Bill conservation practices used in conservation planning; 3) evaluation of specific elements of the NBCI (i.e., management regarding riparian habitat restoration); 4) development or refinement of innovative applications of practices; and 5) quantification of the relationships between the intensity of practice application and population response of bobwhite at either site or landscape scales. Project proposals were reviewed and ranked by a technical committee of 9 scientists, biologists, and resource managers from across the country.

Three institutions from nine states (7 Rural Conservation Regions) were awarded grants to design and implement research and demonstration projects to address these research priorities and the mission of the Bobwhite Restoration Project.

For information contact:
 Wes Burger, Mississippi State University, MS232JFVJ,
 wburger@msstate.edu
 Mark Smith, Mississippi State University, MS232JFVJ,
 marksmith@msstate.edu



For more information on the Northern Bobwhite Habitat Restoration Project, please visit our Web site at <http://hdclci.cfr.msstate.edu/nbc>

HUMAN DIMENSIONS

1. USE OF HUMAN DIMENSIONS INFORMATION AS A TOOL FOR SELECTING LARGE-SCALE QUAIL RESTORATION AREAS

Research Objectives: Determine the effectiveness of human dimensions information in the selection of large-scale quail restoration areas. Evaluate the effectiveness of human dimensions information in the selection of large-scale quail restoration areas. Evaluate the effectiveness of human dimensions information in the selection of large-scale quail restoration areas.

Key Findings: Human dimensions information was used to identify areas that were suitable for quail restoration. The information was used to identify areas that were suitable for quail restoration. The information was used to identify areas that were suitable for quail restoration.



FIELD BORDER MANAGEMENT

2. BENEFITS OF A BUFFER-BASED CONSERVATION MANAGEMENT SYSTEM FOR NORTHERN BOBWHITE AND GRASSLAND SOBIRIBS IN AN INTENSIVE PRODUCTION

Research Objectives: Evaluate the benefits of a buffer-based conservation management system for northern bobwhite and grassland songbirds in an intensive production area. Evaluate the benefits of a buffer-based conservation management system for northern bobwhite and grassland songbirds in an intensive production area.

Key Findings: A buffer-based conservation management system was found to be beneficial for northern bobwhite and grassland songbirds. The system was found to be beneficial for northern bobwhite and grassland songbirds.



3. MAXIMIZING THE IMPACT OF FIELD BORDERS FOR QUAIL AND EARLY SUCCESSION SOBIRIBS: WHAT'S THE BEST DESIGN FOR IMPLEMENTATION?

Research Objectives: Evaluate the impact of field borders for quail and early succession songbirds. Evaluate the impact of field borders for quail and early succession songbirds.

Key Findings: Field borders were found to be beneficial for quail and early succession songbirds. The borders were found to be beneficial for quail and early succession songbirds.



RANGE MANAGEMENT

4. BOBWHITE RESPONSE TO NRC-BASED HABITAT PRESCRIPTIONS ON BAMBELANDS

Research Objectives: Evaluate the response of bobwhite to NRC-based habitat prescriptions on bambelands. Evaluate the response of bobwhite to NRC-based habitat prescriptions on bambelands.

Key Findings: Bobwhite responded positively to NRC-based habitat prescriptions on bambelands. The response was positive to NRC-based habitat prescriptions on bambelands.



5. NORTHERN BOBWHITE RESPONSE TO EQIP PRACTICES IN THE HIGH PLAINS ECOREGION OF TEXAS

Research Objectives: Evaluate the response of northern bobwhite to EQIP practices in the High Plains ecoregion of Texas. Evaluate the response of northern bobwhite to EQIP practices in the High Plains ecoregion of Texas.

Key Findings: Northern bobwhite responded positively to EQIP practices in the High Plains ecoregion of Texas. The response was positive to EQIP practices in the High Plains ecoregion of Texas.



6. ASSESSING BOBWHITE RESPONSE TO EQIP IMPLEMENTATION IN THE ROLLING PLAINS OF TEXAS

Research Objectives: Assess the response of bobwhite to EQIP implementation in the Rolling Plains of Texas. Assess the response of bobwhite to EQIP implementation in the Rolling Plains of Texas.

Key Findings: Bobwhite responded positively to EQIP implementation in the Rolling Plains of Texas. The response was positive to EQIP implementation in the Rolling Plains of Texas.



GRASSLAND MANAGEMENT

7. RESPONSE OF NORTHERN BOBWHITE, VEGETATION, AND INVERTEBRATES TO THREE METHODS OF RENOVATING MONOTYPIC CRP GRASSLANDS IN SOUTH-CENTRAL ILLINOIS

Research Objectives: Evaluate the response of northern bobwhite, vegetation, and invertebrates to three methods of renovating monotypic CRP grasslands in south-central Illinois. Evaluate the response of northern bobwhite, vegetation, and invertebrates to three methods of renovating monotypic CRP grasslands in south-central Illinois.

Key Findings: Northern bobwhite, vegetation, and invertebrates responded to three methods of renovating monotypic CRP grasslands in south-central Illinois. The response was to three methods of renovating monotypic CRP grasslands in south-central Illinois.



8. EVALUATION OF FOUR CONSERVATION MANAGEMENT PRACTICES FOR NORTHERN BOBWHITE AND GRASSLAND SOBIRIBS

Research Objectives: Evaluate four conservation management practices for northern bobwhite and grassland songbirds. Evaluate four conservation management practices for northern bobwhite and grassland songbirds.

Key Findings: Four conservation management practices were evaluated for northern bobwhite and grassland songbirds. The practices were evaluated for northern bobwhite and grassland songbirds.



9. CONSERVATION PRACTICES TO PROMOTE QUALITY EARLY SUCCESSIONAL WILDLIFE HABITAT

Research Objectives: Evaluate conservation practices to promote quality early successional wildlife habitat. Evaluate conservation practices to promote quality early successional wildlife habitat.

Key Findings: Conservation practices were found to promote quality early successional wildlife habitat. The practices were found to promote quality early successional wildlife habitat.



FOREST MANAGEMENT

10. EVALUATION OF THE USDA FARM BILL CONSERVATION PRACTICES FOR WILDLIFE

Research Objectives: Evaluate the USDA Farm Bill conservation practices for wildlife. Evaluate the USDA Farm Bill conservation practices for wildlife.

Key Findings: The USDA Farm Bill conservation practices were evaluated for wildlife. The practices were evaluated for wildlife.



11. RESPONSE OF NORTHERN BOBWHITE POPULATIONS AND THE ASSOCIATED AVIAN COMMUNITY TO LANDSCAPE-LEVEL MANAGEMENT IN THE CENTRAL HARDWOODS BIZ

Research Objectives: Evaluate the response of northern bobwhite populations and the associated avian community to landscape-level management in the Central Hardwoods BIZ. Evaluate the response of northern bobwhite populations and the associated avian community to landscape-level management in the Central Hardwoods BIZ.

Key Findings: Northern bobwhite populations and the associated avian community responded to landscape-level management in the Central Hardwoods BIZ. The response was to landscape-level management in the Central Hardwoods BIZ.



PARTICIPATING AGENCIES



APPENDIX F

APPENDIX F

PARTICIPATING AGENCIES

(Bold indicates project agency)

CARNER-Arkansas

Arkansas Game and Fish Commission

Arkansas State University

Arkansas Tech University

Arkansas Forestry Commission

The Nature Conservancy (AR)

DABBERT-Texas

Texas Tech University

DAILEY-Missouri

Missouri Department of Conservation

University of Missouri-Columbia

University of Missouri Forage Systems Research Center

University of Missouri Extension

Quail Unlimited

Missouri State Council of Quail Unlimited

DINSMORE-Mississippi

Mississippi State University

Delta Wildlife (MS)

HARPER-Tennessee

University of Tennessee-Knoxville

Tennessee Wildlife Resources Agency

University of Tennessee

Quail Unlimited

MOORMAN-North Carolina

North Carolina State University

North Carolina Wildlife Resources Commission

PALMER-Florida

Tall Timbers Research Station

University of Georgia

Florida Department of Environment

Florida Fish and Wildlife Commission

ROLLINS-Texas

Texas A&M University

Texas Cooperative Extension

Texas Parks & Wildlife

SPARLING-Illinois

Southern Illinois University

Illinois Department of Natural Resources

Quail Unlimited

WIGGERS-South Carolina

Nemours Wildlife Foundation

Clemson University

South Carolina Department of Natural Resources

YARROW-South Carolina

Pee Dee Research and Education Center, Clemson University

South Carolina Department of Natural Resources

South Carolina Forestry Commission

APPENDIX G

APPENDIX G

LIST OF NRCS PERSONNEL

CARNER-Arkansas

Derrick Hall, Water Quality Technician, Arkansas NRCS.
Wendy Hendrix, Soil Conservation Technician, Arkansas NRCS.
J. Sidney Lowrance, District Conservationist, Arkansas NRCS.
Joe Massey, Grassland Specialist, Arkansas NRCS.
Ricky Reed, Soil Conservation Technician, Arkansas NRCS.
Kelly Shrable, District Conservationist, Arkansas NRCS.
James Baker, State Biologist, Arkansas NRCS.

DABBERT-Texas

Charles Coffman, Area Wildlife Biologist, Texas NRCS.

DAILEY-Missouri

Tom Deberry, Northeast Missouri RC & D Coordinator, Missouri NRCS.
Pat Graham, State Biologist, Missouri NRCS.

DINSMORE-Mississippi

Kevin Nelms, Area Biologist, Mississippi NRCS.
Blake Lanier, Soil Conservationist, Mississippi NRCS.
Glynda Clardy, State Wildlife Biologist, Mississippi NRCS.

MOORMAN-North Carolina

Matt Flint, State Biologist, North Carolina NRCS.

HARPER-Tennessee

Mike Hansbrough, Wildlife Biologist, Tennessee NRCS.
James Woodall, District Conservationist, Tennessee NRCS.

PALMER-Florida

Greg Hendricks, State Conservationist, Florida NRCS.
Pete Deal, Rangeland Management Specialist, Florida NRCS.

SPARLING-Illinois

Charles Trimble, District Conservationist, Illinois NRCS.

WIGGERS-South Carolina

James Lewis, Jr., (*Retired*). Wildlife Biologist, South Carolina NRCS.

YARROW-South Carolina

John F. Bennett, Soil Conservation Specialist, South Carolina NRCS.
K. Wayne Cowell, District Conservationist, South Carolina NRCS
David N. Findley, Grassland/Forestry Specialist, South Carolina NRCS.

Ed Hackett, Wildlife Biologist, NRCS-Wildlife Habitat Management Institute.
Michael Hall, Grassland Specialist, South Carolina NRCS.
James Lewis, Jr., (*Retired*). Wildlife Biologist, South Carolina NRCS.