

SOUTHEAST
Proceedings
Southeast Quail Study Group
8th Annual Meeting
Waynesboro, Georgia
August 26-29, 2002

QUAIL STUDY GROUP

8th Annual Meeting Southeast Quail Study Group

Meeting Theme: Northern Bobwhite Conservation Initiative: Vision to Action

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*Proceedings compiled and edited by Mark Whitney, Wildlife Resources Division, Georgia
Department of Natural Resources.*

8th Annual Southeast Quail Study Group Meeting Committee Members

Haven Barnhill
John Bearden
Joy Bornhoeft
Adam Hammond
Buck Marchinton
Debra L. Spires
Vic VanSant

Chris Baumann
Bobby Bond
Mallory Granitz
Tracey S. Hanson
I. B. Parnell
Reggie Thackston
Mark Whitney

8th Annual Southeast Quail Study Group
August 26 – 29, 2002
Waynesboro, GA

Monday, August 26, 2002

5:00 – 6:00 Poster set up at Augusta Technical College

6:30 – 9:30 Registration at Waynesboro Country Club

Tuesday, August 27, 2002

8:00 – 8:10 Welcome – Meeting Theme - Housekeeping

Reggie Thackston
GA DNR

8:10 – 8:20 Welcome and Comments

David Waller, Director
GA DNR

8:20 – 8:30 Welcome and Charge to SEQSG Committees

Mark Gudlin, SEQSG Chair
TN WRA

8:30 – 9:00 NBCI & Farm Bill: Produces A Covey
of Opportunities

Don McKenzie
Wildlife Management Inst.

9:00 – 9:30 Agricultural Policy & Conservation

Mike Anderson
NRCS Washington DC

9:30 – 10:10 North American Bird Conservation Initiative
(NABCI): How It Works: Integrating NBCI

Dave Pashley
NABCI Coordinator

10:10 – 10:30 Break

10:30 – 11:10 Joint Ventures: A Vehicle for NBCI

Randy Wilson
Science Coordinator
MS Valley Joint Venture

11:10 – 11:40 Thoughts On Focus Areas & Regional
Partnerships

John Frampton
SC DNR
IAFWA Resident Game Bird
Working Group

11:40 – 12:00 Quail Unlimited: Working with NBCI

Rocky Evans, Executive VP
Quail Unlimited

12:00 – 1:00 Lunch

1:00 – 2:15 “Where Do We Go From Here”

Panel Discussion
All Speakers

2:15 – 2:30 Bobwhite Quail – Florida Species of Concern Tommy Hines
FL Wildlife Cons. Comm.

2:30 – 2:45 Break

2:45 – 5:00 Committee Meetings

6:00 – 10:00 Dinner, Awards & Social at Waynesboro Country Club

Wednesday, August 28, 2002

8:00 – 9:30 Committee Meetings

9:30 – 10:00 Break

10:00 – 11:00 Committee Meetings

11:00 – 11:30 Georgia BQI & BQI Monitoring

Reggie Thackston
GA DNR

Rick Hamrick
University of Georgia
School of Forest Resources

11:30 – 12:30 Lunch

1:00 – 1:20 Di-Lane WMA History

Vic VanSant
GA DNR

1:30 – 2:00 Di-Lane WMA Fallow Field Management

Vic VanSant
GA DNR

2:10 – 2:40 Di-Lane WMA Timber Management

Haven Barnhill
GA DNR

2:45 – 3:15 Break

3:25 – 3:55 Di-Lane WMA Dove Field Management

John Bearden
GA DNR

4:00 – 4:30 Di-Lane WMA CRP Pines and Quail

I. B. Parnell
GA DNR

Thursday, August 29, 2002

8:00 – 10:00 SEQSG Committee Reports – past activities,
future issues and actions

Steering Committee

Mark Gudlin, Chair
TN WRA

Ag Policy Committee

Breck Carmichael, Chair
SC DNR

Forestry Committee

Mark Whitney, Chair
GA DNR

Habitat Implementation Committee

Patty Moore, Chair
VA DGIF

Public Relations, Information & ED Committee

Marc Puckett, Chair
VA DGIF

Research Committee

Tom Dailey, Chair
MO DC

10:00 – 10:30 Break

10:30 – 12:00 SEQSG Business Meeting

Mark Gudlin, SEQSG Chair
TX WRA

12:00 Meeting Concludes

8th Annual Meeting of the Southeast Quail Study Group Executive Summary

The 8th Annual Meeting of the Southeast Quail Study Group (SEQSG) was held in Waynesboro, Georgia on August 26-29, 2002 and was hosted by the Wildlife Resources Division, Georgia Department of Natural Resources. Meeting Sponsors included Quail Unlimited, Georgia Power Company, DOW Agrosiences and BASF.

The focus of the meeting was implementation of the Northern Bobwhite Conservation Initiative (NBCI). The following Proceedings include speaker presentations, committee reports and minutes, and state reports as provided by individual southeastern states.

The opening session featured several speakers and was designed to provide "food for thought" and stimulate discussion as the committees began addressing various issues and identifying actions inherent in implementing NBCI. During the general session speakers made presentations on opportunities and methods for implementing NBCI. Presentation topics included: Farm Bill, the North American Bird Conservation Initiative, pairing NBCI with Joint Ventures, focus areas and regional partnerships, and working with NGOs such as Quail Unlimited.

Committee Meetings dominated the subsequent sessions where much of the work of the SEQSG takes place. The Ag Policy and Forestry Committees held a joint meeting and discussed opportunities presented under Farm Bill 2002 for accomplishing NBCI goals and devised recommendations to appropriate federal administrative agencies that would be helpful in accomplishing NBCI goals. The Habitat Implementation Committee discussed implementation of NBCI through a national coordinator and developed implementation strategies that could be employed at the state level. The Public Relations, Information and Education Committee worked on developing a strategy for marketing the NBCI and developed strategies to assist states in implementation. The Research Committee worked on identifying tools, approaches and information needs for implementing and determining the success of the NBCI. The Steering Committee discussed topics relevant to the business operations of the SEQSG and suggested host states of Missouri and Arkansas for the 2003 and 2004 annual meetings, respectively.

The final day of the meeting consisted of Committee Reports on activities conducted since the January 2002 meeting and discussion of Committee activities during this Annual Meeting. The business meeting was then conducted. New officers were inducted (Reggie Shackston, Chair, Steve DeMaso, Chair-elect, Jeff Sole, Private Entity) and a financial report was given.

The meeting was adjourned at 11:30 AM on Thursday August 29th.

Chairman's Address

TO: SEQSG Membership, Waynesboro GA meeting, August 2002

FROM: Mark Gudlin, SEQSG Steering Committee Chair

Welcome! Paraphrasing Don McKenzie, it's good whenever us "Colinophiles" can covey up.

For those of you who might be relatively new to our group, let me provide a brief background on our existence and purpose. In 1995, Breck Carmichael, then the SCDNR's small game program leader, organized the first meeting of the SEQSG at the Webb Center in South Carolina. Unfortunately, hindsight being 20/20, if this had been initiated 15 years earlier, quail might not be in as bad a shape as they are. To Breck's significant credit, he saw that there was more power in the Southeastern states tackling problems facing the bobwhite in a more focused, unified manner. Thus, the following year, the Group is also became officially structured as a Technical Committee of the SEAFWA. Since its formation, the SEQSG has taken major strides to address the quail situation.

Indeed, we have now begun to kick our efforts into high gear. With quail population trend lines zeroing out in about ten years, we have little choice if we are not to be the last generation of bobwhite biologists in respect to it's being a common game species. I am very much looking forward to the actions and efforts that will result from this meeting.

It has taken a considerable amount of effort by many to produce the Northern Bobwhite Conservation Initiative (NBCI), our range wide habitat and population recovery plan. Yet, the hard work has just begun. The SEAFWA and IAFWA have endorsed the NBCI and the IAFWA has recently directed us to expand the plan to include the fringe areas of quail range not included in the original NBCI, making it a truly national bobwhite recovery plan. The plan has already garnered much interest by others and has helped prompt efforts to develop similar plans for other resident and migratory game birds. As imperfect as the plan may be, it was the best initial effort we could assemble, and we have put a mark on the wall by which others are gauging their efforts and by which we will use as a springboard to modify and improve the Initiative.

One major effort we are hoping will come to fruition is the establishment of an NBCI Coordinator. Having a person devoted full-time to coordinating major NBCI activities will be essential to things happening on a timely basis. The SEAFWA Directors have supported this idea and a grant has been submitted to the IAFWA. The target is to have someone in this capacity by January 2003.

It has been lamented upon many times in the past, not only for quail managers, but other wildlifers as well, that we need to break beyond our traditional approaches in order to manage quail on a landscape scale. It's time for us to put our money (and efforts) where our mouth is. We need to reach beyond our comfort zone, deal in different arenas, network with a wider variety of other resource professionals and interest groups, learn effective grant writing, and focus even more closely at the sources causing the symptomatic habitat problems. We need to market wildlife-friendly mixes to compete with fescue and other exotic grasses on the front end

in the co-ops and seed stores and tackle changing tax laws that reduce landowner incentives to manage their land for wildlife habitat.

One of the most immediate tasks we have is to refine our message and utilize public relations outlets in newer and bigger ways than we ever have before. People are hearing about the NBCI and are getting excited to get support it. The SEQSG, Quail Unlimited, and State Wildlife Agencies need to be ready with a specific list of answers when posed the question, "What can I do to help?" whether it be landowner, individual quail hunters, sportsman club, or concerned non-hunting citizen. We need to glean your ideas and suggestions during this meeting.

Marc Puckett, Chair of our Public Relations, Information & Education Committee has done an exceptional job this past year on outlining potential public relations strategies. We have forthcoming presentations to be given to the Southeastern Outdoor Press Association in October and the National Outdoor Writers Association in June. Our website is updated and running. I encourage a strong involvement of the other committees with the PRIE committee during this meeting.

As we move to make the NBCI a truly national plan, it is likely that the very structure of our group will need to change to officially include the full membership of quail range states. As we do, we need to keep in mind that what makes the SEQSG unique is that it is a dynamic working group, not just a study group. Sure, we come away with updates on recent research projects and state agency efforts, but the annual meeting is primarily a working session where we develop strategies that are acted upon through the year. To remain effective, I strongly believe we need to continue to embrace this structure.

I would also like to acknowledge the past and continued support from Rocky Evans and Quail Unlimited, from funding towards our meetings to the gratis support and operation of our web page. I hope the NBCI is a catalyst that will make our partnership stronger, make QU a more prolific organization, and make the NBCI a success in a fashion similar to what the North American Waterfowl Plan did for ducks. Indeed, it will take all of us here – and many others – to make the goal of the NBCI a reality and successfully recover bobwhites to a secure level where sport hunting continues to thrive. If you are not doing your part, the job is not getting done. I look forward to continuing with you in these efforts.

Speakers' Notes

THE NORTH AMERICAN BIRD CONSERVATION INITIATIVE AND THE SOUTHEAST QUAIL STUDY GROUP

David Pashley, US NABCI Coordinator

American Bird Conservancy

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The North American Bird Conservation Initiative (NABCI) evolved out of growing independent bird conservation initiatives in the United States and Canada such as the North American Waterfowl Management Plan, Partners in Flight, and shorebird and waterbird efforts. It also had origins in the Important Bird Area program and an overall growth in interest in bird conservation in Mexico. The initial intent was to provide a forum for interaction among conservationists in these three nations and among initiatives within any one of the three.

The vision of NABCI is to deliver the full spectrum of bird conservation through regionally based, biologically driven, landscape-oriented partnerships. The biological objectives developed by experts working within the various initiatives are to be delivered in terms of projects through, among other means, the self-directed partnerships known as Joint Ventures. The US NABCI Committee has a stated objective of having comprehensive coverage of the entire country by Joint Ventures embracing the above vision. In order to be effective, all of those committed to that vision need significant increases in available resources. This, too, is an objective of the US NABCI Committee.

Upland game bird conservation efforts were not initially included among NABCI partners. Reasons for this were historical, with the mandate for conservation of these birds vested in state wildlife agencies, but with little of the coordination among them that characterized the other initiatives. This never was a reflection that anyone felt these birds to be less important than others, and so all NABCI partners have been pleased with the surge in cross-border cooperation seen recently in the upland game bird conservation community. With the establishment of the Resident Game Bird Working Group within the International Association, the US NABCI Committee found a voice speaking for all of these birds and the partners involved in their conservation. A representative from that Working Group is now a full member of the US NABCI Committee. Perhaps the most exciting developments have been the ecosystem level, range wide planning being invested in a few key upland game birds, most notably that for the Northern Bobwhite.

The reasons for all of us to work together are legion. First and foremost is the reality that healthy bird populations depend on healthy ecosystems. Throughout its range, conditions that benefit Northern Bobwhite benefit a suite of other birds that have been undergoing population declines. These declines have been based upon deterioration of habitat at a landscape level, and the declines can only be reversed when that deterioration is reversed. Some of the highest priority species that share Bobwhite habitat are the Bell's Vireo, Painted Bunting, and Orchard Oriole.

The second reason for working together is political – with a unified voice, all of us concerned with the well-being of populations of birds in this country can have a much more significant influence than the sum of all of us saying different things. Fixing habitat is expensive, the time to fix it is now, and the way to fix it is through cooperation and coordination.

Thoughts on Focus Areas and Regional Partnerships

John E. Frampton

August 27, 2002

8th Annual Southeast Quail Study Group

Waynesboro, GA

Unprecedented habitat initiatives in South Carolina based on local grass roots coalitions called “focus areas” are credited with the protection of over 300,000 acres of public and private lands. This successful partnership approach to conserving public and private lands, and their habitats, are backed by strong public support and pursued by shared visions of accomplishment.

The cooperation of focus area partners resulted in an innovative approach to managing and enhancing conservation programs and demonstrated that land protection is most successful when it occurs on-the-ground – not from top-down bureaucracy. Focus area partners and their respective agencies agreed to maintain the natural character of the focus areas by (1) promoting wise resource management on private lands and protection of strategic tracts by public conservation agencies, (2) supporting the continuation of traditional uses, such as hunting, commercial and recreational fishing, forest management and farming, (3) acquiring land or easements only from willing sellers and participants (condemnation would not be a part of the habitat protection effort), (4) maintaining or improving access for the public, and (5) providing wildlife management assistance to landowners interested in improving or enhancing natural habitats.

The focus area partnerships began with the ACE Basin Project in 1988 and rapidly spread to eight other areas in the state. Some achievements of the focus areas included protection of the 44,500-acre Jocassee Gorges Project, protection of over 140,000 acres in the ACE Basin Project, establishment of two new national wildlife refuges (ACE Basin and Waccamaw National Wildlife Refuges), establishment of a National Estuarine Research Reserve and a heightened national emphasis on private land conservation easements. Fourteen elements contributing to the success of South Carolina’s focus areas are discussed. When these elements come together, the product will be a coalition based on collaboration and consensus building with a process of joint decision making where solutions emerge that no single partner could have envisioned or enacted.

With the success of South Carolina’s focus area initiatives (which were really umbrella initiatives under the Atlantic Coast Joint Venture of the North American Waterfowl Management Plan) and a national emphasis in all bird management, it was only natural for the focus area type partnerships to expand into larger multi-state initiatives. Efforts were already on going between the Fish and Wildlife Service and the wildlife agencies in South Carolina, Georgia and North Carolina toward expanding the emphasis from waterfowl to upland birds when the Atlantic Coast Joint Venture Management Board voted unanimously to deliver conservation of all birds across all habitats in 1999. This action coupled with opportunities under the North American Wetlands

Conservation Act lead to the formation of the South Atlantic Migratory Bird Initiative (SAMBI). The elements, contributing to the success of SAMBI, are basically the same as those elements that contributed to the success of the South Carolina focus areas. The SAMBI has become a model for other all bird initiatives and has now expanded to include the states of Florida and Virginia. In just three years, this initiative has received over \$6 million in NAWCA grants and has conserved more than 40,000 acres of bird habitats.

Accomplishments under both the South Carolina focus areas and the SAMBI as well as elements contributing to these projects' successes should be useful tools when additional partnerships are developed under comprehensive bird planning. The ability of partners to pool their talents and resources to accomplish successful habitat protection should not be underestimated. The result of these partnerships demonstrate that when a partnership approach to ecosystem protection or comprehensive bird conservation is pursued with strong public support, the result can be monumentally successful, particularly when shared visions of accomplishment are pursued.

John E. Frampton
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Committee Meeting Minutes/Reports

Southeast Quail Study Group Agricultural Policy Committee/Forestry Committee Joint Meeting August 27-28, 2002, Waynesboro, GA

(Action Items in **Bold Type**)

*Breck Carmichael, Chairman Ag Policy Committee, SCDNR
Mark Whitney, Chairman Forestry Committee, GaDNR*

Breck opened the meeting with introductions around the room then introduced the agenda asking for any changes or additions. The group was then charged with determining what, if any, action items were needed on each agenda item.

The group began by looking at 12 recommendations made by the SEQSG for the 2002 Farm Bill and seeing if we received what we asked for. The group decided that the legislation was comprehensive and well funded with wildlife receiving equal attention across programs as a natural resource concern. We made gains in CRP and WRP acreage caps, annual funding for WHIP and Forest Stewardship, and got a Grassland Reserve Program. There seems to be more flexibility with advent of CRP focus areas and expansion of EQIP. Additionally, 3rd party technical assistance funding was included as a part of program delivery.

Ray Evans shared most recent NRCS guidance for 3rd party TA which includes 3 modes: 1) 3rd party private vendors; 2) MOUs with state agencies to provide TA, and; 3) assistance through local Soil and Water Conservation Districts. Evans then stated that SEAFWA Director's need to hear message about contacting State Conservationists about MOUs for TA. Some discussion centered on delivery and re-imbusement models with State Forestry and CRP and whether NGOs (QU, TNC) can be used to hire TA positions. It was decided that each state needs to develop own MOU with NRCS for TA delivery and 2 action items were identified:

- 1. Letter from SEAFWA Directors to IAFWA stressing importance of 3rd party TA & MOUs for discussion with FSA & NRCS at national level.**
- 2. Letter to Director's stressing importance of contact with State Conservationist on MOU development.**

Concerning other recommendations of SEQSG for 2002 Farm Bill, it was noted that we did not get a flex-fallow program but that CSP or EQIP may provide a similar function. It was brought up the Midwest Directors will be taking a recommendation for a short-term retirement program to the International meeting.

- 1. SEQSG members at the IAFWA meeting will support the Midwest Directors' recommendation.**

Subsequent discussion addressed field borders and center pivot corners for Continuous CRP or inclusion as EQIP practices. Producing quail BMPs was mentioned as a possibility to give direction to NRCS for appropriate practices.

Additionally, it was noted that the 2002 Farm Bill did not provide funding levels asked for in WHIP or Forest Stewardship, repealed SIP and requires 60% of EQIP funds for livestock operations. The committee will continue addressing these issues as opportunities permit. The committee also will be ready to comment on Grassland Reserve during rule-making in order to prevent the enrollment of exotic grasses such as fescue and Bermuda pastures.

The committee then discussed Farm Bill report language which directs the Secretary of USDA to utilize conservation programs, when possible, to address the quail decline and how best to use that language. It was resolved to use this language in all correspondence, discussions and conversations at all administrative and field levels to ensure that Congress' intent is met. Specific uses included SEAFWA Directors' communications with State Conservationists, the PR Committee and media usage by Quail Unlimited.

Ed Hackett with the NRCS Wildlife Habitat Management Institute made a presentation on NRCS activities relative to the 2002 Farm Bill and resources available to NRCS staff and other partners for TA, education, and outreach.

Changes to the EBI under CRP were discussed relative to SEQSG recommendations on those changes. Most discussion focused on points for enduring benefits with the group reaching consensus on the following recommendation:

CP-2, CP-3, CP-3A	10 points
CP-23, CP-25, CP-4D	5 points
CP-1, CP-10, CP-11	0 points

A letter will be sent to FSA with the above-mentioned recommendation.

Dave Hoge (USFS) made a presentation on the new Forest Land Enhancement Program (FLEP) and indicated that the interim draft rule will be out for comment soon and he will forward that to M. Whitney for distribution to Committee members. Hoge also offered to the group to let SEQSG representatives act as 3rd party reviewers on state priority plans submitted by state forestry agencies and to provide comments on FLEP effectiveness evaluation for 2006 as mandated by Congress. Hoge will contact M. Whitney as state priority plans are available for review.

Hoge then explained the Master Wildlifer Program and asked for input from the group on the program being developed by Dr. Greg Yarrow of Clemson University. **Billy Dukes, SCDNR, will act as the primary contact for the group and inform the committee if and when input will be needed.**

Forestry opportunities within EQIP were then discussed. The discussion expanded into all opportunities for quail management within EQIP, especially the ability to provide incentive payments in EQIP. Quail BMPs were brought up again and it was decided that a list of BMPs, using NRCS FOTG specs and practices, would be developed. WHMI was enlisted to help with BMP development, publication and distribution. Practices will be prioritized as essential or support practices with information on incentive payment amounts. **Breck will put together a list of BMP practices and distribute to the membership for comment.**

Mike Anderson with NRCS updated the group with the latest information on 3rd party technical assistance. NRCS is developing 2 separate rules dealing with 1) private parties and 2) agency partners. These rules could impact the current FSA/State Forestry CRP agreements as well as any FLEP technical assistance agreements. Rules are being developed now.

The group then discussed State CRP priority areas as potential to focus efforts on quail habitat and that the deadline for submission of priority areas to FSA is October 28, 2002. Other opportunities noted included CREP and Super CREP.

The meeting then adjourned at 5:15 pm on August 28, 2002.

**Southeast Quail Study Group
Agricultural Policy Committee Report
2002**

Current Committee Members:

Breck Carmichael, Chair – South Carolina DNR
Steve Capel – Virginia Dept. of Game and Inland Fisheries
John Cole - Illinois Dept. of Natural Resources
Steve DeMaso – Texas Parks & Wildlife
Elsa Gallagher – NRCS, Missouri
Dave Godwin – Mississippi Dept. of Wildlife, Fisheries and Parks
Mark Gudlin – Tennessee Wildlife Resources Agency
Ed Hackett – NRCS, Mississippi
John Hendricks - Oklahoma Dept. of Wildlife Conservation
Dave Howell – Quail Unlimited
Louis Justice – NRCS, Georgia
David Long- Arkansas Game and Fish Commission
Bill McGuire – Missouri Dept. of Conservation
Don McKenzie – Wildlife Management Institute
Terry Sharpe – North Carolina Wildlife Resources Commission
Jeffery Sole – The Nature Conservancy, Kentucky
Reggie Thackston – Georgia DNR
Jeff Thurmond – NRCS, Mississippi
Mark Whitney – Georgia DNR

Committee Purpose: The Southeast Quail Study Group Agricultural Policy Committee charge is to monitor agriculture policy with respect to its potential impact on the habitat of northern bobwhite quail. In coordination with the SEQSG Steering Committee, the Agricultural committee will draft position statements and provide recommendations relative to the formulation and implementation of agriculture programs and provisions. Additionally, the committee will work with appropriate state and federal agencies and private conservation organizations to facilitate information transfer regarding the impacts of agriculture policy on southeastern quail habitat.

Committee Activities:

The Agricultural Policy Committee undertook the following actions since the January 2002 meeting in Corpus Christi, Texas.

- A letter was sent to House and Senate 2002 Farm Bill Conference Committee members urging consideration of items considered critical to the successful recovery of bobwhites, early succession songbirds and other farm wildlife.
- Following Farm Bill passage, recommendations were provided to the International Association of Fish and Wildlife Agencies concerning issues that need consideration in the rule-making process for farm bill conservation programs.
- Committee member Don McKenzie was instrumental in the following language being included in the Farm Bill Conference Report:

“The Managers find that bobwhite quail are a valued traditional symbol of farmed landscapes, but have declined by two-thirds since 1980. The Managers further find that the success of the Southeast Quail Study Group’s new Northern Bobwhite Conservation Initiative is largely dependent upon land management actions by agriculture producers and non-industrial, private forest owners. The Managers further find that many conservation programs of the 2002 Farm Bill have large potential to contribute to the NBCI’s quail habitat objectives. In support of the goal to restore bobwhites, the Managers expect USDA and its agencies to give full consideration to and, to the extent practicable, to capitalize on all opportunities in the 2002 Farm Bill’s conservation programs to promote voluntary establishment of suitable wildlife habitat that contributes to the quail restoration objectives.”

- Recommendations were submitted to the Wildlife Management Institute concerning needed changes to the Conservation Reserve Program, Environmental Benefits Index.
- Comments were submitted to the USDA, Farm Service Agency for the Conservation Reserve Program Programmatic Environmental Impact Statement.
- Several Ag Policy Committee members attended the 2002 Farm Bill Forum, hosted by The Pinchot Institute in Washington, DC.
- Comments concerning changes to the Conservation Reserve Program, Environmental Benefits Index, which have now been proposed by the Farm Service Agency were submitted through the International Association of Fish and Wildlife Agencies.

Respectfully Submitted By:

D. Breck Carmichael, Jr.
Chair, SEQSG Ag Policy Committee
27 August 2002

Southeast Quail Study Group Forestry Committee Report 2002

Committee Members:

Mark Whitney, Chair, Wildlife Resources Division, GaDNR
Billy Dukes, South Carolina Dept. of Natural Resources
Mike Olinde, Louisiana Dept. of Wildlife & Fisheries
Stan Stewart, Alabama Dept. of Conservation & Natural Resources
Matt Mourot, Arkansas Game & Fish
Don McKenzie, Wildlife Management Inst.
Chris Dawes, North Carolina Wildlife Resources Comm.

Committee Activities:

At the January 2002 SEQSG Forestry Committee Meeting it was decided that to facilitate implementation of the NBCI, the committee would develop specific strategies, by BCR, to accomplish the forest management goals of the plan. Various committee members began developing drafts for review by the committee at the August meeting. In addition, a list of potential partners to assist in accomplishing these goals would also be generated. Those strategies are being completed for the Southeastern Coastal Plain (BCR 27) and the Piedmont (BCR 29).

Committee members made comments to NRCS on changes to the CRP EBI and provided input for the preliminary environmental impact statement of the changes made to CRP.

Contacts were made with state and federal forestry agencies and invitations to the August 2002 meeting were extended in order to foster relationships with partners who will be key in accomplishing NBCI goals in our forested BCRs.

The committee chair attended the 2002 Farm Bill Forum, hosted by the Pinchot Institute in Washington DC, to learn more about the Forest Lands Enhancement Program (FLEP) and its potential for assisting in NBCI implementation.

The committee chair attended the 2002 Spring Meeting of the Forest Resources Technical Committee of SEAFWA to foster relationships between the committees and to pursue avenues for working on issues of mutual benefit and interest. There was much discussion about carbon sequestration and the role of different forest types and management scenarios that may prove useful in implementing the NBCI.

Committee members from various states also have been active at the state and national level on such issues as: 1) implementation of the North American Bird Conservation Initiative; 2) restoration of shortleaf pine/bluestem ecosystems on National Forests; 3) herbicides and prescribed burning on National Forests; and, 5) integrating bobwhite quail management into W.G.C.P. Plan.

Action Items for the upcoming year include:

Continue with BCR strategy development

Provide comment on FLEP interim rule when published
BMPs for EQIP & FLEP & all programs
Work with USFS to assist in evaluation of FLEP program for 2006
Provide 3rd party assistance for review of state priority plans
Seek new members

Submitted By: Mark Whitney
Chair, SEQSG Forestry Committee
28 August 2002

**Southeast Quail Study Group
Habitat Implementation Committee Meeting Report
Minutes 09/06/02
David Hoover, Chairman**

The Habitat Implementation Committee members included: Judy Barnes (SC), Dan Figart (KY), Adam Hammond (GA), Dave Howell (IN), Fred Kimmel (LA), Eddie Linebarger (AR), Robert Perez (TX), Mike Sams (OK), Terry Sharpe (NC), Fred Ward (AR), Vernon Burns (AL), Tommy Hines (FL), Robert Chapman (MO), Jerry Bearden (GA), Irv Kenyon (VA), David Gregory (GA), Chris Garland (KY), Randy Wilson (MS), Frank Bowers (GA) and myself.

The committee has a very broadly defined charge of: **determining what it takes to get landowners interested in managing wildlife habitat in general, and more specifically, in developing ways to get landowners to restore bobwhite quail habitat at the landscape level.** At the Texas meeting, January 2002, Mark Gudlin, Chairman of the SEQSG Steering Committee, challenged all committees to figure out ways to get the new Northern Bobwhite Conservation Initiative on the ground and running. This was the focus of committee discussions.

During the 8th annual meeting of the Southeast Quail Study Group, the items below were discussed:

Items Discussed:

- 1) Reviewed accomplishments since January, 2002 Texas meeting.
- 2) The need to move the NBCI into the implementation phase by way of an oversight/steering committee and/or national coordinator.
- 3) The need to infuse the NBCI into existing Joint Ventures where they currently exist. This is especially important to elevate the concerns regarding bobwhite quail and other bird species dependent upon early-successional grassland/woodland habitats.
- 4) The importance of increasing our state and local partners' awareness of the NBCI. The committee members all agreed that informing and educating our counterparts in other agencies, at state and local levels, is just as important as informing landowners in order to get the NBCI moving forward.

5) Identification of key components, at the state level, needed to facilitate NBCI plan implementation. Again, much of the discussion centered on garnering support from our agency counterparts at the local level.

6) Dave Howell asked if states could use additional copies of "Handling the Fescue Problem" and "Managing Pine Plantations" publications. Dave has the opportunity to have reprints made. I will email committee members to determine the demand for reprints.

7) The "Bobwhite Basics" brochure is complete and distribution to states that ordered copies is underway. Dave Howell has additional copies for \$85 per 1000. Quantities are limited.

Action Items:

- 1) The committee supports the hiring of a national NBCI coordinator and BCR coordinators, for those areas not covered by Joint Ventures.
- 2) The committee recommends that a letter from the SEQSG be sent to the Directors of State Fish and Wildlife agencies urging them to:
 - a. Support the development of or allow their staff to participate in quail/early-successional habitat working groups to support existing Joint Ventures.
 - b. Support the hiring of a national NBCI coordinator.
 - c. Support the NBCI by breaking down BCR's habitat objectives to come up state goals and priorities.
 - i. Coordination among neighboring states should be emphasized in setting these goals.
 - d. Consider the following points in the development of any state quail initiative to support the NBCI:
 - i. The need to focus efforts
 - ii. The need for dedicated staff
 - iii. The need for dedicated funding
- 3) Assemble a list, by state, of barriers to implementing the NBCI. Input is needed from NRCS, State Extension, State Fish and Wildlife Agencies, and NGO's. This information will be used to focus future committee meeting discussions.
 - a. I will send a request for this information to each committee member asking for feedback from their respective state.

2002 Activities:

- 1) Completed "Bobwhite Basics" brochure.
- 2) Continued working on strategies for NBCI implementation.

Public Relations, Information and Education Committee Meeting Summary

The PRIE committee met and reviewed old business quickly. We rapidly determined that our primary goal was to develop a marketing strategy for the Northern Bobwhite Conservation Initiative. Members present were: Marc Puckett, Mark Gudlin, Robert Perez, Bill White, Laurel Moore, Clark McCreedy, Buck Marchinton, Don Hayes, Pete Bromley, Ricky Chastain, David Pashley, Dave Howell, Reggie Thackston and Lisa Doty. Lisa Doty serves as Georgia DNR's Public Affairs Coordinator. She assisted our group at Reggie Thackston's request. Lisa really helped us find our way. She facilitated the development of our marketing strategies. We felt we had a productive meeting though it left us all with much more work to do. The following is a synopsis of our efforts. The strategies below will be refined and made into a document available to all agencies and organizations desiring to use the strategies.

Main purpose of the meeting:

To develop a marketing plan for the Northern Bobwhite Conservation Initiative

Further defined: To assist states, and others, in identifying stakeholders and developing strategies for promoting and implementing the NBCI.

Side note: It was the overall feeling of our group that the NBCI, and quail recovery in general, will be driven at the state level by state agencies and federal agencies to some extent. Their success will depend on their ability to partner with other groups. So, our task was not just to recommend to state agencies how they can market the NBCI externally, but internally, also. State agencies will have to sell the NBCI inside their own organizations for it to succeed. There will be resistance within many state agencies, not necessarily at the upper leadership level, but more so at the grass roots level. There will be many staff biologists that do not buy in. Based on my own personal experiences in Virginia with our 5-year quail management program, it was a tough sell at the field staff level. All of us as NBCI promoters will need to "win over" as many of our colleagues as possible. We are going to have to sell this thing from the bottom up, as well as from the top down. You will identify some biologists who simply will not be willing to help and have a negative attitude. These folks need to be avoided. They certainly do not need to be the ones out giving talks on the NBCI. If you sense a totally negative attitude from someone, don't try to turn pyrite into gold, find someone else to work with. Another thing to keep in mind is that the NBCI, in and of itself, is nothing more than a set of specific goals. It is a framework from which to work, but it has no provisions for action. All of our efforts need to be directed towards getting every possible group and person to help achieve the habitat goals. I'll leave keeping track of the habitat to the Habitat Implementation Committee.

The next step:

Prior to developing specific strategies, we first defined our target groups. We defined them in the following order of priority:

- 1) State and Federal agencies
 - a) Private lands agencies (some do both)
 - b) Public lands agencies
- 2) Landowners
- 3) Sportsmen and women (those who hunt, basically)

4) Non-Government Conservation Groups

5) Professional Societies (we felt they were significantly different from other NGO's)

6) The general populous

Specific strategies:

*****Understand that, with each strategy, there are different types of marketing. Using a state agency as an example, there is: A) the need to sell the idea of bobwhite conservation to the staff, inform and educate AND gain their support, and B) provide them the tools they need to carry the message to others.

1) State and federal agencies –

State game and natural resources Dept.'s, the Natural Resources Conservation Service, Consolidated Farm Services Agency, Soil and Water Conservation Districts, Cooperative Extension Service, Rural Conservation and Development, Joint Ventures, U.S. Fish and Wildlife Service, U.S. Forest Service, Dept. of Conservation and Recreation (State Parks), State Forestry Dept.s, State Dept.s of Transportation

Goals: Inform and educate, make them aware of the national status of quail conservation and **the congressional language in the Farm Bill specific to quail**, provide tools for their use in educating others about the NBCI, and let them know what they can do to help

Strategies: Use direct mailings, hand deliveries, and all means possible to get the information into the right hands in a timely fashion, involve some of their personnel in local NBCI working groups

Tools and methods:

- the NBCI executive summary,
- the popularized version of the NBCI,
- reprints of the NBCI article in QU magazine
- develop a brochure about the NBCI
- NBCI PowerPoint presentation
- attend and make presentations at their annual meetings, banquets and training events
- develop a general display on the NBCI (has been done by NCWRC, will make available through the web for all groups to use)
- conduct workshops
- for large organizations, determine the best initial contact person
- develop a video on NBCI, quail and the Farm Bill
- suggest that all state agency public relations offices be asked to help with publicity through press releases

**** The above "tools" will be combined into a promotional package that can be tailored to the different groups

2) Landowners –

Farmers/producers, absentee landowners, non-industrial private landowners, industrial landowners (particularly timber companies), other state and federal agencies not directly related to conservation such as state prison systems that own land, some of it open land, recreational landowners

Goals: Inform, educate and most importantly, let them know what they can do to help, make them aware of the problem and of the specific Farm Bill language relating to quail conservation

Strategies: Use direct mailing, hand deliveries and all means possible to get the information into the right hands in a timely fashion and to let landowners know what they can do to help, involve key agricultural and forestry landowners on local working groups

Tools and methods:

- determine key agricultural leaders in target communities and ask for their support
- the NBCI executive summary
- the popularized version of the NBCI
- NBCI PowerPoint presentation
- reprints of the NBCI article in QU magazine
- develop a brochure about the NBCI
- attend and make presentations at their meetings and banquets (Cattleman's Association, etc.)
- conduct workshops
- develop a video of the NBCI
- use the NBCI display at their meetings
- advertise in the farmer's newsletters and farmer's market bulletins
- write articles for state ag. magazines like North Carolina/Virginia Farmer
- write an article for Progressive Farmer (is in the works)
- direct mailing, use local CFSA / SWCD mailing lists
- try to interest local farm TV shows in the issue
- develop a list of local contact numbers so interested landowners will know where to go for assistance
- make sure all state and federal web sites have links to the SEQSG web site

3) Sportsmen and women –

Hunters (we are talking about hunters specifically, we did not feel we were targeting hikers, boaters, birdwatchers, etc. – those user groups will be reached as part of other target audiences)

Goals: Make them aware of the plight of the bobwhite, make them aware of the benefits of managing for quail to other species (**must preach “good quail management is also good**

deer and turkey management”), gain their support and ask for their political support, let them know how they can help

Strategies: Use all means available to get the information into the right hands in a timely fashion, identify key persons who work with various hunting groups and get them the information and tools they need to spread the word, identify key sporting groups and target them with a PR blitz, involve key sportspersons in local working groups

Tools and methods:

- articles in national, regional and local sporting magazines and newspapers
- get publicity packages to key leaders in all groups like the National Wild Turkey Federation state and local chapters
- use agency web sites
- identify sporting groups web sites and try to get a spot on their sites
- attend and make presentations to local outdoor writers groups
- attend and make presentations at regional and national outdoor writers meetings
- articles in state agency magazines
- attempt to get spots on agency TV shows
- make contacts with state and national wildlife federations
- work through Deer Management Assistance Program, these DMAP groups are often large and control many thousands of acres of land, attempt to speak to their groups with the message that good quail management equates to more deer and turkey.
- write articles for national magazines that specifically focus on the benefits of managing for quail to other species, something like “Manage for Quail to Produce Trophy Whitetails” – one possible way, get the folks on the deep south quail plantations (e.g. – Clay Sisson) to write, or be interviewed for articles discussing the benefits of quail management to other species (I suspect the deer and turkey hunting on Pineland Plantation is excellent?)
- publicize in state hunting and fishing regulations booklets

4) Non-Government Conservation Organizations / Groups –

Birding Organizations (e.g. – Audubon), state and local birding clubs, local Quail Unlimited Chapters, Partners In Flight, The Nature Conservancy, Native Plant Societies, Prairie Restoration Societies, National Wildlife Federation, National Wild Turkey Federation

Goals: Inform and educate, make them aware of the problem, make them aware of the Farm Bill language, make them aware of the benefits of managing for quail to other species, ask for their support and endorsement, let them know how they can help

Strategies: Use all means available to get the information in the right hands in a timely fashion, send them promo packages tailored to their group, involve their members in local working groups

Tools and methods:

- provide them information packages that they can use to educate their groups

- NBCI presentation
- NBCI display
- popularized NBCI
- NBCI brochure
- give presentations to their group
- write articles for their newsletters and magazines
- determine who their influential leaders are and enlist their support
- NBCI video
- write articles on the benefits of quail management to their species of interest

5) Professional Societies -

Originally we made this specific to The Wildlife Society, however, it was suggested that we include the American Fisheries Society and the Society of American Foresters.

Goals: Inform and educate membership about the plight of bobwhite quail and other early-succession species, make them aware of the congressional Farm Bill language specific to quail, gain their endorsement, gain their political support

Strategies: Use all means available to get the information in the proper hands in a timely fashion, get them the materials they need to promote the program within their societies, involve key membership/officers in local working groups

Tools and methods:

- become an officer in local and state chapters (best way to gain influence)
- NBCI brochure
- NBCI video
- Popularized NBCI
- Write articles for state, regional and national society newsletters (may simply be able to adapt existing articles with permission)
- NBCI executive summary
- Gain time slots and make presentations at their annual meetings at state, regional and national levels

6) General population –

The population at large, those who are not likely affiliated with the groups previously mentioned, but may be. There will be some overlap here.

Goals: The largest goal is making folks generally aware of the plight of bobwhite and other species, inform and educate, and make them aware of what they can do to help (this may be as simple as getting the message across that bush-hogging is detrimental, “To help wildlife, do not bush-hog all your land during the same year”, etc.)

Strategies: Develop quick marketing techniques that will reach “the masses” at a low cost

Tools and methods:

- use inserts in products of companies that are endorsers of Quail Unlimited, this could be the NBCI brochure
- press releases through agencies and organizations
- public service announcements – radio and TV
- radio talk shows
- write articles for non-traditional magazines like Southern Living, etc.
- billboards along major interstates (could get local QU chapters to “adopt a billboard” – that would be one of their annual projects to fund)

Action Items:

- 1) Develop an information package to be placed on CD and the web page, this should include:
 - a. popularized version of the NBCI (*in progress*)
 - b. the NBCI executive summary (*complete – on web*)
 - c. NBCI PowerPoint presentation (*complete – on web*)
 - d. NBCI display (*completed by NCWRC, will be made available on CD and web*)
 - e. NBCI video
 - f. NBCI quick facts sheet – specifically targeted at legislators (*Bill White*)
 - g. NBCI / Farm Bill brochure (*Lisa Doty*)
 - h. Bobwhite Basics (*completed by the Habitat Imple. Comm. and Dave Howell*)
 - i. video or brochure focusing on the benefits of quail management to deer and turkey, for distribution to deer and turkey clubs
 - j. quick lists of what persons / groups can do to help, based on our 6 target audiences
 - k. public service announcements (*Lisa Doty*)
 - l. suggested marketing plans where appropriate (*Marc Puckett*)
 - m. develop product inserts for inclusion in products of QU sponsors

Action Tasks

- a) make presentations to state, regional and national outdoor writers groups (*Marc Puckett, all committee chairs*)
- b) make sure all pertinent state and federal agencies have a link to the SEQSG web page (*Marc Puckett*)
- c) make presentations at the Southeastern and International Fish and Wildlife Agency conferences (*??? Is this being done???*)
- d) develop a catalog / database of images available for use by outdoor press, etc (*Dr. Clark McCreedy*)
- e) get an article in Progressive Farmer on NBCI (*Jeff Thurmond*)
- f) get articles in national, regional and state sporting magazines like Field and Stream, Sports Afield, Outdoor Life (*Marc Puckett and others*)
- g) develop a list of web sites of sporting groups and professional societies and attempt to develop web site links (*Marc Puckett*)
- h) write articles for submission to section and national The Wildlife Society newsletters

- i) write articles on the NBCI BCRs for inclusion in Quail Unlimited Magazine (*Robert Perez will write the first and initiate the second with other BCR chapter authors, Rocky Evans suggested one per issue for at least the next 6 issues of Quail Unlimited magazine*)
- j) produce a TV show in conjunction with Quail Unlimited, will be developed around a hunt, persons (Reggie Thackston and Mark Gudlin were suggested by Rocky Evans) will hunt and answer questions about the NBCI and Farm Bill along the way, to be aired on ESPN, etc., suggested by Rocky Evans (*Rocky Evans, Reggie Thackston, Mark Gudlin and others*)
- k) develop SEQSG list serve
- l) develop a method of tracking our PR efforts
- m) get the SEQSG Newsletter back on track (*Robert Perez volunteered to become newsletter editor*)

**RESEARCH COMMITTEE REPORT
2002 SOUTHEAST QUAIL STUDY GROUP MEETING
WAYNESBORO, GEORGIA**

Submitted by Thomas V. Dailey, Research Committee Chair

The research committee had a productive meeting and made good use of the extra committee time scheduled for the meeting. We focused our effort on the Northern Bobwhite Conservation Initiative (NBCI), with the objective of identifying tools, approaches and information needs for implementing and determining the success of the NBCI. Recommendations focused on 4 areas (1) human dimensions information needs, (2) land inventory (GIS) information needs, (3) quail abundance indices as a measurement of the degree of success of NBCI, and (4) hunter activity indices as a measurement of the degree of success of NBCI. We also updated the SEQSG research priorities list. Special presentations were given by Pete Bromley, Wes Burger, and Steve DeMaso.

I. Human Dimensions:

Recommendation: Make human dimensions research a high priority within state agencies and Joint Ventures.

Justification: The highest priority need identified by the committee was for human dimensions information. We believe that it is imperative that NBCI biologists understand the demographic attitudes, knowledge level and economic conditions of landowners and quail hunters. The North Carolina C.U.R.E. human dimensions research by Salinda Daley and Dr. Pete Bromley provide a good example of this approach. Although some experienced biologists might be able to rely to a large extent on their first-hand knowledge of local landowner attitudes, the long-term and large-scale nature of the NBCI places a premium on thorough and timely understanding of the citizens that NBCI's success is dependent upon. Furthermore, the diversity of human dimensions characteristics from region to region within any one state requires that research be tailored to specific NBCI focus areas.

II. Land Inventory:

Recommendation: Employ a coordinator of geographic information systems under the supervision of the NBCI coordinator.

Justification: Efficacious implementation of NBCI is highly dependent on our ability to identify habitat resources at regional and local scales. Geographic information systems (GIS) can provide this information. Bobwhite biologists are leaders in the area of understanding the spatial relationships of quail and their habitat needs. Biologists have GIS tools that allow for analysis of habitat at the farm-level (e.g., <http://www.cares.missouri.edu/irms/habitat/interface.asp>), and landscape-level approaches are being developed by Wes Burger for the Central Hardwoods Bird Conservation Region. Several states (North Carolina, Georgia, Missouri, Texas, etc.) have used GIS to identify quail restoration focus areas. To improve implementation of NBCI we need at a minimum a well-equipped GIS specialist to coordinate work among states and Joint Ventures.

III. Determining NBCI Success with Measurement of Quail Abundance:

Recommendation: Develop a North American Breeding Bird Survey approach that allows for detection of the degree of success of the NBCI.

Recommendation: Develop an accurate and precise measure of quail abundance at the local scale using the fall covey whistle count technique.

Justification: Beginning at the 1987 Small Game Workshop in North Carolina, biologists recognized that the states' approaches to measuring quail abundance (spring & fall whistle counts, roadside sight counts, etc.) provided little uniformity and that accuracy and precision of estimates were meager or unknown. Similarly, David Pashley, NABCI coordinator and speaker at the SEQSG meeting, indicated that songbird abundance indices are inadequate for evaluation of NABCI initiative effects. In order to determine the degree of success of the NBCI, we recommend that substantial improvement be made in methodology and sampling intensity of the North American Breeding Bird Survey (BBS). Sampling for the BBS should be at a level that allows for detection of differences between NBCI treatment and control areas. As an example of such sampling intensity, the Missouri Department of Conservation is sampling a four-county treatment area with 273 BBS-style bobwhite and songbird listening stations.

For the fall covey whistle count technique, research needs to continue on calling rates and accuracy and precision of population estimates. The use of such a small-scale approach for determining quail abundance is critical to assessing local habitat effects within a few years of program implementation and for demonstrating to quail enthusiasts that habitat restoration is an effective approach to increasing quail abundance. The Georgia Department of Natural Resources is using such an approach to evaluate and promote their quail restoration program.

IV. Determining NBCI Success with Measurement of Hunting Activity:

Recommendation: Develop standardized and statistically valid state measurements of wild quail hunter activity.

Justification: Quail hunters are closely tied to the NBCI. The scope of the NBCI restoration was calculated based on state quail harvest data and the assumption that quail hunting will continue and increase to former high levels. States' harvest data, however, are of mixed quality, with few estimates of accuracy and precision. Accurate evaluation of hunting trends will require not only these statistical descriptions, but also the separation of hunting activity between wild and pen-raised quail. Among the many measures of hunting activity, the simplest and least biased is average daily bag.

Updated Research Priorities:

We separated the former list of research priorities (1996-2001 version) into NBCI and management categories as follows:

NBCI

1. Human dimensions.
2. Effects of landscape pattern on population dynamics.
3. Identify optimal habitat composition and develop predictive models incorporating population habitat & weather factors.

Management Oriented:

1. Brood ecology and survival.
2. Effects of predation (animal and human) on population dynamics.

STATE REPORTS

SOUTHEAST QUAIL STUDY GROUP STATE REPORT ALABAMA

Bobwhite Population Status

Alabama breeding bobwhite populations have declined an average of 4 percent per year since breeding bird surveys were initiated in 1966. During the past decade breeding bobwhite numbers declined at an average rate of 9 percent per year across the state. The incessant erosion of bobwhite numbers has caused marked changes in quail hunting activity and quail harvests. During the 1966-67 hunting season, 92,845 quail hunters hunted 964,456 man-days and harvested 2.77 million quail. In 1980-81, 66,288 quail hunters hunted 509,384 man-days and harvested 1.38 million quail. As of the 2000-01 hunting season, quail hunter numbers have dropped to 12,100, quail hunting activity to 61,100 man-days, and bobwhite harvest to 0.13 million.

Quail Management Initiatives/Private Lands Programs

The Division of Wildlife and Freshwater Fisheries acted in concert with Alabama Wildlife Federation, Alabama Farmers Federation, Alabama Soil and Water Conservation Committee, Quail Unlimited, Alabama Quail Hunters, Alabama Power Company, and other interest groups, along with state senators and representatives during the past two years to pursue a Bobwhite/Early Succession Wildlife Habitat Initiative. New funding will be required to support a pilot program that will offer technical and financial assistance to private landowners who want to restore habitat for quail and other wildlife with similar requirements. Efforts to secure needed funding continue.

Technical assistance is offered upon request to private landowners who want to manage their lands and create habitat that will support improved bobwhite populations. Quail management seminars and programs are conducted around the state to better inform landowners and wildlife interest groups about bobwhite management and population restoration requirements. A new bobwhite management publication is being completed to increase public knowledge of quail ecology and management.

Research

ECOLOGY OF NORTHERN BOBWHITES IN THE LONGLEAF PINE ECOSYSTEM MANAGED WITH GROWING SEASON BURNS

Southern pinelands have traditionally been managed with prescribed fire in late winter (i.e. February or March). Burning at this time has received favor due to consistent burn conditions, little effect on nesting birds, and minimal time of reduced cover for wildlife. Recent research suggests that fires during spring and summer months (i.e. growing season burns) may

also provide positive effects on native flora and fauna of the longleaf pine (*Pinus palustris*) ecosystem, especially endangered species. Little research has addressed the potential ramifications of growing season burns on other game and nongame wildlife species. Considering the economic importance of northern bobwhites (*Colinus virginianus*) in the southeast, research should address whether sustainable populations can be maintained in landscapes managed with growing season burns.

Conecuh National Forest (CNF; 31E 7' latitude, 86E 37' longitude) is located in the southeastern Coastal Plain of Alabama and consists of approximately 42,000 acres of native longleaf pine. The U. S. Forest Service manages a majority of these lands for the endangered Red-cockaded Woodpecker, gopher tortoise, and to maintain healthy longleaf pine communities. Stands typically are burned triennially, and growing season burns occur between April and June. Little is known of the fire mediated habitat characteristics that influence northern bobwhite vital rates (mortality, fecundity, immigration, emigration) in longleaf pine ecosystem. Researchers from the Alabama Cooperative Fish and Wildlife Research Unit at Auburn University (T. H. Folk and J. B. Grand) have initiated a 3-year radio telemetry study to investigate bobwhite population dynamics in longleaf communities managed with growing season fires. Approximately 100 birds will be radio marked annually and vital rates will be estimated among and within stands of differing burn history (i.e. stands burned last year, 2 years prior, and 3 years prior). Research will also evaluate differences in structure and composition of understory vegetation in longleaf pine stands. Information gained will determine if stable northern bobwhite populations can be maintained in longleaf pine stands managed with growing season burns. Knowledge will also be gained relating to landscape level management for northern bobwhites. This research will better help public land managers in the southeast meet competing management objectives.

THE ALABAMA QUAIL MANAGEMENT PROJECT

A new quail management project, located in east-central Alabama, modeled after and in association with the Albany Quail Management Project (Auburn University School of Forestry and Wildlife Sciences, H. L. Stribling and D. C. Sisson) will investigate the application of current bobwhite management techniques to Alabama habitats.

An initial 3 year radio telemetry investigation of the ecology and management of wild bobwhites will be conducted on quail plantations located in Macon and Bullock Counties, Alabama. On all study sites 50 birds will be radio-tagged each spring and fall, and monitored year-round for the duration of the study. Differential habitat use, home range size, survival, and reproductive effort will be determined. Fall covey counts and hunting records will be used to track population levels and compare them to habitat conditions.

The research information acquired will be used to guide management practices that will increase bobwhite populations in Alabama landscapes, and stimulate renewed optimism for wild quail management in the state.

**ARKANSAS GAME AND FISH COMMISSION PROGRAM UPDATE
SOUTHEAST QUAIL STUDY GROUP MEETING
AUGUST 26-29, 2002**

Implementation of the long-range strategic **Bobwhite Quail Management Plan** has begun with a meeting in March 2002 to discuss the goals and objectives of the plan with representatives from several agencies and organizations.

Personnel from the NRCS, USFWS, CES, USFS, WMI, Arkansas Forestry Commission, Arkansas Natural Heritage, International Paper, Deltic Timber, Potlatch Corporation, and several private consultants attended the meeting.

Don McKenzie gave a presentation on NBCI. Fred Ward gave a presentation on the Arkansas Strategic Quail Plan. A very informative discussion followed the presentations about how to attack the decline of the bobwhite in Arkansas. The development of focal areas in the three BCRs was one of the main topics.

Information-education, prescribed burning, and habitat management subcommittees were established to address some of the problems that were identified. Paul Brady, NRCS Biologist, spearheaded this endeavor and acted as chairman.

RESEARCH

One quail research study in cooperation with the U.S. Forest Service, and Oklahoma State University titled **The Effects of Pine-Grassland Restoration on Bobwhite Quail** is in its final year of a four-year study. Another study, in cooperation with two state supported universities has been completed. A final report is due shortly on the **Survival and Habitat Use of Pen-Reared and Wild Northern Bobwhite (*Colinus virginianus*) at the Camp Robinson Wildlife Demonstration Area.**

A new three year research study titled **Captive Rearing of Wild Quail for Restocking** will kick off this fall. The primary objective is to investigate the potential role of pen-reared F1 birds in establishing quail populations in areas supporting few or no quail.

SURVEYS

Quail call counts and brood surveys are in the process of being conducted during 2002. Data is being tabulated and reports will be forthcoming in the near future. AGFC, USFS and QU members are participation in this work.

Fred Ward

**State of Georgia
Annual Report
Southeast Quail Study Group Meeting
Waynesboro Georgia, 2002**

MANAGEMENT INITIATIVES

Bobwhite Quail Initiative (BQI)

In 1999, the Georgia Department of Natural Resources, Wildlife Resources Division (WRD) began implementation of the Bobwhite Quail Initiative (BQI). BQI is a pilot program in 17 counties across Georgia's Upper Coastal Plain. The primary goal of the program is to promote the establishment of early successional habitat, especially nesting cover and brood range, for bobwhite quail and other wildlife on private farmland.

BQI provides cooperators with technical assistance and in certain cases financial incentives for habitat establishment and maintenance. An adaptive management process has been used to make changes to the program over time so as to increase cooperator participation and facilitate full use of the funding, while maintaining or enhancing the biological benefits of BQI.

In July 2002, the following changes were made to BQI: 1) increase annual incentives for certain dry land practices from \$40 to \$60 per acre per year; 2) initiate a \$40 per acre per year maintenance payment; 3) initiate a \$15 per acre per year payment for heavy thinning of pine stands; 4) increase the conservation tillage payment from \$1 to \$15 per acre per year; and 5) increase the program cap from \$10,000 to \$15,000 per cooperator per contract period. Incentives for irrigated field borders and hedgerows remain at \$120 per acre per year, and \$5 per acre for prescribed burning in pine stands. Monitoring of quail and songbird responses to BQI habitat improvements is accomplished under contract with the University of Georgia, D.B. Warnell School for Forest Resources (UGA).

For the 2000 and 2001 contract years combined, BQI biologists provided technical assistance on more than 265,000 acres of private land. Additionally, financial incentives were provided to 83 cooperators who enrolled 195 fields and successfully established habitat according to BQI specifications on: 271 miles of field borders, hedgerows, and filterstrips; 318 acres of center pivot corners; and 622 acres of pine stands. Cooperator compliance rates for incentive practices were high with 69% achieving full compliance, 21% partial compliance, and only 10% non-compliance.

UGA monitoring of BQI farms during the fall of 2000 (first year post treatment) found that 75% of the control farms had declining quail populations while 71% of the BQI treatment farms had quail populations that either increased or remained stable. Monitoring continues to show that BQI treatment farms have increasing quail numbers while control farms continue to decline. Positive impacts were also documented relative to songbird use. Nine early succession sparrow species increased use of BQI treatment farms by more than 30%, and three of these species, LeConte's, grasshopper, and white-crowned sparrows, were only detected on post treatment farms. (Submitted by Reggie Thackston)

Private Lands Program (PLP)

The PLP, operated by WRD, continues to work with private landowners across the state by focusing on Farm Bill programs including WHIP, CRP, EQIP, and WRP. In addition, the PLP is active with the Georgia Forestry Commission in implementing the Forest Stewardship Program (FSP) and delivering management plans to individual private landowners. And finally, PLP works with corporate forest landowners throughout Georgia utilizing the Forestry for Wildlife Partnership Program (FWP) to improve wildlife habitats on industry lands.

Activities concerning Farm Bill programs centered around following developments of the 2002 Farm Bill and providing comments whenever the opportunity arose. The PLP provided comments to NRCS on the EBI for CRP and provided general support through letters to Legislators for raising the acreage caps for CRP and WRP and raising the funding caps for EQIP and WHIP. Also, PLP supported the 3rd party vendor system for providing technical assistance on USDA programs to private landowners. The PLP assisted in the development of a Small Watershed Grant Proposal and provided recommendations for aquatic and terrestrial habitat improvements. PLP hosted a Division meeting to discuss priorities for the Division concerning private lands and developed a list of habitats, by physiographic region, to serve as a guide for directing future program focus. Early succession habitats topped the priority list and the Division will pursue a Landowner Incentive Program grant to address this concern. Additionally, WHIP, under the 2002 Farm Bill, will be used to specifically focus on developing early succession habitats suitable for quail and other bird species.

The Forest Stewardship Program biologists, in the PLP, reviewed and/or wrote 291 Stewardship Management Plans covering approximately 70,000 acres. These biologists also provided management plans to 21 other private landowners addressing habitat needs on 6500 acres, with 3800 of those acres being managed for bobwhites.

The FWP recognized 5 forest industry companies as partners for this past year. Those companies represent an ownership of approximately 2.6 million acres in Georgia. Each of these companies was commended for numerous wildlife management practices including thinning, leaving shrub borders around pine plantations, and using herbicide applications and methods that promote adequate early succession habitats in newly regenerated pine stands. (Submitted by Mark Whitney)

REGULATORY CHANGES

Regulatory changes were made during the past year to allow for releasing pen-reared quail on private lands for the purpose of training pointing, flushing, or retrieving dogs. The only requirement is proof of purchase for the pen-reared quail.

RESEARCH UPDATE

Currently, there is more research being conducted on bobwhite quail in Georgia than at any one point in the past. Many of these projects are cooperative efforts involving multiple agencies and organizations.

University of Georgia – D.B. Warnell School of Forest Resources (UGA)

UGA continues to increase in number and diversity of quail research projects. Over the last 3 years we have been working in conjunction with the Georgia Dept. of Natural Resources on monitoring and research of the BQI program. Rick Hamrick just completed his M.S. looking at monitoring technique development and impacts of BQI management on quail populations.

Jason Burkhart is now writing up his project on vegetative response in BQI managed field margins, extent of Bermuda grass invasion and management, and potential effects of Bermuda grass as a heat sink and on bobwhite quail chick mobility. Patrick Cook is completing his first year of radio-telemetry work on BQI managed and control farms where he is looking at quail ecology relative to management. He managed to radio-tag >90 birds in very low-density populations this year. We are also collaborating with Ph.D. candidate Dave Butler from Liverpool John Moores University in England and Tall Timbers Research Station on Dave's very intensive quail brood ecology study. Part of this study is also looking at potential effects of bt cotton on quail chick ecology.

We are collaborating with USDA-Wildlife Services, Tall Timbers Research Station, and Auburn University on a predation management project. We are in our second field season where we are looking at the effects of meso-mammalian predator removal on quail recruitment and populations. For his thesis research, Ryan Thornton is summarizing data from 23 continuous video cameras on four sites near Albany and Thomasville. This 6 years project has two control sites and two predator removal sites, which will be crossed-over after 3 years. Senior thesis student Gretchen Turner is using the videotapes to study differences in male and female quail incubation behavior. In addition, M.S. candidate Seth Stapleton is investigating rat snake ecology relative to predator removal and quail response.

Brant Faircloth is completing the second year of his dissertation research on bobwhite genetics at Tall Timbers. He is addressing parental investment, brood parasitism, and mating system questions. Terry Valentine has started her M.S. project on localized gene flow in fragmented and intact ecosystems in South Georgia. (Submitted by Dr. John Carroll)

Auburn University - Albany Quail Project (AQP)

This summer marks the 11th consecutive nesting season in which radio-tagged quail have been monitored in SW GA by Auburn University's AQP. Our cumulative sample size now exceeds 5,000 birds and includes over 1,000 nests and 500 broods monitored. Our work over the past year has focused on predation issues, brood habitat management, factors effecting overwinter survival, whistling male ecology, and several large-scale management projects.

The predation studies are cooperative efforts that include UGA, Tall Timbers Research Station, USDA-Wildlife Services, and Mississippi State University. One is the continuing monitoring of nest predator population levels across the SE where radio-tagged birds are being monitored to correlate these indexes to reproductive success of quail. The other is a large-scale predator removal study in which we are providing one of the two replicates. Halfway through the second nesting season, the predator removal site continues to out perform the control in nesting success, survival, and broods produced. Video camera work on this replicate reveals the major nest predators as raccoons, snakes, armadillos, bobcats, and opossums. Totals are 60% mammal, 30% snake, and 10% fire ant. This study is a crossover design to last four more years.

Brood habitat studies include a long-term study of fertilization of fallow weed fields as well as a study of rotational "feed patch" planting in the woods in efforts to increase the quality and/or quantity of brood habitat. To date, both techniques show promise for improving habitat conditions and boosting populations on intensively managed areas.

Adult over winter survival has been shown to be more important to population performance than previously believed. This survival is obviously effected by winter cover and harvest levels. We are conducting experiments to evaluate the effects of drought resistant cover plantings as well as late season harvest levels on this critical parameter.

We currently have a graduate student working in his second field season on the ecology of whistling males. For two years now whistling male counts have been conducted weekly from

April-October on four separate study sites where there are large samples of radio-tagged birds being monitored and fall census of populations. These weekly counts are being correlated to nesting activity, survival, brood rearing, and fall populations. To date strong correlations have been shown with whistling activity and female nest incubation. These counts will be closely evaluated to see what they show about the ecology of whistling males and the usefulness of these counts for indicating what's going on with the nesting season or as a predictor of fall populations.

In addition to our research activities, the AQP staff is involved in several large-scale management projects on private land. This is really what our project is all about; helping landowners have more quail to hunt. These projects include renovation of existing woodland hunting plantations as well as developing quail hunting properties on a couple of agricultural dominated properties. Intensive efforts of timber thinning, hardwood control, brood range development, supplemental feeding, and predator control are improving the quail populations on these properties. Of particular interest is the intensive modification of several large farms through hedgerow and field border development, which are producing impressive results around irrigated fields.

New projects being started this year include a study of population ecology and limiting factors on a wild quail population in east central Alabama, and an experiment on the effects of irrigation on quail reproductive performance on a large property in east Georgia. (Submitted By Clay Sisson)

Kentucky Southeast Quail Study Group Update –2002

Native warm season grass drills: We planted approximately 4500 acres of NWSG with department drills this past year and another 11,000 acres of warm and cool season grasses with the District of Conservation drills. The landowners of Kentucky now have over 54 native warm season grass drills available to them across the state to get habitat on the ground. We doubled our supply two years ago through partnerships with several Quail Unlimited chapters, The Nature Conservancy, and county Conservation Districts. This past year we added a few more drills in some of our high demand areas and to replace a few older drills out there.

Kentucky Buffers for Bobwhites Bonus Program going strong: The "Buffers for Bobwhites" program continues in the Green River and Jackson Purchase regions where it is starting its fourth year, and is also entering its second year in 7 counties in the Bluegrass region. The program is sponsored by the Kentucky Department of Fish and Wildlife Resources and Kentucky Quail Unlimited in cooperation with USDA Farm Service Agency and Natural Resources Conservation Service. The program allows landowners participating in USDA's Continuous Conservation Reserve Program to take advantage of bonus payments for completing cool season and/or native warm season grass and legume plantings in filter strips, grassed waterways, or riparian buffers on CCRP acreage.

Conservation Reserve Enhancement Project (CREP): The Kentucky CREP project is underway along a 100 mile stretch of the green river which flows through 8 counties and Mammoth Cave National Park in the South central part of the state. The incentive based program will compensate landowners for restoring and protecting nearly 100,000 acres of hardwood forests, native grasses, wetlands, sinkholes, and caves. Last year had approximately 2000 acres enrolled for this past spring with 1700 of that to be native warm season grasses.

United States Fish and Wildlife Service Partners Program Agreement: The KDFWR and USFWS have signed an agreement to provide \$25,000 for use in habitat improvement projects which would facilitate the protection and recovery of riparian corridors and the reduction of non-point source pollution within watersheds harboring federally-listed species and suitable habitat for those species in Kentucky. Project proposals are being accepted and reviewed at this time and implementation will begin as soon as the ranking process is completed.

Peabody Wildlife Management Area (PWMA) Grassland Ecosystem Project: KDFWR is planning a restoration of 1,255 acres of mined lands to a continuous grassland area. Based on PWMA data for comparison of northern bobwhite covey densities before and after grassland restoration, covey densities can be expected to triple after restoration. The KDFWR just received a grant for just under \$700,000.00 for grassland development on the area and hope to get that project underway very soon.

Small Game Roundtable and Farm Field Days: The Kentucky Department of Fish and Wildlife hosted a small game roundtable this spring to discuss habitat management strategies, private and public lands programs and possibilities, hunting opportunities and impacts, etc. We had several small game experts from state agencies, university researchers and land managers in attendance to evaluate what each of us is doing for small game management in our state and brainstorm on what we can do to improve. The meeting was very productive for KDFWR staff and there were several common themes that came out in relation to putting a large-scale small

game initiative on the ground. Some of the constants included support from administration/legislature, dedicated funding, dedicated staff, contract periods, maintenance of practices, focused areas, early successes (success breeds success), research and monitoring. Many of you from the SEQSG were present at this meeting and we would like to thank you all for your participation.

The next phase for Kentucky was the initiation of nine (one in each of our commission districts) public meetings, in the form of farm field days to discuss habitat improvement practices, private lands programs, and species management with landowners and hunters. These field days are meant to give them an overview of where we have been and are currently with small game efforts in the state and to get input into possible directions for the future. By having these field days on the farms of some of our best cooperators we can show the actual practices on the ground and have testimony to their effectiveness from the landowners themselves. At the time of this year's SEQSG meeting we will have just concluded all nine of these events. We will be glad to give a summary at the meeting.

KDFWR HABITAT IMPROVEMENT PROGRAMS

Habitat Improvement Program (HIP) - This is the 15th year for the HIP in Kentucky. To date the program has provided technical guidance to 7200 landowners, writing management plans for 1,500,000 acres across the state. The 2001 fiscal year we had 545 technical guidance visits on properties totaling 70,744 acres. This year's HIP budget is on hold with possible LIP grant incentives coming to take the place of those funds tenfold. The HIP dollars may also be used as match for NRCS positions to help deliver farm bill programs. This will hopefully give us more positions to deliver farm bill programs as well as more cost share to deliver habitat improvement practices to landowners.

Forest Stewardship Program (FSP)- KDFWR remains very active in the FSP. Our cooperative efforts with the KY Division of Forestry to implement FSP have remained strong, even with the lack of Stewardship Incentives Program (SIP) cost-share money. To date we have worked with 3130 landowners with 539,451 acres through this program. The 2001 fiscal year provided 115 contacts on properties totaling 13217 acres. We are currently continue working with the Kentucky Division of Forestry to help in development of a Forest Legacy Program as well as continuing to provide input on the forestry title of the new farm bill.

Quail and Rabbit Roadside Survey- This year's roadside survey numbers have not been tabulated yet. The survey was conducted the last week of July and with the small game field days and the coinciding workload the numbers have not been worked up. We will be glad to send the information out to all SEQSG members.

Quail Hunter Cooperator Hunting Log Survey- Abstract: Data were gathered on Kentucky quail harvest and quail hunter effort utilizing a diary type hunting log kept by volunteer quail hunters. Forty-five (45) hunters participated in the survey, averaging 14.6 hunting trips, each being 3.6 hours in length. Data were provided from 655 hunts in 50 counties. Hunting effort greatest during weeks 4, 7 and 10 of the season. Week 4 is a traditional peak, immediately following the close of modern gun deer season. Week 10 represents the Christmas and new years holiday period. Hunting pressure was very stable over the course of the season this past year. Flush rates averaged 0.48 coveys/hr of hunting (1.7 hr/covey) for the season. The hunters

averaged harvesting 2.9 birds/trip with average bag rates of 0.79 birds/hr for the season. These rates represent a 2.0% decrease for covey finds and a decrease of 2.5% for birds bagged from the 2000-01 season.

Comparisons of current, all time high, all time low and long-term average quail and rabbit population indices. (# Observed/100 miles 2001 quail and rabbit roadside survey.)

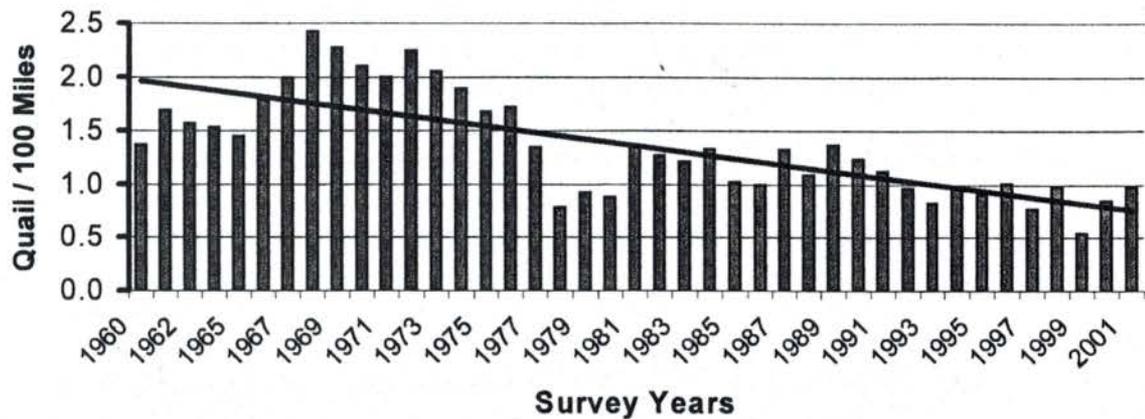
	Current	All Time Low	All Time High	%Below All Time High	Long Term Average
Quail	0.97	0.54 (1999)	2.43 (1968)	-60.1 %	1.36

Comparison of total quail/100 miles observed by rural mail carriers.(2001 Quail and rabbit roadside survey.)

WEATHER	TOTAL QUAIL/100 MILES			PERCENT CHANGE	
	MEAN			MEAN	
DIVISION	1960-2001*	2000	2001	2001/1960-2001	2000/2001
Western	2.52	1.35	1.61	-36.1	+19.3
Central	1.36	1.00	0.97	-28.7	-3.0
Bluegrass	0.87	0.77	0.85	-2.3	+10.4
Eastern	0.64	0.52	0.36	-43.8	-8.3
Statewide	1.36	0.85	0.97	-28.7	+14.1

*No data available for 1964.

**Bobwhite Quail Trends In KY
1960 -2001**



Louisiana

Status

Long term bobwhite abundance trends are monitored by a statewide call count survey. The survey is conducted during a 3-week period in October-November. The state is divided into 5 habitat types encompassing the historic bobwhite range.

In 2001, fall whistling surveys were conducted along 42 routes in 5 habitat types. There were 6 assumed zero routes. The Southeast Loblolly and Northwest Loblolly-Shortleaf-Hardwood Regions had the highest call per stop value, followed by the, the Longleaf Region, the Acadiana Rice Belt, and the Mississippi/Atchafalaya River Agricultural Belt. Changes from 2000 were not significant ($P \geq 0.10$). Data are summarized in Table 1.

Table 1. Statewide fall bobwhite whistling survey results, 2001.

Habitat Type	Calls Per Stop 2001	Calls Per Stop 2000	Change From 2000	Long-Term Mean Calls per Stop 1983-2000
SE Loblolly	0.09	0.09	0	0.24
NW Loblolly-Shortleaf-Hardwood	0.09	0.07	+28.5% (NS)	0.13
Longleaf	0.05	0.06	-16.7% (NS)	0.16
Acadiana Rice Belt	0.04	0.05	-20.0% (NS)	0.11
Miss./Atchaf. R. Agricultural Belt	0.03	0.02	+50.0% (NS)	0.05

S = Significant ($P \leq 0.10$)

NS = Not Significant ($P \geq 0.10$)

The 2001 regional indices (calls per stop) remain below the long-term averages. The number of routes in which no quail were heard was the second highest recorded. This year no quail were heard on 18 routes, including those assumed to be zero. The previous high number of routes on which no quail were heard was 20 routes in 2000. Although the index for the SE Loblolly Region is the highest of the 5 habitat types, the value this year is unchanged from 2000 and is the lowest recorded for this region since the inception of the survey. The 2001 index for the Longleaf Region, ties the 1999 index for the lowest index recorded for this region.

In addition to the 42 random routes, fall bobwhite whistling surveys were conducted on 4 Wildlife Management Areas (WMA) and a portion of the Kisatchie National Forest. The highest indices were recorded from Jackson-Bienville WMA and Ft. Polk WMA (Table 2).

Table 2. Results of fall bobwhite whistling surveys on selected Wildlife Management Areas (WMA) and the Vernon Unit, Calcasieu Ranger District, Kisatchie National Forest, 2001.

Route	Calls per stop 2001	Calls per stop 2000	Long-term mean Calls per stop*
Camp Beauregard WMA	0.05	0.15	0.05
Ft. Polk WMA	0.20	0.15	0.29
Georgia-Pacific WMA	0.10	0.05	0.11
Jackson-Bienville WMA	0.45	0.40	0.40
Vernon Unit #1	0.06	0.12	0.18
Vernon Unit #2	0.05	0.05	0.16

*Baseline years vary by route and do not include current year: Camp Beauregard WMA 1986-2000; Ft. Polk WMA 1983-2000; Georgia Pacific WMA 1991-2000; Jackson-Bienville WMA 1990-2000; Vernon Units #1 and #2 1991-2000

Conditions for quail production during the summer of 2001 were much improved over 2000 and were generally good across the state. Despite improved weather conditions, the survey did not detect significant increases in the number of coveys located. However, the survey cannot detect changes in covey size, so improved production may have occurred and resulted in larger coveys, if not more coveys. It is important to note that this survey is designed to track long-term changes in abundance, and its ability to detect making year to year differences is very limited.

In most years, the majority of the hatches in Louisiana occur from mid-July through August. Fall populations seem to be highest when a large proportion of the hatches occur after the first week of August. Weather conditions during this period and the preceding few weeks can greatly influence productivity. Quail production is usually best in years when summer rainfall is above normal and temperatures are below normal. High temperatures and drought are thought to negatively impact insect production, which in turn can affect hen condition and chick survival. Unusually hot and dry conditions may also act to desiccate eggs or cause premature embryonic development. Hot and dry conditions may also reduce cover and make nests and broods more susceptible to predation.

Adverse weather and habitat deterioration have reduced bobwhite quail abundance over the last 20 years. Year to year fluctuations are due largely to weather conditions. However, deteriorating habitat conditions are thought to be responsible for the long-term decline. During 1983-92, the number of routes on which no quail were heard ranged from 4 – 14 per year, and averaged 8.0 routes per year. Since 1993, the number of routes on which quail were not heard ranged from 8-20 per year, and averaged 12.4 routes per year. Comparison of the 2001 indices with the long-term (1983-2000) means in Table 1 further illustrates the decline in bobwhite quail.

While the fact that bobwhite quail abundance has declined considerably over the last 20 years is not disputed, the degree of the decline may be less certain. In some cases this survey may underestimate the number of coveys, and thus overstate the rate of decline. The fall survey was established nearly 20 years ago along lightly used secondary roads. Many of the routes left public roads and traversed unposted industrial forestland. However, there is now considerable development along many of these secondary roads. Much of the development is limited to lots along the roads, and is not necessarily representative of the habitat across the landscape. Additionally, most of the industrial forestland is now posted and gated. Consequently, some routes have been altered and now follow public roads.

Monitoring of bobwhite populations is an important component of management. However, consideration of additional or alternative monitoring strategies may be warranted. Improvement in long-term monitoring may be obtained by periodic re-randomization or rerouting of routes no longer representative of the habitat. Measurement of short-term population variation may be better accomplished by more intensive monitoring on WMAs and other areas of good habitat. An effort will be made in 2002 to determine which routes may no longer be representative of the habitat. Changes in monitoring methods can then be considered.

Quail Management Initiatives

The Louisiana Department of Wildlife and Fisheries and the Louisiana Army National Guard are cooperating to improve bobwhite habitat on Camp Beauregard, a 13,000 acre base and Wildlife Management Area in central Louisiana. A bobwhite management plan has been written and the initial habitat development phases have begun. Bobwhite management plans will also be written for 2 other Louisiana Army National Guard bases.

Private Lands Program

Louisiana's private land program is directed at providing technical assistance to landowners and working through the state technical committee to affect delivery of federal farm programs.

Research

The Louisiana Department of Wildlife and Fisheries has contracted with Dr. Michael Chamberlain of the LSU School of Renewable Natural Resources to examine bobwhite responses to use of selective herbicides for habitat enhancement. This 3-year project has the following objectives:

- Determine fall and spring bobwhite population size on Jackson-Bienville WMA, including covey density and distribution.
- Examine habitat use for nesting and brood-rearing in relation to herbicide application and landscape configuration.
- Estimate habitat and landscape specific nest success and relationships between vegetation structure and nest success.
- Determine relationships between vegetation structure and nest success.

- Examine stand-level effects of herbicide application on invertebrate abundance and vegetation structure, and assess relationships between these variables and brood movement and chick foraging behavior.
- Estimate habitat-specific survival and cause-specific mortality of adult bobwhites.

Field work began in March 2002. Bobwhite trapping success during spring and early summer was limited with about 20 bobwhites being radioed. Trapping will resume in in late summer and fall. Chick foraging experiments with human-imprinted bobwhite chicks have been conducted in various habitat treatments.

Missouri's Quail Highlights: 2000-2002

Quail Population & Hunting Status

- ◆ Missouri's statewide quail roadside index (1983 to present) reached a record low in 2001 with 3.5 quail per 30-mile route
- ◆ Two of the past 3 hunting seasons have produced record-breaking low hunting activity. Preliminary analysis of the 2001-02 hunting season indicates that about 43,000 resident permit holders harvested about 400,000 quail. The number of resident permit holders that hunt quail is 63% below the long-term (1967-2000) average.

Quail Management Initiatives

- ◆ MDC's attempt to update its 1985 statewide quail management plan generated considerable debate about the role of game species' management plans in a modern-day agency. Further, the role of a *statewide* plan in the context of MDC's new regional power structure generated debate. The result is a forthcoming document, *Strategic guidance for bobwhite quail recovery*. The existence of the NBCI had considerable bearing on MDC's decision to continue planned quail restoration.
- ◆ MDC is in the 4th year of the Northeast Missouri Open Lands Initiative (NEMO OLI), a large scale habitat restoration effort. Quail, rabbits and select grassland songbirds are the targets of NEMO OLI. After 3-5 years of operation the efficacy and budget worthiness of this program are being questioned. Major factors leading to the potential demise of NEMO OLI include lack of interest by landowners in the programs MDC is offering, lack of educational and marketing programs, and lack of focused leadership by MDC. Because this is the first of 6 such large scale restoration efforts planned around the state (called for in the draft Strategic Guidance for Bobwhite Recovery), thorough evaluation is planned to guide future initiatives.
- ◆ The Missouri Quail Habitat Initiative, a program created and funded by QU Regional Director Jef Hodges and Missouri QU chapters continues. MDC matches QU expenditures on a 1:1 basis; total expenditure/commitment to date is \$303,600.
- ◆ Educational programs targeting youth and adults continue. Youth-oriented quail initiatives include the MO Quail Academy, which this year hosted 45 students, and guided training hunts. Similarly, a guided training hunt was held for inexperienced adults under MDC's *Hands on Outdoor Training* program.
- ◆ Another major educational product is the video *Managing CRP Lands for Wildlife*, with quail as the focus.

Private Land Program

- ◆ The Private Land Services Division (PLS) completed its second full year of service to Missouri's private landowners in July 2002. The staff of 83 is divided among numerous categories:

- Thirty-nine biologists deliver technical and financial assistance through the Landowner Assistance Program. Thirty-one of the biologists are co-located in NRCS offices and each works in a 2-4 county area to provide one-on-one assistance. The PLS Division has administrative and fiscal responsibility for the financial end of the Landowner Assistance Program with implementation at the field level being the responsibility of all divisions. Approximately \$816,085 in cost-share was distributed to nearly 800 landowners that completed habitat management practices in FY02. In addition, PLS Division staff made 6,330 private landowner site visits in the same period. Conservation planning assistance was provided to private landowners on approximately 250,412 acres of upland habitat.
- Ten biologists are co-located in NRCS state and area offices to help NRCS deliver wildlife planning assistance. Since 1992, Wetland Biologists have partnered with NRCS to restore 84,768 acres of wetland on 553 sites in 58 Missouri counties. Biologists helped NRCS with 156,688 acres of upland wildlife habitat management in FY01 as well.
- MDC continues a cooperative agreement with NRCS to staff 10 Soil Conservationist positions to address biological concerns in USDA programs. Six of the positions focus on forestry and 4 focus on wildlife. The positions will be full-time, permanent NRCS employees housed in NRCS offices in geographies of key MDC interest. In addition, 1 biologist serves as a Watershed Biologist in the NRCS state office.
- Two biologists focus on grassland and prairie habitats and the management of early successional vegetation. One popular accomplishment during FY2001 involved marketing of prairie habitats through the Lek Trek, a 565-mile walk among prairies in western Missouri. The Trek included 16 community events with approximately 7,500 participants, and an estimated 1.5 million media contacts. Additional activities include production of the Native Warm-Season Grass Newsletter, prescribed fire training and grazing workshops
- One biologist is a full-time Agricultural Liaison.
- One biologist coordinates agricultural education with emphasis on FFA, Boy Scouts, 4-H and vocational agriculture education instructors.
- Five biologists provide wildlife damage control service.
- ◆ Grants & Partnerships: Accomplishments related to conservation partnerships include matching Quail Unlimited (local chapters) on a 1:1 basis for a total of \$303,600 to implement the Missouri Quail Habitat Initiative (QU) over a three-year period. In addition, \$112,805 was received from the National Wild Turkey Federation for habitat implementation and equipment purchase. Two NFWF grants were obtained totaling \$250,000 to address habitat improvements for grassland wildlife and greater prairie chicken management in grassland focus area in

Southwestern and West Central Missouri.

Research

- ◆ Work continues on evaluation of the suitability for quail of vegetation in Conservation Reserve Program fields and evaluation of population trends in Open Lands Initiative areas in northeast Missouri.
- ◆ Work continues on the accuracy of fall covey whistle count technique. Ted Seiler's Master's degree research revealed that the 60-acre cell size produces considerable counting error. This fall we will experiment with the accuracy of listener's in 3 cell sizes: 60, 45 and 30 acres. We also continue to measure whistling by radiotagged quail to improve our ability to predict whistling rates using weather variables and quail "density." For further information see <http://quailcount.pfca.net>.
- ◆ Measurement of survival and production on intensively managed MDC areas revealed rates similar to those we documented on fair-to-poor private lands in northeast Missouri in the early 1990s (Burger et al.). May-September survival was 0.31 (0.33, Burger et al.), with 19-22% of radiotagged quail apparently killed by mammals and raptors. Overall nest survival was 53.5% (43%, Burger et al.). Nesting rate was 37% and nest success rate was 18%. Extensive analysis using FRAGSTATS will be completed this year.
- ◆ We are nearing the end of 3 years of field work on the study of the effect of herbaceous crop field borders on arthropods and corn and soybean production. Preliminary analysis indicates that borders did not reduce corn and soybean production. For further information see <http://www.cafnr.missouri.edu/borders/index.html>.

Prepared by Thomas V. Dailey, Ph.D.
Wildlife Research Biologist
Missouri Department of Conservation
August 2002

**MISSISSIPPI DEPARTMENT OF WILDLIFE, FISHERIES & PARKS
BOBWHITE QUAIL PROGRAM**

EXECUTIVE SUMMARY (July 1, 2001 - June 30, 2002)

By Dave Godwin

Program Objectives:

1. To improve quail populations on private and public lands.
2. To supplement Wildlife Management Area budgets to manipulate habitats to favor quail.
3. To provide funds and assistance for research to address problems and limiting factors affecting quail populations.
4. To educate landowners, user groups, and other concerned parties on quail management and basic ecology.

Status:

1. Technical assistance on quail management was provided to private landowners in each region of the State.
2. Technical assistance on quail management was provided to public land managers (e.g., U.S. Forest Service, Corps of Engineers, and MDWFP Wildlife Management Area personnel).
3. Program provided additional funds to conduct quail habitat management on numerous Mississippi Wildlife Management Areas, including Marion County WMA, Black Prairie WMA, Leaf River WMA, Hell Creek WMA, and Red Creek WMA.
4. Cooperated with Quail Unlimited and NRCS to implement the "Mississippi Bobwhite Bonus Program". This is a pilot program, available in 2 North Mississippi Counties (Marshall and DeSoto), which provides cost-share payments to private landowners implementing quail habitat management practices.
5. Cooperated with Mississippi State University to fund and implement the following wildlife research projects:
 - A. Evaluate bobwhite quail management on Black Prairie WMA.
 - B. Response of cottontail rabbits to bobwhite quail habitat management.
 - C. Effects of field border practices on bobwhite populations.
 - D. Cooperative small game and habitat development on multiple-use lands.
 - E. Response of mammalian predators to quail habitat management.
6. Conducted 13 public presentations (e.g., Quail Unlimited Chapter meetings, local television shows, county wildlife dinners, etc.) on quail management.
7. Cooperated with Extension Service to develop "The Life and Times of Bobwhite Quail in Mississippi", a mobile classroom for use in 3rd and 4th grade classrooms across the State.
8. Cooperated with Extension Service to administer Mississippi 4-H Quail and Small Game Youth Project Grant Program. Youth develop quail and small game management plans for their private land, and are given funds and guidance to implement the plan. Projects are evaluated and ranked, with finalists giving oral presentations on their projects at a statewide contest. Top ranking finalists are awarded scholarship prizes.

9. Provided technical assistance to federal agencies (e.g, NRCS, FSA, etc.) in the implementation of federal Farm Bill Programs (e.g., WHIP, CRP, EQIP, WRP, etc.) at the local, county and state levels, including serving on NRCS State Technical Committee.
10. Implemented quail monitoring programs: in addition to data from the mail hunter survey, quail populations are monitored in Mississippi using 2 means: a volunteer quail hunter survey, and summer and fall call counts conducted on managed tracts across the state.
11. Cooperated with Mississippi State University, Quail Unlimited and Extension Service to hold a regional Quail Management Shortcourse in Holly Springs, MS.
12. Cooperated with Extension Service to write, publish and distribute quail management information in booklets and video.

**2002 SOUTHEAST QUAIL STUDY GROUP
STATE REPORT
NORTH CAROLINA**

1. Status

Northern bobwhite quail (*Colinus virginianus*) populations have declined drastically throughout the southeastern United States during the last several decades. North Carolina's quail population has followed this same downward trend. Quail were once an abundant byproduct of rural landscapes and a mainstay for North Carolina's small game hunters. Large-scale changes in both land use and farming practices, with the resultant loss and/or degradation of habitat, have been major contributing factors. Urban sprawl and fragmentation of remaining habitats have further exacerbated an already dire situation for quail by increasing their susceptibility to predation and other limiting factors. While there have been minor annual fluctuations in trend indicators in North Carolina, the overall trend in quail abundance indicators continues downward.

2. Quail Management Initiatives

North Carolina has initiated a pilot program called the Cooperative Upland habitat Restoration and Enhancement (CURE) Program on 3 private land areas each encompassing 5,000 acres. Additionally, areas ranging in size from 3,000 to 5,000 acres are being developed into early succession habitat on South Mountains, Caswell, Sandhills, and Suggs Millpond Game Lands. Private land areas are relying upon farming systems to provide a majority of early succession habitat, while Game Lands areas will depend upon forest management to create early succession habitat. Monitoring activities on private and public lands include: Spring bobwhite call counts, fall bobwhite covey counts, spring songbird point counts, winter songbird transects, winter and summer vegetation monitoring, and photoplots. We are currently developing regulations to address quail hunting and dog training on these intensively managed areas.

COOPERATIVE	PRESCRIBED BURNING	CROPFIELD RENTAL
Benthall Plantation	250	308.5
Turnersburg	45	471
Rowland	140	206

3. Private Lands Programs

The Cooperative Upland habitat Restoration and Enhancement (CURE) program, a private lands habitat initiative, is working with landowners in three regions of the state to implement habitat improvements on a landscape scale to benefit early succession wildlife. Memoranda of understanding have been signed with 45 landowners (Table 1). Twenty-eight management plans have been written (Table 2). Habitat improvements implemented by landowners, contractors, or agency personnel, continue to be implemented (Table 3). Baseline surveys of breeding birds and bobwhite quail have been completed and summer vegetation surveys and photoplots are

scheduled. Outreach efforts which include presentations, articles, posters, and field visits are being directed toward landowners, agencies, and resource managers.

Table 1. Summary of signed Landowner memorandums of understanding.

COOPERATIVE	LANDOWNERS	ACRES
Benthall Plantation	8	6,240
Turnersburg	27	5,962
Rowland	11	5,300

Table 2. Summary of draft CURE management plans submitted for review.

COOP	DRAFT PLANS	ACRES	ACRES PLANNED FOR TREATMENT	PERCENT OF LAND PLANNED FOR TREATMENT	FUNDS OBLIGATED FOR 2002*
Benthall Plant.	8	6240.4	777	12.5	\$65,197.00
Turnersburg	13	2646.5	606	22.9	\$22,972.19
Rowland	7	3,959.3	225.4	5.7	\$12,425.91

* Funds from NRCS programs, local QU Chapters, and National Fish and Wildlife Foundation are not included.

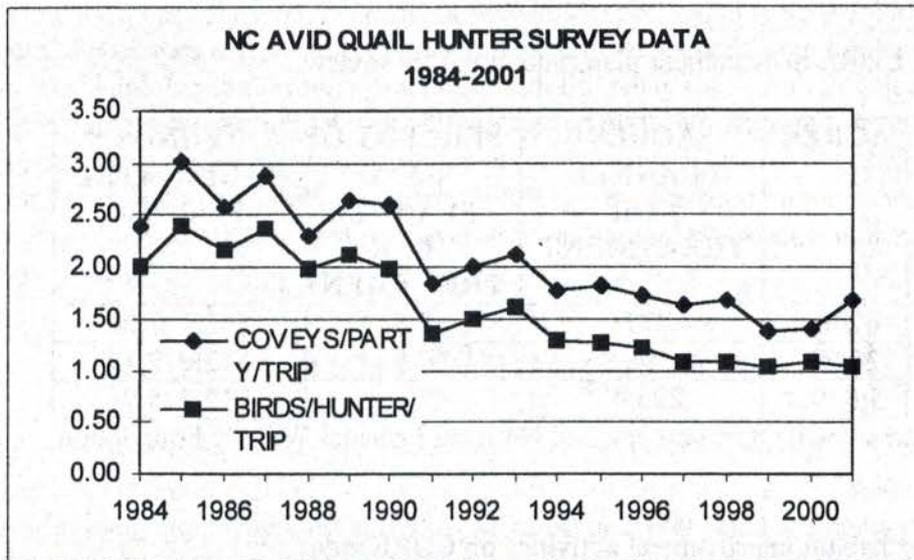
Table 3. Summary of major habitat improvement activities on CURE areas.

COOPERATIVE	PRESCRIBED BURNING (acres)	CROPFIELD RENTAL (acres)
Benthall Plantation	250	308.5
Turnersburg	45	471
Rowland	140	206

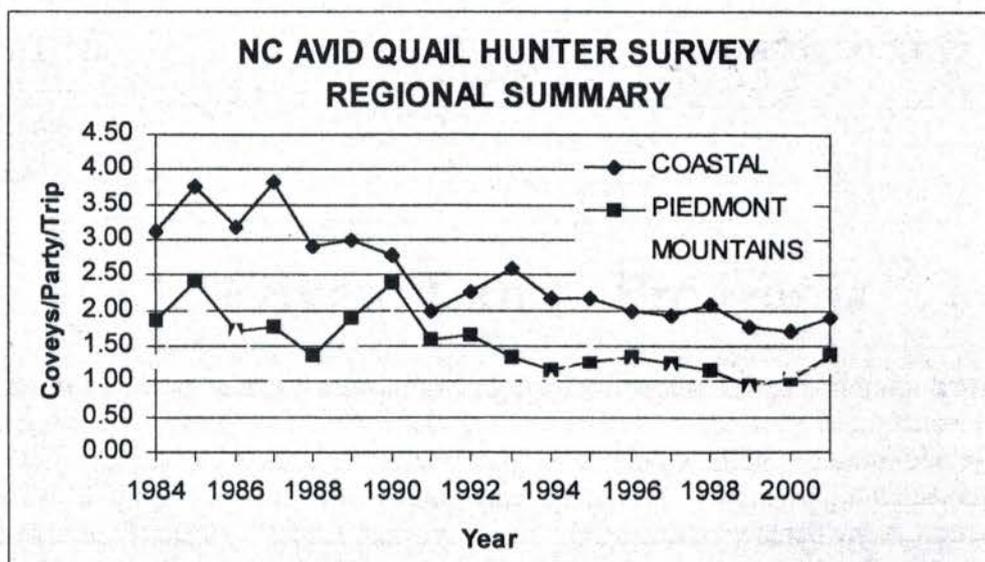
4. Research and Surveys

Avid Quail Hunter Survey

A total of 96 avid quail hunters reported on 1,478 hunts during the 2001-2002 season in North Carolina. Although the long-term trend has been significantly downward, the average flush rate statewide increased 19.9% to 1.69 coveys/party trip while the average harvest rate declined by 4.6% to 1.03 quail bagged/hunter trip compared to the 2000-2001 season.



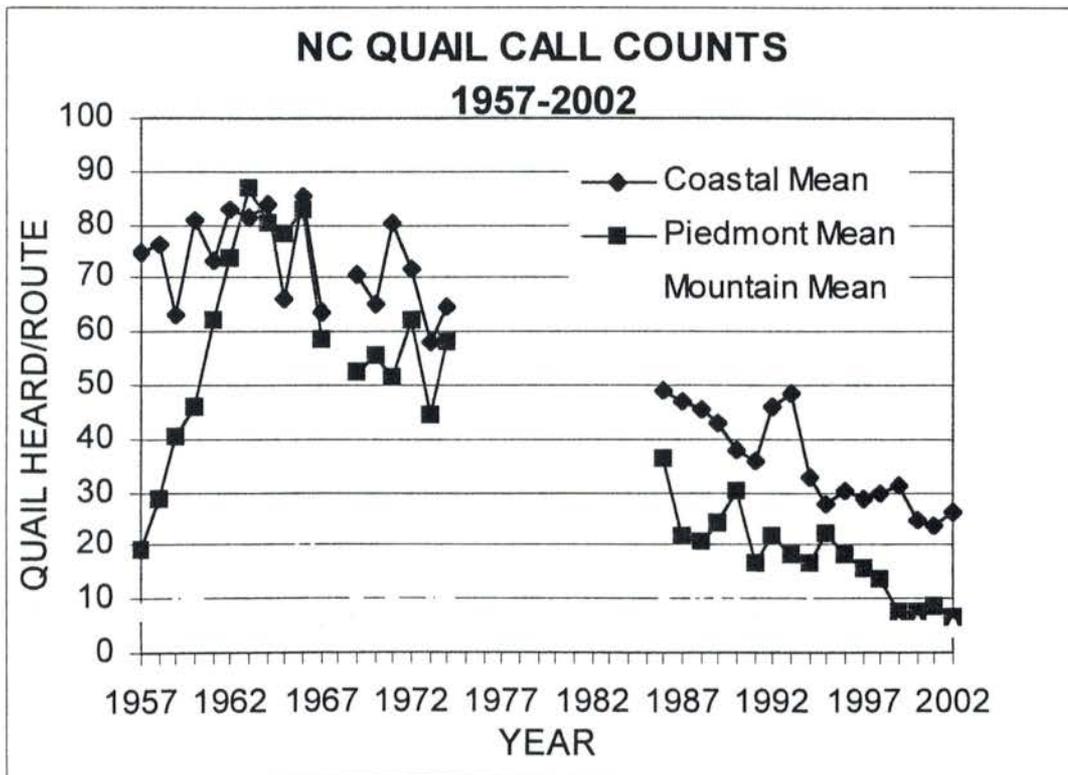
The average flush rate increased in all three geographical regions. The average flush rate in the Coastal Plain was 1.90 coveys/party trip (+12%), the average flush rate in the Piedmont was 1.37 coveys/party trip (+32%), and the average flush rate in the Mountains was 1.17 coveys/party trip (+4%).



Bobwhite Quail Call Count Survey

Quail call count surveys have been used to monitor quail abundance and population trends in North Carolina since 1957. Originally, seventeen (17) routes were established; five (5) routes in the Coastal Region, eight (8) routes in the Piedmont Region, and four (4) routes in the Mountain Region. In 1986, one (1) additional route was established in the Coastal Region. In 1990, nine (9) more routes were established; four (4) in the Coastal Region, two (2) in the Piedmont Region, and three (3) in the Mountain Region. In 1992, one (1) additional route was established in the Piedmont Region bringing the total routes being surveyed to twenty-eight (28). Survey protocol calls for routes to be dropped if no quail are heard for two (2) consecutive years. Between 1992 and 2002, three (3) routes were dropped; one each in 1992, 2001, and 2002 – all three in the Mountain Region. Routes were not surveyed in 1968 and from 1975 through 1985.

In 2002, twenty-five (25) routes were surveyed; ten (10) routes in the Coastal Region, eleven (11) routes in the Piedmont Region, and four (4) routes in the Mountain Region. In the Coastal Region, the average number of quail heard per route (26.1) was up 9.2% over the previous year. In the Piedmont Region, the average number of quail heard per route (6.64) was down 24.7% from the previous year. In the Mountain Region, the average number of quail heard per route (4.5) was down 10% from the previous year. The graph below shows the results of the quail call count surveys by geographical region from 1957 through 2002.



OKLAHOMA

Status--Despite continued loss of habitat and fragmentation of the landscape, Oklahoma's recent quail woes appear to be primarily the consequence of weather patterns. Drought has been inflicted over much of the state during the past 5-years restricting herbaceous cover and food production. Additionally, the winter of 2000-2001 was especially hard on quail, with extended periods of snow/ice coverage. The compilation of habitat loss, habitat degradation and the harsh winter culminated in the lowest fall quail index ever documented in Oklahoma. Roadside surveys during the fall of 2001 were down 71% from the previous 11-year average.

Unseasonably warm and dry weather conditions during quail season added to the frustration of our quail hunters. Estimated quail harvest was the lowest ever recorded with only 354,452 quail harvested during the 2001-2002 season. In response to the frustration of our quail hunters the ODWC held public hearings (9) to discuss alterations to the quail season dates. Nine hearings were conducted throughout the state resulting in over 100 different season suggestions. Under recommendation from the ODWC the Wildlife Commission voted to moved back the quail season dates (second Saturday in November through the 15th of February) to provide reprieve from the warm weather experienced during the early portion of the hunting season.

Quail Initiatives--In light of recent quail population trends the ODWC formed a committee of wildlife and range professionals, representing various entities throughout the state, to identify problems facing the plight of Oklahoma's quail population and their potential solutions. A series of activities aimed at the conservation and restoration of quail habitat was developed based largely on education and cost-share incentives.

Two separate issues were brought before Oklahoma's Legislature during the last session in an effort to generate funds for quail education and landowner initiatives. The Oklahoma Quail Initiative, modeled after Georgia's Bobwhite Quail Initiative, was introduced before the Legislative Wildlife Committees but was never formally introduced as a bill. A "Game Bird Stamp" bill was submitted before the Legislature but failed to pass amidst concerns from waterfowl and turkey hunters.

As a follow-up to the quail season hearings ODWC conducted regional meetings (9) to discuss the Northern Bobwhite Quail Initiative, the Oklahoma Quail Initiative and myths regarding the decline of quail. Despite aggressive publicity regarding the regional meetings attendance was low with just 107 individuals in attendance, 179 less than the turnout to the hunting season hearings. Additional to the regional meetings, ODWC personnel participated in 9 field days and 16 presentations specific to the educational efforts identified by the committee.

Private Lands Program--During the past year, ODWC biologists have worked with the Natural Resources Conservation Service (NRCS) on Farm Bill programs and served on the state technical committee. ODWC biologists in conjunction with NRCS personnel ranked 575 applications on 280,507 acres during the 2002 enrollment period for the Wildlife Habitat Incentive Program (WHIP). Funds that were requested during the 2002 WHIP signup exceeded \$4.4 million.

During the 2002 fiscal year (fy) ODWC spent \$80,000 in private lands cost-share and has committed to spending \$175,000 during the 2003 fy. Funds administered by the ODWC's cost-share program are specific to quail, deer, turkey, waterfowl and pheasant.

ODWC initiated a newsletter entitled "Your Side of the Fence" and continued the production of the "Habitat Management Calendar" for private landowners/managers. During the 2001 fy ODWC biologists provided technical assistance visits to some 199 landowners on 422,000 acres.

Research--Data collection for the Packsaddle Quail research project was completed June 30, 2002. Data analysis is being conducted by Fred Guthery and Jeff Lusk of Oklahoma State University and is scheduled for completion in June of 2004. OSU researcher Sam Fuhlendorf is spearheading a GIS research project exploring quail population changes in relation to habitat change and fragmentation in eastern Oklahoma. The GIS project is schedule for completion in January of 2005.

Mike Sams, Upland Game Biologist, Oklahoma Department of Wildlife Conservation

SOUTHEAST QUAIL STUDY GROUP
SOUTH CAROLINA UPDATE
August 2002

STATUS: South Carolina's quail population has declined dramatically over the past 35 years as a result of large-scale changes in land use and the resultant habitat loss or degradation. Between 1952 and 1999, pine plantation acreage in South Carolina increased from approximately 200,000 acres to approximately 2,400,000 acres. Urban sprawl and changes in farming practices have also reduced habitat availability and suitability. USFWS Breeding Bird Survey results indicate an approximate decline of 4.5% annually in bobwhite quail abundance in South Carolina from 1966-1999. Combined with decreased habitat availability and quality, sustained drought since 1998 has negatively impacted reproduction and survival, resulting in decreased populations and decreased hunter success across most of the state. Slightly improved weather conditions during the 2001 nesting season resulted in improved hunter success during the 2001-02 quail season.

Efforts are underway to establish a Grassland Birds Initiative to achieve greater private land participation in the establishment, enhancement and maintenance of early succession habitat. Bobwhite quail habitat and population goals from the Northern Bobwhite Conservation Initiative are being incorporated into state planning efforts, as well as regional bird conservation efforts such as the South Atlantic Migratory Bird Initiative (SAMBI).

HABITAT IMPROVEMENT: SCDNR offers small game management technical assistance to private landowners through the Small Game Project. Twenty-four management plans were written by Project staff during the past year, covering over 16,000 acres. Select properties in the Wildlife Management Area (WMA) program are intensively managed for quail. Habitat enhancement for quail on WMA's consists of the standard practices of annual plantings, prescribed burning, strip disking, timber thinning, and creation of forest openings. Establishment of native grasses has been attempted on several areas with limited success. Herbicide application for the control of invasive sod-forming grasses and understory hardwoods is being implemented on several areas.

SEASONS AND BAG LIMITS: Quail season in South Carolina runs from Thanksgiving Day to March 1 in the majority of the state, with some game zones having slightly longer seasons. Bag limits range from 10 to 15 birds per day throughout the state.

SURVEYS

Bobwhite Quail Whistling Cock Survey - This survey has been conducted for the past 24 years, producing reliable trend data which parallels field observations and the USFWS Breeding Bird Survey. Sixty-nine permanent routes are established statewide, and survey routes (5.5 miles) are conducted on consecutive mornings or afternoons between June 15 and July 10. For the past two years, experimental whistling cock call counts have been conducted between May 17 and June 8 on selected routes to in an attempt to determine if the peak whistling period for male bobwhites in South Carolina is within the June 15-July 10 period as stated by Rosene. Comparison of results between routes conducted during the experimental period and the traditional period during the summer of 2001 indicated no difference in average number of calling males between the two periods.

Quail Brood Sighting Survey- A sighting survey for quail broods is conducted in conjunction with an annual Turkey Brood Sighting Survey. All quail observed by field personnel from July 01 to August 23 are recorded. From these sightings, an annual index of productivity (juveniles/adult) is calculated. The 2002 brood sighting survey is currently underway and results will be available to interested parties in the fall of 2002.

Quail Hunter Survey- Quail hunters are contacted prior to the season and provided with a hunting diary, data sheet, wing tags, and return envelopes. Hunters are asked to provide up to 10 wings for calculating a productivity index (juveniles/adult). Hunters are asked to provide information on hunt locations, hours hunted, flush rates and harvest rates. The coveys per hour index increased from 0.58 coveys per hour in 2000-01 to 0.62 coveys per hour in 2001-02; likewise, quail bagged per hour increased slightly from 0.55 birds per hour in 2000-01 to 0.56 birds per hour in 2001-02.

Fall Covey Counts- Fall covey counts were conducted on 4 WMA's during October, 2001. Quail densities were estimated at 1 covey/25-50 acres on three of the four areas. Preliminary fall covey counts in South Carolina indicated the following: (1) Inexperienced observers could be easily trained to utilize the technique; (2) Average time of first call was 35 minutes before official sunrise; (3) Active calling by coveys ceases after approximately 10 minutes; (4) Playback of recorded covey calls failed to elicit response outside of the peak calling period. Fall covey counts will again be conducted on select WMA's during 2002.

Hunter Effort and Harvest Survey- In 2000, SCDNR completed a multi-species Hunter Effort and Harvest Survey through Responsive Management. Results of this telephone survey indicate that during the 1999-2000 quail season, approximately 11,075 quail hunters spent 73,392 days afield and bagged 97,582 quail.

AGRICULTURAL LIAISON ACTIVITIES

SC DNR staff continue to work with NRCS and other USDA agencies to incorporate quail-friendly practices into farm conservation plans. Discussions have been held with NRCS regarding establishment of an initiative to integrate quail habitat enhancement into grazing and pasture systems. Additionally, SC's allocation of WHIP funding has been refocused on bobwhite habitat restoration.

TEXAS STATE PROGRESS REPORT

Over the past year there has been growing attention given to quail declines in Texas. The state wildlife agency, Texas Parks and Wildlife Department (TPWD) has taken the lead in developing a 'step down' plan of the Northern Bobwhite Conservation Initiative (NBCI). The Texas plan will be presented to the commission in November.

UPDATES TO EXISTING PROJECTS:

About a two years ago Matt Wagner (TPWD), Fred Smeins and Steve Whisenant (TAMU) began working on a project aimed at determining the most efficient and cost effective method to reduce bermudagrass turf and re-establish native vegetation in the Post Oak Savannah ecological region of Texas. They named their project Pastures for Upland Birds (PUB) and have had some success in restoring native grasses on private lands, thanks to the generous donations from Dow (herbicide), NWTf (seed), and Texas QU chapters (seed drill).

The first year of a research project measuring the impact of invasive exotic grasses [Buffelgrass (*Pennisetum ciliare*) and Lehmann lovegrass (*Eragrostis lehmanniana*)] on South Texas bird communities has been completed. Preliminary results indicate lower species diversity on sights dominated by exotic grasses.

RECENTLY FUNDED PROJECTS:

Fidel Hernandez (TAMUK), Leonard Brennen (CKWRI), Nova Silvy (TAMU), Robert Perez (TPWD), and Steve DeMaso (TPWD) are preparing to initiate a research project entitled 'An Evaluation of Discing to Increase Usable Space and Population Density of Northern Bobwhite'.

The goal is to evaluate the efficacy of discing to increase bobwhite populations within the context of useable space. Specific objectives are to:

1. determine the optimum time to disc by documenting the vegetation and invertebrate response to discing at various times of the year (i.e, Sep-Mar);
2. compare bobwhite density and productivity between disced and nondisced sites;
and
3. test the bobwhite-habitat interface theory by evaluating the impacts that discing has on amount of usable space and correlate these changes with bobwhite density

A pilot quail translocation study was incorporated into this year's Operational Plan to be conducted by field staff. The objective of this study is to determine the feasibility of trapping and translocating wild bobwhites to islands of restored habitat of various sizes. There is some speculation as to the minimum area needed to maintain viable bobwhite population.

POPULATION STATUS

Statewide surveys were initiated in 1976 to monitor quail populations. This index uses randomly selected, 20-mile roadside survey lines to determine annual quail population trends by ecological region. This trend information helps determine relative quail populations among the regions of Texas. Comparisons can be made between the mean (average) number of quail observed per route this year and the long term mean (LTM) for quail seen within an ecological region.

The quail survey was not designed to predict relative abundance for any area smaller than the ecological region.

At the time this document was written the roadside survey were not completed. However, based on field observations the southern Rolling Plains looks like it will be above average this season, especially around the Shackelford County area. South Texas was experiencing serious drought conditions for most of the summer and the birds did not actively call and pair until the drought broke at the beginning of July, so a late hatch expected in this ecological area.

POSTER ABSTRACTS

The Northern Bobwhite Conservation Initiative: A report on the status of the northern bobwhite and a plan for recovery of the species

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ABSTRACT: The range of the northern bobwhite included in the Northern Bobwhite Conservation Initiative (NBCI) incorporates nearly 787 million acres. From 1980 to 1999, the autumn bobwhite population declined 65.8% while declines in bobwhite breeding numbers averaged 3.8% per year from 1982 to 1999. The NBCI is organized to delineate population and habitat objectives for 15 Bird Conservation Regions to facilitate coordination and cooperation with other bird management plans, e.g., Partners in Flight. The NBCI also includes chapters detailing specific management practices for agricultural land, grasslands, and forests, and one chapter-outlining implement of the plan.

Restoring northern bobwhites to their desired density will require the addition of 2.8 million coveys to the current population. Achieving this population will necessitate impacting the habitat on 81.1 million acres of farm, forest, and rangeland. However, the recommended land management practices would change the primary land use on only 6.2% of this acreage. Implementation of the NBCI will require the continuing cooperation of federal, state, and private wildlife organizations and of individual landowners and managers. Much of the needed funding can be derived from existing federal and state programs, though increased appropriations will be required, and some new funding initiatives may be needed. If immediate action is taken the bobwhite's decline may be arrested in five years, and the restoration may be effected in 20-25 years.

Grassland restoration opportunities on a Piedmont North Carolina landscape

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ABSTRACT: Working with private landowners through the Cooperative Upland habitat Restoration and Enhancement (CURE) program the North Carolina Wildlife Resources Commission is establishing early succession habitats over a 5,000 acre area in the western piedmont. This area of rural landscape was selected because its' current land use cover types were considered beneficial for bobwhite quail and landowner attitudes were considered positive for habitat management. The area is owned by twenty landowners and contains about equal amounts of forested and agricultural land. Agricultural land primarily consists of row crops, pastures, and hay fields that support the area's dairy and beef cattle farms. The project is designed to improve habitat for bobwhite quail and early succession songbirds by maintaining at least 2% of each cooperating property in some form of early successional habitat.

Landowners have provided sites for natural succession/grassland establishment on cropland field borders, pasture/stream edges, low-quality hardwood stands, and small farm-fields. Restoration efforts include control of fescue sod, prescribed burning, fall disking, livestock exclusion, and seeding of native grasses. Population trends of bobwhite quail and songbirds as well as habitat changes will be monitored throughout the five-year project. Our experiences may prove beneficial to efforts in native grassland enhancement and establishment in other farming communities.

North Carolina's Cooperative Upland habitat Restoration and Enhancement program

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ABSTRACT: The North Carolina Wildlife Resources Commission has implemented the Cooperative Upland habitat Restoration and Enhancement Program (CURE) to restore populations of Northern Bobwhites and other wildlife associated with grassland and shrubland habitats. To support the effort, the Division of Wildlife Management has reorganized, added 8 positions, developed new administrative procedures, identified three focal areas for restoration work, and initiated work with landowners and farmers.

Previous efforts to restore bobwhite habitat and populations have been statewide in scope. Working with isolated landowners resulted in small, widely dispersed, and fragmented areas of suitable habitat. The CURE program differs because habitat improvements will be focused into small geographic areas (cooperatives) where numerous habitat improvements can be implemented on adjoining properties.

The Division of Wildlife Management identified three focal areas, based on statewide habitat analysis, and initially targeted those landscapes with the best potential for increasing bobwhite populations. Interested groups of landowners applied and cooperatives were selected based on landscape attributes and human dimensions surveys. Within each of 3 focal areas a cooperative of around 5,000 acres was developed on private lands. The Commission will work with the landowners to develop management plans and fund installation of habitat improvements.

Goals of the program and practices utilized to establish and maintain habitat are consistent with those of numerous partners. Success and expansion of the effort is contingent upon support from cooperators ranging from landowners and farmers to private conservation organizations to state and federal agencies.

Organism-centered modeling approach for assessing northern bobwhite habitat suitability using remotely sensed imagery.

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ABSTRACT: Northern bobwhite (*Colinus virginianus*) are a socially, economically, and ecologically important gamebird within the southeast. During the last 3 decades, bobwhite have experienced precipitous population declines throughout most of the range. Consequently, the Northern Bobwhite Conservation Initiative (NBCI) was developed as a component of the National Bird Conservation Initiative (NABCI) to identify specific strategies to reverse population declines and restore populations to 1980 levels. The NBCI provides specific habitat goals within each NABCI bird conservation region (BCR). However, NBCI does not provide guidance as to allocation of conservation efforts and resources within the BCR. Large-scale habitat models provide a tool for identifying spatial distribution of extant suitable habitat for the purpose of allocating conservation resources. Wildlife habitat models, coupled with remotely sensed land cover data will play an integral role in the implementation, assessment, and monitoring of recovery plan goals at regional and local spatial scales. Habitat models based on relative abundance data (BBS) and land cover derived from coarse-resolution Landsat imagery may be suitable for generalized large-scale regional evaluations of habitat potential but generally perform poorly and have limited applications in assessing site-specific habitat quality (farm scale). Low spatial resolution, relative to the animal's perception of its environment, may not be sufficient to detect habitat characteristics determining use. Organism centered habitat models offer an effective link between fine scale selection of structural and compositional attributes of habitat by animals and macro-scale remote sensing habitat assessments. We used high spatial (4m) and spectral resolution airborne multi-spectral imagery to delineated plant communities/land use practices and utilization distributions from radio-marked bobwhite to model space-use. We developed organism-centered logistic regression models to predict probability of occupancy. A model containing landscape variables describing early successional plant community patch density, percentage of the landscape in early successional communities, and total patch density had overall correct classification rate of 86.7%. Such models may be incorporated into common GIS software programs as customized extensions, or "toolkits," serving as a decision support system for northern bobwhite habitat assessments by natural resource managers and planners.

An analysis of Virginia's 5-year quail management plan

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ABSTRACT: Declines in northern bobwhite (*Colinus virginianus*) populations over the last 40 years exceed 70% in many parts of its range. In Virginia, the bobwhite population has declined 5.5% per year between 1980 and 1999. In 1995, the Virginia Department of Game and Inland Fisheries (DGIF) developed the Virginia Bobwhite Quail Management Plan (Wildlife Information Publication 96-01) to aggressively address this decline. The plan was designed to address 12 important causative factors and was implemented between 1 July, 1996 and 30 June, 2001. During this period, DGIF biologists, assisted by personnel from other agencies and private citizens, accomplished the following: worked with 1877 landowners, established 103 demonstration areas, conducted 40 workshops attended by over 1,700 participants, gave 191 quail related presentations, produced 3 new management publications, assisted in the establishment of over 11,000 acres of wildlife habitat, developed landowner recognition programs, developed landowner right-of-way management assistance programs in conjunction with major electricity suppliers, and much more. These accomplishments are summarized in detail in Wildlife Information Publication 02-1. In October 2001, we surveyed landowners who received on-site technical assistance during the 5-year quail plan period (1996-2001). Thirty-two percent of landowners learned of the technical assistance program by word of mouth or from another agency; only 0.5% found out about the program from the internet. Almost all (92%) of the respondents rated DGIF's services as good or excellent. More than 70% of respondents completed at least half of the recommended habitat work and 54% received cost-share assistance. The average number of acres managed for quail per respondent was 117. Only 41% hunted quail on their property. Prior to quail management only 6.5% of respondents felt their quail population was increasing; after management this percentage rose to 51%. Respondents estimated there was an average of 2.4 coveys on their property prior to management and an average of 4.3 coveys after management. Over 60% of respondents felt that deer, turkey and rabbit populations also increased as a result of the habitat management. Results of the survey are presented in detail in Wildlife Resource Bulletin 02-2.

A test of observer accuracy in detecting and plotting calling northern bobwhites when using the fall covey call count density estimation technique

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ABSTRACT: The morning covey call count technique is being used to estimate fall northern bobwhite (*Colinus virginianus*) density in Missouri and other parts of the species range, although it has not yet been validated. We tested several facets of this technique that are potential sources of error. One important component of the morning covey call count technique involves the ability of the observer group to detect and accurately plot calling coveys on an aerial photo. We used pen-raised quail at varying locations within a 500 m x 500 m grid cell to test the ability of 3 groups of observers to detect and plot single coveys. Because opportunities to collect data for testing observer groups using pen-raised quail are limited by time, we compared observer accuracy in plotting real birds with that of recorded calls to determine if recorded calls can be used as a substitute for live birds. A one-way analysis of variance showed no significant difference in observer group error when plotting bobwhites calling from different locations within a grid cell. Observer accuracy was generally poor ($\bar{x}=75.0$, $SE=10.9$) regardless of where in the grid cell the calling bird was located. Observer accuracy improved with experience, therefore, we recommend observers practice this technique a minimum of 3 times prior to collecting data for use in a quail density estimate. We found that recorded calls can be used as a substitute for live quail when testing observers, but there are potential sources of error that the researcher should be aware of, such as time of day and the possibility of observer accuracy changing as the number of attempts to plot coveys increases in the course of the day. This study did not conclusively validate or invalidate the morning covey call count technique, but it did reveal concerns that should be addressed before important management decisions (e.g. determining hunting regulations) are made based on density estimates obtained through use of this technique.

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Relocating wild northern bobwhite quail prior to breeding season

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ABSTRACT: The stocking of pen-reared northern bobwhite quail have been successfully used to improve hunting; however, their use to increase native bobwhite populations have proven much less effective. In 1997, a pilot investigation was implemented to test the survival, movement, and reproductive characteristics of wild relocated northern bobwhite quail (*Colinus virginianus*) as compared to resident birds. During this pilot study, in March and April of 1997 and 1998, we captured wild northern bobwhites (n=83) and relocated them to sites located within the same property where the population was suppressed and believed to be below carrying capacity. These relocated birds were equipped with radio transmitters, leg-banded, sexed, aged and released in groups of 8 to 12. A sample of birds (n=62) resident to these sites were also caught and monitored via radio transmitters. Both wild relocated and resident birds were monitored at least twice weekly. There was no significant difference in survival ($p > 0.05$), nest production, or nest success ($p > 0.05$) between wild relocated and resident birds, advocating that relocating wild quail does not negatively impact their survival or reproductive output. Following this evidence that relocation of wild birds does not inhibit their survival or reproduction, a larger scale relocation effort is underway to test whether relocation can bolster native quail populations. In March and April of 1999-2001, we relocated wild birds (n=265) to four different sites that were considered to be below their potential carrying capacity. Hunting records since have indicated a positive population response for all sites where relocation has occurred (one site increased as much as 109%). While results show that relocating wild quail to sub-marginal sites can elicit a positive population response, more research is needed to determine if any long term population effect exists.

Breeding season survival and cause-specific mortality of northern bobwhites in Virginia

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ABSTRACT: To better understand the processes affecting populations of northern bobwhites (*Colinus virginianus*) in Virginia, we estimated survival and cause-specific mortality of 334 radiomarked bobwhites prior to and during the breeding season. Late winter-early spring (10 Feb-15 Apr) survival was $78.3 \pm 2.2\%$ and did not differ by sex or age. Survival was lower ($P < 0.01$) during early (16 Apr-30 Jun) and late (1 Jul-15 Sep) breeding seasons ($59.9 \pm 2.9\%$ and $60.7 \pm 5.9\%$, respectively). Survival of male bobwhites was higher ($71.4 \pm 7.6\%$) than females ($49.6 \pm 8.5\%$, $P < 0.01$) during the late breeding season, but similar during the early breeding season. Survival during combined breeding seasons was $36.3 \pm 4.5\%$ and higher for males ($44.4 \pm 6.6\%$) than females ($28.5 \pm 5.9\%$, $P = 0.04$). Juvenile and adult bobwhites had similar survival rates during early, late, and combined breeding seasons. Cause-specific mortality from avian predators was similar among seasons but was higher (10.6%) than mammalian predation (6.4%) prior to the breeding season. There was no difference between avian and mammalian mortality rates during the breeding season. Mortality from mammalian predators was higher during the early (13.6%) and late (13.6%) breeding seasons than prior to the breeding season. Bobwhites that incubated a nest or hatched a brood were especially susceptible to predation. In the areas we studied, adult survival and juvenile recruitment during the breeding season appear inadequate for perpetuating bobwhite populations.

Ecosystem restoration and enhancement in the Piedmont

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ABSTRACT: The primary purpose of this project is to provide and manage for species associated with grassland, shrub-scrub and shortleaf pine-native grass ecosystems. These habitats are no longer prevalent throughout the Piedmont in general and the Long Cane Ranger District in particular, thus resulting in a lack of habitat for openland or disturbance dependent species such as Prairie Warbler, Northern bobwhite quail and Bachman's sparrow as well as other neotropical migratory birds and year-round resident birds. The study area is 4000 acres located on National Forest lands within the Horn Creek watershed approximately 7 miles southeast of Edgefield, South Carolina. A variety of forest management techniques will be used within the project area such as the reduction of basal area, reduction of midstory and prescribed burning. These activities will result in higher bobwhite quail numbers (Brennan, 1991). After implementing the management strategies, outdoor recreationists, including hunters, nature enthusiasts and birders will be attracted to the project area. Once restored, the area will provide an example of how management on a landscape scale can reverse declining breeding populations of birds such as Eastern meadow lark, Northern bobwhite quail, Prairie warbler, Red-headed woodpecker, Northern flicker, Chuck-will's-widow, Field sparrow and Song sparrow. It will also become a unique place on the forest to enjoy watching or photographing Brown-headed nuthatch, Bachman's sparrow and Eastern wild turkey, as well as other species. This project is an example of ecosystem management that embodies elements of landscape ecology, restoration ecology and species recovery and puts sustaining land and wildlife health first, while still allowing for sustainable human uses.

The Bobwhite Quail Initiative: restoring Georgia's state gamebird while improving the environment.

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ABSTRACT: The Northern Bobwhite (*Colinus virginianus*) population has declined by more than 70% since 1966 in Georgia, as well as across the Southeast. Research indicates the primary cause of this decline is the reduction in habitat quality due to intensification of agriculture and forestry practices. To address this problem, members of the Georgia Department of Natural Resources (DNR) Board of Natural Resources worked with the Georgia General Assembly, the DNR Wildlife Resources Division (WRD) and a number of conservation organizations to develop and fund the Bobwhite Quail Initiative (BQI) during the 1999 legislative session. The primary goal of BQI is to restore habitat for bobwhites, songbirds and other farm wildlife on private lands. BQI was initially implemented in 14 counties in Georgia and was expanded to 17 counties during the 2000 legislative session. During the first two years of the program, BQI personnel provided technical assistance for >200,000 acres of land, and disbursed >\$63,000 to landowners who successfully implemented habitat practices for economic incentives. Although Georgia incurred extreme drought during the summer of 2000, bobwhite quail and songbirds responded positively to BQI management practices during the first year of program implementation. Bobwhite populations remained stable or increased on 71% of the treatment farms, while 75% of the control farms experienced population declines. Winter use by nine sparrow species dependent upon early successional habitat, as a group, increased by 30% across BQI treatment fields.