

Proceedings of the 11th Annual Southeast Quail Study Group Meeting



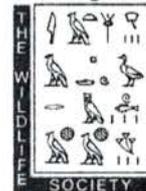
SOUTHEAST QUAIL STUDY GROUP

August 14 - 17, 2005
Gilbertsville, Kentucky

Hosted by:



KY Chapter of



Sponsored by:



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11th Annual SEQSG Meeting Agenda

Sunday, August 14th

Registration – 3:00 to 6:00 in the Lodge

9:00 – 10:30	Steering Committee Meeting
10:30 – 10:45	Break
10:45 – 12:00	Steering Committee Meeting
12:00 – 1:00	Lunch
1:00 – 3:00	Steering Committee Meeting
3:00 – 3:15	Break
3:15 – 5:00	Steering Committee Meeting
6:00 – 11:00	Welcome Social (sponsored by Quail Unlimited)

Monday, August 15th

Registration – 7:00 to 4:00 at the Convention Center

7:00 – 8:00	Breakfast at Lodge
8:00 – 8:05	Welcome and Brief Overview (Dan Figert, KDFWR)
8:05 – 8:30	Welcome (Jon Gassett, KDFWR Commissioner)
8:30 – 8:50	CSP & Programs That Benefit Quail (Randy Gray, NRCS)
8:50 – 9:10	Forest Management and NBCI (Rick Hatten, GA For. Comm.)
9:10 – 9:30	LIP in KY – Partnership and Conservation (Jeff Sole, KY TNC)
9:30 – 10:00	CEAP & 2007 Farm Bill (Jen Mock, IAFWA)
10:00 – 10:15	Break (sponsored by BASF)
10:15 – 10:40	NRCS Partnership in KY (Mason Howell, NRCS)
10:40 – 11:00	Director's SEQSG Sub-committee Role (Dan Forster, GA DNR)
11:00 – 12:00	NBCI and Raising Our Game (Steve DeMaso, TPWR & Don McKenzie, WMI)

12:00 – 1:00	Lunch at Lodge
1:00 – 3:00	Committee Meetings
3:00 – 3:15	Break (sponsored by BASF)
3:15 – 5:00	Committee Meetings
5:30 – 6:30	Dinner at Pavilion (provided)
6:30 – 7:30	Poster session/social
7:30 – 9:30	CP-33 Panel Discussion (Reggie Thackston; moderator, Wes Burger, Don McKenzie, Matt Dollison, Russell Edwards)
9:30 – 11:00	Social

Tuesday, August 16th

Registration – 8:00 to 12:00 at the Convention Center

7:00 – 8:00	Breakfast at Lodge
8:00 – 10:00	CP33 Presentation - White House Conference on Cooperative Conservation
10:00 – 10:15	Break (sponsored by BASF)
10:15 – 12:00	Committee Meetings
12:00 – 12:30	Load for field trip (box lunch provided)
12:30 – 5:30	Field Trip
5:30 – 7:00	Dinner at West KY WMA (provided by Quail Unlimited)
7:00 – 9:00	Social/Skeet Shooting
9:00 – 9:30	Return to KY Dam Village
9:30 – 11:00	Social

Wednesday, August 17th

7:00 – 8:00	Breakfast at Lodge
8:00 – 10:00	Committee Updates
10:00 – 10:15	Break (sponsored by BASF)
10:15 – 11:45	Business Meeting
11:45 – 12:00	Closing Remarks/Adjourn (Shotgun drawing sponsored by Quail Unlimited)

BUSINESS MEETING MINUTES

August 17, 2005

Opening Comments: A brief SEQSG Business Meeting was called to order by Chairman Steve DeMaso. DeMaso thanked the host State of Kentucky, particularly Dan Figert and John Morgan, for all of the hard work that went into making out 2005 Annual Meeting a huge success. Steve also thanked Kentucky State Chapter of TWS for help with the meeting, Quail Unlimited for financial assistance including 2 evening meals/socials and door prizes, and BASF for providing all food and drinks for breaks throughout the meeting.

Chairman DeMaso recognized outgoing Steering Committee members Bill Palmer and Jeff Thurmond and thanked both for the contributions to the SEQSG. DeMaso also thanked all of the Annual Meeting participants for their input into the CP-33 presentations for the upcoming White House Conference, comments were incorporated into the presentations.

Nominations/Awards Committee: Reggie Thackston announced that Dan Figert and Dr. Wes Burger were elected to serve on the SEQSG Steering Committee, filling positions being vacated by Bill Palmer and Jeff Thurmond. Reggie thanked all 3 candidates for their willingness to serve the SEQSG.

Dr. Wes Burger was awarded the 10th SEQSG Award for his work on numerous quail conservation issues. Dr. Burger has the rare gift of being a talented researcher with the ability to relate to real-world applications of his findings. Wes has become an authority on agricultural policy and habitat management issues that influence bobwhites. He has been an active participant in the SEQSG since the groups inception.

Financial and Membership Reports: Chair-Elect Dave Godwin reported that at the start of the Annual SEQSG Meeting in Kentucky the group had 165 paid members and a treasury balance of \$4,054.24. Chairman DeMaso note that the last audit was conducted last spring in McAllen, TX and that the next audit would occur during the spring 2006 Steering Committee meeting in Tallahassee, FL.

Steering Committee Overview: Chairman DeMaso gave an overview of the items discussed during Sunday's Steering Committee Meeting. Items discussed included:

- * NBCI Coordinators Budget
- * NBCI Display(s)
- * Formation of a NBCI Re-Write Committee
- * QU Update
- * Quail VI Update
- * NBCI Infrastructure (including discussions with Dan Forster, SEAFWA Directors NBCI Committee)

(For more information on these and other items from the Steering Committee meeting, see Steering Committee minutes.)

Quail Forever/Quail Unlimited: Rick Young gave an overview of Quail Forever, a newly formed branch of Pheasants Forever focused on quail conservation. Rick fielded questions from SEQSG members concerning this new group. Rocky Evans followed Rick with a presentation summarizing Quail Unlimited's activities and accomplishments.

Future Meetings: Chairman DeMaso announced that the 2006 Annual Meeting of the SEQSG would be held in Alabama. Oklahoma (2007) and Louisiana (2008) are potential locations for upcoming Annual Meetings.

Adjournment: Chairman DeMaso called the SEQSG Business Meeting adjourned.



2005 COMMITTEE REPORTS

AG POLICY COMMITTEE MINUTES

August 14-17, 2005

Dan Figert, Chairman

- Three states represented have a Farm Bill Coordinator who dedicates 100% of time to FB.

Updates

Comments on CRP were submitted to FSA by the group. Comments were similar in nature to those submitted by WMI and IAFWA. (Dec. '04)

As a result of comments, FSA asked for public comments on 2-3 specific issues. A preliminary meeting was held with PF, DU, SE and IAFWA. As a result comments were similar. The meeting on 6/24/05 with FSA turned out well, and the conservation groups present provided a consistent message against FSA's original plan of simple reenrollment of CRP acreage without regard to cover type.

Reggie and Mark put together comments for the Senate Ag. Committee meeting in June. They did a great job providing excellent comments which the Senators followed with good questions. SE Association, NACD, DU, wheat growers, (others?) provided comments.

CP-33 was 1 of 30 projects selected to give a presentation (from the top 100 nationwide) to be presented at the 4th ever President's Conference on Cooperative Conservation. NBCI was asked to make the 90 minute presentation.

The Southern Resource Agenda is something the group needs to participate in by cooperating with forestry and other partners. The SE is better situated coming into the new Farm Bill than in the past due to the number of high ranking member of Congressional Committees. There is an increased capacity for influence and be aware that we want to tie into this.

NFWF grants

Opportunity to provide input into NRCS national standards that are potentially having a negative wildlife impact. This needs completion by the end of the month.

NRCS Jobsheets can be a good tool for making staff more effective. We should share those that we have.

There was a discussion about CP-33 signs and perhaps each state working with QU to make them or in having a more generic sign made and distributing to the states.

CP-33 Discussion

What is working and not working?

Question from (NE?) Is grazing in a wheat field allowed or not allowed?

KS: It is allowed up to a 120 day incidental grazing period in KS. They do this in the fall and the livestock don't graze much of the NWSG buffer.

This is an issue in wheat states whether or not the buffer must be fenced off before the wheat can be grazed. If it is ruled the buffer must be fenced it is a major impediment to getting landowners interested in CP-33.

The group decided to get a more accurate accounting of the acres in CP-33 for the presentation/group discussion session later in the evening.

MS: There is a great deal of interest in state in bobwhites, but there are also lots of acres of CP-22 in the state. There is some sense that landowners may be "buffered out".

VA: Much of their problem is that FSA is waiting on crops to come off fields before contracting. They will likely see a surge in acreage this winter after crops are harvested.

TX: Early in the sign-up NRCS was not providing TA in laying out the field. FSA in some cases, may not be comfortable with the practice. Biologists aren't pushing program because of an already high work load.

GA: Problems are: 1) Workload
 2) Rental Rates are too low. Need irrigated vs. dry land rates.
 3) Workforce is an issue with compliance.

AL: Plan to target cropland in the fall/winter when workload decreases.

MO: Used TSP \$ to contract measurements.

MS: Low numbers appear to be associated with regional issues. States in the deep south are having less success.

D. Howell: Irrigated rates may even be too low in some places.

NE: CREP and CSP have irrigated and dry rates.

MO: There is a broad discrepancy between cash rental rates and CRP rates.

This issue is in the process of being addressed and is supposed to be done by the end of the year.

OH: Their CREP has 70,000 acres allocated and 35,000 acres of interest already. CP-33 has been disappointing. They have 14200 acres allocated and 3500 acres of interest. Lack of publicity is a problem. You can tell counties where QU and PF have promoted the program. There are also issues of workload. CSP is such a heavy workload for NRCS it is forcing them to move staff around. FSA is dealing with the tobacco buyout.

TN: There is a problem because of the perceived workload associated with the monitoring aspect of the program.

D. Howell: It is interesting to compare IL and IN. IL made all counties eligible and the program was promoted as a first come, first served process. They have used all their acreage. IN excluded some areas and capped individual counties. Some counties have used up the allocation and want more funds. FSA is supposed to release those funds soon. By going this way, the program loses momentum.

SC: Planned to focus in 18 of 46 counties, but a legislator wanted his county to be eligible, so they took 500 acres out of the focus area and made it available statewide if requested by Dec. 31. At that point, the money was reallocated back to the 18 counties. Sign-ups were first come-first served. DCs said this was the best program for landowners and the worst for FSA because of workload (tobacco buyout).

KY: Available in all counties. Bonus payment with QU in 3 focus counties.

OK: Publicity problems. They also had problems with the fencing issue, because they ruled no incidental grazing would be allowed at all.

MO: Requires 1/10 acre of shrubby cover must be established per 40 acres. May skew the data when we monitor based on variability in the quality of habitat that has been established.

OH: Focused program on counties that have some good quail cover.

R. Thackston: There will be lots of sampling variability to control for.

KS: Should have 20000 acres by the end of the year. The wildlife agency has taken the program on. It has already been successful in areas where it is important to USDA. One county has 1700 acres, some have 0. They have looked at several of the CP-33 buffers and they are pleased to see good numbers of pheasant and quail broods in the buffers.

MO: Good numbers have been seen there as well.

GA: 70% on quail on compliance checks. The GA program (state) is now 6 years old. It has a 30 or 60 option.

We know as a community that buffers work.

SC: Established 45 as a minimum, and required all participating landowners to do a spring call count. All agreed to do so.

VA: While working on the video for the presentation at the President's Conference, every buffer site they stopped at they could hear quail calling.

D. Howell: USDA did a good job getting information out on decreased seeding rates.

CREP

J. Thibodeaux: KY is seeing a positive response on songbird surveys in CREP fields.

MO: Is FSA supportive of new CREP areas being proposed?

Mid-Contract Management

OH: It helped FSA staff to have a training so they could understand the importance of mid-contract management.

MO: There is lots of non-compliance.

CRP

KS: Where does the idea come from that CRP is a wildlife program and not that it is a conservation program?

TN: Probably this sentiment comes from added restrictions (i.e. mid-contract management, haying and grazing restrictions, etc.,). Wildlife considerations have made the program more complex. It is a better use of tax \$, but it is more complicated.

Jen: People who see CRP as competition have lots of negative things to say about the program. On the other hand, there are those who have positive things to say. It just depends on a person's angle.

M. Gudlin: There is increasing interest in a short-term CRP set-aside (3-5 years). It would provide the flexibility to move the acreage around and there would be no mid-contract management requirement.

Day 2:

Items for the committee to work on:

- 1) Develop EBI modification recommendations.

This needs to be done over the next few weeks/months. Particularly on issue of reenrollments.

- 2) Provide input on long-term issues on CRP.
Stay engaged on for the coming year.
- 3) Work with the cropland committee to better address cropland issue in NBCI revision.
Again, not an item the group could do this day.
 - 3b) Develop recommendations for a flex-fallow program.
This has already been worked on, should take much to pull together (Capel, VA).

The IAFWA's ag. policy meeting is upcoming. I would be good to meet ahead of time and discuss. Particularly what didn't work in the last Farm Bill.

WMI is working on the next version of *How Much is Enough*.

The budget will reflect additional decreases in the conservation side of the Farm Bill. The commodity side has not been cut so far in the house. The Farm Bill is \$1 Billion short when you compare appropriated dollars to what was authorized. Congress should consider previous cuts (8% EQIP shortfall, 84% for CSP).

Make sure F & W interests get heard.

CSP

MO: The program is a work in progress.

GA: Is self-assessment going to work?

TX: Will pare down 98% of applicants.

GA: No farmers to Tier 3 in GA. It is a true reflection of the state of habitat, but how long will the state biologist be able to hold out?

VA: We need to be going out to watersheds before they are eligible.

MO: Farmers who are businessmen are doing buffers and other work to get the \$. Many are using CP-33 to go up a tier.

There is an exponential growth aspect to CSP that bears on funding.

IL: Most farmers are just looking to get the money they can for what they are already doing.

MO: Enhancements aren't tied to NRCS standards or specs. Enthusiasm can overrun common sense on enhancements.

In MO, they have "quail bundle" enhancements. CP-33 gets someone to 0.5.

They have their area biologists on local working groups.

It appears MO has the model and other states haven't gone as well.

KS: Program is working well. Some enhancements pay CS and others a payment. Some producers are content to take what they can get with no additional work.

MO: A lot of landowners bring in the work book and ask for help in filling it out.

AL: Barriers in the deep south. All filter strips are just for water quality. They don't use wildlife friendly species. Is there some data out there showing that NWSG works?

KS: The big CSP problem is the 3 tier rates. The base rates are quite low. And, payments for irrigated land is 3x the dry land rate in some areas where landusers are mining the aquifers.

MO: Will send out information on their program since it has been such a success.

CROPLAND MANAGEMENT COMMITTEE MINUTES

August 14-17, 2005

David Hoover, Chairman

Cropland Management Committee attendees included: Jeff Powelson (MO), Don Barker, (NC), Brad Simpson (KS), Thomas Young (KY), Shelly Morris (KY), Josh Braun (MO), Kari Kirschbaum (KY), Matt Dollison (KY), Wayne Tamminga (KY), Lee Widjeskog (NJ), Dave Stratman (IN), Todd Brace (OH), Bill Mahan (KY), Eddie Joiner (KY), Jason Brooks (TX), Brad Carner (AR), Mike Widner (AR), Tracy Klotz (AR), Tom McManamay (KY), Jim Wooley (IA) and myself.

Steve DeMaso, Chairman SEQSG Steering Committee, charged the Cropland Management Committee with: **Drafting guidelines for whole field and partial field enrollments in cropland flexible fallow program; developing guidelines for a Fallow Corners practice in CRP's continuous sign-up program; and revising the Cropland Management Section of the NBCI plan jointly with the Agricultural Policy Committee.** Committee time was spent discussing guidelines for both the Flexible Fallow and Fallow Corners programs. Below are the preliminary guidelines developed.

Cropland Flex Fallow Program – A white paper was developed at the 2004 meeting regarding this very issue. The focus of this years meeting was to outline specific guidelines for the implementation of such a program.

Program Purpose

Provide, on a landscape level, early-successional habitat for bobwhite quail and other early-successional/grassland dependant species.

Recommended Guidelines:

1) Contract Length

- 3-year enrollment, with subsequent enrollments rotated across farm.
 - Avoids stigma of long-term program
 - Would maintain early-successional benefits while minimizing woody encroachment and noxious weed issues

2) Enrollment Criteria (crop history, cover establishment, field size)

- Crop History – similar to CRP – 4 out of 6 years between the years 1996-2001.
- Cover Establishment – Natural regeneration recommended
 - Start with bare mineral soil or crop stubble
 - Cover crop of annual small grain optional
- Field Size – no minimum field size, 10% of crop base, as documented by FSA, instead.

3) Management Practices – flexible to individual states, but recommend:

- Chemical spot treatment for noxious weeds/woody encroachment
- Light disking to control woody encroachment.
 - Limited to months of Aug. - Oct. and on only half the acres.
- Mowing not allowed except for maintaining field boundaries and preparing areas for disking. Allowed during same months as disking.

4) Rental Rates

- Use soil rental rate structure already in place for CRP
 - Annual payment based on soil rental rate + 20%
 - May still be attractive without additional 20%.
- Develop component rate if part of EQIP or WHIP.

5) Acreage Goal:

- 10% of NBCI “improvable” cropland acres.

6) Program Administration

- May have greatest impact if incorporated into a fully funded Conservation Securities Program (CSP) as an enhancement option to get contracts to the Tier III level.
- Probably the least potential as a component of cost-share program (i.e., EQIP, WHIP).

Fallow Corners Program – “Corners for Upland Wildlife” – Odd/irregular areas of crop fields as well as irrigated corners are eligible.

Program Purpose

Establish brood-rearing and nesting cover for upland wildlife, primarily bobwhite quail and early-successional/grassland songbirds, on cropland acres not eligible for CP33.

Recommended Guidelines

1) Contract Length – same as CRP’s CP33 (10-15 years).

2) Enrollment Criteria (crop history, cover establishment, field size)

- Crop History – similar to CRP – 4 out of 6 years between the years 1996-2001.
- Cover Establishment – Natural regeneration recommended
 - Start with bare mineral soil or crop stubble
 - Cover crop of annual small grain optional
- Field Size – no minimum field size
 - No width limitations
 - Partial fields only
- For non-irrigated fields, area left fallow must be adjacent to suitable herbaceous/brushy cover.

3) Management Practices – flexible to individual states, but recommend:

- Chemical spot treatment for noxious weeds/woody encroachment
- Light disking
 - Required on half the acres annually (and only half)
 - Limited to months of Aug. - Oct.
- Mowing not allowed except in the instances of maintaining field boundaries and preparing areas for disking. Allowed during same months as disking.

4) Rental Rates

- Use soil rental rate structure already in place for CRP
 - Annual payment based on soil rental rate + 20%
 - One-time sign-up bonus structured like CCRP buffer practices

5) Acreage Goal

- No minimum acreage, just program cap – at least 500,000 ac.

6) Program Administration

- Incorporate into Continuous CRP.

FORESTRY COMMITTEE MINUTES

August 14-17, 2005

Billy Dukes, Chairman

(Action Items in **Bold Type**)

August 15, 2005

Dukes opened the meeting with introductions around the room, presented a proposed agenda, and noted that the Steering Committee had given specific charges which need to be addressed at this meeting (see below).

Dukes then presented a review of Forestry Committee accomplishments over the past year. The primary accomplishment was the drafting of the white paper entitled "Wildlife Woodlands – A proposal for the Restoration of the Health of American Private Forests." The paper was drafted as a joint SEQSG/SEPIF initiative in response to a charge from the Steering Committee at the 2004 meeting in Arkansas. Drafts were distributed to the SEAFWA Forest Resources Technical Committee and the SETWS Wild Turkey and Forestry Committee at the 2004 SEAFWA Conference, and later to the entire SEQSG membership. Twenty-seven sets of comments, representing at least 12 states, were received and incorporated into a second draft of the document. This second draft was distributed and discussed at two subsequent meetings of the Southeast Forestry and Wildlife Farm Bill Working Group. Most comments on the draft were supportive or positive, some reviewers expressed concern about undermining or derailing current programs in the Forestry Title of the Farm Bill. Much discussion at the SE FWFB Working Group centered around whether the proposal would be proposed as a stand-alone program or incorporated into existing programs.

The SE FWFB developed a list of "consensus priority functions" that were high priority for future NIPF forestry programs. Many of these functions were components of the Wildlife Woodlands proposal. **Dukes will distribute a list of the Farm Bill Working Group's consensus priority functions to members of the Committee.**

Don McKenzie (NBCI/WMI) congratulated the Committee on producing a good product, and stated that the draft would continue circulating until Farm Bill issues became clearer.

The Steering Committee Chairman's 2005 charges to the Forestry Committee were then discussed. Those charges are listed below:

- Determine how much longleaf pine is needed in order to meet the goal of the NBCI.
- Develop guidelines for managing quail in oak savannas.
- Start developing a strategy to determine which farm bill programs could/should be used to manage areas for quail, (especially in areas) where CRP contracts expire or are not renewed.

- Begin working on revising and updating the “Recommended Habitat Management Practices on Southern Pine Forests” (Southern Pine Forests chapter) section of the NBCI.

Initial discussion focused on the charge to develop management guidelines for oak savannas. According to members of the group, much of this potential habitat will be found in BCR 24 (Central Hardwoods). This type habitat was apparently at one time a significant ecosystem in terms of abundance in BCR 24 (and possibly others), but has declined dramatically due to natural succession, fire suppression, and other factors. There was consensus that this charge should include not only oak savanna habitat but also managed oak woodlands. The question was raised as to whether we were to develop management guidelines, restoration guidelines or both (Chairman’s note: I think as part of the chapter, we should address causes for decline, threats to existing oak savannas, restoration potential, restoration guidelines, and quail BMP’s).

As we understood that there was expertise in management of hardwood systems in the Grazing/Grassland Committee, further discussion was deferred to the second day of the meeting and a joint meeting with that committee.

A new longleaf pine initiative targeting restoration of 350,000 acres under continuous CRP has been proposed. This proposal was initiated by the Longleaf Alliance and supported by the SE FWFB Working Group. The SEAFWA Directors and the Southern Group of State Foresters also support the proposal. Longleaf acreage has increased approximately 10% (200,000 acres) since the Longleaf Pine Conservation Priority Area (CPA) was established.

Significant and lengthy discussion followed on the charge related to acres of longleaf pine needed to achieve goals of NBCI. Strictly from an ecological perspective, the group agreed that a long-term goal of restoring 20% of historical longleaf acreage was desirable. This would equate to approximately 18,600,000 acres of longleaf rangewide. Shortleaf pine ecosystem restoration should also be considered where appropriate when formulating restoration goals.

Several points were made regarding potential obstacles and opportunities for longleaf pine restoration. Mike Olinde (LA) noted that many historical LLP acres in LA are in pastureland, not cropland, and are not eligible for CRP. Therefore a different delivery mechanism for LLP ecosystem restoration may be needed. Stan Stewart (AL) stated that there is an allowance for LLP restoration under EQIP in AL, but it ranks low and is seldom funded. Increased priority for LLP restoration through new programs or program guidelines is needed. Stewart also noted that interest in CRP is waning in AL, and that most eligible lands may already be enrolled. Shifting markets (pine straw, recreation, decreased pulpwood prices) may lead some landowners to LLP. Rick Hatten (GA FC) stated that Commission foresters in GA believe that establishment of 150,000 acres of LLP is a real possibility in the next five years through CRP alone.

McKenzie provided the NBCI perspective in order to focus the efforts of the group. His points are summarized below:

- Most important goal in NBCI is restoration of quail population to 1980 level.

- LLP restoration target should be tied to that goal.
- Estimated population response in pine systems (range 3-11 coveys/1000 ac.) was likely low, and did not account for population response from restored forest acres.
- Estimated population response from forested systems accounted for only 7% of total restorable coveys. It is likely higher, but we don't know how much higher.
- Steering Committee wants a better analysis LLP restoration and management and potential contribution to the NBCI quail population goal.

Dukes noted that predicted quail population responses to forest management practices are based on untested assumptions. Others noted that population response will vary based on level of stand management, land use history, site prep methods, landscape context and other factors. Original NBCI did not include population responses to restoration of LLP and shortleaf pine ecosystems, only management of existing forests.

State Quail Coordinators or Forestry Committee representatives should assess how much of the historical LLP acreage (in your state) is “restorable.” Sources of information should include state forestry commissions, NRCS, FIA data, soil maps, Comprehensive Wildlife Conservation Strategies (CWCS), the Longleaf Alliance, and others. States without LLP acreage (and states with LLP and Shortleaf Pine) should also compile restorable SLP acreage. Separate goals should be compiled for SLP and LLP. Acreages should be forwarded to Dukes by September 22, 2005.

As a starting point for discussion and establishment of predicted quail population response to LLP and SLP restoration, please provide a predicted population response (coveys/1000 acres) with citations when possible. A range of responses under various conditions is also acceptable.

Discussion shifted to Chairman's charge number three related to management of expiring CP-11 contracts (and other “CRP-like” timber stands). The FC needs to develop management strategies and practices for these stands, and tie the practices to the Farm Bill. Recommendations in the “Wildlife Woodlands” paper did this, but were not specific in terms of thinning rates, thinning schedules, or prescribed fire regimes. Minor modifications to existing programs (like FLEP) could possibly accomplish this if FLEP had the ability to provide incentive payments. FLEP has suffered from lack of funding, and its future is uncertain. The question was raised as to whether programs for management of existing stands should be removed from NRCS/FSA responsibility and placed with state forestry agencies.

McKenzie requested that the SEQSG FC develop a proposal for management of existing timber stands by the next FWFB Working Group meeting (Oct. 5-6, 2005). Proposal should be “program neutral” due to the uncertainty over the future of FLEP. **Dukes will attempt to draft proposal modeled after the Georgia BQI the Georgia EQIP Forest Health Initiative and will seek additional input from the FC members prior to the meeting as time allows.**

For revision of the NBCI, FC members with significant pine acreage need to review “Southern Pine Forests” chapter carefully and begin compiling comments and needed revisions. Timeline

for revision is approximately 2 years, but **written comments and suggestions for revision should be available for discussion at next year's SEQSG FC meeting.**

An additional chapter on restoration and management of oak savannas and oak woodlands should also be included in the revision of the NBCI.

The Forestry Committee should work with the Research Committee to discuss validation of the assumptions related to quail population response to select forest management practices. This information should be obtained through applied research, but much may be available through an extensive literature review.

More input is needed from SE PIF to identify highest priority landbirds in order to partner on projects.

In 2002, the SEQSG FC initiated a task of developing BCR-specific forest management implementation strategies for the NBCI. The following individuals were recommended at the 2004 meeting in Arkansas to complete the task for individual BCRs.

BCR 21 – Oaks and Prairies	Steve DeMaso, Chuck Kowaleski
BCR 24 – Central Hardwoods	Brian Smith
BCR 25 – West Gulf Coastal Plain/Ouachitas	B. Carner, J. Davis, L. Hedrick
BCR 26 – Mississippi Alluvial Valley	Dave Godwin
BCR 27 – Southeastern Coastal Plain	Billy Dukes
BCR 29 – Piedmont	Haven Barnhill
BCR 30 – NE/Mid Atlantic Coastal Plain	Bill Whitman
BCR 31 – Peninsular Florida	Tommy Hines
BCR 37- Gulf Coast Prairie	Mike Olinde

Assignment was made to these individuals on August 12, 2004, and recommendations for BCR 27 were supplied as a template for other BCRs. Strategies can be related to management, partnerships, policy or any other aspect of forest management. Strategies have been completed for BCR 24, BCR 27, BCR 31, and BCR 37. **Assignment coordinators will be contacted again with deadline for completion of November 30, 2005.** Following completion of the task by BCR coordinators, strategies will be compiled and used as a guiding document for NBCI implementation on forest lands. This document may prove useful as an appendix to the revised NBCI.

August 16, 2005

Joint meeting of FC and Grazing/Grassland Committee (Rob Chapman, Chairman)

Discussions between chairmen of the two committees resulted in a joint meeting of the FC and G/G committees to discuss the development of an Oak Woodland/Oak Savanna restoration and management chapter for the NBCI. The deadline for this task is before the NBCI revision, but work on this task should begin immediately.

Representatives from Arkansas, Missouri, and Virginia made reference to ongoing oak woodland restoration efforts in their respective states. Salient points included use of hardwood markets to defray costs associated with restoration, ease of management once restored, good quality groundcover response following restoration, and interest from private landowners.

A subcommittee was formed consisting of Mike Sams (OK), Rob Chapman (MO), Patrick Cook (VA), and Jerry Davis (USFS) to draft a chapter for the NBCI, using the "Southern Pine Forests" chapter of the current NBCI as a rough outline. Mike Sams will be the primary author and coordinator of this effort. This effort should incorporate predicted quail population response to restoration and management efforts, similar to other chapters in the NBCI. Site identification (site index, soils, etc.), restoration goals and guidelines, and management guidelines (i.e. quail BMPs) should also be incorporated into the chapter. Potential sources of information include state CWCS plans, and proceedings of the Upland Oak Ecology symposium available at http://www.srs.fs.usda.gov/pubs/gtr/gtr_srs073/gtr_srs073-article-list.jsp. Missouri also has a publication with information on management and restoration of oak systems.

Forestry committee members should cooperate with all requests from the drafting team for data, assistance and information. A draft should be completed by the 2006 SEQSG meeting.

The G/G Committee was given information related to formation of a working group similar to the SE FWFB Working Group. Chairman Chapman was encouraged to contact Don McKenzie for more information on how to facilitate formation of such a working group.

Final discussions centered around forestry-related omissions in current Farm Bill programs and potential to implement forest habitat enhancement under existing programs. Notable omissions include the failure to recognize forest lands in CSP acreage (other than "incidental" acreage) and a lack incentives for sound forest management under CSP. Some states have attempted to use EQIP funds to meet forest management objectives with limited success to date.

Meeting adjourned at 11:35 a.m. on August 16, 2005.

Thanks to Brian Smith (KY) for an excellent job in taking detailed notes of the FC meetings, which were invaluable in compiling meeting minutes.

GRASSLAND/GRAZING COMMITTEE MINUTES

August 14-17, 2005

Rob Chapman, Chairman

15 August 2005

The Grassland/Grazing Land Committee meeting opened with introductions of the twenty-eight individuals in attendance. The four charges dictated by the Steering Committee Chairman to the Grassland/Grazing Land Committee included:

- Form a Forage/Wildlife Working Group.
- Develop a federal incentive program for rangelands/pasturelands, similar to CP-33.
- Discuss opportunities of the recent Energy Bill as it pertains to Switchgrass as a biofuel.
- Advise changes to the NBCI regarding grassland and grazing management.

Steve Capel advised the Committee about the inclusion of Switchgrass and other NWSGs as biofuels as a line item in the upcoming revision of the Energy Bill. Details were not available at the time of the meeting as this issue was presented as heads-up information for the Committee and the SEQSG. Large acreages near coal firing electrical facilities could be impacted. As such, there exists the possibility for positive impacts of such grassland management to quail and grassland birds. **The Grassland/Grazing Land Committee will monitor the status of the biofuel issue and offer recommendations to the Steering Committee when necessary.**

Promotion of the use of native grasses and forbs in grazing and hay operations has been slow to develop within the forage profession resulting in continued, and possibly increased, skepticism of producers to convert “improved” pastures to more wildlife friendly practices. The first obstacle to hurdle in promoting native grasses as forage is to increase communications between forage and wildlife professionals in a forum that brings the two professions together. Therefore, a need has emerged to initiate the establishment of a Wildlife/Forage Working Group. The Working Group should be multidisciplinary, consisting of professionals from the fields of Forage, Wildlife, Grazing, and Rangelands and include researchers, managers, extension specialists, professional societies and organizations, and producers. Regional representation will be critical given regional differences in forage type and grazing systems. Engaging the Grazing Lands Coalition Initiative as a partner will also be highly beneficial to this Working Group. The overall goal of a Forage/Wildlife Working Group might be to build partnerships, exchange information, and advise policy makers, government agencies, and non-government organizations on issues impacting forage and wildlife management. Some key issues identified that could be addressed include:

- Bridging the communication and information gap between forage, wildlife, and grazing disciplines.
- Identify research needs and projects regarding forage, wildlife, and grazing interactions.

- Identify funding sources for research and demonstrations.
- Identify and develop tools for forage producers with wildlife interests.

A subcommittee will be charged with furthering the development of the Working Group including the identification of potential participants and set an initial meeting date. The Grassland/Grazing Land Committee further recommends that forage professionals be invited to attend future SEQSG meetings.

There was much discussion during the meeting about incentive programs for pasture and grazing lands. A few states have had varying degrees of success with some programs but ultimately it has been difficult to entice forage producers into government incentive programs. It is evident the biggest challenge to enrollment has been poor rental rates throughout the Southeastern U.S. Two broad actions must occur before any incentive program, existing or yet to be developed, will be inviting to producers to enroll pasturelands. One is to greatly increase rental rates as much 10-15%, or higher, if necessary. The second is to increase awareness of grassland management to those landowners who are not profit oriented, such as absentee landowners and hobby farms, and have strong interests in wildlife management. The Grassland/Grazing Land Committee recommends the following actions to be taken before the development of an incentive program similar to CP-33 for pasturelands:

- Investigate how existing Farm Bill programs can be modified to further promote pastureland management with more wildlife friendly practices, especially the Grassland Reserve Program, Environmental Quality Incentives Program, and the Conservation Securities Program.
- Investigate how to better promote existing pastureland specific CRP practices.
- Investigate how to better develop and promote Marginal Pastureland Habitat Buffers programs.

Revisions to existing programs may be easier to sell to officials in Washington than the implementation of a new program. If investigations into these action items find that additional conservation practices are indeed necessary then work will begin to develop such practices. **A second subcommittee will be established to address these action items prior to the next SEQSG meeting.**

Discussion on the charge by the Steering Committee Chairman to advise revision of the NBCI regarding grassland management was tabled due to time constraints and will be addressed through email. **It was recommended that committee members identify and address necessary revisions to the NBCI within their respective BCRs.**

16 August 2005

The Grassland/Grazing Land Committee reconvened with the Forestry Committee with the primary purposes of acquiring guidance in the establishment of a Wildlife/Forage Working Group similar to the Forest/Wildlife Working Group. The Forestry Committee recommended that each professional interest within a Working Group must know the purpose of the Working

Group. It is further important to make discussions issue based, identifying issues of common interest, and only pursue those issues that the group can agree upon. The Forestry Committee further stated that social hours have been an important attribute to the success of the Forest/Wildlife Working Group as this is where many issue are addressed through libation. Also of interest to several members of the Grassland/Grazing Committee was the task given to the Forestry Committee on developing guidelines for quail management in oak savannas and woodlands. The minutes from this discussion are well represented in the Forestry Committee Minutes.

Rob Chapman
Grassland/Grazing Land Committee Chairman

**PUBLIC RELATIONS, INFORMATION,
EDUCATION COMMITTEE MINUTES
August 14-17, 2005**

Charges to Committee:

- Complete popularized version of NBCI
- Continue website construction
- Press-releases/articles about SEQSG to NGOs, magazines

General Updates:

- Popular Version of NBCI
 - Drafts from last year
 - Use TX Mgt plan as a template
- Logo
 - We need a slogan – “NBCI: Building partnerships to recover bobwhites by improving wildlife habitat”
 - Graphics to spice it up
- Bumper Sticker
 - Need more ideas for new ones

Brainstorming Session Results...
 Think about Bob
 Bring back Bob
 What about Bob
 Insuring tomorrow for quail today
 It pays to invest in quail
 Commit to quail
 Don't quit on quail
 Think bobwhites, think habitat
- Website- www.SEQSG.org
 - Want to separate from QU main page
 - Should be clearing house for quail info
- Website- www.bobwhiteconservation.org
 - Separate from SEQSG and QU
- Listserve
 - Develop for state coordinators for updates on marketing efforts
- Opinion Surveys to help develop marketing the NBCI
 - Mail or phone
 - State-by-state
 - Nation-wide list of questions

State Updates:

Popular Version of NBCI Discussion:

What is the delivery mechanism?

Multiple touches- need many ways

State biologists, USDA offices

What is the principle message?

Starting thoughts...

Habitat-based recovery

Large-scale, coordinated, collaborative action

Landscape-level recovery

Restore to 1980 levels on remaining habitat

Limiting factor is lack of nesting & brood-rearing cover

Private landowners hold the key

Guide and encourage state-level recovery plans

Brainstorming Session Results...

Restoring bobwhites for future generations

Building a home

Join the team

Bobwhite Restoration benefiting wildlife

Build a neighborhood

Improving the neighborhood

Chicks dig a good neighborhood

Bobwhite recovery through habitat restoration

Save the Quails: Help a species close to home.

Growing homes for bobwhites

Restore native grasslands

Restore quail by growing native grasslands

NBCI: The 401K for Quail

What is the target audience?

Landowners & managers

Hunters

Conservationists/ Wildlife enthusiasts

General public

Conclusions:

- Need 2 popular versions of NBCI plan
 - Slightly more in-depth version of political use
 - Push-card, 2-sided with bulleted basics
 - KISS- resist being detail oriented
- Nationally, we address general public. Allow states to focus on target groups

RESEARCH COMMITTEE MINUTES

August 14-17, 2005

Mark D. Smith, Chairman

The Research Committee met from 1:00-5:00pm on Monday, August 15th and from 10:15-12:00 noon on Tuesday, August 16. One hour of the Tuesday session was dedicated to meeting with the principal investigators of the USDA-NRCS/MSU Northern Bobwhite Habitat Restoration Project. Approximately 32 people from 14 states attended Research Committee sessions, most of which were southeastern states. However, representatives from IL, OH, DE, and NJ were also present as well as representatives from Southeast Partners in Flight. Rick Hamrick, Mississippi State University, gave a presentation on large-scale northern bobwhite habitat suitability modeling for the Central Hardwoods, Southeast Coastal Plain, Tall Grass Prairie, and Mississippi Alluvial Valley Bird Conservation Regions. The remainder of the Research Committee session focused on the upcoming CP-33 Monitoring Program. Mark Smith, Mississippi State University, provided an overview of the current status of the CP-33 Monitoring Program. Only 11 states have sufficient CP-33 enrollment to conduct monitoring (i.e., enough contracts available to draw a sample). Both Wes Burger and Mark Smith are working with FSA National to develop an acceptable protocol to extract CP-33 contract information from county offices. Wes Burger, Mississippi State University, submitted a Multi-state grant to the International Association of Fish and Wildlife Agencies which, if awarded, would provide \$10,000/year/state for 3 years to each of the 20 states requiring infield monitoring to partially offset monitoring costs. Catherine Rideout, Arkansas Game and Fish Commission and SEPIF representative, stated that SEPIF involvement in CP-33 monitoring will be dependent upon the level of support from respective state agencies, ranging from training sessions for staff biologists to infield sampling of songbirds. Mike Hansbrough, Tennessee Natural Resources Conservation Service, identified some sampling issues that will have to be resolved/addressed in future revisions of the CP-33 Monitoring Protocol. Selection of control fields will be problematic in some areas due to "clustering" of CP-33 enrollment. Additionally, control fields may in the future be enrolled in CP-33 therefore a method to replace control fields, if they are subsequently enrolled in CP-33, will be necessary. Tom Dailey, Missouri Department of Conservation, and Doug Osborne, Southern Illinois University, reported on their research from this past summer on inter- and intra-observer variability in distance estimation by sound. The remainder of the Research Committee session was used to discuss various aspects (e.g., selection of control fields, integration of bobwhite and songbird monitoring during breeding season monitoring, etc.) of the CP-33 Monitoring Protocol. The Research Committee was given the charge to construct a comprehensive database of quail harvest statistics and to develop a proposal to evaluate the economic impact of quail hunting for the 35 states within the bobwhite's range. These items will be addressed prior to the 2006 Annual meeting.



2005 STATE PROGRESS REPORTS

2005 SOUTHEAST QUAIL STUDY GROUP MEETING STATE REPORT—ALABAMA

Submitted by: Stan Stewart, Alabama Wildlife & Freshwater Fisheries Division

Bobwhite Restoration Initiatives

The Alabama Department of Conservation and Natural Resources formed the Alabama Quail Council in December, 2004 to facilitate the implementation of the Northern Bobwhite Conservation Initiative in the state. Quail Council members include a wide spectrum of conservation partners representing state and federal agencies, academia, private conservation organizations and landowners. The Quail Council created a Quail Technical Committee to formulate a bobwhite restoration plan for the state. The Technical Committee is currently in the process of assimilating land cover and other data as a basis for developing bobwhite restoration strategies. The Quail Council provides a structure to coordinate quail conservation actions that are already underway, expand partnerships, and develop outreach efforts to promote bobwhite restoration in Alabama.

The USDA Forest Service, in cooperation with the Alabama Division of Wildlife and Freshwater Fisheries and other partners such as Quail Unlimited, Alabama Power, and the National Fish and Wildlife Foundation, continues to expand the Choccolocco Upland Initiative on the Choccolocco Wildlife Management Area and Shoal Creek District of Talladega National Forest. The initiative tailors prescribed fire regimes and forest management practices to enhance bobwhite productivity within a context of longleaf pine restoration and red-cockaded woodpecker management. The Forest Service recently developed a similar initiative and created the Elliotts Creek Quail Area on the Oakmulgee Wildlife Management Area, Oakmulgee District of Talladega National Forest.

Private Lands Outreach

The Alabama Division of Wildlife and Freshwater Fisheries recently released a new publication, *Ecology and Management of the Bobwhite Quail in Alabama*, as a resource management guide for landowners, quail managers, and quail enthusiasts. The publication is available in printed form by request and on the Alabama Department of Conservation and Natural Resources website at www.outdooralabama.com.

The Alabama Wildlife Federation, in cooperation with other Alabama Quail Council members, utilized a Forest Land Enhancement Program grant to sponsor a series of bobwhite management workshops for natural resource professionals across the state. The FLEP grant also funded the development of an *Early Succession Wildlife and Habitats* handbook for distribution to landowners to familiarize them with wildlife species, the bobwhite being a featured one, that utilize early succession habitats, and the plant species that occur in these transitional and declining habitats in Alabama.

The USDA Natural Resources Conservation Service and the Alabama Department of Conservation and Natural Resources continue in a cooperative agreement that funds three DCNR wildlife biologist positions to deliver wildlife technical assistance to landowners who participate in USDA conservation programs. The biologists are located in NRCS offices in the north, central, and south portions of the state.

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 field investigation of this project is complete and a final report is in preparation.

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. This project is currently entering its fourth year.

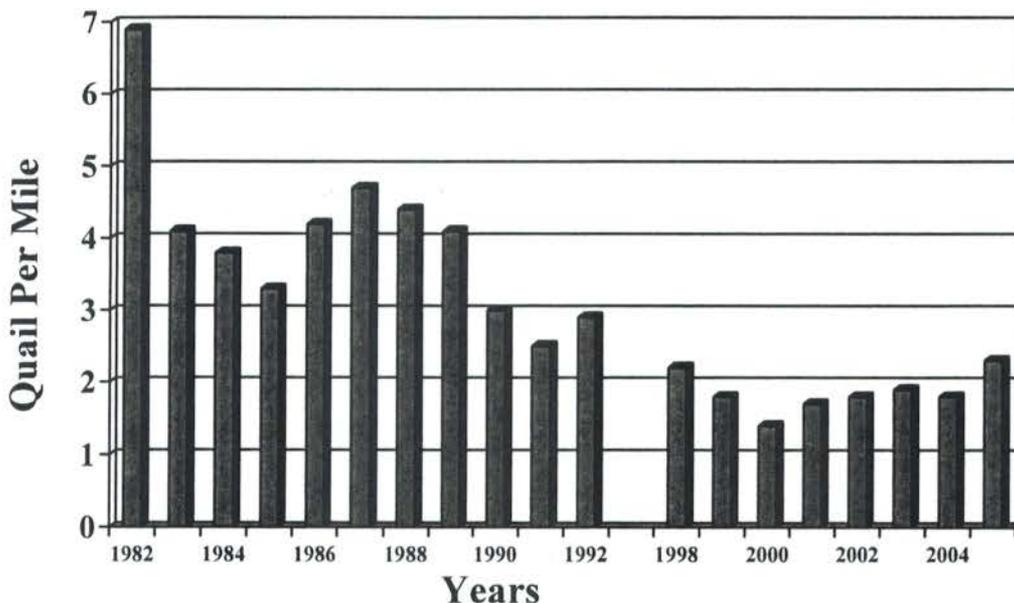
2005 SOUTHEAST QUAIL STUDY GROUP MEETING STATE REPORT—ARKANSAS

Bobwhite Population Status

According to Breeding Bird Survey data, northern bobwhite numbers in Arkansas declined by 42 percent during the period of 1966-1980. This rate of decline accelerated to 5 percent annually during the period of 1980-1998.

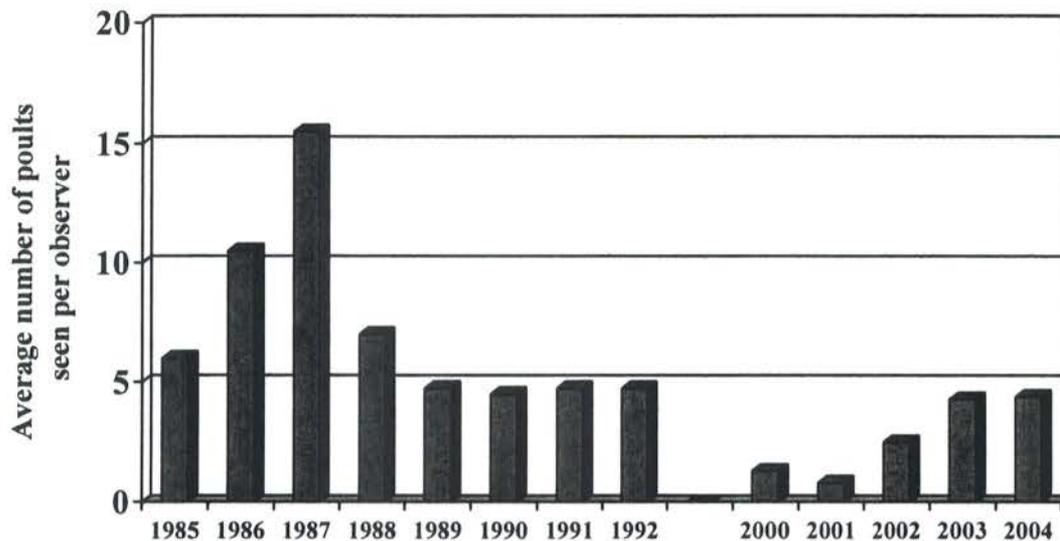
Currently, the Arkansas Game & Fish Commission continues to monitor population trends annually through quail call counts conducted during late May and quail brood surveys conducted from June 15-August 31. Since the inception of these survey methods in the early 1980s, data from both of these surveys also indicate a precipitous decline in quail numbers in Arkansas (Figure 1 & 2). In 2004, the number of routes was increased to 2 routes per county (150 total routes). The data presented below was derived from only those 57 routes that have been surveyed annually throughout the entire survey period.

Figure 1. Quail Call Count Trend 1982-1992, 1998-2005



The 2005 statewide average of 2.3 quail heard per mile represents a 28% increase from the 1.8 quail heard per mile during 2004. The 2005 quail call count average is 64% above the survey's low point of 1.4 quail heard per mile in 2000. Regionally, during the 2005 survey, the number of quail heard per mile ranged from 1.0 in the Delta to 4.0 in the Ouachitas.

Figure 2. Quail Brood Survey Trend 1985-1992, 2000-2004



The 2004 quail brood surveys indicated a statewide average of 4.4 poults seen per observer. This represents a very slight increase from the 4.3 poults seen per observer in 2003. Regionally, the number of poults seen per observer ranged from 1.7 in the Delta to 12.0 in the Ouachitas.

Quail Management Initiatives

As a result of the approval of the Arkansas Game & Fish Commission's Strategic Quail Management Plan in May 2001 and the subsequent release of the Northern Bobwhite Conservation Initiative (NBCI) in March 2002, the Arkansas Quail Committee has been formed in an attempt to achieve the goals outlined in the two plans. The Arkansas Quail Committee is a coalition of representatives from several organizations including the Arkansas Game & Fish Commission, NRCS, U.S. Forest Service, U.S. Fish & Wildlife Service, Cooperative Extension Service, FSA, Arkansas Forestry Commission, Arkansas Natural Heritage Commission, Quail Unlimited, industrial timber companies, private consultants and academia.

The first action item of the Arkansas Quail Committee has been to initiate the development of 2 quail "focal areas" within each of the three Bird Conservation Regions (BCRs) within the state as outlined in the NBCI. At this time, two focal areas have been identified (one in Searcy Co. and one in Fulton Co.), both of which lie within the Central Hardwoods BCR of northern Arkansas. Each of these focal areas are comprised of relatively contiguous tracts of property each in excess of 17,000 acres.

The two quail focal areas were declared as "Special Project Areas" for the 2003, 2004 and 2005 WHIP sign-ups. Along with the status of "Special Project Area", each focal area received an allocation of \$100,000 in WHIP funding for each sign-up to provide 75% cost-share

on select practices to landowners within the focal areas. In addition, the Arkansas Game & Fish Commission provided the remaining 25% cost-share on those same practices to insure that the landowners did not incur any out-of-pocket expenses. To date, there have been over 3,000 acres enrolled in WHIP within the Fulton Co. area and over 1,100 acres enrolled within the Searcy Co. area. During the 2005 WHIP sign-up, eleven additional landowners in Fulton Co. and one additional landowner in Searcy Co. enrolled in the program. Acreage totals for these additional farms are not available at this time.

Initial habitat manipulations began within the two focal areas in October 2003. Meanwhile, members of the Arkansas Quail Committee have been working to gather baseline data on these two areas pertaining to quail numbers, resident songbird numbers as well as vegetative data in order to document responses to future habitat manipulations.

Additionally, members of the Arkansas Quail Committee worked in partnership to develop a Landowner Incentive Program (LIP) proposal that was funded in February 2004 through the U.S. Fish & Wildlife Service. The grant is a partnership between the Arkansas Game & Fish Commission, The Nature Conservancy, Arkansas Forestry Commission and Arkansas Natural Heritage Commission and will establish 2 burn crews that will conduct prescribed burns on private lands in Arkansas within 5 pre-determined areas (including the two quail focal areas within the Central Hardwoods BCR). During this past burn season, these two burn crews were available to conduct 15 prescribed burns encompassing 2,380 acres within three of these pre-determined areas. Burning was hindered dramatically this past year due to adverse weather conditions.

In order to promote the new Continuous-CRP practice CP-33, eight landowners meetings were held around the state in strategically selected agricultural communities during February 2005. Overall, the meetings were well received with attendance ranging from 30-95 individuals. Shortly after the completion of the meetings, a survey of all county FSA offices revealed that over 120 applications had been received for CP-33 with an unknown number of applications submitted since that time. The approval of CP-33 contracts has been slow due to the extensive coordination required between our agency, NRCS, FSA and the landowners. In addition, once planting season arrived, many landowners are now waiting until after their crops have been harvested this fall to enroll in the program. As a result of the eight meetings, three of those counties have received a good number of applications (20+ applications per county). The AR Quail Committee intends to monitor those subsequent contracts spatially to identify "clusters" of CP-33 contracts that will serve as focal areas for the Mississippi Alluvial Valley BCR.

Research

A research grant received through the NRCS/MSU Bobwhite Restoration Project has provided funding for a combined research project on both the Searcy Co. and Fulton Co. focal areas. The project is titled: "RESPONSE OF NORTHERN BOBWHITE POPULATIONS AND THE ASSOCIATED AVIAN COMMUNITY TO LANDSCAPE-LEVEL MANAGEMENT IN THE CENTRAL HARDWOODS BCR".

This focus of the project is determining the scale (intensity and number of acres) of habitat management required to elicit population-level responses of bobwhites. Bobwhite management on several small (<200 acres) farms scattered throughout the landscape in piecemeal fashion may not produce measurable population-level responses; however, concentrating management efforts to a few well-defined focal landscapes may produce measurable responses. Two privately owned focal landscapes (>15,000 acres each) in north-central Arkansas (Central Hardwoods, BCR 24) will be managed to provide habitat for bobwhites by using early succession field borders around pastures and hay fields, prescribed burning and thinning of forested lands, and restoration of native warm season grasses. This research will assess the extent to which management guidelines specified in the NBCI will create a landscape that will increase productivity and population densities of bobwhites. Specifically, this research will determine 1) the collective response of bobwhite and songbird populations to landscape-level habitat manipulations and 2) determine practice-specific bobwhite use (nesting and brood rearing) of field borders, prescribed burned forests, and prescribed burned and thinned forests.

Initial data collection for this project is underway with no preliminary findings available at this time.

2005 SOUTHEAST QUAIL STUDY GROUP MEETING STATE REPORT—FLORIDA

Tommy Hines
Florida Fish and Wildlife Conservation Commission

During 2004-05 a conceptual bobwhite restoration plan for Florida was completed and a statewide committee was appointed by the Agency Director. This committee was charged with assisting in setting more specific and realistic bobwhite population goals. Secondly they are charged with assisting with the formulation of strategies to achieve the goals outlined in the plan. The eventual outcome of this effort will be a comprehensive bobwhite restoration and management plan for the state of Florida. The preliminary meeting of this group was held in May, and one of the first tasks they identified was to attempt to identify those public lands which may be suitable for bobwhite management. Since, there is a large amount of public land owned by agencies other than the Fish and Wildlife Conservation Commission (FWC), it will be important to implement management on the most suitable of these lands in order to achieve our population goals for the state. Because of the importance of this issue, a meeting is scheduled for November 2005 with major state and federal land management agency heads invited. The objective of this meeting is to outline the plight of the bobwhite in Florida and emphasize what the individual agencies can contribute to bobwhite restoration and management.

Cecil Webb WMA Research

In 2002, The Florida Fish and Wildlife Commission initiated a study under the direction of Ralph Dimmick on the Babcock-Webb WMA in South Florida to evaluate the effects of hunting on the local bobwhite population. To evaluate the effects of varying levels of hunting pressure and harvest rates, the WMA was subdivided into 5 zones. Two of these permitted an unlimited number of hunters to hunt 4 days per week for 6 weeks during November and December, 2 permitted 10 hunters per day for the same time period, and 1 permitted 25 hunters per day for 2 days only in January. Daily bag limit was 6 quail per day for all zones.

Bobwhite densities on the area are generally low. The pre-hunt population density was estimated to be 1 bird per 19.6 acres in 2003 and 1 bird per 13.2 acres in 2004 on that portion of the WMA that was hunted during the fall bobwhite public hunts. The population density on the subunit hunted in January was significantly higher, estimated at 1 quail per 9.6 acres in 2003 and 1 per 5.8 acres in 2004. Hunter success rates averaged 1.2 quail per hunter-day in 2002, 1.0 in 2003, and 1.4 in 2004 during the November-December season. On the more densely populated subunit hunted in January, hunter success rates were 3.2 birds per hunter-day in 2003, 3.7 in 2004, and 2.7 in 2005.

During the 2004-05 quail hunting season we recorded the recovered harvest, un-recovered harvest, and other mortalities for a sample of 242 radio-marked quail alive on the hunting zones at the beginning of their respective hunting seasons. Recovered harvest rates and total mortality rates varied widely among zones, in some cases reaching levels believed to be excessively high. The recovered harvest ranged from a low of 8.6% of the pre-hunt population on the January 2-day hunt to 45.8% and 44.1 % on the two highest harvest zones during the November-December hunts. Total mortality from all causes that occurred during the 6-week hunting season on those 2

zones was 64.4% and 66.7%, respectively. Over-winter survival rates (October 1-March 31) on the 5 hunting zones correlated well with the recorded harvest mortality on the respective zones. Over-winter survival during winter 2004-05 ranged from 19.8% on the highest harvest zone to 49.8% on the lowest harvest. In general, low annual survival is believed to be a contributing factor to the overall low population density on the area. Annual survival was 8.8% in 2002-03, and 7.7% in 2003-04

Ranchland Project

The South Florida ranchland project is a multi-disciplinary project to test the efficiency of bobwhite restoration on rangelands in a 5 county focal area in South Florida in the vicinity of Arcadia. Cooperators include the FWC, Tall Timbers Research Station (TTRS), University of Georgia (UG), Natural Resource Conservation Service (NRCS), University of Florida (UF), and private landowners. Funding is provided by a NRCS grant awarded to TTRS and the FWC, a Florida Wildlife Foundation grant, land owner and Quail Unlimited contributions. The NRCS has identified the 5 county focal area at our request and earmarked EQIP money to roller chop and burn native range land to restore bobwhite habitat. Over a 10 year period as much as \$4,000,000.00 could be allocated to this area for habitat restoration. Currently, there is one PhD, and one Master's candidate, along with technicians and interns under the direction of Bill Palmer, evaluating the effects of EQIP on bobwhite populations. Additionally, they are as investigating bobwhite ecology in the South Florida rangeland habitat.

The FWC has identified the South Florida ranch land region as having a high potential for bobwhite restoration. If as little as 7% of the range lands in this area can be restored to good quail habitat, a significant part of the NBCI goal for the region may be achieved. There appears to be a high probability of impacting habitat on a landscape scale in this area because; (1). Approximately 3,000,000 acres of native range is left (2). A residual to moderate bobwhite population exists on many of the areas (3). Degraded rangelands can be restored without changing land use (4). Single land holdings may range from 10,000 to 300,000 acres (5). Prescribed fire is commonly used albeit not always timed right (6). Interest among landowners is high.

Project personnel have thus far conducted spring quail and songbird counts at 300 random placed points in the 5 county area affected by the EQIP project. Also vegetation has been sampled at 200 of these points. EQIP has affected 30,000 acres with management thus far this year. Cost share practices include prescribed burning, double drum chopping, disking, herbicide application and planting for wildlife habitat.

2005 SOUTHEAST QUAIL STUDY GROUP MEETING STATE REPORT—GEORGIA

STATUS

The most recent USGS Breeding Bird Survey Data show bobwhite populations in Georgia declining at the rate of - 4.14 percent per year from 1966 – 2004. Likewise, Georgia Department of Natural Resources, Wildlife Resources Division (WRD) surveys show both quail hunter numbers and estimated harvest have declined dramatically during this time. In 1966 an estimated 135,000 harvested about 3.3 million quail while in the 2002 – 2003 season an estimated 24,0585 hunters harvested 541,922 quail, of which 371,217 (68.5%) were pen reared and 170,705 (31.5%) were wild (note: 1966 and 2002 – 2003 estimates derived by different survey techniques). In general, quail populations are very low across the Ridge and Valley, Blue Ridge Mountains, Piedmont and Lower Coastal Plain physiographic provinces with populations in the Upper Coastal Plain varying from moderate to low with localized abundance on properties being managed intensively for quail.

MANAGEMENT INITIATIVES

Georgia Bobwhite Quail Initiative (BQI)

For 2002-2004 there are 108 BQI Cooperators, with 253 crop fields and 48 forest stands enrolled in the 15 county program area. In total, these Cooperators have established 285 miles of field borders, hedgerows, and filter strips and along with other BQI practices have positively impacted more than 16,000 acres for bobwhites and various other wildlife. Additionally, BQI wildlife biologists have provided technical assistance on more than 600,000 acres since the program began.

Summer monitoring of quail on BQI fields during 2004 showed bobwhite occurrence to be 60% higher on BQI treatment fields (i.e. have established BQI habitats) than on controls. However, the 2004 combined treatment and control field bobwhite occurrence averaged 37% below that measured during 2003. This fluctuation was further verified by an approximate 50% reduction in the covey find rate during the 2004 BQI Youth hunts. It is suspected that this decline was in great part due to the very heavy late summer rains.

In December 2004, 102 BQI Cooperators were telephone-surveyed relative to their opinions on various aspects of the program. Some of the highlights of this survey include: 1) **94%** rated their overall experience with BQI as good to excellent; 2) **99%** rated the quality of services provided by BQI personnel as good to excellent; 3) **91%** felt BQI had improved the overall environmental condition of their land; 4) **81%** felt BQI practices had resulted in increased bobwhite populations on their land; 5) **79%** felt BQI had improved the quality of their quail hunting; 6) **82%** felt BQI had increased the number of songbirds and other wildlife using their property; and 7) **74%** indicated they would not have implemented all of the BQI habitat practices without the provision of financial incentives. Basically, the survey shows high landowner satisfaction and the perception of positive ecological impacts from BQI. The survey confirms that economic incentives and qualified technical staff are essential to successfully restore and maintain early successional habitat for bobwhites and other wildlife on the overall landscape.

As was the case last year, the 2004 - 2005 BQI Youth Quota Quail Hunts were popular, successful and highly sought after. A total of eight hunts were conducted with 15 youth

participating, hunting for 50.5 hours, locating 21 coveys and harvesting 2 birds. Many of the youth had never hunted wild quail before and this proved to be an exciting, educational and memorable experience. Many favorable comments and letters of appreciation were received.

The Bobwhite Quail License Plate, one of two license plates currently issued by the Department of Motor Vehicles to benefit wildlife programs of the Georgia Department of Natural Resources, Wildlife Resources Division (WRD) reports excellent sales this past year. From December 2003 to December 2004, more than 194,000 bobwhite quail tags have been sold. This is the second version of the bobwhite quail license plate. The first originally was issued in December 2001 and featured a similar scene – a whitetail deer with a covey of bobwhite quail taking flight. Combined, sales from the first and second versions of the tag total more than 321,000 with revenue reaching over \$2.8 million.

BQI continues to show that bobwhites can be increased on working farm and forest lands. The following reports were provided by BQI cooperators during the past year: Bob Youmans of Emanuel County reports significant improvement in quail numbers following his first year of implementing BQI practices, and states that he saw “3 times as many young birds last year, and likely more than he has seen in the past 15 years added together!” In addition to using conservation tillage style planting including winter grain cover crops, he has taken advantage of a variety of BQI practices on his fields. He uses both 30 feet wide and 60 feet wide field borders, and fallow patches in various combinations to benefit quail and in some instances to eliminate hard to farm and less productive acres (as reported by Chris Baumann, WRD biologist).

Daniel Smith, a producer in Sumter County has been enrolled in BQI for 3 years and farms some 630 acres in wheat, corn, peanuts, and soybeans. He has established over 77 acres of field borders, center pivot corners, and fallow patches on eleven of his crop fields. Mr. Smith believes the program is having a positive effect and is confident that the establishment of native vegetation in the borders and patches is providing both cover and food for quail. Since establishing BQI practices three years ago, he reports an increase in the number of coveys and “seeing birds in places where he has not seen them before.” (as reported by Joy Bornhoeft, WRD biologist)

Mr. Saunders 297-acre farm in Terrell County is in the 4th year of quail management. He has 3 fields enrolled in the Bobwhite Quail Initiative (BQI) with a total of 8.2 acres in field borders, 1.1 acres in hedgerows, 3.2 acres in fallow pivot corners, and 26.5 acres in fallow patches. He reports a noticeable improvement in the quail population since implementing BQI practices. Mr. Saunders states that, “I didn’t see any coveys of quail when I first got this farm, but now I feel like I have 6 – 7 coveys and possibly more.” (as reported by I.B. Parnell, WRD biologist)

Walter Degenhardt owns 1250 ac in Burke County, which he hunted as a boy, and is currently in its 4th year of quail management, with 37.2 ac in BQI practices on 6 fields totaling 320 acres. Most of his practices are 30-ft borders and hedgerows, with a few fallow patches. While pursuing conventional farming practices in the 1990 s, he never saw or heard quail around the barn by his field; but since instituting BQI practices he hears a couple of coveys using that same area. He feels the BQI borders have made a tremendous difference for wildlife habitat on the farm. (as reported by Buck Marchinton, WRD biologist)

During the past year there have been several changes in BQI personnel. Wildlife Biologists, **I.B. Parnell**, and **Chris Baumann** have accepted positions with WRD Game Management Regions, V and VI, respectively. These biologists made excellent contributions to

BQI and wildlife conservation in Georgia and are wished the very best in their new career challenges. **Brandon Rutledge**, wildlife biologist, was added to the BQI Team on April 18th and will be working out of the BQI Southwest Focus Area, Albany Office. Brandon has worked at the Jones Ecological Research Center and more recently for the Florida Wildlife Conservation Commission and will be a strong addition to BQI. *(Submitted by Reggie Thackston Bobwhite Quail Initiative Coordinator)*

Georgia Wildlife Resources Division Private Lands Program (PLP)

The Private Lands Program of the GADNR Wildlife Resources Division (WRD) is involved with numerous inter-agency committees and subcommittees, aiming to develop consensus on overall conservation and wildlife management efforts and streamlining these efforts statewide. We provide written and oral input regarding suggestions for improvement for administering Farm Bill programs and related activities to benefit wildlife and conservation. Some examples include providing letters of comment for the Georgia and NHQ NRCS offices regarding EQIP, CSP, and the National Handbook of Conservation Practices. We have cooperated with FSA and other partners regarding CP33 to help plan future wildlife monitoring efforts and produce an informational brochure. We have helped provide Georgia private landowners with summary Farm Bill program information through an inter-agency effort resulting in a letter mailed to all Forest Stewardship Program participants and an article in Georgia's Bobwhite Quail Initiative newsletter.

We have worked closely with the Georgia Forestry Commission, Natural Resource Conservation Service, University of Georgia's School of Forest Resources, and other partners to develop a new wildlife continuing education program, designed for Forest Stewardship Program plan writers, titled "*Blending Wildlife Considerations in Forest Stewardship Program Plans.*" Two of these workshops helped provide wildlife training to about 100 natural resource professionals on 25 topics, much of them addressing management of early successional habitat.

Five corporate forest landowners, representing 2.9 million acres of land in Georgia, were recognized through GADNR-WRD's Forestry for Wildlife Partnership Program that began in 1996. Some evaluative criteria include management activities conducive to establishing improved early successional wildlife habitat. Through a rigorous review of comprehensive reports and follow-up field tours, Georgia Power, International Paper, Meadwestvaco, Temple-Inland and Plum Creek companies were publicly recognized as partners in 2005, including a formal awards ceremony with Governor Sonny Perdue.

We have been involved with the Sustainable Forestry Initiative^{®(SFI)} Implementation Committee (SIC) in Georgia to help provide wildlife management continuing education outreach to the forestry community. We have provided wildlife presentations at about 5 Master Timber Harvester Workshops per year and are currently working through SIC to hopefully provide in-the-field comprehensive wildlife training throughout Georgia in coming years.

A new NRCS-WRD cooperative wildlife biologist position was created and then staffed March 2004. This biologist has very successfully provided wildlife management technical guidance and has helped implement wildlife-related conservation practices through Farm Bill programs. Within a 12 county project area, he has administered a total of \$160,116 for 33 WHIP contracts and 7 EQIP Forestry & Wildlife contracts. He has facilitated 9 Project WINGS contracts and provided on-site visitations with 120 separate producers. Based on a customer survey, respondents believe that they were provided very valuable assistance, feel that landowners benefit from interagency cooperative projects like this, and would recommend this

service to other landowners. We are currently working with NRCS to try and create much needed additional wildlife biologist positions. *(Submitted by: Eric Darracq, PLP Coordinator)*

RESEARCH UPDATES

University of Georgia, D.B. Warnell School of Forest Resources

1. We are now in the 6th year of the collaborative predation management project with USDA Wildlife Services, Tall Timbers Research Station, and Auburn University. Susan Ellis has come on board to assist in completion of data collection for years 6 and 7 and develop this as part of her Ph.D. dissertation.
2. Elizabeth Doxon is completing her second field season looking at quail brood ecology and CRP in western Kansas. This project is in collaboration with Kansas Department of Wildlife and Parks.
3. Jessica Rodriguez completed sample collection and is now in the lab where she is studying parasite loads of bobwhite relative to releases and intensive management.
4. Brant Faircloth has finished fieldwork and is now completing lab work on his Ph.D. study of quail parentage and relatedness at Tall Timbers Research Station.
5. Theron Terhune has completed fieldwork and is now undertaking lab work for his Ph.D. study of gene flow in a population of translocated quail in Georgia. This a joint project with Tall Timbers Research Station and the Albany Quail Project at Auburn University.
6. Terry Valentine is writing her thesis on local populations and gene flow in bobwhites in Georgia, Florida, and South Carolina.
7. James Martin is in the field collecting data on a collaborative project looking at range management and bobwhites in central Florida. This is a collaborative project with Tall Timbers Research Station, Florida Fish and Wildlife Conservation Commission, and the University of Florida. *(Submitted by Dr. John Carroll, Professor of Wildlife Management)*

Auburn University, Albany Quail Project

This summer marks the 14th year of fieldwork by Auburn Universities School of Forestry and Wildlife Sciences on Quail Plantations in southwest Georgia. This long-term adaptive resource management project has been collaboration between university researchers and landowners/managers of quail plantations in the Albany Georgia area. The focus has been on quail population demographics and the factors that affect them; with the objective being practical information that can be immediately applied to provide higher populations and better hunting. During this time period, over 7,000 wild quail have been radio-tagged and monitored by project personnel. A series of field experiments have been conducted, their results applied, and bobwhite populations and hunting elevated to high and stable levels.

Current emphasis in on the collaborative research effort examining the effects of mammalian nest predator removal on reproductive success and fall populations of quail. We are currently in the 6th year of this 7-year project, which is in conjunction with UGA, Tall Timbers, and USDA GA Wildlife Services. Results so far indicate positive impacts on quail reproductive performance and fall populations from removal of nest predators. These studies have also documented the nest predator community by using 24-hour video monitoring of quail nests. During this time, 672 nests and 249 depredation events have been filmed which were made up of

40% mammals, 32% snakes, 12% fire ants, and 17% unknown or other. We are now in the "cross over" phase of this project with an expected completion date of November 2006.

Another area of focus has been on relocation of wild birds. Techniques, site fidelity, and pilot studies on population benefits have been conducted here over the years and are being published in the Wildlife Society Bulletin. Graduate student Theron Terhune completed his fieldwork in the fall of 2004 for his PhD project on population demographics and genetics of wild resident and transplanted quail in the Georgia piedmont. This is in conjunction with John Carroll at UGA and TTRS and has showed significant population impacts from relocated wild quail. Theron is now in Athens analyzing data and writing. A follow up project in conjunction with TTRS is examining a "genetic exchange" of birds on 3 sites in sw GA for a 2-year period.

Other work includes the analysis of long term data sets on seasonal survival and cause specific mortality, factors effecting nesting success, and the lack of evidence for "radio handicapping" for our studies. Work continues as well on study areas in Alabama and east Georgia, which are providing insightful comparisons to our study areas here. The project in Alabama is demonstrating problems associated with low soil ph, over burning, and high nest predator populations; where the east Georgia site is demonstrating detrimental effects of winter loss to Cooper's hawks in that landscape.

In addition to these telemetry projects we have been very active on several large-scale management projects where existing plantations are being renovated or new ones created. A good bit of time is spent as well with extension of quail management information throughout the region through personal contacts, presentations, and writing of scientific and popular articles. *(Submitted by Clay Sisson, Project Coordinator)*



2005 SOUTHEAST QUAIL STUDY GROUP MEETING STATE REPORT—KANSAS

Southeast Kansas Quail Initiative

The Southeast Kansas Quail Initiative (SEKQI) kicked off in 2001 in four southeastern Kansas Counties: Bourbon, Allen, Neosho, and Crawford. These four counties are in the heart of Kansas' core bobwhite range. The SEKQI is a collaborative program of Kansas Department of Wildlife and Parks, Kansas Farm Bureau, See-Kan RC&D, USDA Natural Resources Conservation Service, Kansas State University Research and Extension, Quail Unlimited, and Pittsburg State University. The evaluative research program is a partnership between Kansas Department of Wildlife and Parks, the Kansas Cooperative Fish and Wildlife Research Unit, and the Department of Range, Wildlife and Fisheries Management, Texas Tech University. Initial funding for habitat practices was obtained from a National Fish and Wildlife Foundation Grant and funds from the Kansas Buffer Initiative administered by the State Conservation Commission. The SEKQI area has been included in a Conservation Priority Area for CRP, and the Conservation Commission employed two Buffer Coordinators for the area. Through 2004, most habitat improvements has focused on native grass seeding which has occurred mostly as fescue pasture conversion with some seeding of cropland. Table 1 summarizes contracted practices and costs through 2004.

In 2004, 71 habitat improvement plans were developed on 6,800 acres for \$205,000. Thirty-nine percent of these plans are in-conjunction with USDA-WHIP plans, which reduces the landowner cost share to 10% and makes the plan score higher. Habitat improvements primarily include brush control, conversion of fescue pastures to native-grass, managed haying, grazing, and prescribed burning. Other practices include light disking, food plots, shrub establishment, and conservation headlands. To date, 218 SEKQI contracts have been signed with cooperating landowners, encumbering \$361,839 on 9,293.1 acres.

Other Private Lands Habitat Management

Like most states in the Midwest, Kansas has funded programs to deliver habitat improvement practices to private lands. In the past, data on private lands programs has been included in a variety of internal reports and has largely been difficult to compile and assimilate. Starting in 2004 an effort has been made to develop a database to track all private lands management. Most practices, whether performed specifically for quail, or for other species such as ring-necked pheasants, have some potential for improving quail populations. Five practices, prescribed burning, legume interseeding of CRP, food plots, light disking CRP, and light disking CRP with legume seeding, have been performed (Table 2). Much of this work has been done with KDWP funding from its Upland Game Bird Initiatives along with partnership funds from

Pheasants Forever, Quail Unlimited, and local Resource Conservation and Development Councils.

Farm Bill Summary

CRP - Kansas was the National leader by acreage of CRP enrolled during the 29th general signup with 239,950 acres accepted. Of these acres, 144,323 were in State Conservation Priority Areas (3 Western Kansas Pheasant Initiative, Southeastern Kansas Quail Initiative, Lesser Prairie-chicken) and 178,063 were enrolled in CP25. This brings the total area in CRP after the 29th signup to 2.9 million acres of which 30% are in CP2 and 60% are native grass re-enrollments in CP10. However, over 1.6 million acres are set to expire in 2007. The four SEKQI counties had good success increasing total general CRP acres by 1/3 to 40,427 acres in the last two signups. In addition, these counties enrolled a total of 2,618 CCRP buffer acres.

CP33- Kansas was allocated 20,000 acres for Habitat Buffers for Upland Birds practice. It was determined to utilize 15,000 acres in BCR 22, located in eastern 1/3 of Kansas, and 5,000 acres in BCR 18 and 19, the western two-thirds of the state. The 5,000 acres in western Kansas were enrolled rapidly, so a successful effort was made to add an additional 5,000 acres from the eastern allocation, thus 10,000 acres are allocated in each section. As of July 12, 2005, 9,915.3 acres have been approved; however, several thousand more acres have been offered and are in the works. It is expected that the allocation could be completed by the end of 2005. The four SEKQI counties enrolled a total of 672 acres in CP33. Figure 1 indicates acreage enrollment by county.

CSP- Two watersheds were designated in Kansas for the initial pilot project. In 2004, 88 applications were received on 47,172 acres, 84 applications were approved on 46,676 acres for a total of \$807,866. Bobwhite quail habitat was selected for addressing the wildlife habitat component for the program. In 2005, 9 watersheds covering all or portions of 31 counties in Kansas were selected for the program.

WHIP- In July of 2003, KDWP entered into a Contribution Agreement with NRCS to essentially deliver USDA WHIP. Work is being accomplished by 14 district biologists and 6 biologist techs. NRCS pays KDWP according to work provided such as per status review and contract written. KDWP completes the entire enrollment planning process using NRCS computers. In 2004, biologist's prepared 23 essential WHIP plans on 5,149 acres for \$89,809, of those, 19 contracts were approved on 4,128 acres for \$77,189. In addition, biologist's prepared 244 general WHIP plans on 26,775 acres for \$917,798, of those, 129 contracts were approved on 13,786 acres for \$516,672. This was the first year a backlog was created on WHIP plans in Kansas. This agreement provided enough money to hire an additional 6 unclassified wildlife bio-techs for additional technical assistance for WHIP, and WIHA activities. Statistics on WHIP, WRP, and GRP are included in Table 3.

Education and Outreach Activities

A quail habitat workshop and tour was developed for Agency personnel of Extension, NRCS, FSA, and KDWP, and was attended by 80 professionals. The workshop focused on habitat, programs, and how to sell them. Numerous presentations and meetings were held in the SEKQI area promoting buffers and improving quail habitat. Recent landowner meetings focused on CP33 enrollment, with 4 meetings having over 230 in attendance, resulting in an estimated 35

producers enrolling in CP33. In addition, marketing efforts are underway through signage designating SEKQI habitat improvement areas, hats, videos, and placemats.

Table 1. Habitat practices contracted and their associated costs for the Southeastern Kansas Quail Initiative.

	2001	2001	2002	2002	2003	2003	2004	2004	total	Total
Practice	acres	cost	Acres	cost	acres	Cost	acres	cost	acres	Cost
food plots	13	\$653	44	\$1,597	113	\$5,007	33	\$1,405	203	\$8,662
Livestock management ¹	20	\$3,456	152	\$937	653	\$3,674	1,309	\$3,926	2,143	\$11,993
native grass restoration	292	\$21,060	335	\$18,729	774	\$54,018	740	\$59,200	1,401	\$153,007
plow-perch ²	100	\$150			7,920	\$1,900			8,020	\$2,050
prescribed burning	70	\$225	235	\$326	170	\$480	200	\$300	675	\$1,331
strip disk	2	\$25	15	\$183	26	\$328			43	\$536
tree/shrub planting ³	2,215	\$1,661			20,215	\$15,172	3,322	\$2,492	25,752	\$19,325
brush control ⁴			10	1,500	86	9,851	222	\$16,831	318	\$28,188
Conservation headlands					58	\$461	50	\$1,500	108	\$1,961

¹ includes rangeland and meadow practices such as burning, haying, and grazing, as well as livestock exclusions, and fence construction.

² a linear strip is plowed or tilled and a wire are stretched between posts along the length. This practice provides a perch site for birds which will void plant seeds in their feces that will germinate and provide a "natural" food and cover patch. Area of practice is in feet rather than acres.

³ number of individual trees or shrubs.

⁴ primarily hedgerow renovation.

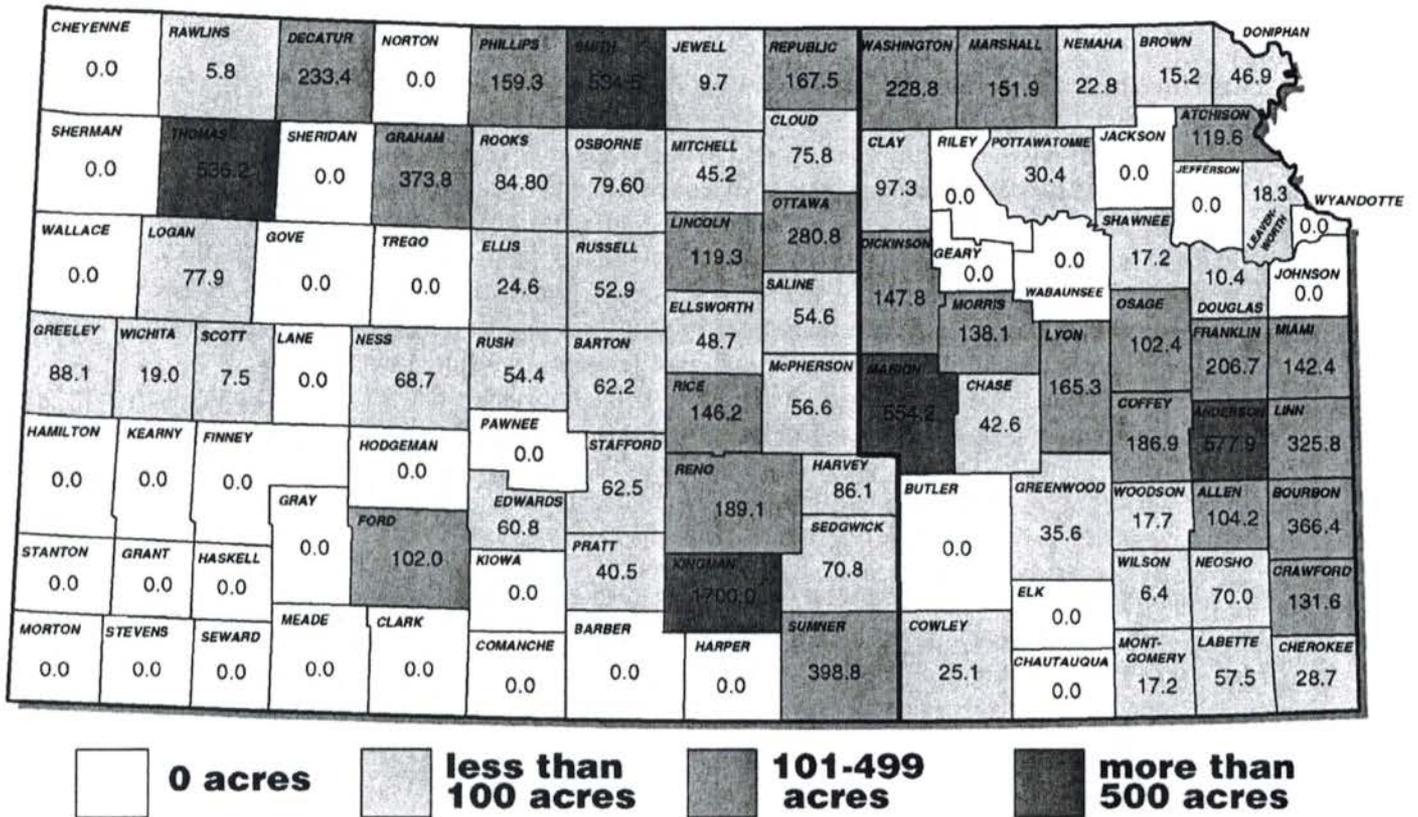
Table 2. Kansas Wildlife Habitat Improvement Program practices contracted in FY05.

Practice	Acres	Cost
Legume Interseeding	641	\$11,596.40
Food Plots	2,387	\$18,980.20
Strip Disking	79	\$1,218.80
Strip Disking w/ Legumes	2,025	\$54,335.40
Prescribed Burning	3,627	\$10,422.30

Table 3. Summary of farm bill contracts through 2004, excluding CRP.

WHIP	Contracts	Acres	Dollars
2004 applications:	267	31,924	\$1,007,607
2004 approved	148	17,914	593,861
Grand total approved (98-04)	583	88,826	2,549,893
WRP			
2004 applications	9	631	
2004 approved	8	629	
Total (95-04)	129	12,613	
GRP			
2004 applications	488	169,440	34,515,235
2004 approved	36	17,214	4,290,899

Figure 1. CP33 acreage enrolled by County in Kansas as of July 12, 2005. Hamilton, Stanton, Morton, Kiowa counties are maxed out for CRP enrollments. Hodgeman, Clark and Comanche counties are within 1% of the county limit.





2005 SOUTHEAST QUAIL STUDY GROUP MEETING STATE REPORT - KENTUCKY

Infrastructure of Small Game and Private Lands Program

The past year has seen many changes and new faces at the program and the field level. Unfortunately, vacancies remained unfilled for extended periods hindering some of our efforts. John Morgan replaced Brian Smith as Small Game Program Coordinator. Brian transferred to the Wildlife Diversity Program Coordinator position, whereas John promoted from the Small Game Biologist position. Consequently, the Small Game Program went from a team of 4 to an army of one over the last 2 years! Despite a shrinking staff in Frankfort, the field staff continued to grow. We recently hired 3 more Farm Bill biologists that are cost-shared with NRCS. Furthermore, we are hoping to hire a cost-shared Farm Bill Coordinator that will be housed at the state NRCS headquarters. We will have 16 Farm Bill positions cost-shared with NRCS. We also added an additional LIP biologist over the last year. Tamara Terry will primarily work with coal companies to improve reclaimed strip mines for wildlife in southeast KY. All tolled, KDFWR now has 15 private lands biologists (PLBs) supervised by our 5 regional coordinators and 16 NRCS cost-shared positions and 2 LIP biologists (Figure 2) supervised by Dan Figert.

Partnerships – The Nature Conservancy (TNC) continues to be a valuable partner. TNC contributed the matching funds towards KDFWR's first LIP grant, hired a LIP biologist for the Bayou de Chien area, and supervised the LIP work crews this past winter/spring (see LIP section later). Kevin Raymond's cooperative position between The Nature Conservancy (TNC) and KDFWR (The Big Barrens grassland project) is also still going strong. His position focuses on restoration of glade, barren, and native warm season grasses in the area.

Along with TNC, the KY State Nature Preserves Commission (KSNPC) also partnered with us on our first LIP grant. They hired a statewide plant ecologist to assist in locating potential LIP projects. Both TNC and KSNPC assist with ranking LIP projects, assigning cost-share rates, and oversight of the LIP grant. KDFWR's second LIP grant adds in another partner—Rocky Mountain Elk Foundation (RMEF). They are providing the matching funds and will assist in locating projects. We have submitted for another LIP grant as an extension of our first LIP grant.

Quail Unlimited (QU) continues to be very supportive of KDFWR through equipment grants, seed distribution, and creative thinking. QU, KDFWR, and NRCS are currently testing several different grass/forb mixes on WMAs throughout the state in an attempt to reduce stand thickness, prevent winter blow down of grasses, and increase the amount of diversity and bare ground. QU state chapters donated the grass and forb seed, Dave Howell coordinated the seed delivery, and QU will also purchase signs to note the demonstration areas. QU and KDFWR were awarded a NFWF grant to promote CP-33 and mid-contract management. The grant will create a 3-year internship program to promote wildlife-friendly practices. State chapters also purchased 30-gallon tanks with pumps (including boom and hand sprayers) that we mounted to ATVs. The tanks were used to support prescribed burning and perform herbicide applications.

KY Division of Conservation (DOC), already partnering with us on CREP, is now involved in LIP as well. DOC is coordinating the payments for LIP cost-share to landowners. Additionally, KDFWR and DOC have assisted county conservation offices with the purchase of equipment.

Equipment – This year, the Small Game Program purchased 5 burn trailers and equipped them with Nomex, drip torches, water tanks, hand tools, and assorted fire related items. With thousands of acres of NWSG on the ground in KY, we are beginning to shift gears and promote subsequent management of established stands. Prescribed fire is the preferred maintenance method, because it is inexpensive and yields the most beneficial results. In the coming year, the Small Game Program will continue to focus much of its equipment budget on gearing up for prescribed fire. The goal is to provide each PLB with a fully equipped burn trailer including an ATV. The ATVs will also be used for herbicide application and broadcasting seed. We've also been asked by the USFWS to partner on the purchase of a tree planter. DOC acquired 8 NWSG grass drills that were cooperatively purchased, and the MOA continues for one more year. The addition of those drills results in over 70 NWSG drills the Department has cooperatively or exclusively purchased in the last decade.

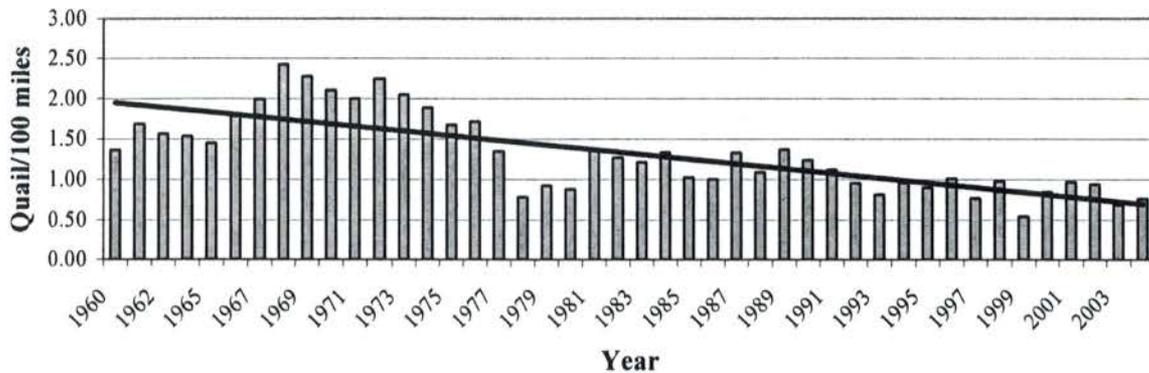
Northern Bobwhite Activities:

The annual mail carrier survey prior to the 2004 hunting season resulted in cooperators seeing 0.77 quail/100 miles statewide, up 11.6 percent from 2003. While the increase is a welcome sight, it still falls some 41.7% below the 1960-2004 average.

Comparison of total quail/100 miles observed by rural mail carriers.

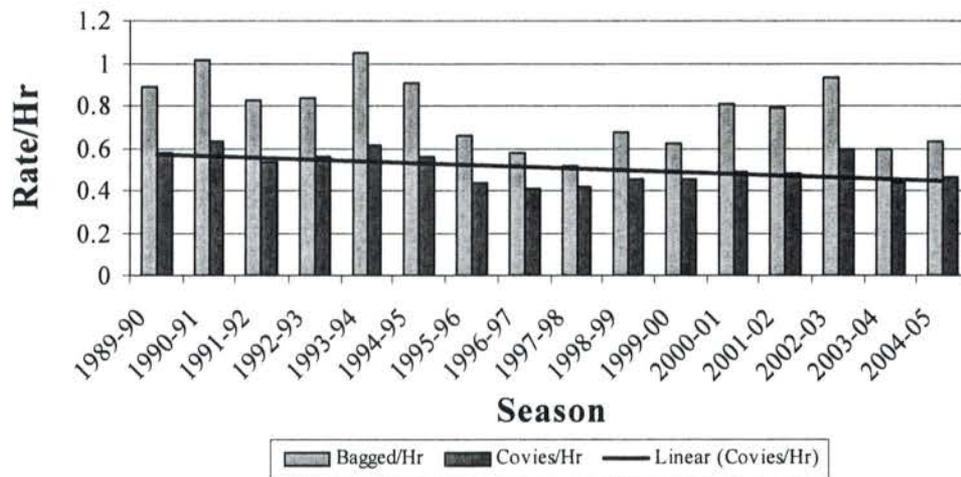
WEATHER	TOTAL QUAIL/100 MILES			PERCENT CHANGE	
	MEAN			MEAN	
DIVISION	1960-2004*	2003	2004	2004/1960-2004	2003/2004
Western	2.43	1.01	0.93	-61.7	-7.9
Central	1.32	0.63	1.03	-22.0	+63.5
Bluegrass	0.86	0.74	0.77	-10.5	+4.1
Eastern	0.62	0.38	0.34	-45.2	-10.5
Statewide	1.32	0.69	0.77	-41.7	+11.6
*No data available for 1964.					

Quail index from mail carrier survey in Kentucky, 1960-2004.



The Quail Hunter Cooperator Survey continues to move forward. Hunting logs from the 2004-2005 quail season were received from 40 hunters who averaged 12.9 hunting trips lasting 3.0 hours. Data were provided from 514 hunts in 59 counties across the state. On average, hunters harvested 3 quail and wounded 0.20 quail per hunt. Hunters reported harvesting 63.1% of the birds shot at and wounding 6.7%. Assuming wounded individuals died, hunting related mortality of fired upon birds was 69.8%. Over the life of the cooperator survey, the population trend is slightly declining (graph below).

Figure Y. Quail harvest and covey flush rates in Kentucky, 1989-2005.



Kentucky Department of Fish and Wildlife Resources Private Lands Programs: descriptions and 2004-05 accomplishments

Habitat Improvement Program (HIP) - We are in the 18th year of the Habitat Improvement Program. The program is our primary state funded program for private landowners across Kentucky. Any landowner can receive technical assistance, a management plan, and equipment loan. The program also provides cost share at a rate of 75% with a \$1000 limit per landowner per year. The cost share money for next years' budget is \$175,000. In many instances, we deliver cost-share in the form of equipment use, seed, and herbicide for landowners. Therefore, bulk prices for those products extend limited financial resources and maximizes habitat on the ground. Staff shortages in Frankfort have made a summary of this year's activities impossible. Mountains of data remain unentered, but vacancies will soon be filled. Over the life of the program, we have provided technical guidance to over 9,000 landowners owning over 2 million acres across Kentucky.

Habitat Improvement Program accomplishments by practice, 1 July 2004 -30 June 2005.

Recommendation	Units
<u>Reimbursed Practices</u>	
Cool Season Grasses	134 ac
Cropland Management	43 ac
Fencing	990 ft
Fescue Eradication	773 ac
Forest Openings	48 ac
Legumes	337 ac
Mowing (i.e., strip mowing of NWSG)	139 ac
Native Warm Season Grasses	1,212 ac
Nesting Structures	12 units
Soil Amendments	375 ac
Strip Disking	17 ac
Trees and Shrubs	> 1,300 stems
Water Holes	21 units
Other	132 ac

Kentucky Bonus Programs – In Kentucky, there are 4 bonus programs sponsored by KDFWR and Kentucky Quail Unlimited, in cooperation with USDA Farm Service Agency and Natural Resources Conservation Service. These programs allow landowners participating in USDA's Continuous Conservation Reserve Program (and EQIP in one case) to take advantage of bonus payments by selecting to use native species, increasing forb rates, or implementing various practices. For example, the "Buffers for Bobwhites" program provides landowners a one time payment of \$25.00/acre (Maximum 20 acres/\$500 per landowner) for planting native warm season grasses and legumes or wildlife friendly cool seasons on all or a portion of filter strips, grassed waterways, and riparian buffers on CCRP acreage. Another 4 county "Wildlife Bonus Program" in the Purchase region offers bonus payments for wildlife friendly practices including light disking, prescribed burning, and native grass & forb plantings on CCRP and general CRP acres. The "Bobwhite Bonus Program" in 7 counties of the Bluegrass region provides bonus

payments for planting CCRP buffers and EQIP pasture and hay plantings to warm season grasses, and incentives to strip disk or convert fescue on non-CRP lands. The final bonus program targets Mclean, Ohio, and Webster counties and provides additional incentives to enroll acres in CP-33. The program pays a \$150/acre bonus payment for up to 10 acres. The following accomplishments have been completed under these programs in 2004:

- Buffers for Bobwhites (12 counties Green River region) – 74 acres of projects
- Wildlife Bonus Program (4 counties Purchase Region) – 225 acres of projects
- Bobwhite Bonus Program (7 counties Bluegrass Region) – 47 acres of projects
- CP-33 Bonus Program (3 counties Green River region) – 329 acres of projects

What's New – Programs, Initiatives and Partnerships

CREP - FFY 2004 has continued to be a success for the Green River CREP. It has been a slow process, but we are learning how to promote and work this program with the local landowners. We have once again increased acreage enrolled in the program for the FFY. Although the increase was not as much as we would have liked, it was accomplished during a year in which many lessons were learned, and turnover within county offices was very high. Positions have now been filled, new employees settled in, and a renewed energy level is evident with regards to promotion and implementation of this program. Although we have lost two of our three Green River CREP Technicians (and those positions will likely not be filled), the additional three technician positions funded jointly by NRCS and KDFWR, which were put in place primarily to work with the Green River CREP, have helped tremendously.

Overall, 2004 was a success with 164 contracts approved, totaling 2,869 acres. That brings the grand total up to 394 contracts covering 8,396 acres since the project's inception. Two practices, riparian buffers and native grasses, have accounted for 97% of the acreage contracted.

Northern Bobwhite Conservation Initiative - The goal for NBCI is to restore northern bobwhite populations *range wide* to an average density equivalent to that which existed on improvable acres in the baseline year of 1980. Over the next 20-25 years, Kentucky must add 135,000 coveys to the population through habitat improvement to achieve their portion of NBCI's goal. Obviously, this will take a very aggressive approach to achieve such lofty goals, but the momentum is gaining on a national level to devote more funds towards this project. In Kentucky, we have already begun to capitalize on this push to restore quail numbers. We've worked with NRCS and FSA to maximize benefits to grassland birds in Farm Bill programs and to maximize the amount of acreage getting into programs. We're innovating ways to hire more biologists to promote the various private lands programs available. We still need to build many partnerships in able to accomplish NBCI's goals, but we have a strong start with our infrastructure and dedication. CP-33 contracts are steadily growing, and we hope to reach our 9,000-acre allocation within the next year.

Landowner Incentive Program (LIP) – KDFWR's first LIP proposal to the USFWS landed a total of \$1,495,000 in Tier 1 and 2 combined. We partnered with TNC and the Kentucky State Nature Preserves Commission (KSNPC) to hire a T & E Plant Ecologist (KSNPC) and 2 Focus Area biologists (TNC and KDFWR each hired 1) to work on private lands. Additionally, we

partnered with KY Division of Conservation to assist with distribution of cost-share to landowners. Last year, we approved 91 projects across the state: 15 were crew work only, 44 were cost-share only, and 32 received crew work and cost-share. We allocated nearly \$580,000 in cost-share, incentive payments, and crew labor. TNC supervised a crew (4 people) that did anything from hand clearing of brush to planting trees, but most of their time was spent assisting with prescribed fires under the leadership of TNCs burn bosses. In all, these crews burned over 4,000 acres on private lands since the projects inception. KDFWR is in the process of hiring a work crew as well. KDFWR applied for a second LIP grant and was awarded \$867,000 to be matched by Rocky Mountain Elk Foundation. Projects will be focused in the Appalachian Mountain region targeting strip mine reclamation. The newly hired biologist will soon get habitat projects in motion. KDFWR submitted a grant to expand the first LIP grant in April. If awarded, the crew and biologists will be kept on staff, and added cost-share dollars will be available.

Landowner Incentive Program (LIP) accomplishments by practice for KDFWR's first LIP grant, in partnership with TNC and KSNPC. These accomplishments are from the second year of a 3-year grant (July 1, 2004 – June 30, 2005). Numbers are lumped into general groups (e.g., all tree planting information was combined), and not all practices completed are listed.

<u>Practice Title</u>	<u>Quantity</u>	<u>Units</u>
<u>Cave/Sinkhole Practices</u>		
Cave Gate	2	gates
Cave/Sinkhole Protection Incentive	4	caves/sinkholes
Sinkhole Cleaning	2	sinkholes
<u>Wetland Practices</u>		
Wetland Creation	7.6	ac
<u>Grassland Practices</u>		
Grass Cover Herbicide Application	983	ac
Grass Seeding and Seedbed Preparation	533	ac
Native Warm Season Grass	3,083	lbs
Introduced Grasses (for grade projects)	432	lbs
Forbs	1,246	lbs
Legumes	25	lbs
Old Field Regeneration - Herbicide	23	ac
Invasive Woody Control - Herbicide	46	ac
<u>Labor</u>		
Crew Labor - Prescribed Burning	647	ac
Crew Labor - Miscellaneous*	55	hrs
Prescribed Fire - Landowner Labor	72	ac
Tree/Shrub Planting - Landowner Labor	140	ac
<u>Tree/Shrub Practices</u>		
Tree/Shrub seedlings	90,878	seedlings
Local Ecotype Tree/Shrub Seedlings	369	seedlings

Erosion Control Practices

Streambank Stabilization	2	projects
Grade Control	3	projects

Other

Bat Boxes	6	boxes
Owl Nest Box	2	boxes
Silo Improvements for Bats	1	silo
Permanent Protective Fencing	13,850	ft

* Includes hand-control of invasive woody species, planting trees, and creating firebreaks.

Private Lands Committee – KDFWR formed a private lands committee to critically evaluate private lands activities. The committee includes program coordinators, regional coordinators, private lands biologists, and a farm bill biologist. The aim of the group is to clearly identify goals and objectives of private lands work, improve administration and program tracking, and improve communication. Historically, private lands activities have been exclusively reactive by responding to landowner requests for technical guidance. Private lands activities may be maximized if we target the leaders in the agricultural or local community. Also, the group identified the primary purpose of the program was creating habitat, not public relations. Therefore, it may be necessary to minimize cost-share spent on food plots, and focus more attention on promoting cover and native vegetation.

ArcGIS and associated databases – KDFWR is in the process of delivering an ArcGIS application to field staff. The initial impetus is to create a professional quality map for landowners and quick, accurate measurements of acreage. The second step will involve linking databases to the spatial information. Connecting extensive attribute data to spatial information will be a powerful planning and reporting tool that will save time and money. In some instances, private lands data are being stored at the field, supervisory, and administrative levels. An ArcGIS application will serve as a clearinghouse for information eliminating the duplication and triplication of effort, and it will standardize data collection for reporting accomplishments. Field staff will have a database of their landowners linked with spatial information at their fingertips. The delivery of landscape coverages will be done through the internet, and mapping applications and forms will be programmed for ArcGIS to simplify the program for staff.

Pilot Projects

- Wild Rye – Monitoring experimental native wild rye plantings for potential as a cool season bunch grass planting.
- Select – Experimental treatment of Select herbicide on native grass stands to kill fescue and stunt native grass.
- Grazing – Measuring daily weight gains on cows foraging exclusively on native warm season grass in summer months.
- Late summer/fall burning – Monitoring vegetation change associated with late summer and fall burns of native warm season grass.

2005 SOUTHEAST QUAIL STUDY GROUP MEETING STATE REPORT—LOUISIANA

Status

Fall whistling surveys were conducted along 38 routes in 5 habitat types. There were 10 assumed zero routes. The Southeast Loblolly Region had the highest call per stop value, followed by the Northwest Loblolly-Shortleaf-Hardwood Region, the Longleaf Region, the Acadiana Rice Belt, and Mississippi/Atchafalaya River Agricultural Belt. Changes from 2003 were statistically significant ($P \leq 0.10$) for the Longleaf Region only.

Table 1. Statewide fall bobwhite whistling survey results, 2004.

Habitat Type	Calls Per Stop 2004	Calls Per Stop 2003	Change From 2003	Long-Term Mean Calls per Stop 1983-2003
SE Loblolly	0.08	0.12	-33.4% (NS)	0.22
NW Loblolly- Shortleaf- Hardwood	0.07	0.08	-12.5% (NS)	0.12
Longleaf	0.04	0.07	-42.9% (S)	0.15
Acadiana Rice Belt	0.03	0.01	+300% (NS)	0.10
Miss./Atchaf. R. Agricultural Belt	0	0.08	NS decrease	0.05

S = Significant ($P \leq 0.10$)

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

The 2004 regional indices (calls per stop) remain below the long-term averages. The number of routes in which no quail were heard was the highest recorded since the inception of this survey. This year no quail were heard on 27 routes, including those assumed to be zero. The previous high number of routes on which no quail were heard was 24 routes in 2002. All routes except the Acadiana Rice Belt exhibited indices lower than the 2003 values. However, only the Longleaf Region recorded a statistically significant decrease. The Acadiana Rice Belt exhibited a 300% increase from 2003, however this increase was not significant due to the limited sample and its variability.

Weather conditions during the summer of 2004 were generally favorable for quail production in the northern one-half of Louisiana. Temperatures during May were normal or above normal across the state. June through August temperatures were normal or below normal. May and June precipitation was well above normal, and July rainfall was below normal over most of the state. August rainfall was variable with the northern and central regions wetter than the southern regions. The abundant rainfall during May and June should have resulted in adequate cover for July and August nests.

Weather conditions during the survey period may have negatively influenced the indices in 2004. Over 80% of the routes were run during the first 2 weeks of the survey period. Temperatures during these 2 weeks were extremely warm with the statewide averages 13°F above normal. Cool temperatures are thought to be more conducive to calling activity than warm temperatures.

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 8-27 per year, and averaged 15.3 routes per year. Comparison of the 2004 indices with the long-term (1983-2003) means in Table 1 further illustrates the decline in bobwhite quail.

Quail Management Initiatives

The LDWF has formed a task force to address declining bobwhite and grassland bird populations. The Louisiana Quail and Grassland Bird Task Force held its first meeting in June and representatives of 14 agencies or organizations participated. The immediate objectives of the task force are to develop a Louisiana quail plan and work to increase CP-33 enrollment in Louisiana.

NRCS has proposed a cooperative longleaf pine restoration project. Under this proposed initiative, longleaf tree planting will be cost-shared at a rate of 75% as a declining ecosystem under the Environmental Quality Incentives Program (EQIP). Understory cover establishment will be cost-shared under the Wildlife Habitat Incentives Program (WHIP). Mixes of native grasses and/or forbs will be planted as needed. In addition to NRCS, cooperators include LDWF and the LA Office of Forestry. Both of these agencies will provide technical assistance. Additionally, the LA Office of Forestry will provide seedlings and possibly funding to cover the landowner's 25% match. Details of this project are still being worked out.

Research

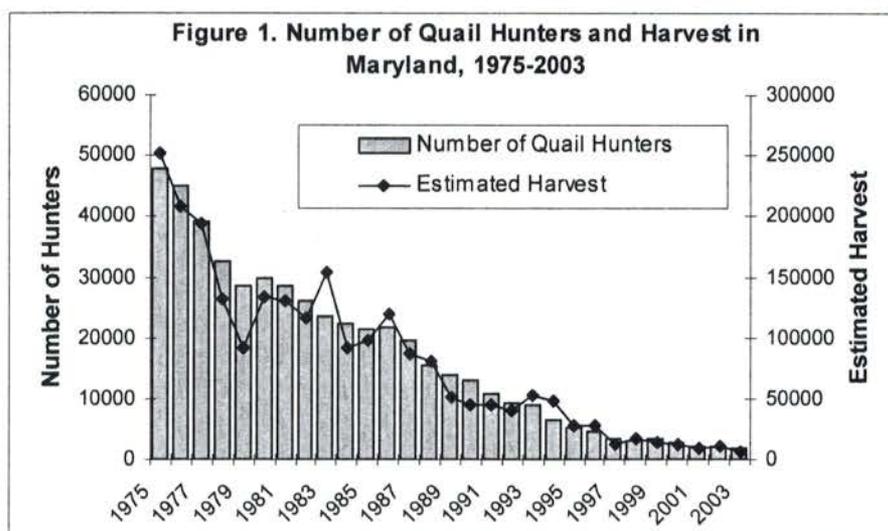
LDWF has contracted with Dr. Michael Chamberlain of the LSU School of Renewable Natural Resources to examine bobwhite responses to use of selective herbicides for habitat enhancement. Chick foraging experiments have been conducted to determine foraging efficiency in stands with various treatment regimes.

2005 SOUTHEAST QUAIL STUDY GROUP MEETING STATE REPORT—MARYLAND

POPULATION STATUS

The most reliable bobwhite population data for Maryland are obtained through the Breeding Bird Survey (BBS). The high density of routes (66 total) throughout the state has provided consistent sampling of the entire state since 1966. Based on the most recent BBS data, statewide bobwhite populations have declined 4.8% annually since 1966 and almost 7% per year since 1980. Declines have not been uniform across the state. The Eastern region is still holding huntable quail numbers while bobwhite have virtually disappeared from the central and western portions of the state.

Paralleling the quail population decrease has been a 96% decline in both quail hunting participation and harvest since 1975. Hunter mail surveys estimate there are about 2,000 quail hunters in the state that harvest approximately 8,000 birds annually (Figure 1).



MANAGEMENT AND RESEARCH ACTIVITIES

The Maryland Department of Natural Resources has continued several quail-specific projects during the past year including fall bobwhite surveys on several Wildlife Management Areas, the development of a quail habitat demonstration area, various private lands technical assistance projects, and support for a CREP buffer research project.

The Conservation Reserve Enhancement Program (CREP) has considerable potential to make landscape-level changes in quail habitat abundance in Maryland. As of June 2005 over 72,000 acres have been enrolled, with about 40,000 acres of grass buffers (CP-21) established. The

amount of land enrolled in CREP in the eastern region, where quail are still present in fair numbers, has been significant, converting about 6% (47,000 acres) of cropland into more bobwhite-friendly cover.

CP-33 enrollments began in March 2005 and as of July, participation has been low (<300 acres). While interest in quail restoration is evident, the CP-33 practice does not provide the large incentives and rental payments that the popular Maryland CREP does.

Fall covey call surveys were conducted on various private lands and Wildlife Management Areas in the eastern region of the state. This was the 3rd year for the surveys and the technique appears well-suited to accurately census small tracts (<300 acres) with a limited number of observers.

Work is continuing on the development of an early-successional habitat demonstration area. A variety of bobwhite habitat creation and enhancement practices including selective herbicide application, timber thinning, field border development, and fallow field management are being employed in an effort to increase quail abundance and provide a site to host periodic workshops. While only 2 years of data are available, over 2 times the number of coveys were estimated on the area in fall 2004 than in fall 2003.

A research project was conducted by the University of Maryland in cooperation with DNR to examine the use of CREP buffers by bobwhite quail and early-successional songbirds on the Eastern Shore of Maryland. Fieldwork has been completed and data are currently being analyzed.

2005 SOUTHEAST QUAIL STUDY GROUP MEETING STATE REPORT—MISSISSIPPI

Executive Summary (July 1, 2004 - June 30, 2005)

Primary Program Accomplishments:

- 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) within the state.
 3. Statewide program provided funds and technical support to conduct quail habitat management on numerous agency Wildlife Management Areas, including Marion County WMA, Black Prairie WMA, Hamer WMA, and Hell Creek WMA.
 4. Continued work with Mississippi Bobwhite Quail Initiative Technical Group, a cooperative venture between State, Federal and private conservation interests within Mississippi. This group will work to advance bobwhite conservation within the state, and to guide state level step-down planning efforts relative to NBCI.
 5. Cooperated with Mississippi State University to fund and implement small game research projects. Continued work with MSU to conduct spatial analysis of bobwhite habitat and an assessment of habitat restoration potential for use in NBCI-related restoration efforts. MSU continues to play an integral role in the implementation of the NBCI in Mississippi.
 7. Conducted 11 public presentations (e.g., Quail Unlimited Chapter meetings, local and statewide television shows, county wildlife dinners) on quail management.
 8. Cooperated with Extension Service to maintain the mobile classroom “The Life and Times of Bobwhite Quail in Mississippi”, which is used in 3rd and 4th grade classrooms across the State.
 9. 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.
 10. 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. Working with FSA to encourage the establishment of CP-33 acres in Mississippi.
 11. 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.
 12. Cooperated with Extension Service to write, publish and distribute small game management information in booklets and video.
 13. Wrote and published 15 small game-related popular articles.

2005 SOUTHEAST QUAIL STUDY GROUP MEETING STATE REPORT—MISSOURI

STATEWIDE

Each of MDCs eight regions have completed Regional Quail Recovery Plans. Focus areas on public and private land were chosen using BCR-based habitat models developed by Wes Burger, landtype association models, and a GIS-based edge model developed by our Resource Science Division. We tied appropriate Quail Focus Areas to our statewide areas of interest based on our Comprehensive Wildlife Conservation Strategy. Our monitoring of Quail Emphasis Areas will be conducted using the point-distance sampling approach used for CP-33 monitoring.

The Missouri Quail and Grassland Bird Leadership Council, in conjunction with MDC, held eight Quail Kickoff events across the state to build awareness of the regional recovery plans. The Technical Committee has initiated a statewide quail training program for internal staff and external partners participating in quail habitat improvement. This **Quail 101** “back to the basics” education approach has been well-attended and appears to be useful to participants.

The Covey Headquarters newsletter is published on a quarterly basis and is distributed to 11,000 landowners and interagency staff. MDC and a local Quail Unlimited chapter have undertaken a joint project to maintain a website dedicated to quail habitat issues. MDCs Outreach and Education Division features quail-related articles or reminders in monthly issues of the *Conservationist* magazine and has developed three instructional videos, distributing over 7,000 copies in the last 2 years.

MDC provides financial assistance to maintain one cooperative private land biologist position with Pheasants Forever and should finalize plans for a similar position within QU by September. A Conservation Partnership Initiative grant from NRCS allowed us to partner with QU to fill two buffer coordinator positions dedicated to CP-33 projects in 2 counties in western Missouri.

CP-33

As of July 31, we have 4,200 acres currently under contract and several hundred applications pending for fall contracts. Average contract size is 10 acres. Outreach efforts include distribution of CP-33 flyers to FSA offices and our staff, CP-33 placemats distributed to cafes in rural areas, development of a CP-33 video which was distributed to most FSA offices, and an average of one reference to the program in alternate editions of the *Conservationist* magazine.

In spite of these efforts, the level of participation has been below what was originally anticipated. The main complaint from landowners has been low CRP rental rates in some areas of the state, ranging from 40-60 dollars below cash rental rates. Another big issue that is effecting participation is that FSA and NRCS have no additional manpower. FSA does not have enough staff to measure and stake buffers in some counties. NRCS does not have enough staff to handle NRCS programs and write plans for CCRP's..

We require shrubs, forbs or an alternative natural regeneration, which are not a very popular choice. Fenceline renovation or edgefeathering could be offered as an alternative to planting shrubs. Regardless; reports from landowners in the program have been extremely positive regarding quail response.

QUAIL POPULATION & HUNTING STATUS

Missouri's 2004 statewide quail index was 56% below the long-term average (8.15, 1983-2003). The estimated number of licensed hunters that hunted quail during the 2003 season was 41,497, 63% below the long-term (1967-2002) average of 111,960 hunters. The harvest of 426,590 was 76% below the long-term average (1967-2002) of 1,817,395.

Hunting success was fair, with an average 1.7 quail bagged per day of hunting, 26% below the long-term (1967-2002) average of 2.3.

RESEARCH

Studies of effects of herbaceous crop field borders on corn and soybean production provided support for the notion that it can be more economical for farmers to enroll in CP-33 than to farm edges of fields. Corn and soybean yields measured at sample intervals 10 feet into the field were significantly ($p < 0.05$) less than yield from samples at 29, 40, 60, and 89 feet into the field.

GIS maps of quail habitat suitability are available for all of Missouri's portion of the Central Hardwoods BCR and Eastern Tallgrass Prairie BCR. The BCR-level analysis is based on 30-meter pixel data, and thus could miss important habitat features such as woody fence rows. MDC is developing an ARCVIEW tool for analyzing quail habitat suitability using high-resolution data. This tool will provide more thorough and accurate evaluation of landscape features; however, it will typically require digitized data, limiting application to smaller tracts of land.

As part of the USDA NRCS/MSU Bobwhite Project, we are studying private land suitability for landowner participation in quail cooperatives. We used focus group discussions to refine questions for a survey that will be distributed in August 2005.

A system was developed and tested for training observers to conduct distance sampling of calling coveys in fall. By using electronic game callers we are able to conduct training when and where needed and are able to evaluate observer accuracy.

2005 SOUTHEAST QUAIL STUDY GROUP MEETING 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. Although there have been minor annual fluctuations, both quail call count survey results and avid hunter survey results over the last six to seven years seem to indicate that quail abundance may be stabilizing at a low level consistent with the limited amount of available habitat on the Coastal Plain while populations in the Piedmont and Mountains continue to decline.

2. Quail Management Initiatives

We have established and filled 3 new positions which will provide technical assistance on wildlife habitat management in the implementation of Farm Bill Programs. These employees work from regional offices of NRCS and work with District Conservationists and landowners to develop and monitor wildlife conservation plans. They are currently working primarily on CRP CP-33 buffers and WHIP Special Projects to support prescribed fire and early succession habitat enhancements.

We continue to gear up to create a 10,000 acre CURE cooperative with a focus on increasing populations of at risk wildlife species who depend upon grass, shrub, and savannah habitats in one of the two Coastal Plain CURE Cooperatives and to implement a new CURE area in southeastern NC in conjunction with Murphy Brown, the world's largest hog producer.

3. Private Lands Programs

The CURE Program was established as a result of Commission approval and funding on August 30, 2000. Three focal areas were selected based on habitat criteria that provided the greatest potential for impacting bobwhites through habitat projects. Within these focal areas, three pilot Cooperatives, or groups of private landowners, were selected to enroll in the CURE program. Forty-two landowners with 16,801 acres of land are currently participating in the program. Each landowner (with two exceptions) has agreed to participate through 2006. Habitat improvements consist primarily of volunteer vegetation field borders, native grasses, and prescribed burning. We are monitoring quail and songbird populations as well as vegetation response to habitat treatments. Quail population trend lines, when compared to reference routes off the CURE areas, indicate a significant positive trend for the Rowland Cooperative ($P < 0.01$). Counts on the Turnersburg and Benthall Plantation Cooperatives have fluctuated greatly between years and have not provided any significant linear trends since 2002. There was no significant evidence that CURE counts trends on those areas are different than regional reference routes ($P > 0.05$). Our first permit quail hunts occurred on the Rowland CURE area last November.

4. Public Lands Programs

We have established CURE areas on portions of four state-owned Game Lands. A total of 21,266 acres are being managed as part of this early succession habitat initiative. Habitat projects are now well underway on these areas. Since these areas are primarily forested primary techniques for habitat establishment are timber harvest, prescribed fire, and herbicide treatments. Habitat improvements in forested settings are occurring more slowly than on the private areas where much of the habitat is in association with agriculture. To date only a small part of these areas support high quality quail habitat. Monitoring has been initiated using protocols similar to private lands CURE cooperatives. These areas are closed to quail hunting until habitat improvements have been implemented and monitoring indicates that populations will support quality hunting through a permit system.

Within the CURE Game Lands, Sandhills Game Land provided the strongest evidence that CURE improvements have significantly increased the summer quail counts over reference counts ($P < 0.01$). Caswell, Suggs Mill Pond, and South Mountains Game Lands 2005 counts were slightly lower than 2004 counts. However, counts on these three Game Lands have not yet provided any significant linear trends or evidence that they are significantly different than their associated reference routes.

5. Research and Surveys

Avid Quail Hunter Survey

A total of 87 avid quail hunters reported on 1,201 hunts during the season. Although the long-term trend has been significantly downward, during the 2004-2005 season the average flush rate statewide increased 4.7% to 1.99 coveys/party trip while the average harvest rate increased by 6.7% to 1.27 quail bagged/hunter trip. Regionally, the average flush rate in the Coastal Plain was 2.55 coveys/party trip (+5.4%), the average flush rate in the Piedmont was 1.13 coveys/party trip (-7.4%), and the average flush rate in the Mountains was 1.11 coveys/party trip (-19.0% but a very small sample size). Hunter success, both in terms of coveys/party trip and in birds harvested/hunter trip, seems to be increasing very gradually over the last several years due primarily to increases in the Coastal Plain Region.

Bobwhite Quail Call Count Survey

In 2005, twenty-five routes were surveyed; ten routes in the Coastal Region, eleven routes in the Piedmont Region, and four routes in the Mountain Region. Analyzing the results of all 25 survey routes reveals that in the Coastal Region, the average number of quail heard per route (28.1) was down 3% from the previous year. In the Piedmont Region, the average number of quail heard per route (6.4) was down 11% from the previous year. In the Mountain Region, the average number of quail heard per route (1.5) was down 57% from the previous year. The number of quail heard per route in the Coastal Region has been up in two of the last four years while the number of quail heard per route in both the Piedmont and Mountain Regions has been down in three of the last four years.

2005 SOUTHEAST QUAIL STUDY GROUP MEETING STATE REPORT—OKLAHOMA

Status-- The summer weather of 2004 proved to be excellent for quail production in Oklahoma. Many landowners and sportsman from across the state reported “seeing more quail this year than in several past”. While the consensus in the field was that the 2004 bird crop was good, survey results were down.

In the 15th year of roadside surveys the statewide quail index was down 8% from the previous 14-year average. The decrease was reflected in all regions with exception of the Northwest and Southeast that reported increases over the average of 26% and 49%, respectively. August 2004 roadside surveys decreased 31% over August 2003 counts. October 2004 counts declined 4% compared to October 2003 counts. The stark contrast between survey results and field reports was likely attributed to abundant cover which reduces the opportunities to observe quail along roadways.

The 2004-2005 hunting season was a welcome sight with many hunters reporting their best season in recent history. Estimated quail harvest increased from 875,614 during the 2003-2004 season to an estimated 1,023,086 quail during the 2004-2005 season. Many hunters reported moving double digit coveys throughout the season. While hunter numbers continue to decline in Oklahoma participation during the 2004-2005 season did increase over the previous year primarily due to the increase in quail numbers.

Northern Bobwhite Conservation Initiative-- Oklahoma Department of Wildlife Conservation (ODWC) employees continue to give presentation to the general public and professional audiences concerning NBCI. During 2004 12 presentations across the state were given involving NBCI. To date no formalize committee or council has been developed.

In order to perpetuate the implementation of NBCI Sara Bales was hired as a temporary biologist to aid in establishment of focal areas for habitat restoration. To date Sara has analyzed land cover and soil data using Geographic Information Systems (GIS) technology to represent habitat suitability on a landscape scale. A map was produced displaying the percentage of high-quality quail habitat in 5,000-acre sections across Oklahoma based on the landscape analysis. Counties with high percentage of quality habitat were selected as potential focal areas, and information gathered about each county through ground truthing, surveying county Natural Resource Conservation Service (NRCS) District Conservationists, and reviewing NRCS Conservation Needs Assessments. We anticipate final selection of focal areas (one per Bird Conservation Regions) by the end of August 2005. Upon selection of focal areas we will implement a marketing plan to assist in private landowner outreach and will work with the USDA State Technical Committee to designate funds to quail restoration efforts.

Farm Bill Activities—In July of 2003 ODWC entered into an agreement with the NRCS serving as a Technical Service Provider for their Wildlife Habitat Incentive Program (WHIP). Four technician positions were filled in order to fulfill the agreement. Over the past year these technicians and staff biologists with ODWC processed 290 WHIP applications. Oklahoma’s

appropriation for the NRCS's WHIP totaled \$1,000,000 with preliminary funding of 48 new projects.

To date only 12 producers have signed up 424 acres of buffer under CP-33. Signup has been slow due to a lack of awareness and stipulations within CP-33 that only allow 90 days of incidental grazing. ODWC employees in conjunction with the Farm Bill State Technical Committee have formally requested extending the incidental grazing to 120 days on all buffer programs. The extension would allow cereal grain farmers an opportunity to enroll buffers without the obligation of fencing. ODWC employees also worked with Farm Service Agency (FSA) personnel to approve a monitoring protocol as stipulated in CP-33. Going away from the standard protocol established by the Southeast Study Group, ODWC and FSA employees will monitor bird response to buffers using a standard line transect procedure. The line transect procedure was selected because of its ability to survey pheasant response and because of the limited professional resources available for monitoring.

ODWC biologists continue to work with other Farm Bill programs and serve on the state technical committee.

Private Lands Program--During the 2005 fiscal year (fy) ODWC received 70 applications for the ODWC's Wildlife Habitat Improvement Program. ODWC annually awards \$100,000 to landowners for habitat improvement cost-share specific to quail, deer, turkey, prairie chickens, waterfowl and pheasant.

ODWC along with the U.S. Fish and Wildlife Service have developed a priority area for habitat restoration for lesser prairie chickens and northern bobwhite in western Oklahoma. Grants for landowner initiatives now total \$110,000 for restoration activities. Management plans are currently being developed.

ODWC continued production of a newsletter entitled "Your Side of the Fence" and a "Habitat Management Calendar" for private landowners/managers. These publications are geared toward habitat management options and cost-share opportunities for Oklahoma landowners.

Research-- 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 the summer of 2005.

Mike Sams, Upland Game Biologist, Oklahoma Department of Wildlife Conservation
John Hendrix, Private Lands Biologist, Oklahoma Department of Wildlife Conservation
Sara Bales, Quail Habitat Biologist, Oklahoma Department of Wildlife Conservation

2005 SOUTHEAST QUAIL STUDY GROUP MEETING STATE REPORT—SOUTH CAROLINA

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 and 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. Sustained drought during the years 1998-2002 likely negatively impacted reproduction during those years. USFWS Breeding Bird Survey results indicate an approximate decline of 4.5% annually in bobwhite quail abundance in South Carolina from 1966-2004. Improved weather conditions, including above-average rainfall since 2002, have resulted in excellent cover conditions on remaining habitat. Private lands and Wildlife Management Area (WMA) lands under intensive quail management support good to excellent quail populations.

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. A state grassland bird conservation plan is near completion. 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. Twelve management plans were written by Project staff during the past year, covering over 7,700 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 utilized 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 27 years, producing reliable trend data which parallels field observations and the USFWS Breeding Bird Survey. Seventy-two permanent routes are established statewide, and survey routes (5.5 miles) are conducted on one morning between June 15 and July 10 each year. The average number of calling males per route during the 2004 survey was 11.6 per route. The 2000 survey year marked an historic low of 9.3 calling males per route.

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 27 are recorded. From these sightings, an annual index of productivity (juveniles/adult) is calculated. Statewide, the ratio of juveniles to adults in the 2004 survey was 2.4:1, similar to the previous year. The 2005 brood sighting survey is currently underway and results will be available to interested parties in the fall of 2005.

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 0.53 coveys per hour in 2003-04 to 0.54 coveys per hour in 2004-05. Quail hunters participating in the survey bagged 0.55 birds/hour in 2004-05.

Fall Covey Counts- Fall covey counts were conducted on 6 WMA's during October and November, 2003. Quail densities were estimated at 1 covey/25-50 acres on three of the six 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; and (5) Calling rates remain consistently high until at least the third week of November. Fall covey counts will again be conducted on select WMA's during 2005.

EDUCATIONAL PROGRAMS AND TECHNICAL LITERATURE

For the past 18 years, the Small Game Project has conducted annual quail management seminars for private landowners, land managers, and agency personnel. Over 1000 people have participated in this highly-successful seminar series which combines classroom instruction with field demonstrations.

In 2003, a new illustrated color brochure, "Nesting and Brood Rearing Habitat: Critical to Quail Management Success," was produced by Project personnel.

AGRICULTURAL LIAISON ACTIVITIES

Farm Bill coordination and implementation activities have been re-assigned to the DNR Small Game Project. Staff continue to work with NRCS and other USDA agencies to incorporate quail-friendly practices into farm conservation plans.

CP-33 was successfully implemented in South Carolina, with the entire allotment of 5000 acres allocated. Ninety percent (4500 acres) were allocated in an eighteen county "focus area" in the upper coastal plain. The remaining 500 acres were allocated to counties which submitted proposals demonstrating need and demand. Minimum average buffer width was set at 45 feet in South Carolina.

FOCUS AREA INITIATIVES

Within the past year, Project staff have been successful in establishing a 9200-acre public land (USFS)/private land habitat enhancement cooperative. WHIP funds have been designated for habitat enhancement on private lands within the project boundary. National Forest lands within the project boundary are slated for early-successional habitat restoration through selective thinning and prescribed burning, including growing season burns. This innovative partnership includes representatives from the USDA Forest Service, USDA NRCS, SCDNR, Quail Unlimited, National Wild Turkey Federation, Clemson Cooperative Extension Service, the local Conservation District, and the Regional Resource Conservation and Development Council. The Indian Creek Wildlife Habitat Restoration Initiative was formalized with an MOU signing by all agency partners on July 21, 2005. Fourteen WHIP plans have been written for private lands within the project boundary.

Another special WHIP project is underway at Clemson University's Pee Dee Research and Education Center (REC). This area is comprised of 2800 acres, and has traditionally been used for research on production agriculture technology. The Center has shifted emphasis to an agroecology focus, and habitat improvements for northern bobwhite and other species are being implemented through the WHIP program.

RESEARCH PROJECTS

Two research projects are being conducted under the USDA-NRCS/MSU Bobwhite Restoration Project, examining the effectiveness of selected Farm Bill practices and the result population responses of northern bobwhite and other species. One project is being conducted in the upper coastal plain at the Pee Dee REC, and another project is being conducted in the lower coastal plain on a private plantation. Both projects are being conducted through Clemson University.

2005 SOUTHEAST QUAIL STUDY GROUP MEETING STATE REPORT—TENNESSEE

The purpose of the Tennessee Statewide Farm Game Program is to improve Tennessee's habitat for farm game populations, and to improve recreational opportunities for small game users. Primarily two statewide program coordinators and 8 regional small game biologists conducted project implementation and operation. A wide variety of programs and efforts are being utilized to address the Agency's Farm Game Strategic Plan goals and objectives.

Data from the past quail and rabbit hunting season has not been analyzed yet, but appear to be up from the previous year. Generally, hunting success bottomed in 1999-00, but appears to be on a slight upward trend since then.

The Small Game Program Coordinator, Farm Bill/Private Lands Liaison, and eight Regional Small Game Biologists were actively involved in state, regional and national meetings and activities in efforts to influence wildlife considerations in the USDA conservation programs; and worked closely with landowners to improve habitats on private lands.

USDA FARM BILL PROGRAMS

In an effort to influence Farm Bill programs in Tennessee to be most beneficial to wildlife, TWRA created a Farm Bill/Private Lands Liaison position in 2002. Additionally, over the past several years TWRA has cooperatively funded three NRCS Upland Wildlife Habitat Biologists who work in each of the three grand divisions of the state.

USDA CONSERVATION RESERVE PROGRAM (CRP).

Strong emphasis continued on USDA conservation programs. CRP Signup 29 was August 30-September 24, 2004. It was a comparatively small signup nationwide and in Tennessee, as only 8,037 acres (81% of offers) were accepted. Of this, 3,504 acres were new native grass acres. TWRA field biologists worked with many landowners to plant native grasses enrolled in Signups 26 and 29.

In August 2004, USDA announced the addition of the CP33-Habitat Buffers for Upland Birds as a Continuous CRP (CCRP) practice. Tennessee has an allocation of 9,300 acres. To date, approximately 2,500 acres have been enrolled. Through Miss. State Univ., TWRA developed and produced a Tennessee-specific brochure on CP-33 that is being distributed to encourage enrollment, and articles were written advertising the practice in various farm and wildlife publications.

Small Game biologists also coordinated with CRP landowners to use TWRA herbicide sprayers and native grass no-till drills for habitat conversions. TWRA Regional Biologists and the three NRCS Biologists were active in assisting landowners with native grass drill use and NWSG planting practices. The NRCS has been active in signing up Several NWSG planting workshops were organized by NRCS with assistance from TWRA for landowners who were planting NWSG on CRP contracts. These have been successful for the past two years and we expect these types of training workshops to continue. We have seen better establishment as a result of proper planting techniques and new innovative planting prescriptions.

WILDLIFE HABITAT INCENTIVES PROGRAM (WHIP)

There were 28 WHIP contracts approved in 2004, allocating \$217,079 in funding to improve 1,363.7 acres of habitat. The contracts are currently written by the three NRCS biologists.

FARM WILDLIFE HABITAT PROGRAM

TWRA's Farm Wildlife Habitat Program is fairly similar to WHIP, but has a cap of \$1,000 cost-share to a private lands participant in any fiscal year. Total program funding is \$130,000. The contract term is 5 years. This program also funds habitat work done on public lands by sportsmen's groups such as Quail Unlimited. Acreage and cost figures for FY04-05 are still being compiled, but annual participation is typically from 75-100 private landowners and 12-15 public lands projects.

WILDLIFE BUFFERS PROJECT

In an effort to boost support for a USDA buffers practice, TWRA implemented a pilot buffers project from 2000-2004 in two project areas, one in east Tennessee pastureland and one in west Tennessee cropland. This project paid landowners \$100 an acre to set aside native vegetation field borders. A survey questionnaire was sent to all participants, and the results are compiled in a report that is available upon request (Gudlin, M.J. and T.O. White. 2005. TWRA Wildlife Buffers Project (2000-2004) Evaluation. 9 pp. Unpublished TWRA report.) Results indicated perceived success on most participants' land in increasing quail populations.

SEED DISTRIBUTION

TWRA's small game program purchased over 99,239 lbs. of seed (native grasses, lespedezas, annual grain mixes), and 343,200 lbs. of Quail Unlimited Conservation annual grains. This seed was distributed to landowners and sportsmen's groups. Additionally, TWRA purchased 174 gallons of Plateau herbicide. Most of this herbicide was distributed to landowners and the remaining was utilized on WMAs, for exotic weed eradication and native grass management.

QUAIL UNLIMITED GRANT

TWRA provides a five-year grant to Quail Unlimited for habitat development and technical guidance in Tennessee. Quail Unlimited has a regional director position in Tennessee, and through efforts of this individual in working in developing new QU chapters, providing chapter guidance, providing technical assistance efforts and coordinating TWRA resources with QU programs and chapters, it is expected that TWRA will realize at least four times its' investment in planting materials, in-kind labor in habitat projects by QU members and personnel, and donations of equipment and research dollars to the State. This grant is funded at \$20,000 per year.

NATIVE WARM SEASON GRASSES PUBLICATION

TWRA coordinated with the University of Tennessee and NRCS to co-author and produce a publication, "A Landowner's Guide to Native Warm Season Grasses in the Mid-South" (Harper, C.A., G.E. Bates, M.J. Gudlin, and M.P. Hansbrough). TWRA provided funding to print 10,000 of this publication. It has been well received by landowners and other agencies, and should help long-term education and success in establishing and managing native grass stands.

2005 SOUTHEAST QUAIL STUDY GROUP MEETING STATE REPORT—TEXAS

The Texas Quail Conservation Initiative

The Texas version of a NBCI 'step-down' statewide recovery plan continues to be implemented. The Texas Quail Conservation Initiative (TQCI) has made several steps towards recovery which include: 1) Purchased heavy equipment for quail-oriented state wildlife management areas 2) Completed a popularized version of the TQCI, targeting landowners and conservationists 3) The governor signed Cowan quail prints (donated to the initiative) have raised considerable funding for the TQCI 4) The Texas Quail Council of Quail Unlimited purchased equipment needed to fight exotic vegetation on a wildlife management area to improve quail habitat 5) NRCS EQIP "emphasis" areas for target wildlife species (including quail) have delivered millions of dollars to landowners to defer grazing and enter a grazing management plan to enhance declining grassland bird habitat 6) An 8 minute television segment highlighting the plight of quail will air in October on our state agency's PBS show 7) A Marketing strategy and media campaign are in development to promote the TQCI 8) TQCI technical committee members are members of committees in every Joint Venture in Texas 9) On the ground implementation of NBCI/TQCI habitat goals and objectives are underway.

Texas Audubon Society

The Audubon Texas Quail Initiative coordinator, Jason Hardin, continues to facilitate the formation of quail cooperatives in fragmented landscapes. The first quail cooperative was formed over a year ago in remnant habitat of the Katy Prairie and membership and acreage continue to expand. One of the members received a state agency recognition award along with a check for habitat work. To find out more about the Wildlife Habitat Federation cooperative see <http://www.whf-texas.org/>. We are hoping this cooperative will serve as a model for future partnerships.

Quail Season Forecast

Most of Texas including the Rolling Plains and South Texas ecological regions had normal winter and spring rainfall which led to normal nesting activity across much of the state. Although state surveys are not complete, field reports indicate good early production with no significant rainfall events to trigger late season nesting. With so much brood stock left over from last year's excellent season we expect an average season in Texas.

Ongoing Texas Quail Research Projects

Historic and Contemporary Status of Montezuma Quail in Texas
David Holderman, TPWD

Restoration of NORTHERN BOBWHITES POPULATIONS IN FRAGMENTED LANDSCAPES
Fidel Hernández and Jason Scott, Caesar Kleberg Wildlife Research Institute, Michael Janis, N. David Forrester, and Royce Jurries TPWD

Effects of Radio Transmitters on Body Mass, Food Consumption and Energy Expenditure of Northern Bobwhites

Fidel Hernandez, Juan A. Arrendondo, Froylan Hernandez, David G. Hewitt, Ralph L. Bingham, Caesar Kleberg Wildlife Research Institute, Texas A&M Kingsville; Stephen J. DeMaso, TPWD

Characteristics of Gambel's Quail Populations in Trans-Pecos, Texas

Michael Gray and Louis A. Harveson, Sul Ross State University; Michael R. Sullins, TPWD

Vegetative and Arthropod Responses to Various Discing Regimes

J. Lane Roberson, Fidel Hernandez, Leonard Brennan, Caesar Kleberg Wildlife Research Institute, Texas A&M Kingsville; Robert Perez, TPWD

For more information on any of the research projects, contact Robert Perez at

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2005 SOUTHEAST QUAIL STUDY GROUP MEETING STATE REPORT—VIRGINIA

Surveys

Despite abundant rainfall in 2003, results of the quail hunter survey indicate that statewide quail hunter success did not improve in the 2003-2004 season. Compared to the previous year, statewide quail hunter success was similar to the previous season. The average number of quail bagged per hunter hour was 0.30, down 3.2% from 2002-2003. The number of coveys flushed per hunter hour averaged 0.25, down 3.8% from the previous year. Regionally, hunter success (quail bagged per hunter hour) increased in the East Piedmont (+43.8%) and West Piedmont (+22.2%). Decreases in hunter success were observed in the Northern (-56.3%) and Tidewater (-15.2%) regions. Quail age was determined from 1,446 of the wings submitted by cooperators. Juvenile quail comprised 72.2% of the harvest, well below the long-term average of 76.6%. The low percentage of juvenile quail in the harvest suggests that reproductive success was below normal.

Analysis of quail hunter survey data for the 2004-2005 season has not yet been completed, but the results of the latest rural mail carrier survey conducted in August 2004 suggest this past season may have offered better hunting opportunity. The statewide index (the number of quail seen per 100 miles surveyed) increased by 22% from 2003 to 2004. The most substantial increases were observed in the Northern (+44%), Tidewater (+35%), and West Piedmont (+41%) regions of the state.

The 2005 June call count survey results suggest that survival this past winter may have been poor. The statewide index (number of quail heard per route) decreased by 32% from 2004 to 2005. The most severe declines were observed in the Central Mountain (-43%) and Southwest Mountain (-67%) regions. The only area to experience an increase was the Northern region (+47%).

Research

A disease study will be initiated this autumn. The objective of the study is to determine the prevalence of certain diseases in pen-raised bobwhites obtained from game bird breeders in Virginia. We will focus on sampling from breeders that supply birds for field trial events held on public wildlife management areas.

We will be conducting a scent station survey to index mammalian nest predator populations on Amelia Wildlife Management Area (AWMA) this October. During the past decade, considerable resources have been devoted to improving habitat conditions for quail on AWMA. However, quail populations did not respond to these habitat improvements. They actually appeared to decline and were generally lower than on surrounding private lands that were unmanaged. Department personnel hypothesized that the lack of response was due to overharvest. A permit system was initiated in 1998 to reduce hunting pressure. Since then, data has been gathered on hunter effort, success, and harvest. Both hunter pressure and harvest have certainly been reduced. Despite this reduction in harvest, the quail population has still not increased. In the 2004-2005 season, only 6 wild quail were harvested and hunter success (quail bagged per party trip) was lower than during any season since the permit system was initiated.

The quail may have been overharvested prior to the permit system being initiated, but harvest was obviously not the only reason for the suppressed quail population. Another possibility is that predator densities are too high to allow the quail population to increase. Results of the scent station survey will be used to determine if a predator removal project is warranted. If such a project is initiated, covey call counts, June call counts, and most importantly, hunter success will be used to gauge its success.

We are also investigating the potential for another project that involves the creation of oak savannah habitat, a forest type that was once common throughout the Piedmont of Virginia prior to European settlement. The main objective of this project would be to determine the most cost-effective means of creating the habitat in a relatively short period of time, starting with shelterwood cuts and then using various combinations of drum chopping, herbicide applications, and prescribed fire. The response of quail and songbird populations to the habitat would also be monitored.

Management Activities

Department staff has been working closely with the natural resources personnel on Fort Pickett. This military installation is one of the few public lands that still offer fairly decent quail hunting opportunity in Virginia. However, populations appear to be declining. We have been encouraging them to reduce their mowing activities, thin more timber, make their prescribed fire regime more “quail-friendly,” and to better manage their quail harvest.

WHIP: The great majority of the 102 plans funded under WHIP were for early succession habitat. DGIF staff developed plans for over \$500,000, which exhausted Virginia's FY05 allocation by July 1. We actually have Preliminary Plans developed for another \$165,000 worth of WHIP work that are currently unfunded, but that could be funded with a reallocation of WHIP funds or will be held until next year.

CP-33 Bobwhite Buffers: This program has unfolded rather slowly in Virginia. Between Tobacco Buyout, initiation of CSP and other programs tying up USDA staff time, the program is just catching on. We currently have contracts for only 1/10th of the acreage allocated to Virginia (380 of 3,600 acres). However, recently one farmer came in to sign up 100 acres of buffers on his farm. So now that there is more staff time to promote and process applications, we expect additional sign-ups to come in at a faster rate.

CSP: Virginia had its first watersheds designated for CSP sign-up in FY05. Wildlife was designated as a requirement to reach Tier III. This brought about a certain amount of WHIP work in the 3 selected watersheds (to enable those farmers to qualify for Tier III payments). The very first level of acceptance is just now being announced by USDA. We await acceptance information to determine what impact CSP will have on improving wildlife habitat in those 3 watersheds.



2005 POSTER ABSTRACTS

Identifying focal areas for quail habitat restoration

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The need to identify focus areas for quail restoration efforts has been documented in the Northern Bobwhite Quail Initiative and the Oklahoma Quail Management Plan as an essential component to on-the-ground restoration efforts. Our objectives were to use GIS to develop a landscape model to identify focal areas for quail habitat restoration and to establish one focal area per Bird Conservation Region. We used land cover classification and soils data acquired from Natural Resources Conservation Service (NRCS). Natural resources professionals ranked land cover types according to their ability to support bobwhite populations, and we analyzed land cover and soil data using GIS to represent habitat suitability on a landscape scale. We produced a map displaying the percentage of high-quality quail habitat in 5,000-acre sections across Oklahoma based on the landscape analysis. We focused on counties with high percentage of quality habitat as potential focal areas, and gathered information about each county through ground truthing, surveying county NRCS District Conservationists, and reviewing NRCS Conservation Needs Assessments. A team of natural resources professionals reviewed the data to select counties for final focal areas. The establishment of focus areas provides not only a higher likelihood of success but also unique funding opportunities through bird conservation partnerships and farm bill priority areas. In Oklahoma where more than 95% of the land-base is privately owned, funding for quail habitat restoration on private land is essential. We've developed a marketing plan to assist in private landowner outreach and will work with the USDA State Technical Committee to designate funds to quail restoration efforts.

The role of covey demographics in Northern Bobwhite (*Colinus Virginianus*) production in west-central Texas

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Northern bobwhite (*Colinus virginianus*) populations are irruptive along their western periphery. Previous research has failed to identify the factors associated with these irruptions, but precipitation is often assumed to be a primary causal factor. We hypothesize that the mechanism may involve demographic variables, specifically that birds entering their second breeding season are more successful than subadult breeders. A better understanding of age-specific survival and productivity in quail populations may be beneficial if managing for a population with an older age structure could ameliorate the irruptive cycles. Radiotagged bobwhites ($n > 100$ each year; approximately equal numbers [25] of each age-sex class) were followed throughout the breeding season (Mar. – Aug.) in 2003 and 2004 in Fisher County, Texas. Survival, nesting attempts, hatch rate, and clutch size were monitored. Probability of survival of radiotagged birds during the breeding season was $S = 0.465$ and $S = 0.395$ in 2003 and 2004, respectively; survival was similar among all age-sex classes. Nest success was greater in 2004 (52.4%, $n = 42$) than 2003 (28.6%, $n = 35$) and the 2004 breeding season was at least 20 days longer, likely due to more summer rainfall and cooler temperatures. Nest success was similar among adult and subadult hens in 2003 (4 of 21 adult nests, 6 of 14 subadult nests) and 2004 (16 of 28 adult nests, 7 of 14 subadult nests). Nest initiation was similar between age classes in 2003 (0.84 nests/adult hen vs. 0.61 nests/subadult hen), but adults initiated more nests than subadults in 2004 (1.04 nests/adult hen vs. 0.58 nests/subadult hen). Adult hens initiated 12 of 15 renesting attempts observed. Nest initiation dates and nest site selection were similar between adults and subadults. The adult:subadult ratios for 2003 and 2004 were 1:3.0 and 1:1.3 ($n = 426$ and $n = 224$, respectively). Extrapolating from the sample population, subadults contributed approximately 84% of the chicks fledged in 2003 but only 37% in 2004, while adults contributed 16% and 63% in 2003 and 2004, respectively. Results from this study suggest that if covey demographics are a component of bobwhite irruptions, the mechanism is most likely due to greater renesting effort by adult hens.

Evaluating the potential for CRP to improve bobwhite habitat in Wayne County, Illinois

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Northern bobwhite quail (*Colinus virginianus*) have experienced long-term declines in abundance over most of their range. This decline has been attributed to multiple factors, but land use changes leading to reduced or altered habitat are often cited as the leading cause. The primary goal of this project is to create a systematic approach for selecting areas to target for habitat improvement that will (1) enlarge areas of suitable bobwhite habitat, (2) connect patches of existing habitat, (3) and predict bobwhite response to improved habitat. Land in Wayne County, Illinois, that is currently enrolled in CRP has been digitally mapped using ArcView® GIS software. Enrolled land, as well as potentially eligible land will be used in a habitat suitability index (HSI) model to determine the best target areas for habitat improvement. We adapted a bobwhite habitat suitability model developed by Roseberry and Richards (1992) for use in this project. According to this model, habitat is assumed to be optimal when the land cover is $\geq 15\%$ woods, $\geq 30\%$ cropland, $\geq 20\%$ grassland, and $\geq 25\%$ oldfields. The suitability of each of these cover types is based on its amount, as well as various characteristics, such as management, successional stage, and vegetation type. Results from this model will be used to determine what cover components are lacking from areas with a low HSI value and determine costs of improving bobwhite habitat. This information will allow managers to prioritize possible management areas according to expected population response and cost-effectiveness.

Herbaceous buffers and corn and soybean yields in Missouri

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Farmer decisions to enroll in CP33 are heavily dependent on the net economic gain or cost of the practice relative to cropping. We studied herbaceous crop field buffers in corn and soybean fields in central Missouri during 2000-2002 to provide information for these farming decisions. Buffers were 30-feet wide and planted to three different mixtures: (1) tall-fescue, (2) cool-season mix (orchardgrass, timothy, and red clover), (3) warm-season mix (little bluestem, sideoats-grama and Korean lespedeza). Field areas used as controls had the 30-foot buffer area planted to corn or soybeans. Crop yield was measured 10, 29, 40, 60, and 89 feet into the field. Comparing yield in the field to yield in the buffer, soybean field yield was numerically higher each year, but significantly different ($p < 0.05$) only during 2002. Similarly, for corn, field yield was numerically higher in 2000 and 2001, but not significantly different in any year ($p > 0.05$). Corn and soybean yields sampled at 10 feet into the field were significantly ($p < 0.05$) less than yield from all other distances. Among treatments, there were no significant ($p > 0.05$) differences in corn or soybean yields when years were combined. These data provide support for the notion that it is more economical for farmers to enroll in CP33 than to crop edges of fields.

Large-scale northern bobwhite habitat models for planning and prioritization of habitat restoration in 3 Bird Conservation Regions

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Habitat suitability models are useful tools for identifying these landscapes that have the greatest potential to elicit a sustained population response. We developed large-scale northern bobwhite (*Colinus virginianus*; bobwhite) habitat suitability models for the Eastern Tallgrass Prairie (ETP), Central Hardwoods (CH), and Southeastern Coastal Plain (SCP) Bird Conservation Regions (BCR). We developed logistic regression models of bobwhite habitat suitability as a function of landscape structure and composition. Landscape structure and composition (predictor variables) were estimated from USGS 1992 National Land Cover Data, whereas bobwhite relative abundance data, as measured by the North American Breeding Bird Survey, was used to qualify landscapes as low or moderate abundance (response variable). A two-stage model selection procedure was used to compare candidate models developed from combinations of predictor variables empirically related to bobwhite abundance in each BCR. Posterior probabilities predicted from logistic regression models were interpreted as measures of habitat suitability, and we generated a surface characterizing suitable bobwhite habitat for each BCR based on our habitat suitability models. The ETP model predicted 50%; 45%; and 37% of the BCR was composed of habitat patches with suitability values ≥ 0.50 ; ≥ 0.75 ; and ≥ 0.95 , respectively. The CH model predicted 62%; 44%; and 18% of the BCR was composed of habitat patches with suitability values ≥ 0.50 ; ≥ 0.75 ; and ≥ 0.95 , respectively. The SCP model predicted 39%; 20%; and 3% of the BCR was composed of habitat patches with suitability values ≥ 0.50 ; ≥ 0.75 ; and ≥ 0.95 , respectively. We believe our models provided an objective, empirical basis for assigning management priority areas within these 3 BCRs, and that such models could be useful planning tools for large-scale conservation initiatives such as the Northern Bobwhite Conservation Initiative.

South Florida Rangeland Quail Initiative and Research Program

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Approximately 3 million acres of native range remain in the peninsula of Florida. Despite potential habitat within this region northern bobwhites have declined at an annual rate of 4.3% since 1980. Quantity of habitat has decreased through conversion to exotic grasses. Altered fire regimes and improper grazing have allowed saw palmetto (*Serenoa repens*) to dominate reducing habitat quality. Fortunately, existing bobwhite densities are high enough to respond to habitat creation and meet landowner expectations. An assumption of the Northern Bobwhite Conservation Initiative plan is that 73% of the bobwhite population recovery goal for this region (BCR 31) could be achieved by improving the management on 7% of native rangelands. Therefore, Environmental Quality Incentive Program (EQIP) funds were allocated through USDA-NRCS to manipulate ~7% of rangeland acres within a five county focal area. Cost-share funding will provide financial assistance to landowners for prescribed burning, roller chopping, herbicide application, and prescribed grazing. Implementation of habitat alterations will begin in Fall 2005 and continue for 10 years. Ranch owner interest has been high, approximately 40,000 acres has been enrolled to date. We are monitoring bobwhite and songbird population responses to habitat changes and landscape metrics, including: saw palmetto coverage, roller chopping regimes, patch size, landscape context, and prescribed fire regimes. In addition to landscape-scale studies, within-ranch telemetry studies are providing information on bobwhite population ecology on native range. Outcomes of the research project will equip ranchers, biologists and conservation planners with applicable scientific based information that will improve the effectiveness of Farm Bill programs and conservation technical assistance for bobwhites and other wildlife species.

Using CCRP to restore bobwhite quail

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It has been well documented that populations of Northern Bobwhite Quail (*Colinus virginianus*) have declined since the mid 1950 s due to large-scale land use changes, plant succession and habitat destruction. After years of high populations and good quail hunting through the 1970 s, many of the remaining old brushy, weedy fencerows have gradually become tree-choked or taken out to make way for larger farm equipment which contributed to wide scale quail population declines. The amount of buffers or field borders around adjacent agricultural fields has been invaded by early successional tree growth and thus crucial quail habitat was lost. With the introduction and use of field borders and buffer strips through various Continuous Conservation Reserve Program (CCRP) practices such as CP-21, CP-22, CP-29, CP-30 and the latest program CP-33 (Habitat Buffers for Upland Birds), this valuable quail habitat can be reintroduced and restored. Most agricultural farms that have a farming history qualify for one or more of these CCRP practices and it is up to the landowner and the conservation planner to determine which practice will best fit the type of land and landowner. There are many additional benefits from the buffers including, improved water quality, reduced erosion, as well as many non-game species which benefit from the habitat improvement. In Missouri two counties (Andrew and Cass) are working on an NRCS Conservation Partners Initiative Grant (CPI) to assist landowners in the implementation of the various CCRP practices such as CP-33. This grant has allowed Cass County to implement over 50 CP-33 contracts for over 425+ acres of newly established NWSG buffers for quail in the past 6 months. Additionally, we have been developing the adjacent shrubby edge habitat through edge feathering of mature hedgerows and adjacent timber and eliminating fescue and brome from the fencerow understory. With this combined habitat work, landowners are seeing quail that are using not only the buffers but the associated shrubby cover within a short amount of time. These practices together can help restore the crucial quail habitat lost from previous agricultural land use.

Identification of nesting success and brood habitat selection of the Northern Bobwhite in relation to landscape composition in southeast Iowa

Lisa Potter and David Otis

The cumulative effects of advanced succession and monoculture farming are often cited as a primary cause of rangewide declines in northern bobwhite (*Colinus virginianus*) populations. A specific concern is the potential reduction in nest success and subsequent recruitment into fall populations. In 2003 and 2004, we compared nest success, fledging success and brood habitat selection of radiotagged bobwhite in 2 landscapes in southeastern Iowa. The first was a 1452ha state wildlife management area that since 1997 has been subjected to several management practices thought to promote quail recruitment. The second was a nearby township (2360ha) used primarily for private agriculture production. Using program MARK, we estimated daily nest survival with the best approximating model including an area effect only. The daily survival rate in 2003 was higher within the managed area (managed: 1.00, SE = 0.00; private: 0.953, SE = 0.022), whereas 2004 daily survival rates were similar between sites (managed: 0.969, SE = 0.01; private: 0.964, SE = 0.01). Analyses are underway to further examine nest success in relation to landscape metric covariates. Preliminary brood habitat selection analyses indicated preference for soybean and small grain cropfields within the managed area and grassland and pasture habitats within the private area, whereas timber patches were avoided within both sites. Additional analyses will include modeling and estimation of fledging success, brood area of use, and adult survival.

North Carolina's Private Lands CURE Program, 2005 Update

Terry Sharpe, Agriculture Liaison Biologist, NCWRC

North Carolina identified focal areas for bobwhite restoration and established 3 pilot 5,000 acre cooperatives on private lands in the fall of 2001. Opportunities to implement habitat improvements and success in creating habitat and impacting bobwhite populations on the three areas has varied based on landscape and landowner characteristics. Our experience has been more positive on rural Coastal Plain landscapes, where active land managers work on larger tracts than on a rapidly developing Piedmont landscape where landowners own small tracts, work public jobs, and are less tolerant of the unkempt look of quail habitat. Field border habitats have been effective in creating quality early succession habitat on the Coastal Plain while native warm season grasses provide an opportunity to make positive impacts on the Piedmont landscape. Our experiences on the pilot areas are currently being used to develop a proposal for expanding the initiative. Our proposal, which will be presented to our Commission in August, 2005, will continue to take a landscape approach, reduce the number and complexity of practices offered, partner with other conservation initiatives, and allow for cooperative expansion as resources become available.

Assessing bobwhite response to EQIP brush control projects in the rolling plains of Texas

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The Rolling Plains ecoregion of northwest Texas are one of the last bastions for viable northern bobwhite populations. But even there bobwhite numbers have decreased an average of 3.4% annually since 1980. Farm Bill programs like EQIP have been very popular in Texas, and purportedly can improve bobwhite habitat. Texas garnered the largest EQIP allocation of any state in 2004 (\$78.6 million). Bobwhite is a priority species for EQIP in 58 counties of the Rolling Plains. The most popular EQIP-funded practice in FY 2003 was brush management, which accounted for 26% of the \$46.5 million of the EQIP dollars expended. We propose to test the hypothesis that brush management, if done in moderation, enhances bobwhite habitat (and promotes greater quail abundance) in the Rolling Plains. We will evaluate bobwhite response to EQIP-sponsored brush management at intervals 2 – 4 years post-implementation. Study sites are located in 4 main foci areas of the Rolling Plains (centered around Coleman, Cottle, Fisher, and Shackelford counties) based on 2 criteria: 1) brush control practices were conducted from 1998 – 2003; 2) control sites where no brush management are available in the nearby vicinity (but no closer than 1.6 km) to serve as paired control sites; and 3) participating by a nearby ranch in the Texas Quail Index which would provide some benchmark data on quail abundance for that region. New sites will be located for each year of the study. At each study site, we will measure an array of quail population parameters (e.g., spring call counts, dummy nest evaluations), habitat parameters (e.g., Robel pole, cone of vulnerability), and related parameters (e.g., scent stations). The 2005 sampling season included a total of 74 study sites. Initial results will be presented.

Response of Northern Bobwhite Populations and the Associated Avian Community to Landscape-Level Management in the Central Hardwoods BCR

Habitat management in accordance with guidelines stated in the Northern Bobwhite Conservation Initiative (NBCI) for northern bobwhite (*Colinus virginianus*) was initiated on 2 focal areas (each >15,000 acres) in north-central Arkansas during 2003. Each area consists of privately owned farms on which a combination of management activities have been initiated including development of borders around pastures and hay fields, controlled burning and thinning of forested woodlots, and restoration of native warm season grasses. The goal of habitat manipulations is, as stated in the NBCI, to restore population densities of northern bobwhite to levels that existed in 1980. However, before widely adopting the management protocol, resource managers need to evaluate the degree to which the habitat manipulations meet the specified goal.

We propose to assess the extent to which management guidelines specified in the NBCI will create a landscape that will increase productivity and population density of northern bobwhite. To achieve this objective, we will compare hatching-year to after-hatching-year ratios of quail on focal areas and adjacent reference areas. We will also establish breeding bird survey routes, conduct point counts, and run quail-call count surveys within the focal areas to obtain population data for comparison with historical records of the region and with reference sites.

Another objective is to examine responses of quail, including brood-rearing and nesting birds, to management activities. We will employ telemetry to assess bird response and brood-rearing success, as well as transects and nest searching, to evaluate habitat use with respect to specific management practices.

Finally we will examine effects of management on vegetation and avian community structure. Baseline data to characterize vegetation and avian community structure have already been collected and we will continue to follow existing protocol in future monitoring.

Given the broad scale of the manipulations in focal areas, we feel that our multi-faceted research protocol is the best way to obtain an accurate picture of how management influences demography of quail.

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Northern Bobwhite Response to Environmental Quality Incentives Program (EQIP) Practices in the High Plains Ecoregion of Texas

The Northern Bobwhite Conservation Initiative seeks to reverse northern bobwhite declines across the specie's range. The goal for the Southern High Plains of Texas, or the Texas portion of the Shortgrass Prairie Bird Conservation Region (TBCR18) as it is delineated in the initiative, is to add 18,933 new coveys to those already in existence. Regrettably, cotton, the primary crop in the region, uses a cropping system that precludes bobwhite habitat. Rangeland provides the most usable habitat for quail in the TBCR18. However, much of the rangeland that would be considered suitable habitat has been overgrazed to the point it is no longer usable. New incentives could change the dynamics in TBCR18.

In Texas, the Environmental Quality Incentives Program (EQIP) holds promise for management practices that are beneficial to bobwhite. The primary wildlife species of concern for the TBCR18 are the lesser prairie chicken and the black-tailed prairie dog. Prescribed grazing, brush management, and prescribed burning are eligible practices for EQIP in this area. These practices may also be beneficial for developing bobwhite habitat in the region. The potential benefits of EQIP projects on bobwhite in TBCR18 have not been evaluated. Therefore, my objective is to examine bobwhite population responses to the 3 EQIP practices eligible in TBCR18. I will use September roadside surveys, October covey surveys, and spring call surveys as indices of bobwhite populations and compare these indices among 4 treatment groups. Treatment groups will include (1) prescribed burn application and enrollment in EQIP, (2) prescribed grazing system and enrollment in EQIP, (3) brush management and enrollment in EQIP, and (4) no management application for wildlife (control). Additionally, each study site will be mapped using DOQQ imagery with each replicate incorporated into a GIS database. Geospatial analysis of landscape features will aid in identification of future EQIP project sites.

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Use of Human Dimensions Information as a Tool for Selecting Large-Scale Quail Restoration Areas

The purpose of this research is to determine landowner willingness and ability to carry out quail habitat restoration in cooperative ventures with government natural resource agencies (Missouri Department of Conservation [MDC], USDA Natural Resource Conservation Service [NRCS] and Farm Service Agency [FSA], and Missouri Department of Natural Resources Soil and Water Conservation Districts [SWCD]), University of Missouri (UM), and non-government organizations (e.g., Quail Unlimited). This information will be used to support the MDC Strategic Guidance for Northern Bobwhite Restoration, which is linked to the Northern Bobwhite Conservation Initiative (NBCI). The study will be used to identify quail restoration areas and in designing marketing plans. The information and methodology from this study will serve as a model for quail restoration initiatives in other states. The study has 3 objectives: (1) Determine landowner attitudes, knowledge and ability regarding quail conservation, and desired components of cooperative agreements; (2) Develop a spatial inventory of landowner willingness and ability to implement quail habitat management; and (3) Evaluate landowner experience with, and attitude toward, cooperative ventures. We will use focus groups and questionnaires (mixed methods approach) to develop quantitative models that predict the potential for successful participation in joint-venture style quail restoration projects. These models will in turn be used to develop GIS layers of "habitat restoration potential." These human dimension layers will be used in conjunction with habitat suitability models (e.g., quail habitat suitability model, Center for Agricultural, Resource and Environmental Systems at the University of Missouri – Columbia) to select quail restoration areas. Study collaborators include MDC, NRCS, UM and QU.

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Benefits of a Buffer-Based Conservation Management System for Northern Bobwhite and Grassland Songbirds in an Intensive Production Agriculture Landscape in the Lower Mississippi Alluvial Valley

Conservation practices such as field borders, filter strips, and riparian forest buffers improve environmental quality through erosion control, herbicide retention, water quality improvement, and provide wildlife habitat while removing marginal lands from production. Within intensive agricultural production systems, these strip habitats are often the only herbaceous grass communities remaining to provide resources to meet daily and season life requisites of farmland wildlife. However, information on the effects of strip width, landscape context, and relative value as part of a Conservation Management System (CMS) is needed to develop and refine USDA-NRCS practice standards. Furthermore, an understanding of functional relationships between practice implementation and bobwhite population performance is essential. This research will quantify practice-specific and collective effects of a buffer-based CMS on the local abundance of bobwhite and determine the effects of buffer width on density, diversity, and reproductive success of grassland songbirds in an intensive agricultural production system in the Mississippi Alluvial Valley (BCR 26).

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Conservation Practices to Promote Quality Early Successional Wildlife Habitat

Quality early successional habitat is a limiting factor for northern bobwhites. USDA-NRCS has promoted conservation programs to address this problem. In the Central Hardwoods, Piedmont, Southeastern Coastal Plain, and Appalachian Mountains Bird Conservation Regions, converting tall fescue acreage to native warm-season grasses (NWSG) is a key objective. Unfortunately, a majority of landowners enrolled in USDA conservation programs have not managed fields of NWSG after establishment, but allowed them to grow dense and rank, often succumbing to woody succession. Further, landowners are reluctant to use fire and instead bush-hog NWSG stands, creating less than desirable conditions for brooding and feeding. Information identifying the best alternative practices to burning is critically needed to encourage active management by landowners.

In many areas, planting NWSG is not necessary to obtain quality habitat. After removing tall fescue cover, a diverse seedbank often produces an abundance of native grasses and forbs that provide quality habitat. There are questions, however, about how best to remove non-native cover and stimulate the seedbank for desirable plant composition and structure.

NRCS Private Lands Biologists and TWRA wildlife biologists working with landowners enrolled in USDA programs identified the need for this project. This project began in 2003 when fields across Tennessee were selected for treatment. Dormant-season and growing-season fire, seasonal disking, bush-hogging, and strip-herbicide applications are being implemented on NWSG fields. Seasonal spraying and disking treatments are being implemented on tall fescue sites. Various herbicide and burning treatments are being conducted on sites overtaken by woody succession. Comprehensive vegetation sampling will identify treatment effect on vegetation composition and structure. In addition, the impact of treatments on invertebrate abundance and mass, seed rain, and soil loss will be measured.

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Maximizing the Impact of Field Borders for Quail and Early-succession Songbirds: What's the Best Design for Implementation?

Northern bobwhite (*Colinus virginianus*) and other early-succession bird populations declined during the past half-century, primarily because of changes in land-use that led to habitat loss and degradation. A popular management practice to assist these species is the creation of linear field borders along cropland peripheries and ditch banks. These narrow borders, although shown to increase quail numbers locally, may concentrate quail and songbird nest predators and brood parasites. Nonlinear blocks of fallow habitat created in odd corners or unproductive areas of crop fields may be at lower risk of negative edge effects. Additionally, the creation of field border habitat, including that supported by Farm Bill programs, traditionally has been implemented with little consideration for landscape characteristics surrounding the area of management. Recent research indicates that the creation of additional usable space for quail may have the greatest impact in "suitable" landscapes already high in usable space (i.e., landscapes containing at least 30-50% cropland). We propose to determine the effects of field border shape, landscape context, and the interaction of field border shape and landscape context on bobwhite quail and early-succession songbird abundance and reproductive success in 2004, 2005, and 2006. We will study bird response to the creation of fallow habitat on 12 hog farms with linear border habitat (6 in suitable landscapes and 6 in unsuitable landscapes) and 12 hog farms with block habitat (6 in suitable landscapes and 6 in unsuitable landscapes) in the Southeastern Coastal Plain of North Carolina. Results could be used by NRCS, FSA, and partners to modify Farm Bill technical specifications and program implementation to better accomplish objectives of the Northern Bobwhite Conservation Initiative and the conservation of grassland and early succession birds in the southeastern United States.

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Bobwhite Response to NBCI-Based Habitat Prescriptions on Rangelands

Northern bobwhite populations have declined significantly on rangelands in central Florida. However, rangelands have a high potential for bobwhite population recovery because bobwhite populations exist at relatively high baseline levels, suitable habitat can be created without changing land use practices, and interest in bobwhite population recovery is high. According to the Northern Bobwhite Conservation Initiative (NBCI), 73% of the population goal for this region could be achieved by managing 7% of rangelands as bobwhite habitat. We propose a multi-disciplinary project to test the efficacy of bobwhite habitat restoration on rangelands in a 4 county focal area in central Florida. On cooperating ranches, habitat manipulations, consistent with NBCI stated objectives, will be implemented using Farm Bill conservation program funds along with private funds. Habitat manipulations will focus on native rangeland portions of ranches, but also include ditch banks, fencerows, and other areas. Funds from this proposal will be used to measure bobwhite and songbird response using a combination of spring point counts and fall covey call surveys. Importance of habitat management and landscape variables will be assessed using a regression approach. Major outcomes of this project will include developing prescriptions for improving habitat and increasing bobwhite and songbird populations on ranches, testing core assumptions of NBCI for this region, and providing decision tools to biologists to assist with prescribing practices to restore bobwhite habitats. This type of information will be critical for decision makers allocating precious resources for habitat restoration projects on rangelands.

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Assessing Bobwhite Response to EQIP Implementation in the Rolling Plains of Texas

The Rolling Plains of northwest Texas are 1 of the last bastions for viable northern bobwhite populations. But even here, bobwhite numbers have decreased an average of 3.4% annually since 1980. The decline of bobwhites in its traditional strongholds (i.e., the southeastern U.S.) has heightened landowner awareness of the plight (hence the value) of quail in Texas. Farm Bill programs like EQIP have been very popular in Texas, and purportedly can improve bobwhite habitat. The Rolling Plains of Texas is one of 3 EQIP areas focused on bobwhite habitat concerns. Texas garnered the largest EQIP allocation of any state in 2004 (\$78.6 million). Northern bobwhite is a priority species for EQIP in 58 counties of the Rolling Plains. The most popular EQIP-funded practice in FY 2003 was brush management, which accounted for 26% of the \$46.5 million of the EQIP dollars expended. We propose to test the hypothesis that brush management, if done in moderation, enhances bobwhite habitat (and promotes greater quail abundance) in the Rolling Plains. We propose to evaluate bobwhite response to EQIP-sponsored brush management at intervals 2 to 4 years post-implementation. We will also test protocols for an ongoing demonstration effort (Texas Quail Index) that will be useful for NRCS staff to evaluate quail abundance to various land management practices.

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Responses of Northern Bobwhite, Vegetation and Invertebrates to Three Methods of Renovating Monotypic CRP Grasslands in Southcentral Illinois

There are 194,000 ha of CRP grasslands in the primary range of the northern bobwhite in Illinois; however, most fields are monotypic stands of cool season grasses in excess of 4 years old. These fields are in need of renovation to thin grass stands and restore annuals and legumes favored by bobwhite and other early succession species for nesting, roosting and brood foraging. In this study, portions of old CRP fields will be renovated by fall disking, late summer herbicide spraying or fall disking followed by late winter seeding of lespedeza. About 20-30 percent of each treatment field will be managed each year for three years. Each field will be paired with an untreated (control) field. In July and August, walking transects will be conducted in managed portions of treated fields and in control fields. Observations of bobwhite adults, broods and other wildlife will be recorded. After July transects are completed, vegetation composition and structure along transects will be measured. Transects will be repeated in August. After August transects are completed, the diversity and abundance of invertebrates will be measured along transects. Data collected will be analyzed to detect differing responses by wildlife, vegetation, and invertebrates to the 3 treatments. Costs of implementing the three treatments and landowner acceptance of CRP management will also be reported.

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Evaluation of Four Conservation Management Practices for Northern Bobwhites and Grassland Songbirds

We propose to evaluate 4 conservation management practices promoted by the NRCS. We will evaluate these practices by quantifying temporal changes in vegetation composition and structure and by examining Northern Bobwhite quail (*Colinus virginianus*) and grassland songbird use in a complex of fields where these practices have been implemented for 3 growing seasons. Specific objectives are to (1) determine temporal changes over 5 growing seasons in vegetative composition and structure in experimental plots receiving a disking or burning treatment to encourage early successional habitat development; (2) determine nest site selection, nest success, and brood habitat use for Northern Bobwhites and (3) grassland songbirds in fields being managed for field borders, early successional habitats, perennial shrub vegetation, and native warm-season grasses. Nest selection, nest success, and brood habitat use for Northern Bobwhites will be examined using standard radio-telemetry protocol. Songbird nest selection and nest success will be determined through intensive nest searches. Unlike other studies which have assessed conservation practices as they are being implemented, our study has the benefit of being done on an area where these practices will have been in place for 5 growing seasons when the study is concluded. The results should provide NRCS staff with information which can be used to refine conservation management guidelines, enhanced our understanding of habitat conditions created by these management practices, and how and when these habitats are used by Northern Bobwhites and songbirds. Further, management recommendations which will sustain desirable habitat conditions temporally will be developed. The results will be written as a thesis by a student pursuing a Master of Science degree in wildlife biology and developed into a concise document for use by NRCS staff. Partners in this study include the SC NRCS, the SC Department of Natural Resources, and Clemson University.

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Converting Agriculture to Grasslands and its Effects on Bobwhite Quail Abundance

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Abstract: Northern bobwhite quail (*Colinus virginianus*) populations have been declining at a rate of 3.8% a year since 1980 due to loss or conversion of habitat. On the Key Cave National Wildlife Refuge, Alabama about 300 acres of agriculture were converted to native warm season grasses from 2000 - 2004. Quail whistling cock call counts and quail covey call count surveys were conducted from 1998 - 2004. Dickcissel (*Spiza Americana*) and grasshopper sparrows (*Ammodramus savannarum*) were surveyed from 2001 - 2004. General trends of quail coveys and quail cock calls showed a positive significant relationship with area of native grasses. The Northern Bobwhite Conservation Initiative has outlined habitat objectives to restore quail populations to 1980 densities. These results demonstrate to landowners and land managers the costs and benefits of converting agricultural lands to native warm season grasses.

