

# Proceedings of the 16<sup>th</sup> Annual National Bobwhite Technical Committee (NBTC)

(formerly the Southeast Quail Study Group)



August 3-6, 2010  
Hyatt Regency  
Wichita, KS



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# CHAIRMAN'S MESSAGE

Colleagues,

It's hard for me to believe that I'm two-thirds of the way through my term on the NBTC Steering Committee! For the past four years, we've all had a front row seat to some of the biggest changes in our organization and some of the greatest leaps forward for the NBCI.

During that time, we have seen the NBCI take root at its first permanent "home" at the University of Tennessee. The Southeast Quail Study Group has expanded from a regional group to a national group covering the entire range of bobwhite, engaging new states and other new partners in the process. The NBCI, in conjunction with UT's Center for Native Grasslands Management, Southeast Partners in Flight, and other partners has been successful in securing a Keystone Initiative Grant from the National Fish and Wildlife Foundation for an Eastern Grassland Birds Initiative. This grant has allowed the NBCI to hire the necessary resource and outreach professionals to deliver a higher level of service and communication to NBTC committees, state wildlife agency partners, and NGO partners and to implement the NBCI vision of bobwhite and grassland bird recovery. The NBCI, which started as not much more than an idea and a vision, has been revised from a paper plan to a state-of-the-art geospatial planning tool and expanded from 16 southeastern states to the majority of bobwhite range.

We've seen great success since the formation of the Southeast Quail Study Group in 1995 and the publication of the NBCI in 2002, but we will continue to experience challenges as we move forward. Among those challenges are:

- Continuing to grow the support of state wildlife agencies for bobwhite habitat restoration and population recovery.
- Establishing a stable funding base for the NBCI to insure a long-term commitment to the task at hand.
- Keeping the NBCI plan and database current and relevant to ongoing habitat restoration and population recovery efforts.
- Documenting bobwhite habitat and population recovery success at multiple spatial scales.
- Raising the profile of the NBCI and quail and grassland bird recovery among all stakeholders and constituent groups.

Having seen the passion and commitment of our members and partners, I have no doubts that we'll meet those challenges and others we may encounter head-on, and we will ultimately succeed in our efforts.

I would like to thank Jim Pitman and all the Kansas Department of Wildlife and Parks staff, as well as our 2010 NBTC meeting sponsors, for making our 2010 Annual Meeting in Wichita a success. I also want to thank each of you for your participation in the NBTC and for what you do for

bobwhites on a daily basis. Mark your calendars now for the NBTC Annual Meeting in Florida in August, 2011!

It's been an honor and a privilege to serve as the NBTC Steering Committee Chair for the past two years. Thank you for your trust and support.

Sincerely,  
Billy Dukes, Chairman  
National Bobwhite Technical Committee  
(2008-2010)

# CONFERENCE AGENDA

## Tuesday, August 3, 2010

8:00 - 5:00               STEERING COMMITTEE  
1:00 - 7:00               REGISTRATION  
6:00 - 9:00               WELCOME RECEPTION

## Wednesday, August 4, 2010

6:30 - 8:00               BREAKFAST  
7:30 - 12:00              REGISTRATION  
8:00 - 5:00               POSTER SESSION  
8:00 - 12:00              GENERAL SESSION

### Welcome and Opening Remarks

*Joe Kramer, Fisheries & Wildlife Division Director, Kansas Dept. of Wildlife & Parks*

*Kelly Johnston, Commission Chairman, Kansas Dept. of Wildlife & Parks*

### Challenges and Opportunities for Kansas Game Birds

*Jim Pitman, Kansas Department of Wildlife & Parks*

### Rangeland Management and Wildlife

*Dr. Dwayne Elmore, Oklahoma State University Extension*

### Center for Native Grassland Management

*Dr. Pat Keyser, University of Tennessee*

### Grassland Conservation Plan for Prairie Grouse

*Bill Vodehnal, Nebraska Game & Parks Commission*

### The New NBCI

*Don McKenzie, NBCI Coordinator*

### NBCI Revision Update

*Dr. Bill Palmer & Dr. Theron Terhune, Tall Timbers Research Station*

12:00 - 1:00              LUNCH  
1:00 - 5:00               COMMITTEE MEETINGS  
7:00 - 9:00               BANQUET

## Thursday, August 5, 2010

<b>6:30 - 8:00</b>	<b>BREAKFAST</b>
<b>8:00 - 5:00</b>	<b>POSTER SESSION</b>
<b>8:00 - 12:00</b>	<b>COMMITTEE MEETINGS</b>
<b>12:00 - 1:00</b>	<b>LUNCH</b>
<b>1:00 - 2:45</b>	<b>GENERAL SESSION</b>

### **A Grassroots Approach to Farm Bill Implementation**

*Jordan Martincinch, Pheasants Forever*

### **Tallgrass Legacy Alliance**

*Roger Wells, NWTF & TLA Chairman*

### **The New NWTF Upland Initiative**

*Donnie Buckland, NWTF*

### **Emerging Cellulosic Biofuel Market: Can it be compatible with wildlife?**

*Tom Schwartz and Fred Circle, FDC Enterprises*

<b>3:00 - 4:00</b>	<b>COMMITTEE REPORTS</b>
<b>4:00 - 5:00</b>	<b>NBTC BUSINESS MEETING</b>

## Friday, August 6, 2010

<b>6:30 - 7:30</b>	<b>BREAKFAST</b>
<b>7:30 - 3:30</b>	<b>Flint Hills Field Trip</b>

# Steering Committee Meeting Minutes

## OPENING COMMENTS

The annual summer National Bobwhite Technical Committee (NBTC) Steering Committee (SC) meeting was called to order by Chairman Billy Dukes at 8:00 a.m. on 3 August 2010. Chair Dukes welcomed all and noted strong attendance for the meeting despite the dire economic environment within state agencies. SC members present were Dave Godwin (Past Chair), Tom Dailey (Secretary-Treasurer, Chair-Elect), Chuck McKelvy (At-large member), Jim Pitman (Midwestern Association of Fish and Wildlife Agencies states' representative), Dave Howell (Quail Unlimited representative), Jim Wooley (Quail Forever representative) and Don McKenzie (National Bobwhite Conservation Initiative [NBCI] representative). SC members absent were Mark Smith (Academia representative) and Scott Klinger (Northeastern Association of Fish and Wildlife Agencies states' representative). Also participating in the SC meeting were NBTC members Pat Keyser (NBCI/University of Tennessee Center for Native Grassland Management) and John Gruchy (Grassland/Grazing Land Committee vice chair), and NBCI staff members Bridget Collins (liaison to FSA), Mike Black (Forest Coordinator), Tom Dailey (Assistant Coordinator/Science Coordinator) and John Doty (Outreach Coordinator). With new staff on board, Chair Dukes asked for all to introduce themselves. Bill Palmer and Theron Terhune (NBCI Revision Coordinators), and Elsa Gallagher (P. R., Information & Education Committee Chair) participated after lunch.

## AGENDA

Chair Dukes presented proposed Agenda for the meeting (attached) and asked for discussion. Topics stayed the same, but slight schedule changes were made.

## APPROVAL OF FEBRUARY 16-17 MEETING MINUTES

Chair Dukes presented minutes from February 16-17, 2010 Steering Committee meeting in Knoxville and asked for discussion. Secretary Dailey noted his error in reporting membership--did not include members lacking email address—so when they are included NBTC had 186 paid members. No other exceptions noted. The Steering Committee unanimously approved the minutes as amended.

Chair Dukes reviewed progress on Action Items from the February 16-17 meeting:

- ✓ Reggie Thackston prepare job description for Forest Coordinator position—DONE.
- ✓ Jim Pitman send out another Annual Meeting announcement—DONE.
- ✓ Mark Smith assist Pitman with review of poster abstracts—DONE.
- ✓ Jim Pitman arrange for professional photographer at Annual Meeting—DONE.
- ✓ Jim Pitman/SC plan event for NBCI Revision release at Annual Meeting—DELAYED.
- ✓ Chair Dukes confirm Texas PWC intent to host 2012 NBTC meeting—DONE.
- ✓ Steering Committee send nominees ideas to Dave Godwin—DONE.

- ✓ Tom Dailey arrange for announcement of Quail VII during Management Board meeting in March—DONE.
- ✓ Don McKenzie send revised NBCI principles to List Serve for comments by full membership in preparation for final NBCI revision—DONE.
- ✓ Bill Palmer provide 1<sup>st</sup> draft of NBCI revision by May 1<sup>st</sup> and final product for Annual Meeting—DELAYED.
- ✓ Don McKenzie complete logo revision this spring—DONE.
- ✓ Elsa Gallagher coordinate completion of habitat chapters prior to hiring of Outreach Coordinator—still on hold; not to be included in revision paper, but will be online.
- ✓ Elsa coordinate NBCI web building with UT staff—DELAYED.
- ✓ Tom Dailey update NBTC web site as needed—DONE.
- ✓ Tom Dailey send Election Nominations and bylaws revision to membership before July 5<sup>th</sup>—DONE.
- ✓ Tom Dailey obtain 501(c)(3) status before Annual Meeting—DELAYED for action by incoming Chair Elect.
- ✓ Chair Dukes charge the Forestry and the Grassland/Grazing Land Committees to make recommendation on prescribed-fire—DONE.
- ✓ Jim Pitman update Annual Meeting guidelines as part of Annual Meeting final report—FORTHCOMING.
- ✓ Chair Dukes/Don McKenzie reschedule meeting with Southern Aquatic Resource Partnership—DELAYED.

## **FINANCIAL AND MEMBERSHIP AND REPORT**

Tom Dailey reported that the NBTC currently has 186 paid members and a treasury balance of \$12,513.31. Since the February business meeting, and the period February 1—July 31, 2010, when the treasury balance was \$14,041.34, there has been a net change of -\$1,528.03. Income included interest accrued on the account. Expenses included NBTC web design and travel reimbursement for Chair Dukes to Knoxville for Steering Committee Meeting and for Science Coordinator interview, and to Milwaukee for Management Board meeting. The Steering Committee unanimously approved the Membership and Treasury Report as submitted.

Per the NBTC bylaws, financial records were audited by Dave Godwin, Chuck McKelvy and Dave Howell.

## **NBCI OPERATIONS & PERSONNEL UPDATE**

Don McKenzie reported the National Fish and Wildlife Foundation (NFWF) annual contract began in April, and subsequently he spent the spring/summer hiring the 3 positions filled by Mike Black (Forest Coordinator), Tom Dailey (Assistant Coordinator/Science Coordinator) and John Doty (Outreach Coordinator). McKenzie introduced Bridget Collins, also hired in the summer, as the NBCI liaison to FSA, under the Multistate Conservation Grant. McKenzie discussed general role of



staff with the respective NBTC Committees. Chair Dukes indicated that Committees have been charged with defining these relationships, and much general discussion followed.

Don McKenzie reviewed reporting requirements for the NFWF grant, particularly the challenge of showing progress the first year. McKenzie and Keyser will be preparing the 2<sup>nd</sup> year's proposal this fall. McKenzie asked about priorities for hiring for this proposal; what is next priority position? Discussed short list including ENGA Director, Prescribed Fire specialist, Mine land Reclamation specialist, Data Manager, and Grants Coordinator.

Don McKenzie reviewed contributions by state agencies to his NBCI Coordinator position for July 2009 through June 2010. Income for the past year came in about \$14,000 above cost, primarily because of an overestimate in anticipated travel cost. Twenty-three states pledged about \$5,000 each, with \$120,000 received. McKenzie is working to secure funding from Illinois and Indiana, and discussions have ensued with 'secondary' bobwhite states of Colorado and South Dakota. Legal issues have thwarted the process, with a check for \$5,000 from New Jersey not being processed because of contract problems. Pat Keyser shared that the process of states paying entities in other states has been very difficult; about 15 states used MOA; so money will be accumulating but reluctant to spend any until clear multi-year commitment. In spite of the contract challenges, McKenzie noted the high level of support is remarkable in the context of the recession and poor state budgets.

Matching in-kind contributions to NBCI were discussed with Keyser/McKenzie indicating documentation has to be done for NFWF this fall and that match data will be part of national database.

#### **UT CENTER FOR NATIVE GRASSLAND MANAGEMENT**

Pat Keyser reported that the primary effort the past year has been research to support extension education. A Conservation Innovation grant allowed for the hiring of Elizabeth Daxon to coordinate research and development of a grazing economic decision support tool. In the upcoming CNGM symposium (October), emphasis is on NWSG in working landscapes, particularly biofuels. Some of the NFWF grant is being used to develop a survey of landowners, with the questionnaire planned for this winter. Discussion ensued about NBTC role in work on forage-grazing policy within USDA.

#### **UPDATE OF 2010 ANNUAL MEETING PLANNING**

Jim Pitman, meeting coordinator, reported 110 registered and expectation for another 25. Meeting account contains \$29,000 and more coming in; \$5,000 in donations from 9 sponsors; should be in black by \$5,000--\$8,000, to be added to NBTC account balance. Jim indicated that only 50 people preregistered (\$175, versus \$200 after 25 June), so future meetings need to consider stronger incentives.

Chair Dukes reported commitments for Tallahassee, Florida in 2011 (coordinated by Chuck McKelvy) and Abilene, Texas in 2012 (coordinated by Robert Perez and Dale Rollins). For 2013 will likely meeting in Virginia, maintaining west to east diversity. 2011 meeting coordinator Chuck McKelvy asked about holding meeting outside of the August heat; McKenzie indicated the need to meet well before annual AFWA Management Board meeting, which typically occurs in September, so difficult to avoid meeting in summer.

Chair Dukes discussed the winter SC business meeting, and continued desire to meet with SEPIF whenever feasible.

### **MEMBERSHIP AND VOTING ISSUES**

Chair Dukes led discussion of protocol. To ensure bylaws are followed, at the polling place Secretary Dailey will provide a copy of voting membership to include check box for 'I voted.' Voting will commence the first day of the annual meeting.

### **ONLINE/REMOTE MEETING CAPABILITY**

Chair Dukes led discussion. Extreme budget constraints translated to many regular members being unable to travel, and this precipitated call for making meeting available (e.g., webinar) for people that cannot attend. Decided not to include Steering Committee meeting, but that future Meeting Coordinators and Committee Chairs should consider ways to be more inclusive.

### **ESTABLISHING AN NBCI ENDOWMENT**

Tom Dailey discussed the idea of annual meeting sites serving as primary opportunities to make new, influential NBCI friends, with ultimate goal of building an endowment through these relationships. Kansas would have provided many opportunities with Bass Pro, Cabelas, Coleman, etc., close by. Goal would be first-class social gathering for a select group of key area citizens and MANAGEMENT BOARD/NBTC/NBCI personnel. In previous discussion of this topic, Bill Palmer offered to assist with this concept for 2011 annual meeting in Tallahassee. Bill believes there is potential to generate interest by current Red Hill members in national initiatives like NBCI. Likewise, the intense interest in quail in Texas bodes well for making 'NBCI friends' in that part of the quail range.

Chair Dukes recommended we flesh this out more thoroughly and perhaps put on MB agenda in September. Although Management Board hasn't seemed very interested in fund raising, they could play very important role in such efforts at NBTC annual meetings.

### **NBCI MANAGEMENT BOARD**

Don McKenzie reviewed highlights from meeting in Milwaukee and the fact that executive committee agreed to the idea of appointing NGOs.

**Adjourned for lunch at noon and resumed at 1:30 p.m. with Bill Palmer, Theron Terhune and Elsa Gallagher in attendance**

### **NBCI REVISION UPDATE**

Bill Palmer presented update. A striking difference this time is refinement--the amount of improvable acres is greatly reduced. The GIS tool is sophisticated--out source contracting for this product would have cost several hundred thousand dollars. Theron has done excellent job.

What still needs to be done: Text needed in various places; Data accuracy needs to be checked; Figures need to be added; Will have these things done in 7 weeks. Bill asked SC to offer comments on the document as found on TT web site in next 10 days—key questions—what’s missing, and are data and examples displayed adequately.

Density—Bill—we need population numbers for specific habitat types/ecosystems (agric, range, hardwood, mixed forest, pasture, upland pine)

- Pasture and range—numerous misclassification errors—need more accurate geospatial layers
- AG—(equal cropland) fairly accurate

Predictive response for improvable acres—fig 10; still need to do this for range, mine land, etc.

- Much discussion about variability among states
- Discussion about Illinois and lack of improvable acres
- SO, states can revise their data—BUT THIS NEEDS TO BE ORGANIZED—future need.

#### **PLANS FOR AFWA – 2010 (NBCI ROLL-OUT)**

- How to roll out the products? No support for a big paper product—many hot links are imbedded—need online version. For AFWA MB & RSGWG—Folder containing 2-page “advertisement” with CD; need to design; and a demonstration by Bill P; News release by John Doty.

#### **MONITORING AND TRACKING ACCOMPLISHMENTS OF THE NBCI**

Tom Dailey discussed the need to develop an inventory of quail restoration related activities and accomplishments. In Milwaukee the Management Board provided the guidance that NBCI should claim almost anything done in the name of bobwhites. Thus, goal for NFWF reporting in spring is to have a data base that state quail coordinators would populate with their state’s activities and accomplishments. Considering all the variability in how states, NGOs and USDA define habitat work, this will be a huge challenge. Also, many states have their own reporting systems, translating to possibly redundant work for quail coordinators. Ideally this would be a spatial data base, as is being done in some states, for example, Missouri. These programs, however, take years to fully implement.

#### **COMMITTEE & PARTNER REPORTS**

- Forestry: Reggie Thackston chair: key job is to define pine savanna; need to dig up historical fire frequencies to inform fire management; meeting with grassland/rangeland committee on fire issues; will elect new vice chair.
- Grassland/rangeland: John Gruchy vice chair, reported in place of Chair Dale Rollins, who had not yet arrived.

- Ag-Policy Committee: Chair Dukes shared some insights from Chair Chuck Kowaleski who had not yet arrived.
- PRIE Committee/UT WEB Site: Chair Elsa Gallagher reviewed; holding election.
- Research committee: Theron Terhune, vice chair, reported in place of Chair Nathan Stricker who is not attending annual meeting; will determine timeline for Quail VII and other tasks assigned by Chair Dukes.
- Chair Dukes talked about John Doty working on promotional stuff—generate income from NBCI-branded products.
- Bridget Collins asked about nbci/nbtc protocol for official responses; Chair Dukes indicated that letters to USDA should go through nbtc chair/steering committee.
- Dave Howell reported on Quail Unlimited status and that President Bill Bowles will be attending.
- Jim Wooley reported on Quail Forever status.

## **ADJOURNMENT**

Chairman Dukes offered compliments to SC members for all the hard work and accomplishments over his 2 years as Chair. The joint meeting with SEPIF, and change in scope from southeast to range wide, with subsequent bylaws revisions, were tremendous accomplishments that we should all be proud of. He thanked all for their attendance and active participation in today's meeting, and adjourned the meeting at 5:00 p.m.

# State Reports

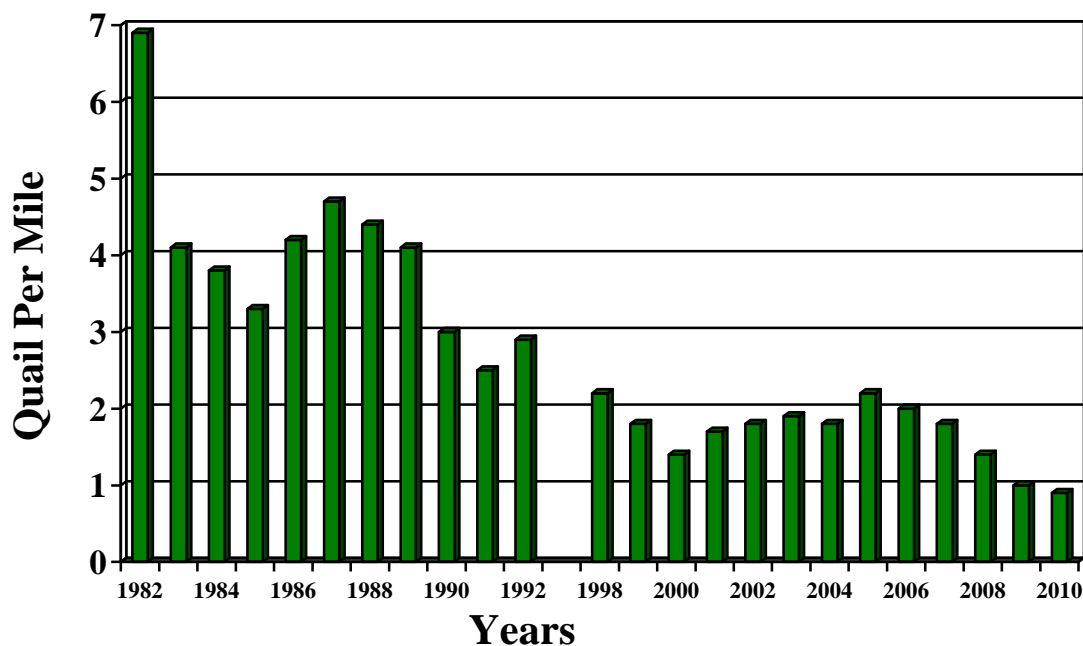
# ARKANSAS

## 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.

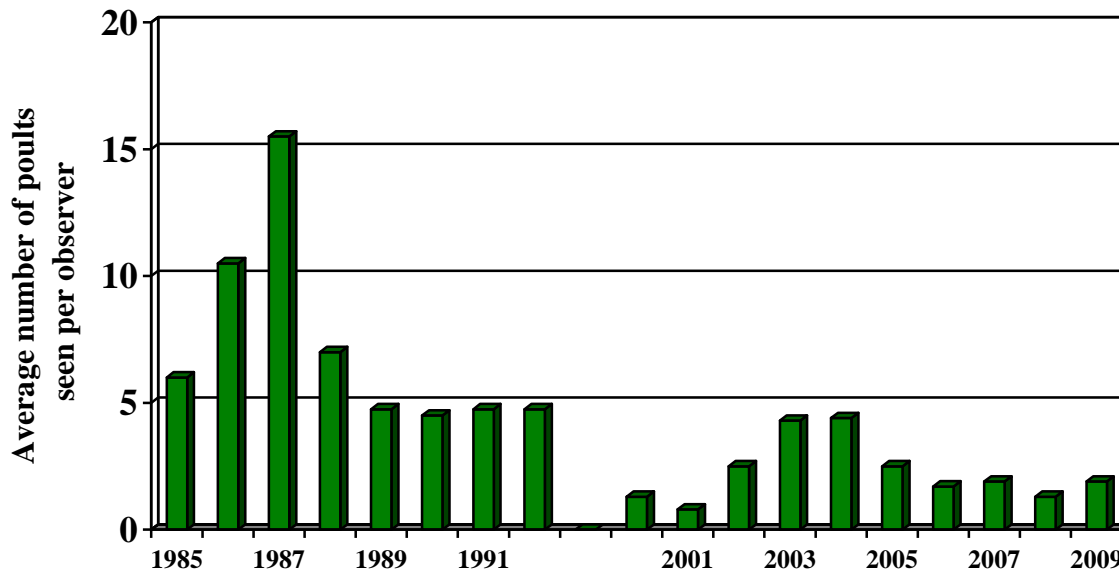
Currently, the Arkansas Game & Fish Commission continues to monitor population trends annually through quail call counts conducted during late May and quail brood surveys conducted from June 15-August 31. Since the inception of these survey methods in the early 1980's, data from both of these surveys 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, 1998-2010



The 2010 statewide average of 0.9 quail heard per mile represents a 10% decrease from the 1.0 quail heard per mile during 2009. The 2010 quail call count average is the survey's low point for quail heard per mile. Regionally, during the 2010 survey, the number of quail heard per mile ranged from 0.1 in the Delta to 1.5 in the Ouachitas.

Figure 2. Quail Brood Survey Trend 1985-1992, 2000-2010



**The 2009 quail brood surveys indicated a statewide average of 1.9 poults seen per observer. This represents a 46% increase from the 1.3 poults seen per observer in 2008.**

#### 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 2003-2010 WHIP sign-ups. Along with the status of "Special Project Area", each focal area received an allocation of up to \$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. In 2006 we initiated a rental payment of \$40/ac for open lands to increase enrollment of this type of land.

To date, there have been over 11,000 acres enrolled in WHIP within the Fulton Co. area and over 1,600 acres enrolled within the Searcy Co. area.

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.

One new focal area was identified and initiated in 2007. That area is a 35,000+ acre area near Damascus in Central Arkansas. The Damascus area is being funded with WHIP (50%), AGFC (25%), and Southwestern Energy (25%) monies and over 20 landowners enrolled in the first three years.

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 has established burn crews that 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 burn crews conducted 17 prescribed burns consisting of 2,028 acres in two focal areas. This brings the to-date total for LIP to 13,056 acres over 85 burns. This project will be completed by December 2010.

In order to promote the Continuous-CRP practice CP-33, several landowner meetings were held around the state in strategically selected agricultural communities during January and February 2010. Overall, the meetings were well received with attendance averaging about 30 individuals. Arkansas has also had a SAFE program approved. Part of that will be CP38E – Native grasslands. There are 9,700 acres of SAFE approved for Arkansas and 4,000 acres will be native grass with the ability to plant up to 5% covey headquarters throughout those whole grass fields. Arkansas has obligated all its NWSG SAFE acres and twice received additional acreage. Our total obligated SAFE acres is somewhere over 5,000 acres.



# FLORIDA

Since our last report, we and our conservation partners continued to push forward with accelerated management on selected state lands for bobwhite restoration and management. Associated with that effort, we successfully introduced rule changes in April of 2010 that established five (5) Quail Enhancement Areas (QEAs) across the state. These rule changes provide limited bobwhite harvest along with reduce bag limits on these selected Wildlife Management Areas (WMAs). The strategy is to compliment habitat enhancement through controlled harvest to increase bobwhite populations. In 2010, we had two properties online with participant support exceptionally high. Hunters were excited about the opportunity to work their dogs and actually find a few coveys of wild birds. Bobwhite densities on both properties have exceeded the 1 bird/3 acre goal established by Florida's Strategic Plan for Bobwhite Restoration and Management.

Like other states, staff in Florida continued to contribute data and on the ground expertise to Tall Timber Research Station staff associated with the Northern Bobwhite Conservation Initiative revision and associated ArcGIS mapping/database tools.

The Babcock-Webb WMA (65,000 acres) bobwhite research project concluded in October 2009. This seven-year project was initiated to investigate the factors affecting population dynamics of bobwhites and the precipitous decline in harvest over the last thirty years. Below are a few of the preliminary findings:

Bobwhite harvest rates were some of the highest reported in US literature; exceeding 40 percent in unrestricted zones of the property

Annual survival was among the lowest reported in the literature; averaging 9.7% over the length of the study

Restriction of hunter pressure improved winter survival, but was not sufficient to boost annual survival

Several reproductive parameters (nest survival, re-nesting, double nesting and chick survival) were significantly below other published studies.

In addition to the above activities, there are several other ongoing projects in Florida that target northern bobwhites. They include the Upland Ecosystem Restoration Project (UERP) and a series of research projects being conducted by the University of Florida. A brief summary of all of these projects follows. ***Chuck McKelvy, Small Game Project Coordinator, FWC***

## **Upland Ecosystem Restoration Project (UERP)**

The Upland Ecosystem Restoration Project (UERP) continues to design and implement on-the-ground management to improve habitat conditions for northern bobwhites and other fire-dependent wildlife species on public lands throughout Florida. To that end, UERP has successfully engaged the State's three primary land management agencies (Division of Forestry, Fish and Wildlife Conservation Commission and Department of Environmental Protection), as well as other publicly-owned lands to address population threats (i.e. incompatible timber and fire regimes) and changing management philosophy towards increasing populations of northern bobwhites and other declining fire-dependent species.

Increased land management has begun on nine focal properties, representing approximately 90,000 acres. Management techniques consist of increased fire frequency, appropriate scale and season of fire, timber

management, and mechanical treatments to enhance early-successional habitats and the species dependent upon them. UERP has made steady gains over the past several years. Bobwhite density estimates are nearing the project stated goal of 1 bird per 3 acres. In addition, we are excited to provide exceptional recreation for the public in the near future. ***Greg Hagan, Project Coordinator, Tall Timbers Research Station and Land Conservancy***

### **Ongoing Research Projects – University of Florida**

#### **Wildlife and habitat responses to prescribed burning, roller chopping, and grazing in Florida rangelands—**

At more than 100 locations on 40 south Florida ranches, we are examining avian (with an emphasis on quail) and invertebrate population and community, habitat, and forage responses to growing and dormant season prescribed burning, roller-chopping, and grazing. The study will run from 1/2006-12/2009 and is funded by FWC and UF/IFAS. (Emma Willcox, PhD student, and Mary Hobby, MS student)

**Northern bobwhite restoration—**We are restoring northern bobwhite habitat on ~2200 acres at the Devil's Garden Ranch/Alico, Inc., translocating wild quail in to the area, and examining habitat restoration techniques and the potential of translocating wild birds to establish or enhance bobwhite populations. The site will ultimately serve as a quail habitat and population demonstration area. The study began in 6/2006 and will continue for at least 3 years. Funding is being provided by Alico, Inc. and UF/IFAS. (Brandon Schad and Robert Hoffman, MS students) ***Bill Giuliano, University of Florida***

# GEORGIA

*(Submitted by Reggie Thackston, Georgia WRD Private Lands Program Manager)*

## **I. STATUS**

The 1966-2007 USGS Breeding Bird Survey Data show Georgia bobwhite populations declining at the rate of - 4.4 percent per year. This represents a statewide population decline in excess of 85%. 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 hunters harvested about 3.3 million quail while in the 2008 – 2009 season an estimated 22,423 hunters harvested 808,036 quail, of which 780,621 (97%) were pen reared and only 27,416 (3%) were reported as wild reared (note: 1966 and 2008-09 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 high-density populations across about 300,000 acres of private properties in Southwest Georgia that are intensive bobwhite management.

## **II. MANAGEMENT INITIATIVES**

### **WRD Private Lands Program**

The WRD's Private Lands Program (PLP) is comprised of four components: 1) Georgia's Northern Bobwhite Conservation Initiative which includes the State's Bobwhite Quail Initiative (BQI); 2) Forest Stewardship Program (FSP), 3) Forestry Wildlife Partnership Program (FWP) – a partnership program with corporate forest landowners; and 4) Farm Bill and forest policy development and program/practice implementation. All PLP components make positive impacts for bobwhites and contribute to achieving NBCI goals and objectives, however at present there is no monitoring protocol or database to fully capture these impacts.

### **Georgia's Northern Bobwhite Conservation Initiative**

A formal Georgia NBCI step-down plan is currently being developed with final completion scheduled for early Fall. The plan is being directed at landscape level habitat restoration using a tiered prioritization process. Spatially explicit landscape prioritization was developed during the previous year's NBCI revision process through a GIS analysis and multi-organizational landscape assessment. This interactive process resulted in ranking all or parts of 69 Upper Coastal Plain counties as high priority for bobwhite restoration (see figure 1). Plans are to prioritize funding and manpower into these high priority landscapes. This will be facilitated through a multi-organizational NBCI MOA signed in 2005 relative to supporting plan implementation. At present 15 state, federal and private organizations are included in the MOA with the Georgia Association of Conservation District Supervisors and the National Wild Turkey Federation being having signed on this year.

### **Bobwhite Quail Initiative**

BQI is a proactive effort to restore and maintain habitat for northern bobwhites on private lands across 15 counties of Georgia's Upper Coastal Plain. Secondary objectives include improving habitat for certain songbirds and improved quail hunting and wildlife viewing. Funding has been

provided through state appropriations, the sale of BQI vehicle license plates (tags) and matching grants. As of 2009 program funding is derived solely from vehicle tag revenue and matching grant funds.

Since 1999, landowners enrolled for BQI financial incentives have received over \$1.9 million for habitat practices, and technical guidance was provided to 1,937 landowners on 746,527 acres. Research and monitoring have documented increased occurrence of bobwhites and a number of songbird species across BQI treatment fields. The BQI has generated many additional benefits including leveraged outside funding (over \$500,000) for management and research; youth quota quail hunts; high customer satisfaction; and increased educational outreach regarding the bobwhite decline and effective restoration techniques.

Currently, the development of additional BQI landowner contracts for financial incentives has been suspended due to the decline in program revenue. Future bobwhite restoration success is dependent on securing adequate state and federal funding for landowner incentives and personnel for technical assistance. In 2010 a 5-year \$175,000 agreement with the US Fish and Wildlife Service Partners Program was signed relative to BQI practice implementation.

For 2007-2009 there were 118 BQI financial incentive Cooperators, with 208 crop fields and 56 pine stands enrolled. In total, these Cooperators established 257 miles of field borders, hedgerows, and filter strips and along with other BQI practices have positively impacted more than 13,893 acres.

Based on 2009 summer monitoring (incidental observations during habitat compliance checks) bobwhite occurrence averaged 2.2 on BQI treatment fields and 0.3 on control fields. The 2009-bobwhite detection rates were 10% higher on treatments and 25% lower on controls than the respective long-term averages. Pooled across all years 2003 – 2009, bobwhite occurrence averaged 1.9 (SE=0.13) for treatments and was significantly higher (ANOVA,  $F=19.1$ ,  $df=1$ ,  $P=0.00001$ ) than the 0.5 (SE=0.10) detected for controls. In addition to bobwhites, incidental observations of sparrow species, songbird species and rabbit species were over 500% higher on BQI treatment fields than controls (Table 1). (*Data compiled by James Tomberlin, WRD Sr. Wildlife Biologist*)

**Table 1. Incidental sightings on BQI habitat treatment fields during summer compliance checks 2003 - 2009**

Year	Fields Sampled	Bobwhites Per Fld	Running Avg	Sparrows Per Fld	Songbirds Per Fld	Rabbits Per Fld	Cum. Wildlife
2003	253	2.4	2.4	NA	NA	NA	NA
2004	170	1.5	2.0	NA	NA	NA	NA
2005	93	2.3	2.1	0.5	2.4	0.2	5.4
2006	106	2.0	2.1	1.7	4.4	0.1	8.1
2007	122	1.4	1.9	2.2	4.6	0.1	8.3
2008	181	1.6	1.9	1.8	9.1	0.2	12.6
2009	170	2.2	2.0	1.8	9.9	0.1	14.1

**Table 2. Incidental sightings on BQI paired control fields during summer 2003 - 2009**

Year	Fields Sampled	Bobwhites Per Fld	Running Avg	Sparrows Per Fld	Songbirds Per Fld	Rabbits Per Fld	Cum. Wildlife
2003	39	1.3	1.3	NA	NA	NA	NA
2004	26	1.0	1.2	NA	NA	NA	NA
2005	30	0.4	0.9	0.0	0.1	0.0	0.5
2006	40	0.3	0.8	0.1	1.3	0.0	1.4
2007	37	0.1	0.6	1.1	2.8	0.1	3.7
2008	56	0.2	0.5	0.2	2.9	0.0	3.3
2009	59	0.3	0.4	0.3	2.0	0.1	2.5

As in past years, the 2009 - 2010 BQI Youth Quota Quail Hunts on volunteer BQI Cooperator farms were popular with the public. A total of 7 hunts were conducted with 14 youth participating, hunting for 33.3 hours, locating 15 coveys and harvesting 6 birds. Across all years 2003 – 2009 the average covey find rate is 1 covey per 2.5 hours of hunting (Table 3). However, it is important to note that these hunts are conducted regardless of weather conditions and hunters may choose to use their own dogs, which can vary greatly in quality. Many of the participating youth had never hunted wild quail before and these hunts have provided exciting, educational and memorable experiences. Many favorable comments and letters of appreciation have been received from both parents and youth.

**Table 3. BQI Quota Youth Quail Hunts Summary 2003-2009**

Hunt Year	Number of Hunts	Number Youth Hunters	Total Hours Hunted	Coveys Found	Coveys Per Hour	Quail Harvested
2003-04	3	7	20	18	0.9	11
2004-05	8	15	51	21	0.4	2
2005-06	8	16	47	20	0.4	6
2006-07	4	6	26	7	0.3	7
2007-08	7	14	38.5	6	0.2	0
2008-09	7	13	38.0	6	0.2	1
2009-10	7	14	33.3	15	0.5	6
Total	44	85	253.8	94	0.4	33

Bobwhite management, education and outreach are other important aspects of BQI. During 2009 BQI biologists made substantial efforts promote bobwhite restoration and especially NBCI.

**Table 4. BQI Information Education Summary 2000 - 2009**

Year	Programs/ Presentations	Field Day Presentations	Total Contacts	Professional Articles/ Abstracts	Popular Articles/ Interviews	TV Spots/ Videos	Display Booth Days
2000	14	2	751	1	2	3	5
2001	6	8	888	1	4	4	10
2002	2	6	1,113	5	5	2	6
2003	17	22	2,738	2	8	4	8
2004	30	11	1,650	4	19	0	7
2005	19	1	961	0	8	0	2
2006	31	3	1,266	2	11	5	2
2007	45	9	2,616	0	10	1	9
2008	68	8	2,251	0	12	1	3
2009	39	12	2,852	0	8	0	4
Total	271	82	17,086	15	87	20	56

**USDA Farm Bill Update**

Grass-forb-shrub habitat to benefit bobwhites and other grassland obligates is a focus of several Farm Bill program practices in Georgia. Of particular importance within CRP are practices CP33 (field buffer), CP 3A and CP 36 (longleaf), and CP 38 (pine savanna). At present practice acreage enrollments are approximately: CP 3A and CP 36 – 200,000; CP 33 – 2,195; and CP 38 – 4,500. WHIP and EQIP are other Farm Bill programs in Georgia that contribute significantly to bobwhite habitat. During 2010 these programs collectively resulted in 910 acres of native warm season grass and fallow disking; 2,700 acres of forest thinning; 32,000 feet of hedgerows, 10,600 acres of prescribed burning; and 6,300 acres of tree establishment (Keith Wooster NRCS, State Biologist personal communication). Primary challenges for bobwhite restoration in Farm Bill programs are to: 1) ensure that exotic grasses are adequately controlled before practices are implemented; 2) thin existing pine stands so as to maintain tree stocking levels less than 70 square feet per acre basal area; 3) prescribed burn young longleaf and thinned pine stands on a 2 year frequency to restore and maintain pine savanna ground cover; 4) continue emphasis on longleaf restoration; 5) increase emphasis on mid-contract management to maintain quality early succession; and 6) increase emphasis on practice compliance.

**III. REASEARCH UPDATES****Albany Quail Project**

This summer marks the 19<sup>th</sup> consecutive year of fieldwork by the Albany Quail Project on Quail Plantations in southwest Georgia and the third summer this work has been done as part of Tall Timbers Research Station's Game Bird Program. This cooperative effort has taken a unique adaptive resource management approach where research results have immediately been applied in the field with results measured by quail density and hunting success. Many aspects of quail ecology, management, and hunting have been studied during this time with radio-transmitters placed on over 1,300 wild quail. This science-based approach to management has resulted in quail populations and hunting success at or near record levels on many of the Albany area Plantations over the last decade.

Field work in Albany is focusing on collecting radio-telemetry data on long term demographic patterns as well as conducting studies on supplemental feeding efficiency. We are also monitoring hawk and cotton rat numbers to see how this correlates to seasonal and annual quail mortality. Office work includes the publication preparation phase of the 7-year predation management project in conjunction with UGA, TTRS, and GA USDA-WS as well as the recent completion of the Albany Quail Project Book, which compiled all our written material from 1992-2007.

Our field staff continues to be active in providing management advice on existing Plantation properties as well as with several large-scale projects to develop new quail properties in Georgia. This includes the fourth in a series of very successful wild quail translocation projects. *(Submitted by Clay Sisson, TTRS AQP Coordinator)*

## Georgia WRD DiLane Wildlife Management Area

### *Fall Covey and Predator Index Surveys*

In 2001 WRD began intensive bobwhite habitat restoration on Di-Lane Wildlife Management Area. Restoration efforts across approximately 5,000 acres included heavy thinning of pine and hardwoods, fallow field management, food plots and herbicide control of invading hardwoods and exotic grasses. In order to monitor the results of these and future management actions a fall covey count along with a predator index survey was initiated.

Fall covey counts were conducted using a total of 23 listening stations. Surveys resulted in detection of 57 coveys, including at least 1 covey at each of the 23 listening stations with as many as 5 coveys being heard at 1 station. Listeners then used bird dogs to flush a sample of coveys and estimate covey size. A total of 9 coveys were flushed with an average covey size of 12.4 quail. This data was analyzed using the Tall Timbers Research Station covey call survey formula and the final tally for the 4,462 acres surveyed was 116 coveys. This estimate is an average of 2.6 coveys/100 acres surveyed and represents a 23% increase when compared to the 2007 survey and an 8% increase over the 2008 survey.

Meso-mammalian predators were surveyed using 25 scent stations distributed at least 800m apart along roads and firebreaks. These sites were monitored for 5 nights from November 17-21, 2009. Results indicated the lowest visitation rate ever recorded on Di-Lane. The predator index was 0.18 (excluding coyotes). The 4-year average for predator indices at Di-Lane is 0.40 (range 0.18 – 0.63). Foxes, raccoons, and skunks were detected. There were no visits by bobcat, armadillo, or opossum this year, although we know that these species still occur with frequency on Di-Lane. Although they are not counted in our official predator index, coyotes visited 15 sites, which represents the highest coyote visitation rate of the 4 years surveyed.

A long-term research project has begun to assess the bobwhite response to supplemental feeding and predator control.

*(Submitted by I.B. Parnell, WRD Sr. Wildlife Biologist)*

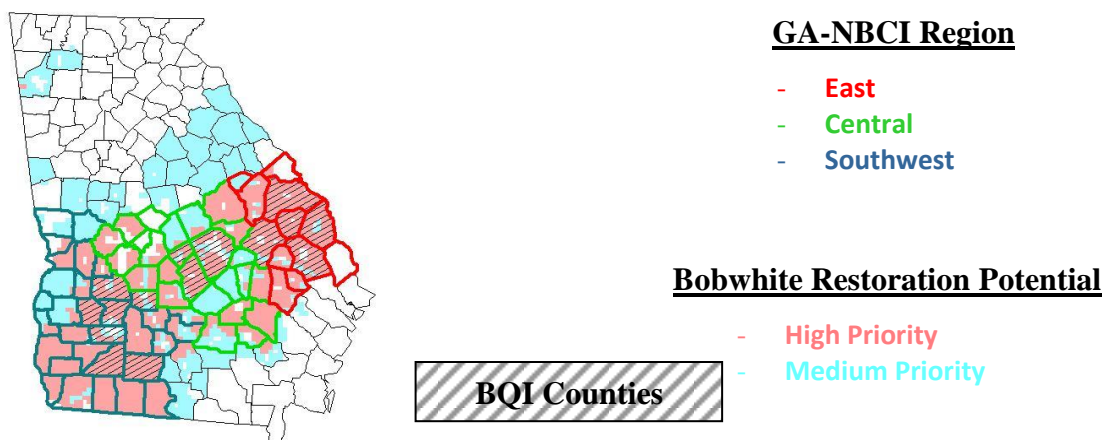
### *Supplemental Feeder Use*

We are testing northern bobwhite population response on Dilane Wildlife Management Area to supplemental feeding grain sorghum via a modified version of a commercially available feeder. We are using infrared trail cameras to monitor feed and feeder use by bobwhites and other wildlife species at 40 feeders located in four cover types (plum thicket, brier thicket, bicolor lespedeza patch, and forest edge).

From August 2009 through May 2010, bobwhites were recorded 272 times, with over two-thirds of visitations in plum thickets and less than 10 in briers. Bobwhites accounted for less than 2% of total feeder visitations, with songbirds and rodents accounting for three-quarters of visitations. Bobwhite use prior to the 2010-breeding season was sporadic, while use during April and May 2010 suggests that breeding pairs may make frequent visits.

Fieldwork will be completed in summer 2011. Analysis will include frequency of occurrence by species, by month and time of day; and use relative to cover type, compared by season and time of day.  
(Submitted by Buck Marchinton, WRD Wildlife Biologist)

Figure 1. Georgia Dept. of Natural Resources, Wildlife Resources Division Northern Bobwhite Conservation Initiative Tiered Landscape Prioritization



**1) Focal Regions:** comprised of predominately high and moderate priority counties within two or more State Soil and Water Conservation Districts in Georgia's Upper Coastal Plain

**2) Focal Areas:** A county or cluster of counties (e.g. BQI focus areas) within each NBCI region with  $\geq 50\%$  of the county designated as high priority through the Biologist Ranking Information (BRI) process.

**3) Focal Landscapes:** Landscapes  $\geq 6,400$  acres designated as high priority through the BRI process and can be located within or outside the 3 NBCI regions.

**4) Focal Sites:** Sites smaller than the focal landscapes (i.e.  $< 6,400$  acres) that meet certain habitat and management criteria and deemed to be potentially good to excellent for bobwhites by the WRD biologist.

Management unit  $\geq 2,000$  acres outside Focal Regions

Management unit  $\geq 1,500$  acres inside Focal Regions

Landscape context deemed suitable

Use GIS habitat analysis and field inspections to determine the % of land cover conducive to bobwhites



# ILLINOIS

## 2009-2010 Hunting Season

Our harvest estimates are based upon results from 2009-10 Illinois Hunter Harvest Survey. An estimated 16,948 hunters (down 22.8%) harvested 123,933 quail (down 18.0%). Those hunters that were afield last year experienced better daily success (up 13.5%) and better success throughout the season (up 6.3%).

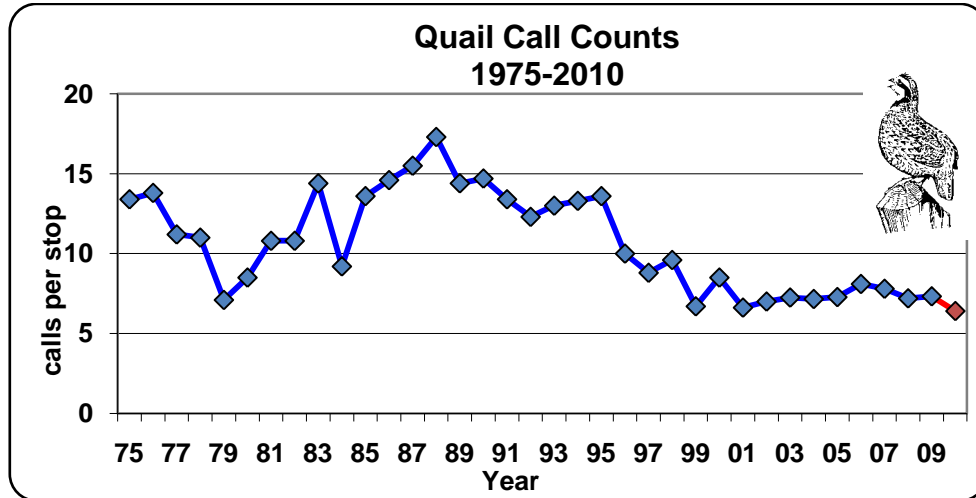
Table 1. Quail hunter participation and success 2003-2010.

Season	Harvest	Hunters	Average Quail/ Trip	Average Quail/ Season	Average Days/Season	Total Days
2003-04	204,236	30,044	1.15	6.8	5.91	177,617
2004-05	263,293	38,913	1.22	6.77	5.55	216,064
2005-06	244,521	29,983	1.44	8.16	5.67	170,108
2006-07	198,207	24,918	1.48	7.95	5.38	133,972
2007-08	188,710	24,614	1.34	7.67	5.74	141,227
2008-09	151,170	21,962	1.04	6.88	6.64	145,720
2009-10	123,933	16,948	1.18	7.31	6.21	105,220
Percent change from	-18.0%	-22.8%	+13.5%	+6.3%	-6.6%	-27.8%

## Quail Population Indices

The IDNR Wildlife staff implemented a new survey technique in 2010 to better estimate bird density and response to habitat changes. Consequently, the data is difficult to compare with previous surveys. Fortunately, we are able to make some inferences from the results of the annual Breeding Bird Survey (BBS). BBS data was used to estimate survey trends this year. Statewide, BBS observers heard 3.5 (24.9%) fewer quail per stop than last year. The difference between the 2009 and 2010 surveys was not statistically significant.

Figure 2. Quail call counts 1975 - 2010.



## Weather

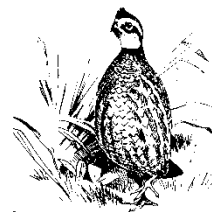
Last winter was Illinois' 19<sup>th</sup> coldest on record. It was 2 degrees colder than 2008-09. Snows were 10 inches above normal statewide, but only 2 inches above normal in southern Illinois.

This June was Illinois' second wettest on record. Although much of the state received record rainfall, southern Illinois received closer to normal rain amounts in June. It was dry and hot in July through much of the quail range. Temperatures during the nesting season were warmer (4.5 degrees) than last year. Parts of southern Illinois experienced drought conditions in July.

2010-2011 Season Dates: November 6, 2010 – January 8, 2011 (North)  
November 6, 2010 – January 15, 2011 (South)

Bag Limit: 8

Possession Limit: 20



*Prepared by Michael Wefer 10/10  
Illinois Department of Natural Resources  
Division of Wildlife Resources*

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# INDIANA

## INTRODUCTION

This Indiana Quail Status Report is a compilation of ongoing management and research efforts related to the enhancement of habitats for northern bobwhite quail and the monitoring of their population status throughout the state. Although the bobwhite quail is no longer the most popular game bird in the state of Indiana, Hoosier quail hunters are still one of the more active and vocal hunting constituencies and bobwhite quail management continues to be one of the top priorities of the Division of Fish and Wildlife.

**Staff** – The Research Unit consists of 5 Research Biologists covering all game species in Indiana. The Farmland Game Research Biologist serves as the Quail Project Leader. The Private Lands Unit consists of 15 District Biologists responsible for districts containing from 5 to 9 counties, 2 Regional Private Lands Supervisors, and the Private Lands Program Manager.

The Private Lands Program Manager oversees the development, implementation, and evaluation of the Division's Private Lands Program and serves as the Division's liaison with other IDNR divisions, state and federal agencies, and private conservation organizations that directly impact natural resources management on private lands.

Table 1. Bobwhite quail whistle count results for 2009 and 2010.

BCR Region	n <sup>a</sup>	Mean Bobwhites Heard Per Survey Stop		% Change	P
		2009	2010		
Statewide	73	0.66 ± 0.07	0.69 ± 0.08	5.6%	0.28
BCR 22	35	0.47 ± 0.09	0.37 ± 0.07	-22.9%	0.07
BCR 23	4	0.68 ± 0.28	0.68 ± 0.25	0.0%	0.5
BCR 24	34	0.84 ± 0.10	1.03 ± 0.14	22.6%	0.04

<sup>a</sup>Includes only non-zero routes surveyed in both 2009 and 2010.

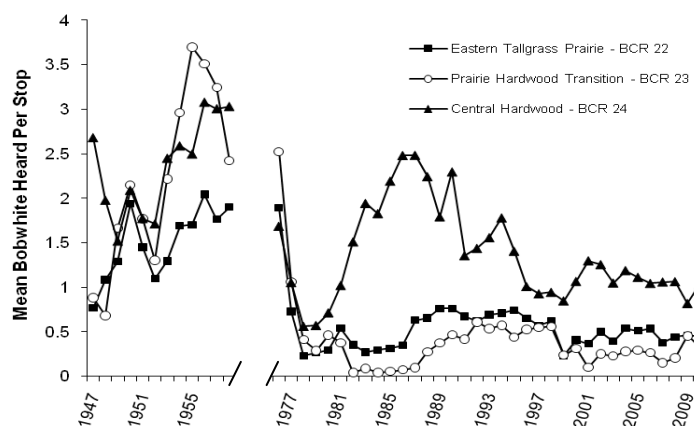
## STATUS

### Population Surveys -Whistle Counts

Road-side counts of whistling bobwhites are conducted each spring to monitor changes in the northern bobwhite population abundance. These counts have been conducted annually since 1947 with a lapse from 1958 to 1976. This report

displays data and trends from the 2008 bobwhite whistle count.

Figure 1. Mean number of northern bobwhite heard at each survey stop within Indiana's 4 bobwhite management regions, 1947-2010.



In 2010, a total of 85 routes were surveyed in 80 counties between 7 June and 1 July. Observers recorded the number of quail heard whistling during 3 minute periods at 15 different stops along each 15-mile route. During 2009 and 2010, only 78 routes in 76 counties were conducted in both years and data from only these routes were used to draw statistical comparisons between indices of bobwhite abundance. Statewide, the number of bobwhites heard per stop in 2010 ( $\bar{x} = 0.69 \pm 0.08$ ) was similar to the number heard per stop in 2009 ( $\bar{x} = 0.66 \pm 0.07$ ). However, the number of bobwhites heard per stop in 2010 did differ ( $P < 0.10$ ) from the number heard in 2009 (Table 1) within 2 of the 3 bird conservation regions of the state (Figure 3). The number of quail heard per stop in the Eastern Tallgrass Prairie region had declined significantly ( $-22.9\%$ ;  $P = 0.07$ ; Figure 1), while the number of quail heard per stop in Central Hardwood Region had increased significantly ( $22.6\%$ ;  $P = 0.07$ ; Figure 1). The Long-term trend data continues to show that the northern bobwhite population remains near historic lows across the entire state of Indiana (Figure 2).

Figure 2. Mean number of northern bobwhite heard at each survey stop statewide, 1947-2008.

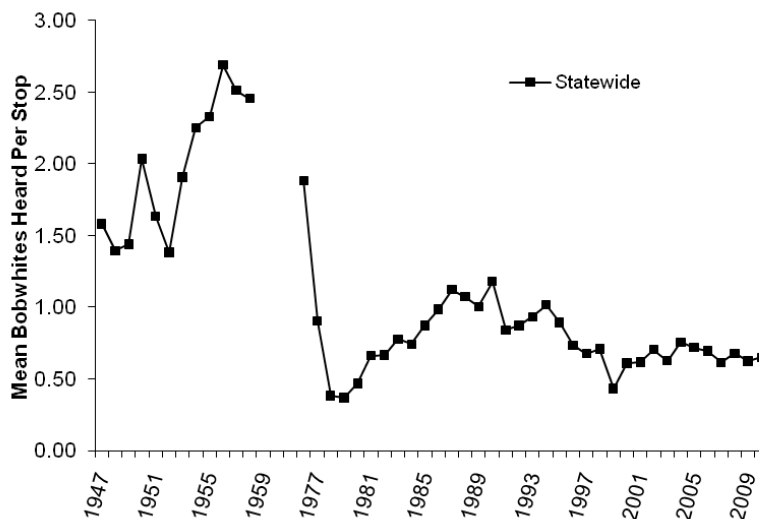


Figure 3. Bobwhite Quail Management Regions based on physiographic regions from the USGS.

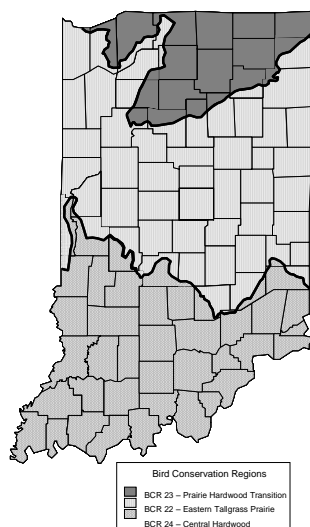
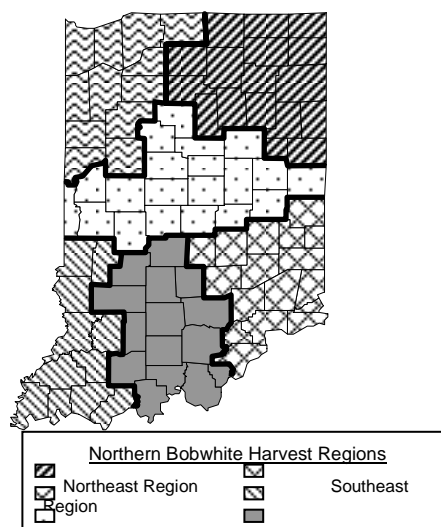


Figure 4. Bobwhite Quail Harvest Regions based on physiographic regions from the USGS.



## Harvests -Small Game Harvest Survey

Following the 2008–2009 Indiana hunting season, a small game harvest survey was conducted where questionnaires were sent 15,000 Indiana license holders to determine harvest and hunter participation. Estimates derived from this survey were quantitatively compared to estimates from the previous small game harvest survey (2005–2006). From our results, we calculated a statewide estimate of 13,999 bobwhite hunters and a harvest estimate of 21,102 northern bobwhites during the 2008–2009 hunting season. In comparison to 2005–2006, the number of northern bobwhite hunters in Indiana decreased 33.8% with a decline in the harvest of 27.6%. Bobwhite hunting continues to be best in the southwest harvest region of the state, while the northeast harvest region is by far the poorest (Figure 4).

The average northern bobwhite hunter in Indiana spent 3.1 days in the field (+13.1% from 2005–2006) and harvested 1.5 bobwhites (+9.4% from 2005–2006) during the 2008–2009 hunting season.

The harvest is directly related to the number of hunters, and a long-term decline in small game hunters (Figure 5) has resulted in record or near-record lows in the number of hunters and the associated harvests of northern bobwhite (Figure 6), as well as most other small game species in Indiana.

Figure 5. Estimated number of small game hunters, 1976–2008.

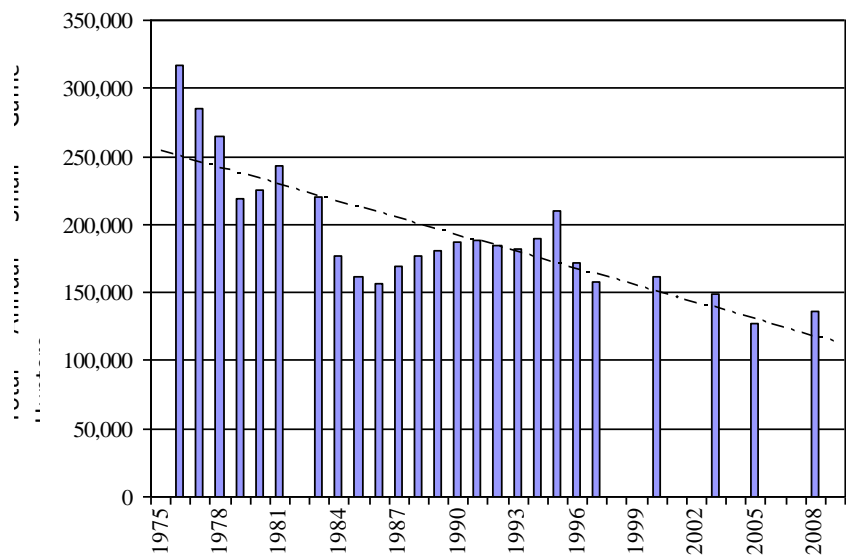
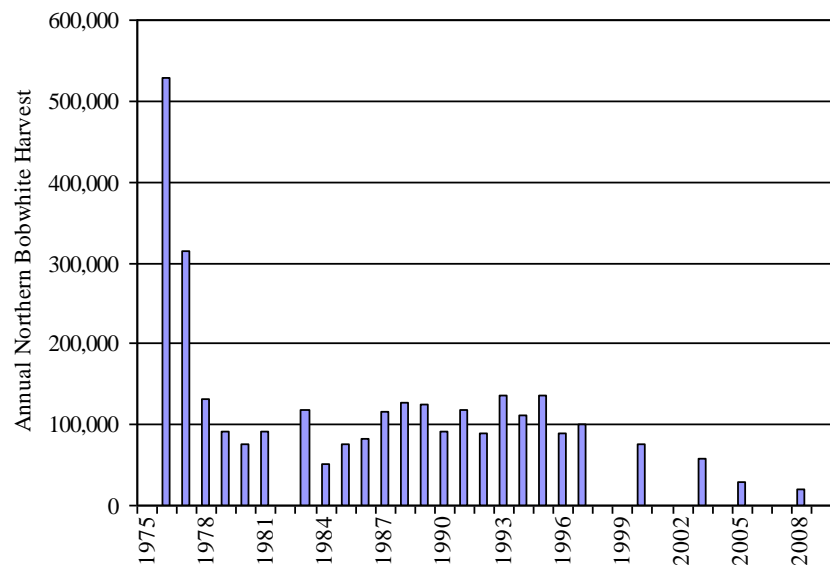


Figure 6. Estimated harvest for northern bobwhite in Indiana, 1976–2008.



Even though some small gains have been seen of the past couple decades, northern bobwhite populations in Indiana remain extremely low, and habitat loss or lack of quality habitat appears to be the driving force. Things could get worse as the loss of CRP land over the next few years will likely have a detrimental effect on northern bobwhites and other small game species in Indiana. We must create and maintain suitable habitat for all small game species and continue to manage the harvest in the best interest of the species. Without these efforts, small game populations will continue to decline.

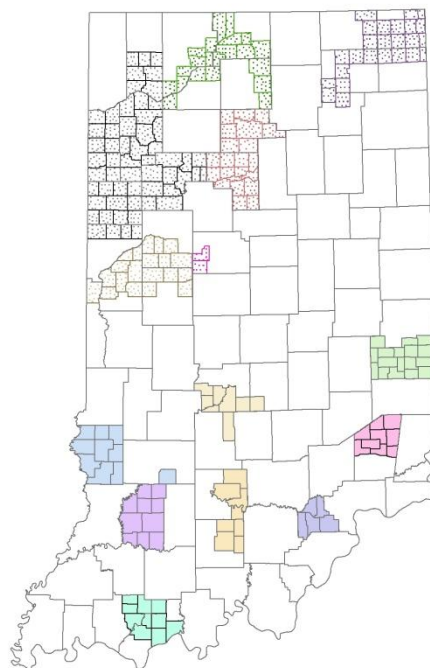
## **PRIVATE LAND AND FARM BILL HABITAT PROGRAMS**

### **National Bobwhite Conservation Initiative**

In 2004, the Private Lands Unit stepped down the habitat objectives specified in the National Bobwhite Conservation Initiative to specific county level objectives. These county level objectives were then combined to develop district level objectives that were incorporated into each private lands biologist's annual work plans. Each biologist has a specific CRP fescue conversion, CRP mid-contract management, non-CRP fescue conversion, and brood-cover/idle nesting cover habitat development objective for increasing bobwhite quail and pheasant populations.

In order to have a greater impact on these populations, the Private Lands Unit decided to focus our efforts into priority areas. A total of 6 Pheasant Habitat Priority Areas were developed in northern Indiana and 8 Quail Habitat Priority Areas were developed in southern Indiana (Figure 7). Priority areas were selected based on Habitat Suitability Index (HSI) models for bobwhite quail prepared by Mississippi State University, areas of known quail/pheasant populations, interspersions of habitat types, and the potential for results. CRP enrollment incentives, CRP Mid-Contract Management incentives, and increased caps for use of Wildlife Habitat Cost-Share funds and Game Bird Habitat Development Funds were provided in the priority areas to encourage landowner participation. Landowners in priority areas also receive additional points in the USDA WHIP ranking process.

Figure 7. IDFW established 6 Pheasant Habitat Priority Areas in northern Indiana (dotted colors) and 8 Quail Habitat Priority Areas in southern Indiana (solid colors). The map shows the Habitat Priority Areas for 2008-2009.



### **CP-33 (Habitat Buffers for Wildlife)**

Beginning in 2006, the Division began CP33 monitoring according to the protocol established by Mississippi State University. Currently, A total of 41 pairs of CP33 buffers/control fields are being

monitored each June using the point count protocol for songbirds and quail. The monitoring protocol will be repeated again this year. As of July 2010, a total of 12,615 acres have been enrolled in CP33 in Indiana.

### **SAFE (State Acres For Wildlife Enhancement)**

Indiana's SAFE program consists of Northern Bobwhite; Henslow's Sparrow; Grasshopper Sparrow/Sedge Wren; and Indiana Bat priority areas. The primary conservation practices that participants may enroll in include; permanent short stature native grasses, permanent wildlife habitat - consisting of blocks or strips of short stature native grasses/forbs and introduced grasses/legumes in equal amounts; rare and declining prairie; rare and declining sedge meadow, wetland restoration (floodplain and non-floodplain) and hardwood tree planting. Indiana began its SAFE Enrollment on May 12, 2008. Indiana was allocated 13,100 acres. As of July 2010, a total of 12,256 acres had been enrolled.

### **CURRENT NORTHERN BOBWHITE RESEARCH**

The IDFW Research Unit is near completion of the first field season for a radio-telemetry project to examine the impacts of summertime dog training on northern bobwhite productivity and dispersal at Indiana fish and wildlife areas. Not only will the data from this project answer needed questions related to the regulation of dog training on our fish and wildlife areas, but will be the first project in Indiana to use radio telemetry to examine nesting, productivity, dispersal, and habitat use by northern bobwhites on managed public lands.

*Report compiled by:*

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# IOWA

## Hunting regulations:

Small game hunters are required to have a valid small game hunting license, habitat stamp and hunter safety certificate if born after January 1, 1972 to hunt small game in Iowa. Resident hunting license cost \$19 and habitat stamp \$13. Non-resident (+18) small game hunting license are \$112 plus \$13 habitat stamp. Non-resident small game licenses (under 18) are \$32. Hunting licenses are valid until January 10th of each year. No limited season licenses are available. Hunter orange is required to hunt upland game birds. The Iowa DNR does not have a hunter access program.

Species	Season dates	Limits	
		Bag/Poss.	Shooting hours
Pheasant	Last Saturday in October - January 10th	3/12	8:00-4:30
Quail	Last Saturday in October - January 31st	8/16	8:00-4:30
Gray Partridge	2nd Saturday in October – January 31st	8/16	8:00-4:30
Cottontail	September 1st - February 28 <sup>th</sup>	10/20	Sunrise-sunset

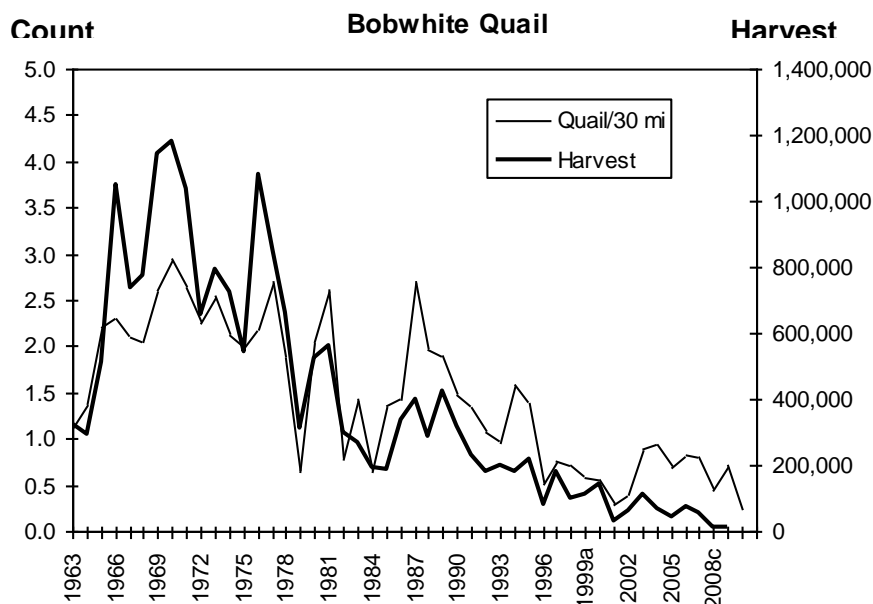
## Hunters and harvest:

A random survey of licensed hunters was conducted following the 2009 small game season to determine the size and distribution of Iowa's small game harvest. Survey participants returned 3,592 usable questionnaires for a response rate of 43%. Based on these returns Iowa had 218,827 licensed hunters in 2009-10 and of these 89,227 indicated they hunted small game. Approximately 10,179 quail hunters (11% of small game hunters) harvested 12,136 quail during the 2009 quail season. Hunter numbers

declined -27% and harvest declined -9% compared to 2008 estimates. Both hunter numbers and harvest are new all time lows for Iowa. Quail hunters averaged 7 days a field and harvested 1 bird for the season. Twenty-seven percent of the quail harvest occurred in the first 9 days of the 2008 season. Sixty percent of quail hunters hunted 5 days or less.

## Populations and survey methodology:

The Iowa DNR uses an August roadside survey (ARS) to assess its upland game populations. The ARS generates data from 215 30-mile routes on ring-necked pheasants, bobwhite quail, gray partridge, cottontail rabbits, and white-tailed jackrabbits. Counts conducted on cool mornings when the sun is shining, with heavy dew, and no wind yield the most consistent results. All routes are conducted on gravel roads to minimize vehicle traffic. Statewide bobwhite quail numbers declined -70% over 2009 counts. This represents a new record low quail count for Iowa. However, it was not unexpected given the severity of the winter, Iowans hoping for





a mild winter were sorely disappointed as December 2009 snowfall was the second highest in state history (see snowfall picture of SW Iowa quail range courtesy Iowa DOT). Above normal snowfall continued into January and February, with the first 3 months of winter (1 Dec.- 28 Feb.) going down as the snowiest in state history (123 yrs of record). Statewide snowfall for the entire winter was 86% or +21.7 inches above normal. Overall, this year's count was -63% below the 10-year average and -84% below the long-term average. Complete 2010 results are available on the DNR's website at [WWW.IOWADNR.GOV](http://WWW.IOWADNR.GOV).

### **Habitat trends:**

**CP33** - Iowa enrolled 26,000+ acres of CP33 of the 36,500 allocated to her. Iowa is assisting in the national monitoring effort for CP33, following the guidelines developed by the SEQSG. Iowa private and public land staff have several focal areas for quail habitat development.

**Reload Iowa** – The Iowa DNR in cooperation with Pheasants Forever/Quail Forever has formed a partnership to put 5 new private lands specialists on the ground to deliver programs to landowners. Three of these new positions are located in Iowa's quail range.

### **Current research:**

None.

### **Special projects:**

We began a special project in the fall of 2008 to look at late season quail harvest on several of our wildlife management areas. In a nutshell, there was a concern that quail might be overharvested on the area. Most of the science on quail management indicates fall harvest rates of 30% or less is sustainable. Thus if we know the prehunt population we can take 30% of it as allowable harvest. We used a modified fall covey count to estimate the prehunt population and intensive hunter surveys thru the hunting season to estimate harvest. In 2008 the area had an estimated population of 236 quail and hunter surveys estimated 72 birds harvested including crippling (31% harvest). In 2009 the area had an estimated population of 108 quail with a harvest estimate of 23 birds (21%). We plan to conduct this special project one more year in the fall of 2010.

### **NBCI rewrite**

Iowa has participated in workshops hosted by Theron Terhune with the rewrite of the NBCI. Iowa's information on existing habitats and habitat potential has been incorporated into the Biologists Ranking Information database.

Submitted by

Todd R. Bogenschutz

Upland Wildlife Biologist



U.S. 275 in Fremont and Mills counties between U.S. 34 and the Missouri border.



**Image of Iowa's quail range Dec. 29, 2009.**

# KANSAS

In Kansas, bobwhite populations are monitored within 6 management regions (Figure 1). This report provides a brief description of bobwhite population trends in Kansas over the last 30+ years. At the time of this report most of the 2010 surveys conducted by the Kansas Department of Wildlife & Parks (KDWP) had not yet been completed or analyzed. Thus, data from 2009 is the most recent information presented in this report. This report also contains a short update on KDWP's private land programs and farm bill activities.

## Production

The KDWP gauges production of bobwhites using a young:adult index derived from the July rural mail carrier survey (RMCS) and from a departmental August roadside survey. The statewide 2009 young:adult ratio was 28.1% below the long-term average from the previous 25 year period (Figure 2). Per capita production was below average in every region but the worst production occurred in the western 1/3 of the state (Figure 3).

By backdating broods observed during the August roadside count a frequency distribution was created to illustrate the time when Kansas bobwhite nests hatched during 2009 (Figure 4). The peak hatching period was estimated to be the first two weeks in July. The peak of hatch in 2009 was skewed about two weeks later than the long-term average. This was likely due to few early nests hatching as a result of heavy rain during early June in many parts of the state. The mean brood size during the 2009 observation period was 9.4 which was similar to the previous 20 year mean of 9.1.

## Population Trends

The KDWP uses 3 indices to track long-term trends in bobwhite abundance across the state. The RMCS provides the longest dataset and has been run since 1962. The RMCS is conducted during 4 separate observation periods (i.e., January, April, July, and October) and >500 mail carriers currently participate in this voluntary effort. The data they collect are standardized into an index of observations per 100 miles driven. Because the 4 separate indices are highly correlated ( $r > 0.85$ ) only the April RMCS index will be discussed in this report. The April RMCS index shows a long-term decline of northern bobwhites in Kansas at the rate of 4.5% per year since 1962 (Figure 5). The other 2 methods utilized by the KDWP to track bobwhite abundance are hunter harvest estimates and the recently initiated whistle count survey (started in 1998). Both of these indices reveal a similar declining trend on a statewide scale.

The indices to bobwhite abundance have declined in every region of the state since 1962 but the declines have been the most severe in the eastern management regions (Figure 6). These regions have been the most effected by natural succession, woody encroachment into grasslands, conversion of native grassland to tall fescue, and annual burning associated with early intensive stocking of livestock. These land use changes have either not occurred in central and western Kansas or have been much less severe. In fact, bobwhite habitat in far western Kansas has actually

increased in recent years as a result of >2 million acres of farmland being converted back to grass either through the CRP program. This addition of grassland to the landscape has resulted in an increasing trend in bobwhite abundance in western Kansas over the last decade.

The 2010 April RMCS data revealed a 15% decline in bobwhite abundance from the previous year. Most of the decline was due to deep snow cover and extreme cold that affected portions of east-central and northeastern Kansas last winter. Other parts of the state were not as greatly affected and quail numbers in those regions have remained fairly stable in recent years. The bobwhite population is at or near record low levels in the eastern 1/3 of the state.

### **Harvest and Regulations**

Prior to the fall 2007 season, the estimated bobwhite harvest in Kansas had remained relatively stable between 600,000 and 700,000 for each of the prior 4 years. However, the statewide harvest declined to 481,000 in 2007 as a result of the record-low bobwhite numbers in the southeast and northwest portions of the state. Bobwhite harvest in Kansas has remained in the 400,000s since that time and was estimated at 485,000 during the 2009-2010 hunting season. During the last 5 year period, the greatest annual harvest typically occurred in the south-central region (117,000-150,000) followed by the north-central region (81,000 – 136,000), and the west region (73,000 – 104,000) (Figure 6). Lower bird densities and scattered populations are responsible for consistently lower annual harvests in the northeast (35,000-90,000), Flint Hills (40,000 – 87,000), and southeast (35,000-95,000) management regions.

The structure and timing of Kansas' upland game hunting seasons were modified in 2006. After the second year with the new season (2007) there was still much displeasure amongst Kansas' upland bird hunters. Recently the KDWP commission voted to change the season dates again to more closely align with hunter and landowner preferences. The modified seasons took affect for the 2009-2010 season and included a concurrent pheasant and quail season starting on the 2<sup>nd</sup> Saturday in November and running through January 31 (Table 1).

### **Translocations and Research**

In 2009 the Ohio Division of Wildlife (ODW) completed their trapping efforts in Kansas. They were permitted to remove  $\leq 250$  bobwhite per year from Kansas from 2004 to 2009; although they did not trap during all of those years. The ODW is in the process of trying to re-establish bobwhite populations at several re-claimed coal mine properties across Ohio. The permit issued by KDWP allowed them to trap and translocate birds from the Wolf Creek Nuclear Power Operating Facility in east central Kansas. The facility is a non-hunted property that normally holds high densities of bobwhites.

The Colorado Division of Wildlife was issued a permit to remove 75 birds from Kansas during the winter of 2009-2010. The CDOW captured birds primarily on Kanopolis State Park which is a non-hunted property operated by KDWP. Those birds were translocated to southeastern Colorado where they were released along the Arkansas River in an attempt to re-establish a population. It is not yet known if that effort was successful.

Currently, there are no agency funded bobwhite research projects being conducted in Kansas. The conservation department at Fort Riley military installation is conducting a research project using radio-marked birds to assess how bobwhites utilize several different habitat modifications on the fort. The KDWP is providing some limited guidance for the project.

## **PRIVATE LAND PROGRAMS BENEFITTING QUAIL**

### ***KDWP Private Land Programs***

The Kansas Department of Wildlife & Parks (KDWP) first instituted a program to provide technical and direct assistance to private landowners in 1973. In a state with approximately 97% of its land in private ownership, the development and continuation of programs that assist private landowners with wildlife habitat improvement are crucial management tools. These programs provide important services and information to landowners, many of which benefit bobwhites. Below is a brief description of the varying private land programs that are currently benefiting bobwhites across Kansas.

### **Private Lands Habitat Management Programs**

The framework of the Private Lands Habitat Management Program consists of the Upland Game Bird Initiative, Pheasant Initiative, Quail Initiative, Prairie Chicken Initiative and KDWP Wildlife Habitat Improvement Program. This program allows for KDWP Biologists and private landowners to work together in the development of habitat management plans. These plans directly impact wildlife species and habitats specific to the individual plan. Many plans focus on CRP enhancements that include cost sharing on prescribed burning, light disking, food plot establishment, forb/legume interseeding, brush removal, and providing additional SIP (Sign-Up Incentive Payment) or PIP (Practice Incentive Payment) incentives to help increase the enrollment in several Continuous CRP practices. Other plans have been developed to provide cost share for the conversion of farmland to native grass, converting grazing land from cool season grass to warm season grass, hedgerow renovation, wetland development, and deferred grazing on native rangeland. This program also provides the cooperating landowner the opportunity to loan or rent native grass drills, tree planting machines, weed barrier fabric machines, root plows, drip torches, and portable tanks and sprayers for controlled burns. Since 2004, conservation partners have contributed over \$80,000, adding to the nearly \$690,000 in contributions from KDWP. In 2009 alone, approximately \$120,000 was spent for direct on-the-ground habitat management projects across the state through the Upland Game Bird Habitat Initiative (UGBHI).

### **Buffer Coordinator Program**

Recognizing the importance of buffers (strip habitats) to edge-associated upland birds, KDWP initiated a program to hire temporary employees in the County Conservation District Offices to encourage enrollment of grass buffers into the continuous conservation reserve program (CCRP). This federal, state, and local partnership is similar to the successful program in Iowa. Over \$350,000 was available in 2003 from KDWP, an EPA 319 grant, and local contributions.

KDWP contributes \$150,000 per year. The State Conservation Commission administers the program and NRCS provides a full time coordinator.

### ***USDA Farm Bill Programs***

The Kansas Department of Wildlife & Parks has continued to promote wildlife related farm bill programs. The following are examples of those programs promoted by the agency that are of benefit to bobwhites.

#### **Conservation Reserve Program (CRP)**

Kansas continues to be one of the national leaders in terms of CRP enrollment. As of December 2009, approximately 2.7 million acres in Kansas were enrolled in general sign-up CRP. Additionally, there are over 115,000 acres enrolled in CCRP practices in Kansas. One of the most popular CCRP practices is conservation practice 33 (CP-33; Habitat buffers for upland birds) which provides cost-share and rental payments to establish grass borders around crop fields. Because the CP-33 program was so popular in Kansas the state was awarded additional acreage during two different reallocations (62,500 acres total). By the end of 2009, there were 36,406 acres enrolled in the program. Most of the acreage enrolled in CP-33 is in the eastern 2/3 of the state within Kansas' primary bobwhite range. The KDWP has been monitoring the response of quail and pheasants on a random sample of enrolled acreage and both species have responded positively to the addition of the new habitat.

#### **State Acres for Wildlife Enhancement (SAFE)**

A total of 30,100 acres has been allocated to Kansas for the newly created SAFE program. The KDWP's SAFE proposal has been approved and it will focus on creation of bobwhite and pheasant habitat in and around row crop fields throughout the state. The SAFE program will allow enrollment of portions of expiring CRP acreage, center-pivot irrigation corners, and interior strips within fields (e.g. terraces or cross-wind trap strips); up to 20% of the entire field. The practice will allow for some limited grazing and haying that should make it more acceptable to landowners and provide alternative methods to create needed disturbance within mature stands of grass. Although this practice has gotten off to a slow start the potential is there to make a significant impact on grassland habitat across the state due to the practices' simplicity and flexibility. At the end of 2009, there were 4,710 acres enrolled state-wide.

#### **Conservation Reserve Enhancement Program**

Another quail friendly practice that has been created through a partnership between the state of Kansas and the Farm Service agency is the conservation reserve enhancement program (CREP). Through voluntary enrollment, the program will remove up to 20,000 acres of cropland along the Arkansas River in portions or all of the following counties: Barton, Edwards, Finney, Ford, Gray, Hamilton, Kearny, Pawnee, Rice, and Stafford. The enrolled acres will be under contract for 14-15 years and seeded to a mixture of grass and forbs. The primary purposes of this CREP are to

improve flow in the Arkansas River and reduce groundwater usage but quail and other upland birds will also benefit. As of December 2009, there were 9,861 acres enrolled in CREP.

#### Wildlife Habitat Incentives Program (WHIP)

Federal WHIP is a voluntary program that provides up to 75% cost-share assistance for establishing and/or improving wildlife habitat on private lands. KDWP district wildlife biologists have continued to deliver most aspects of the Federal Wildlife Habitat Incentives Program (WHIP). This includes program promotion, landowner contact, conservation planning and technical assistance with practice implementation. This continues to be a very successful partnership with the Natural Resources Conservation Service. Last year alone (Federal FY09), 116 WHIP contracts were approved, bringing nearly \$980,000 to the state for habitat improvement projects.

#### Environmental Quality Incentive Program (EQIP)

The Environmental Quality Incentive Program (EQIP) is a voluntary conservation program that promotes agricultural production and environmental quality as compatible goals. EQIP contracts provide incentive payments and cost-shares to landowners for implementing conservation practices on their lands. Although not nearly as involved as in other programs, KDWP Biologists continue to promote EQIP, especially those applications that address wildlife resource concerns such as grassland health and tree encroachment onto native prairies. Additional efforts were made in 2009 to increase the applications of the EQIP to better address wildlife habitat issues.

#### Landowner Incentive Program (LIP)

This initiative was started in 2006 with a grant from the U.S. Fish and Wildlife Service. Targeted areas are the mixed-grass and short-grass prairie ecoregions of Kansas. Landowners receive 75% cost assistance for implementing practices that benefit species included in the State Wildlife Action Plan (SWAP). Seventeen projects, primarily in the Red Hills of southwest Kansas, have been selected for implementation, which will impact 21,129 acres and benefit 18 species from the SWAP including the northern bobwhite and lesser prairie chicken. Common practices include mechanical brush removal, prescribed fire, and native grass planting. Total cost of completing these projects was \$677,301.

Table 1. Upland game season dates and bag limits in Kansas, 2010-2011.

Species	Season Dates	Daily Bag	Open Areas
Prairie chicken (Early)	15 Sep. – 15 Oct.	2(8) <sup>a</sup>	East of Hwy. 281
Youth Pheasant	6-7 Nov.	2(4)	Statewide
Youth Quail	6-7 Nov.	4(8)	Statewide
Pheasant	13 Nov. – 31 Jan.	4(16)	Statewide
Bobwhite	13 Nov. 31 Jan.	8(32)	Statewide
Prairie chicken * East and Northwest Units	20 Nov. – 31 Jan.	2(8)	Excludes area south of I-70 & west of hwy. 281
Prairie chicken * Southwest Unit	20 Nov. – 31 Dec.	1(4)	South of I-70 & west of Hwy. 281

<sup>a</sup> Possession limit in parenthesis.

Figure 1. The 6 northern bobwhite management regions in Kansas.

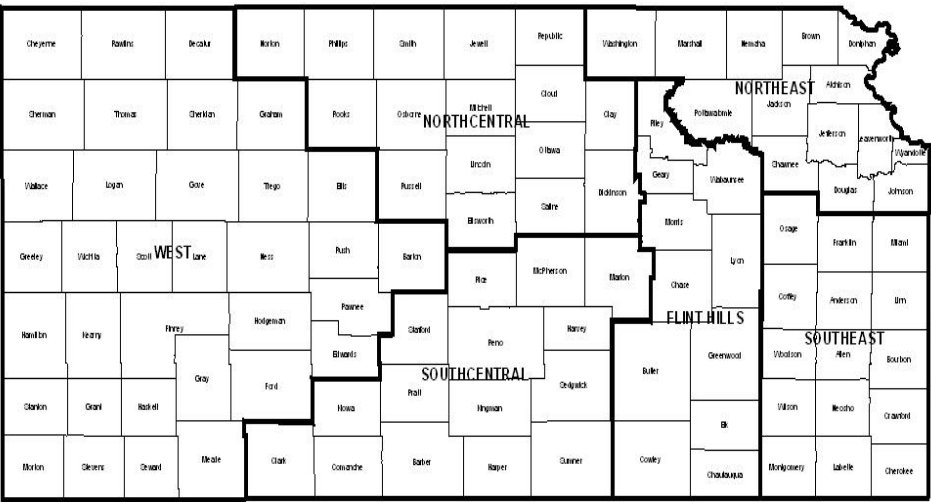


Figure 2. The statewide Kansas northern bobwhite production index (young:adult) derived from the July rural mail carrier survey, 1981-2009.

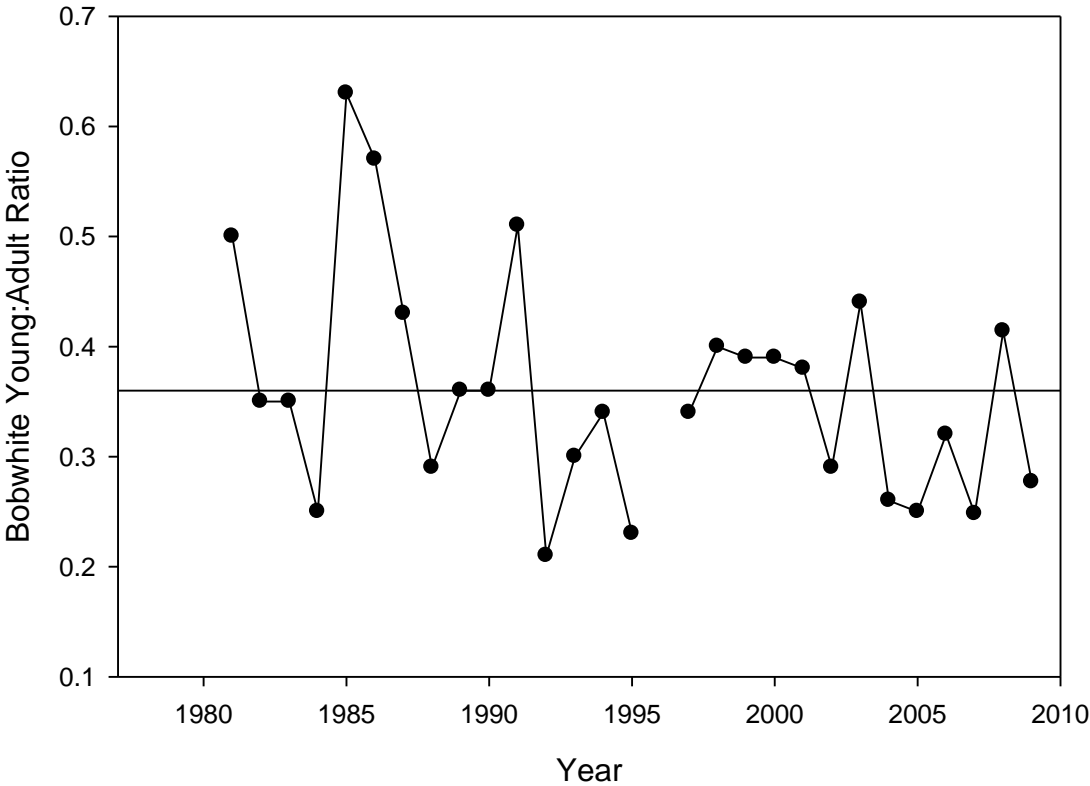


Figure 3. Northern bobwhite production indices (young:adult) derived from the July rural mail carrier survey for each of the 6 small game management regions in Kansas, 1981-2009.

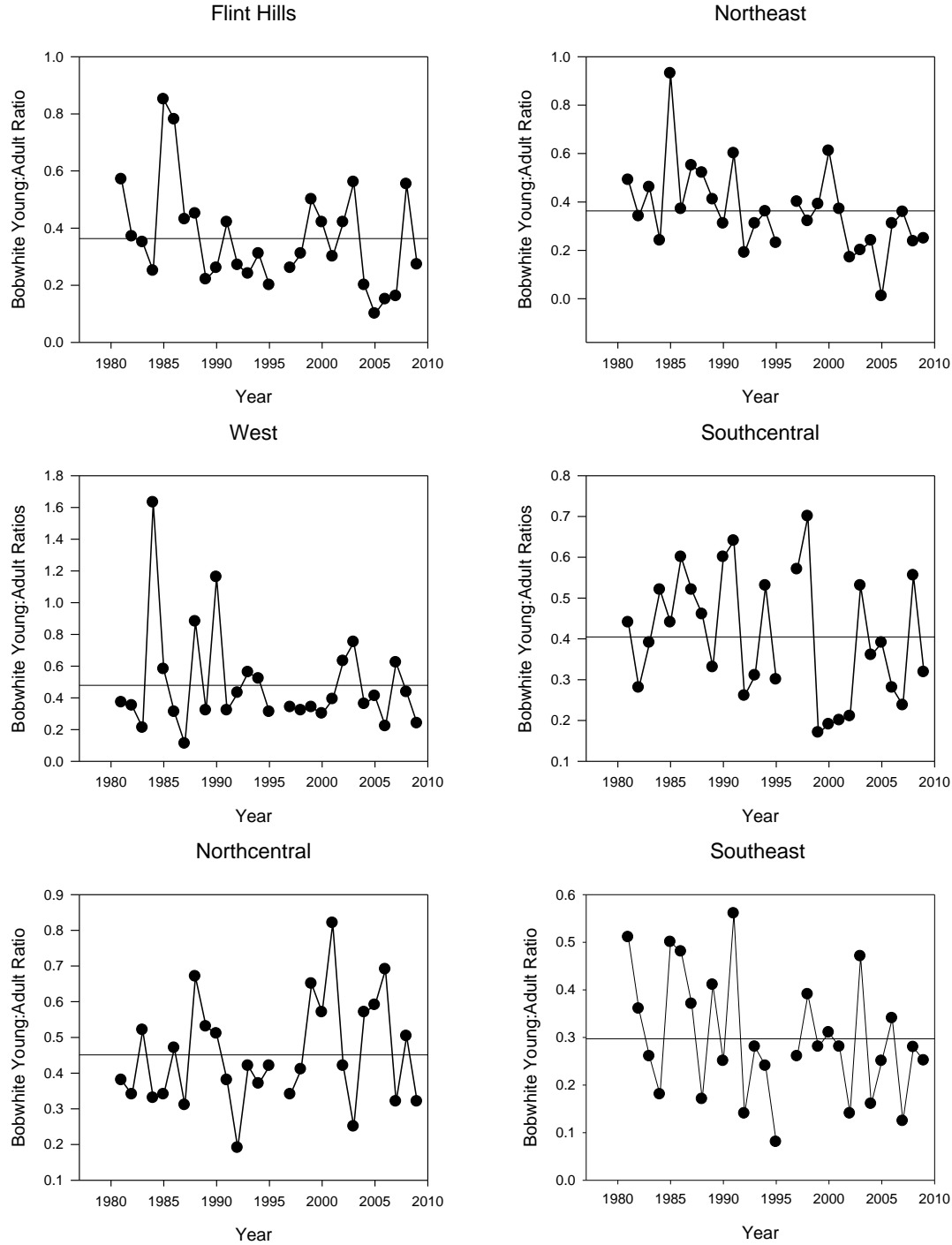




Figure 4. Average bobwhite brood size and estimated frequency distribution of hatching dates in Kansas derived from August roadside counts, 2009.

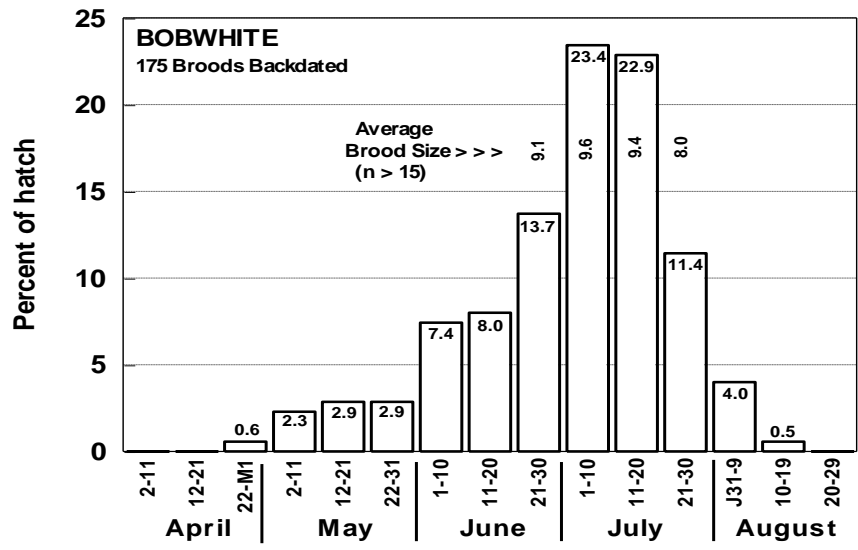


Figure 5. Trends in northern bobwhite abundance in Kansas as indexed by the June whistle count survey (birds/stop; 1998-2010), the April rural mail carrier survey (RMCS) (birds/100 mi. driven; 1963-2010), and estimated hunter harvest (millions; 1962-2009).

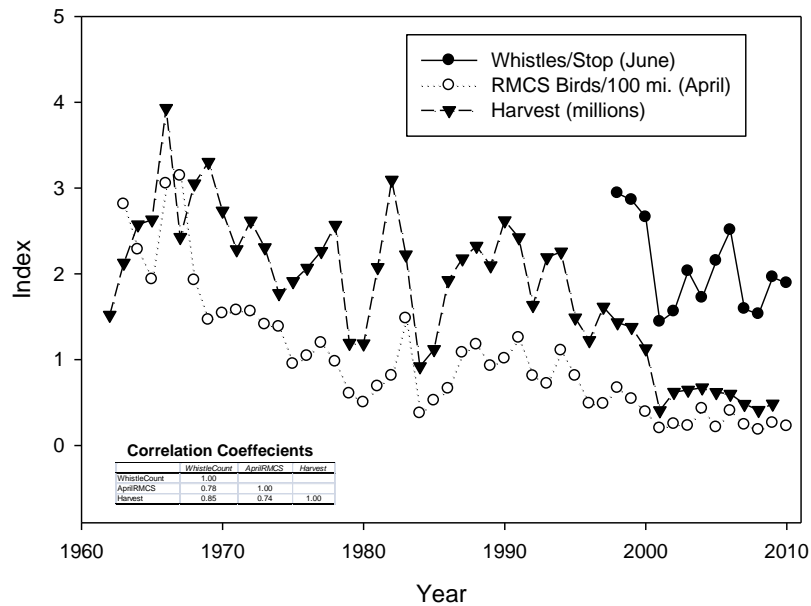
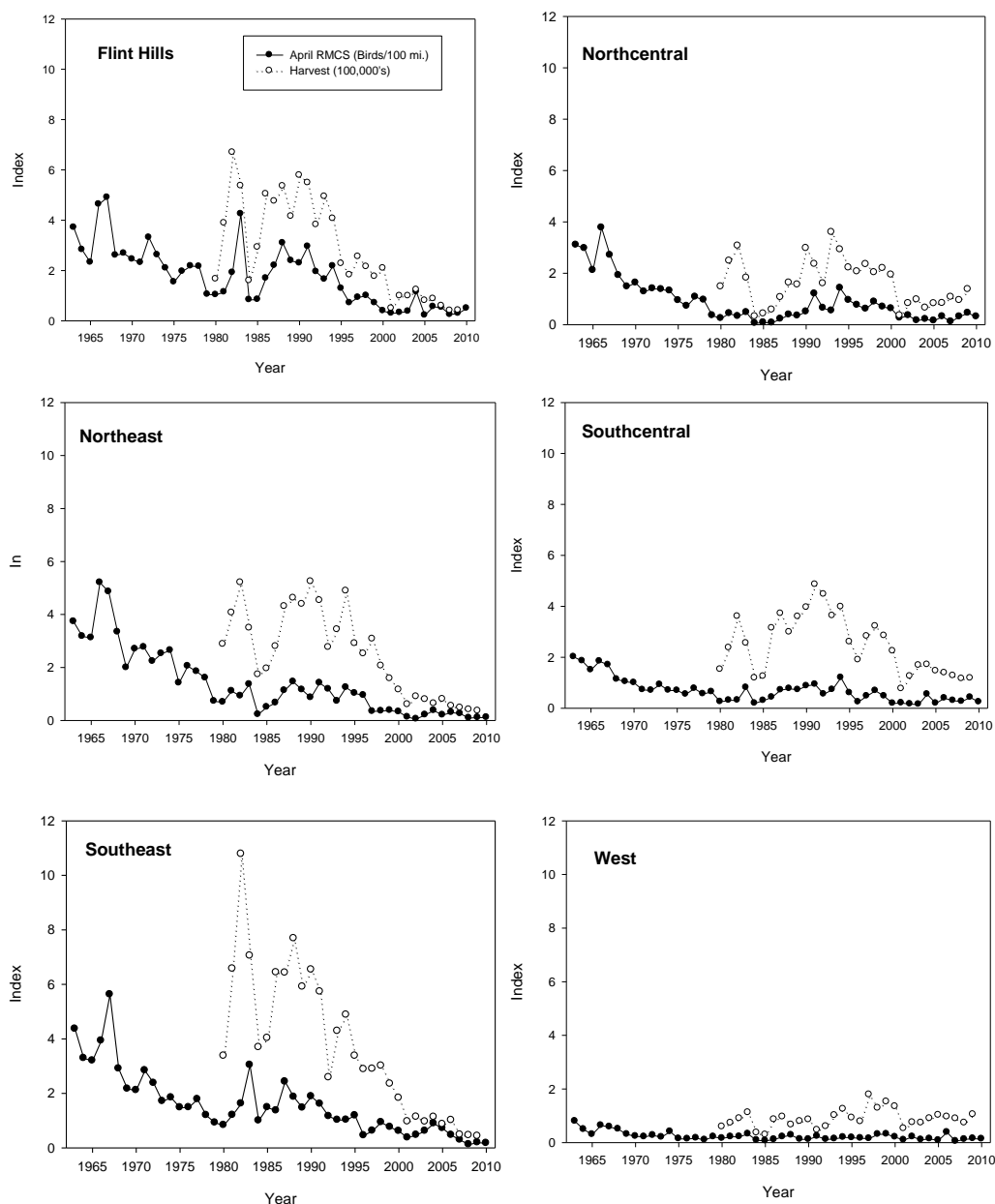


Figure 6. Regional estimates of hunter harvest (100,000's) and indices to bobwhite abundance derived from the April rural mail carrier survey (RMCS; birds/100 mi. driven).



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# KENTUCKY

The Kentucky Department of Fish and Wildlife Resources (KDFWR) Small Game program has been busy over the last year. With help from our Private Lands, Farm Bill, and Public Lands programs we continue to work hard to meet our goals for habitat and bobwhite restoration across the state.

**Northern Bobwhite Conservation Initiative** - With Kentucky's 10 year bobwhite restoration plan in place, active habitat management within our quail focus areas is underway. A monitoring protocol was created in 2008 and has been implemented in 5 of the 8 focus areas. We plan to monitor the additional 3 focus areas next year. We are also working with local managers to create focus area specific management plans for each of the areas. The KDFWR Commission has expressed a genuine interest in small game restoration thanks to the help of Commission Chair Dale Franklin. This fiscal year marks the second consecutive year of a \$1.1 million dollar program budget focusing on our small game initiative.

In December 2008, KDFWR staff and nine of the most prominent experts on northern bobwhites and their management convened in Central City, KY to provide recommendations for more intensive management of Kentucky's largest state-owned wildlife management area (WMA), Peabody WMA. Discussions included valuable insights on habitat management, hunting, specialized management, and research among others. Following this meeting, intensive habitat work began at Peabody WMA in spring 2009. Equipment inventories have increased allowing area staff the ability to improve more acres of quail habitat. A multi-year research project is underway with the University of Tennessee focusing on basic quail ecology, habitat improvements, hunting pressure, and more.

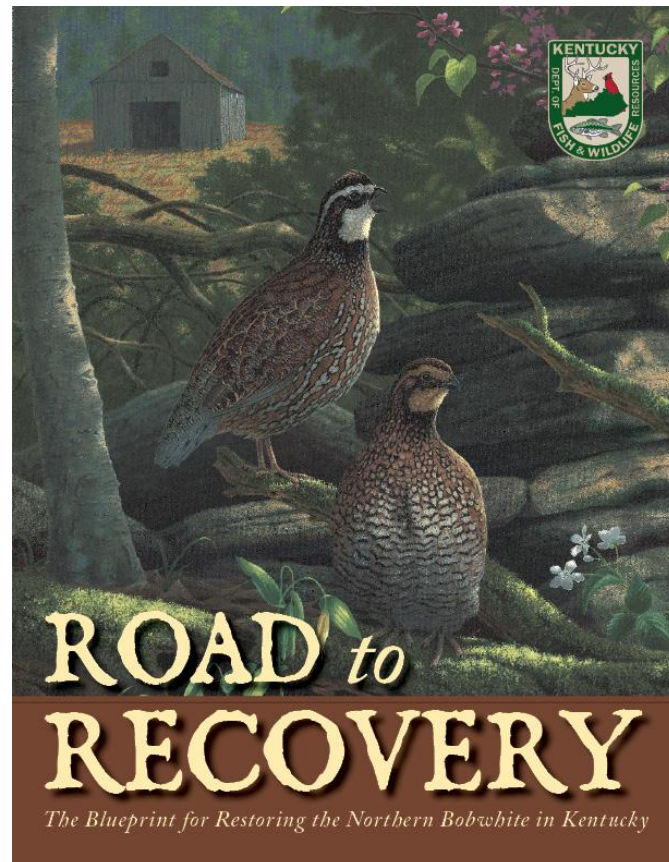
The University of Tennessee has also been conducting research on private property in Oldham County, KY. This project has focused on bobwhite in a production native grass system.

Clay WMA, in northeast KY is currently developing a plan to increase bobwhite populations in a heavily forested system. The area will now only be open to quail hunting under a quota hunt draw. Plans for extensive forest management are underway.

**CREP monitoring** - A quail and grassland songbird monitoring protocol has been initiated over 1+ million acres in and around the CREP area in south central Kentucky. The aim of the road-based monitoring effort is to determine how quail and grassland songbird populations respond to varying densities of landscape-level habitat enhancements. The Commonwealth Chapter of Quail Forever provided financial support this year by purchasing vehicular GPS systems for all staff conducting bird monitoring. These units greatly reduced travel time between points which streamlined the monitoring process this year.

**EQIP Focus Areas** - Three EQIP focus areas were established in conjunction with 3 of our quail focus areas across the state. Up to \$1 million was set aside for all 3 sites in each of the last 2

federal fiscal years. The primary purpose of the focal area is aimed promoting native grasses in the production system on grazing and haylands. Setbacks from the tree line, edge feathering, and timber stand improvements would also be eligible practices. The scoring system would favor contracts implementing multiple practices. These focal areas could be a huge asset towards advancing habitat in our quail focal areas, but only one of the 3 areas has shown much success. We hope to ramp up efforts in the other 2 areas to capitalize on the opportunity.



**What's New – Programs, Initiatives and Partnerships** - Thanks to the on-going partnership with QU, Kentucky drivers now have the opportunity to purchase a quail specialty license plate. Proceeds will be used to benefit bobwhite across the state.



The quail artwork featured on both the specialty license plate and the cover of "Road to Recovery"; created by KDFWR staff artist Rick Hill, will soon be available for purchase to the public by visiting our website: [www.fw.ky.gov](http://www.fw.ky.gov). The first year on the highways generated \$12,000. The majority of those dollars were repaid to QU Chapters who provided a loan to get the plate started. At the report, over 2,000 plates are on the road, and growing at a rate of 100/month.

**Shaker Village of Pleasant Hill project** - Extensive habitat work is underway in central KY at the privately owned Shaker Village of Pleasant Hill. Funded through LIP and WHIP, nearly 1,000 acres of high-quality habitat are now in place on the 3,000 acre property. The area currently has good numbers of wild bobwhites. In an effort to generate funding for habitat management, Shaker Village has agreed to host a raffle drawing to allow one lucky hunt party the opportunity to hunt their property. This area has not seen hunters in decades and should prove to be a great event. The event is sponsored by Roundstone Native Seed in partnership with Quail Unlimited, Quail Forever, Kentucky Fish and Wildlife Foundation, Kentucky Department of Fish and Wildlife Resources, and Shaker Village. To purchase tickets visit [www.kentuckywildlife.com](http://www.kentuckywildlife.com).

**KY Prescribed Fire Council** – The Council continues to grow and develop in KY. The first annual meeting was a tremendous success with over 80 attendees. The 2<sup>nd</sup> meeting is planned for September 27-28. This year's meeting will include a field tour of Peabody WMA highlighting management efforts for bobwhite. Several work committees have been active and publications will soon be completed through the information and education committee. The training committee has been diligently been working on minimum standards for a burn boss, crew member, and burn plans. The Council will have a vote on those standards at the September meeting. Once in place, the legislative committee will begin to work towards creating a prescribed burning regulation that minimizes liability for certified burn bosses.

**Quail Unlimited Habitat Team** – In 2008, Quail Unlimited, The Kentucky Chapter of the Nature Conservancy, and KDFWR partnered on a Doris Duke Grant to fund a "Habitat Team". The crew has struggled with a lack of funding, but still remains on the ground. The instability of QU for 6 months also set the team back. However, the Team bounced back and burned nearly 1,000

acres last spring. They also completed some spraying and planting this year. Currently, work is shifting towards establishing fire breaks for fall burns. Bill Bowles has been working to help support Habitat Teams from the QU National level.

**POWER Program** - We are pleased to report that we now have two transmission utility companies that are putting forward some seed money to sponsor a pilot-test of the POWER Program for doing intentional wildlife habitat work on transmission line rights-of-way in their service area. **Louisville Gas & Electric and Kentucky Utilities** (parent company E.ON U.S., <http://www.eon-us.com/home.asp>) is putting forward \$25,000 in funding through 2011. Through the Promoting Our Wildlife & Energy Resources program, landowners are paid annually for a 3-year contract for completing and maintaining pre-approved habitat projects. They have selected particular lines in several counties for their pilot-test. **Big Rivers Electric** (<http://www.bigrivers.com/>) is continuing their pilot-test sponsorship and has expanded the program from selected lines to their entire territory in northwest Kentucky.

# LOUISIANA

Bobwhite fall whistling counts were conducted statewide along 37 routes (9 additional routes were assumed zeros and 2 others were unable to be run). The southeast loblolly pine region (0.057 whistles/stop) and the Acadiana rice belt (0.034 whistles/stop) were much higher than the historic longleaf region (0.017 whistles/stop) and the shortleaf/loblolly pine – hardwood (0.016 whistles/stop). No coveys were recorded on the Mississippi/Atchafalaya agricultural belt (0.00 whistles/stop) (Tables 1 and 2). Peason Ridge, Jackson-Bienville WMA, Camp Beauregard, Vernon District No. 1, and Vernon District No. 2 routes yielded 0.25, 0.11, 0.00 0.05, and 0.05 whistles/stop, respectively (Table 3).

Seven (7) summer bobwhite counts were conducted on the Sandy Hollow Wildlife Management Area. Counts ranged from 14-44 (Figure 1). The mean count was 27.6, which is higher than the 2009 mean of 16.8. The peak count (44) was lower than the long-term (1986-2009) average peak count of 93.0, but was higher than 8 of the past 10 years (Figure 2).

Table 1. Whistles per stop recorded during the 2009 statewide fall whistling counts for bobwhites.

<u>Whistles Per Stop</u>			
Date	Route Number	2008	2009
<b>Loblolly (Florida Parishes)</b>			
5 November 2009	18	0.05	0.00
26 October 2009	21	0.00	0.11
3 November 2009	29	0.00	0.00
2 November 2009	35	0.00	0.12
4 November 2009	43	0.13	0.07
19 October 2009	46	0.05	0.05
	All Routes	0.03	0.06
<b>Historic Longleaf</b>			
4 November 2009	03	0.00	0.11
19 October 2009	05	0.00	0.00
21 October 2009	10	0.00*	0.00
29 October 2009	11	0.00	0.00
2 November 2009	17	0.00*	0.05

Date	Route Number	<u>Whistles Per Stop</u>	
		2008	2009
	23	0.00*	0.00*
	34		
	37	0.00*	0.00*
20 October 2009	39	0.00*	0.00
28 October 2009	40	0.00	0.00
3 November 2009	44	0.00	0.00
	50		
5 November 2009	52	0.20	0.11
	56	0.00*	0.00*
	All Routes	0.01	0.02
<b>Rice</b>			
6 November 2009	02	0.00	0.10
21 October 2009	13	0.00	0.00
4 November 2009	32	0.05	0.00
	41	0.00*	0.00*
	49	0.00*	0.00*
21 October 2009	67	0.00	0.00
	All Routes	0.01	0.03
<b>Shortleaf-Loblolly Pine / Hardwood</b>			
1 November 2009	09	0.00	0.00
4 November 2009	15	0.00	0.05
20 October 2009	22	0.00	0.05
	25	0.00*	0.00*
29 October 2009	26	0.06	0.00
26 October 2009	28	0.00	0.00
		0.00*	0.00*



Date	Route Number	<u>Whistles Per Stop</u>	
		2008	2009
	30		
8 November 2009	31	0.00	0.00
12 November 2009	36	0.00	0.05
21 October 2009	47	0.00	0.05
	48	0.00*	0.00*
20 October 2009	53	0.00	0.00
10 November 2009	55	0.00	0.00
19 October 2009	59	0.00	0.05
	62	0.00*	0.00*
21 October 2009	69	0.00	0.00
	All Routes	0.00	0.02
<b>Mississippi / Atchafalaya Agricultural Belt</b>			
3 November 2009	06	0.00*	0.00
28 October 2009	12	0.00	0.00
26 October 2009	14	0.06	0.00
2 November 2009	16	0.00*	0.00
26 October 2009	20	0.00	0.00
2 November 2009	33	0.00	0.00
	All Routes	0.01	0.00

\* Assumed zero

Table 2. Paired  $t$  statistics for the 2009 fall quail whistling counts by region (base year 2008).

Region	N	Mean Difference	Standard Error	$t$	Prob.
Loblolly	6	-0.020	0.031	-0.64	0.554
Longleaf	12	-0.001	0.016	-0.04	0.969
Rice	6	-0.025	0.025	-1.00	0.363
		-0.012	0.007	-1.64	0.122

Region	N	Mean Difference	Standard Error	t	Prob.
Shortleaf	16				
Agriculture	6	-0.010	0.010	1.00	0.363
All Routes	46	-0.009	0.007	-1.26	0.213

Table 3. Whistles per stop recorded during the 2009 special fall whistling counts for bobwhites.

Date	Route	<u>Whistles Per Stop</u>	
		2008	2009
	Ft. Polk WMA	-	-
3 November 2009	Camp Beauregard	0.00	0.00
9 November 2009	Jackson-Bienville	0.16	0.11
	Peason Ridge	-	0.15
6 November 2008	Vernon District #1	0.00	0.06
4 November 2009	Vernon District #2	0.00	0.05
	Ft. Polk-Fullerton	0.30	-

## 2010 Sandy Hollow WMA Bobwhite Survey

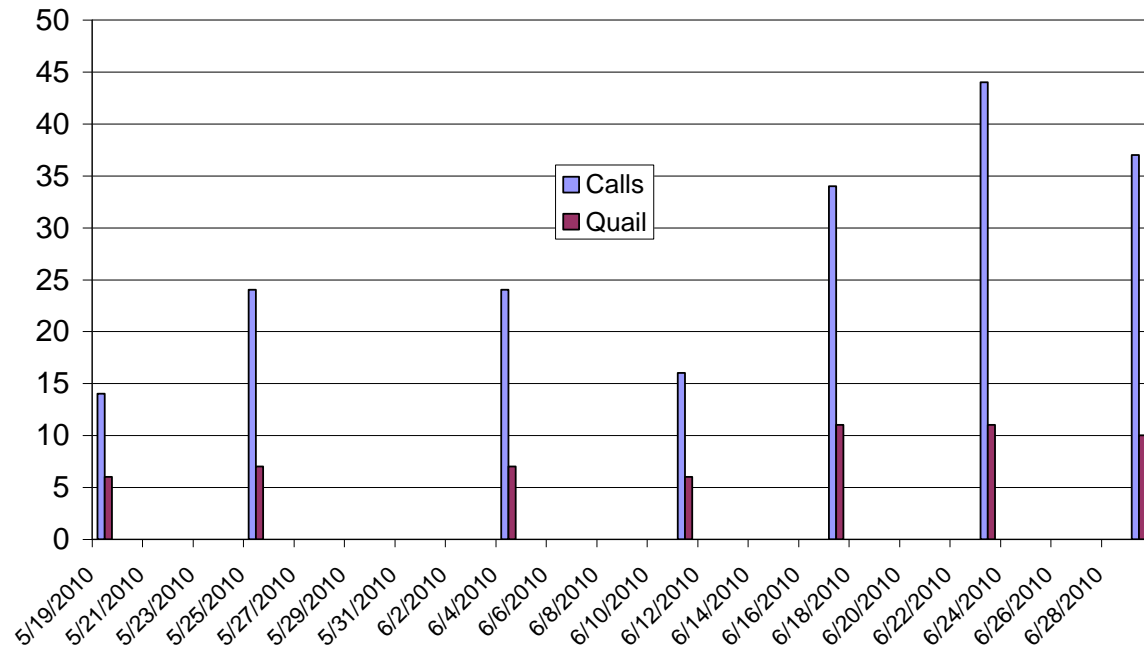


Figure 1.

## Peak Bobwhite Count Sandy Hollow WMA

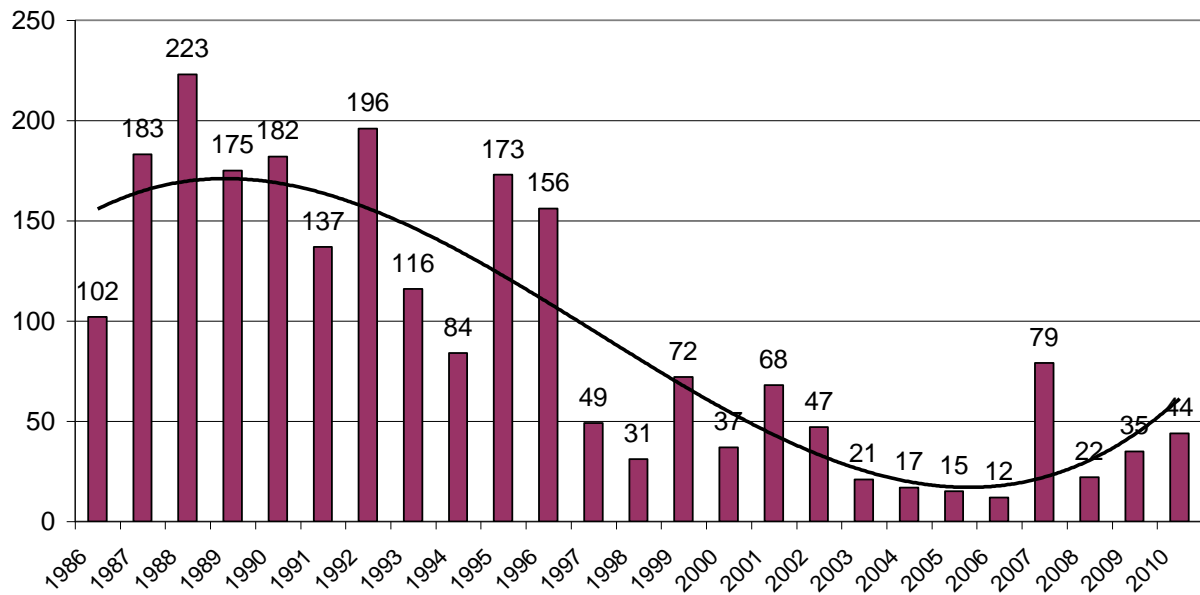


Figure 2.

Peak Bobwhite Count Poly. (Peak Bobwhite Count)

## Fall Bobwhite Quail Whistling Survey Report - 2008

### Introduction

A fall bobwhite quail whistling survey was initiated in Louisiana on Ft. Polk Wildlife Management Area (WMA) and portions of the adjoining Kisatchie National Forest in the fall of 1977. The results of this survey seemed to reflect the population trend and hunter success for that region. In 1983, the fall whistling survey was expanded, and the survey is now conducted statewide. This information is used to formulate indices to document the status of bobwhite quail in Louisiana.

### Procedure

The fall bobwhite whistling survey is conducted across the state along 54 routes. The state is divided into 5 habitat types encompassing the historic bobwhite range: Longleaf, Northwest Loblolly-Shortleaf-Hardwood, Southeast Loblolly, Acadiana Rice Belt, and Mississippi/Atchafalaya Agricultural Belt (Figure 1). Six lines are assigned to both agrarian habitats and 36 routes are assigned to the forested habitat types on the basis of acreage. The Northwest Loblolly-Shortleaf-Hardwood Region has 16 routes, the Longleaf Region has 14 routes, and the Southeast Loblolly Region type has 6 routes. Two routes on the Vernon Unit of the Kisatchie National Forest and routes on Camp Beauregard, Ft. Polk, Peason Ridge, and Jackson-Bienville WMAs are also run.

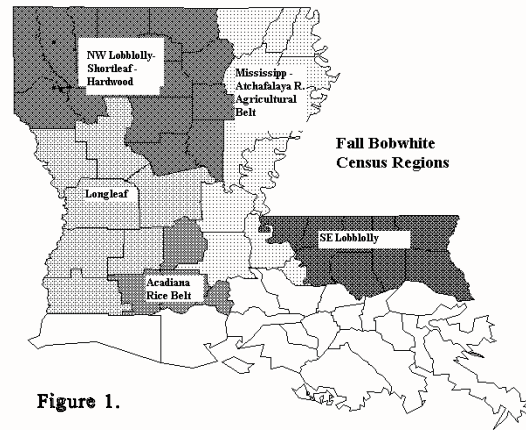


Figure 1.

If no bobwhites are recorded on a route for 3 consecutive years, zero is assumed for 5 years. After 5 years the route is run again, and if no quail are heard, it remains an assumed zero route for 5 more years. If quail are heard, the route is run again annually until 3 consecutive years pass without hearing a quail.

The starting points for all routes (except the WMA and special Kisatchie National Forest areas) were randomly selected. Routes were first plotted on parish road maps primarily along secondary roads. Ground truthings were then conducted and adjustments were made when necessary.

Whistling routes are approximately 30 km (19 miles) long with whistling stations located at approximately 1.6 km (1 mile) intervals. By whistling at the starting point as well as at the 1.6 km intervals, a total of 20 stops per route are made. The elapsed time between stations is approximately 3 minutes.

Responses are elicited via a quail call recorded on a CD. The sequence of the calls at each whistling station is 5-5-5-5-5 with a listening period of 7 seconds allocated after each mini-series of calls. Observers record the number of coveys heard and rate the disturbance factor at each stop (none, low, moderate, high). Whistling counts begin ½ hour before sunrise and normally finish before 1½ hours after sunrise.

The recording used to elicit responses was changed in 2008. Prior to 2008, a cassette tape of a quail call was used. The change to CD was done to better standardize the series of calls each observer played, improve audio quality, and address problems with acquiring replacement cassette players.

Results are expressed in terms of calls per stop. In some cases, routes may have less than 20 stops. If there was significant disturbance at a stop, the stop is not included in the analysis. A paired t-test was used to compare the current year indices with those of the prior year.

## Results

Fall whistling surveys were conducted along 37 routes in 5 habitat types. There were 9 assumed zero routes. The Southeast Loblolly Regions had the highest call per stop value, followed by the Acadiana Rice Belt Region, the Longleaf and the Northwest Loblolly-Shortleaf-Hardwood Regions, and the Mississippi/Atchafalaya River Agricultural Belt. Data are summarized in Table 1 and Figures 2-6.

Table 1. Statewide fall bobwhite whistling survey results, 2008.

Habitat Type	Calls Per Stop 2008	Calls Per Stop 2009	Change From 2009	Long-Term Mean Calls per Stop 1983-2008
SE Loblolly	0.034	0.06	76% (NS)	0.20
NW Loblolly- Shortleaf- Hardwood	0.003	0.02	567% (S)	0.11
Miss./Atchaf. R. Agricultural Belt	0.009	0.00	(NS)	0.04
Longleaf	0.015	0.02	25% (NS)	0.13
Acadiana Rice Belt	0.009	0.03	233%(NS)	0.09

S = Significant (P < 0.20)

NS = Not Significant (P ≥ 0.20)

The 2009 regional indices (calls per stop) remain below the long-term averages. However, all regions except for the Mississippi/Atchafalaya River Agricultural Belt illustrated increases from last year's values. The number of routes on which no quail were heard was the highest recorded since the inception of this survey. This year no quail were heard on 32 routes,

including those assumed to be zero, compared to 42 routes last year. Prior to last year, the previous high number of routes on which no quail were heard was 29 routes in 2006 and 2007.

In addition to the random routes, fall bobwhite whistling surveys were conducted on 3 Wildlife Management Areas (WMA) and a portion of the Kisatchie National Forest (KNF). The highest index was recorded from Peason Ridge WMA (Table 2 and Figures 7 - 9).

Table 2. Results of fall bobwhite whistling surveys on selected Wildlife Management Areas (WMA) and the Vernon Unit, Calcasieu Ranger District, Kisatchie National Forest, 2008.

Route	Calls per stop 2008	Calls per stop 2009	Long-term mean Calls per stop*
<b>Camp Beauregard WMA</b>	0	0	0.04
<b>Ft. Polk WMA</b>	0.11	-	0.19
<b>Jackson-Bienville WMA</b>	0.16	0.11	0.34
<b>Peason Ridge WMA</b>	-	0.25	0.32
<b>Vernon Unit #1</b>	0	0.06	0.14
<b>Vernon Unit #2</b>	0	0.05	0.10

\*Baseline years vary by route and do not include current year: Camp Beauregard WMA 1990-2007; Ft. Polk WMA 1983-2007; Jackson-Bienville WMA 1990-2007; Peason Ridge WMA 2003-2007; Vernon Units #1 and #2 1990-2007.

## Discussion

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

Weather conditions were generally poor across the state during the majority of the summer. Temperatures were generally normal to above normal with rainfall well below normal during the critical periods. Rainfall during July was an exception as a rule, but May, June, and August were generally very dry. Weather conditions are summarized in Table 3.

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. During 1993 - 2007, the number of routes on which quail were not heard ranged from 8-29 per year, and averaged 17 routes per year. In 2008, no quail were heard on 42 routes. Covey calls were recorded on about 25% more routes in 2009 than 2008, but were still the 2<sup>nd</sup> lowest on record. Comparison of the 2009 indices with the long-term (1983-2008) means in Table 1 further illustrates the decline in bobwhite quail.

The longleaf region of western and central Louisiana was historically one of the best areas of bobwhite habitat. However, in recent years the index from that region has declined considerably. The 2008 index is the lowest recorded for this region with only 1 route recording responses. The declining trend in this region has accelerated since 1999. The average index for the Western Longleaf Region from 1983-1998 was 0.18 calls per stop with an average of 1.4 routes per year on which no quail were heard. During 1999-2007, the average index was 0.046 calls per stop, with the number of routes on which no quail were heard averaging 8.6 per year. In 2009, no birds were heard on 9 routes, but an additional 2 routes were unable to be run. Nonetheless, quail were heard on 3 of the routes in 2009.

Habitat quality in this region has deteriorated as more land is subject to intensive pine management practices. The decreased use of prescribed burning as a forest management tool is probably the most important change in this area in the past several years. As a result, even when weather is favorable for bobwhite production, negative habitat influences may keep production (and resulting populations) at a low level.

Although conditions were unfavorable for bobwhite production in 2008, the use of a different recording to elicit bobwhite responses brings into question whether the 2008 survey reflects the status of the bobwhite population. There were aspects of the new recording that some observers thought might actually reduce responses from bobwhites. In 2009 conditions for bobwhite production were ostensibly worse than the 2008 conditions across much of the state, but covey call counts were generally up. It is not known whether the recording increased the count or production was better than expected.

Table 3. Summary of Louisiana precipitation and temperature expressed as a percentage of normal, May – September, 2009.

Region	May		June		July		August		September	
	Temp. <sup>a</sup>	Rain <sup>a</sup>	Temp. <sup>a</sup>	Rain <sup>a</sup>	Temp. <sup>a</sup>	Rain <sup>a</sup>	Temp. <sup>a</sup>	Rain <sup>a</sup>	Temp. <sup>a</sup>	Rain <sup>a</sup>
<b>SE Loblolly</b>	103	51	102	27	101	89	99	98	101	136
<b>NW Loblolly-Shortleaf-Hardwood</b>	101	134 - 140	103 - 104	99 - 101	101	152 - 273	98 - 99	92 - 95	99	125 - 267
<b>Longleaf</b>	101	68 - 72	102 - 104	21 - 33	101	144 - 157	99 - 100	44 - 98	100	98 - 138
<b>Acadiana Rice Belt</b>	101	47 - 56	101 - 102	27 - 28	100 - 101	101 - 114	100 - 101	44 - 55	100 - 101	98 - 127
<b>Miss./Atchaf. R. Agricultural Belt</b>	100 - 101	56 - 145	101	22 - 35	98 - 101	101 - 160	98 - 101	70 - 142	99 - 100	127 - 182

<sup>a</sup> Data from the Louisiana Office of State Climatology. Range is provided when survey regions contain more than one climate region.



# Fall Bobwhite Survey Northwest Loblolly/ Shortleaf Hardwood

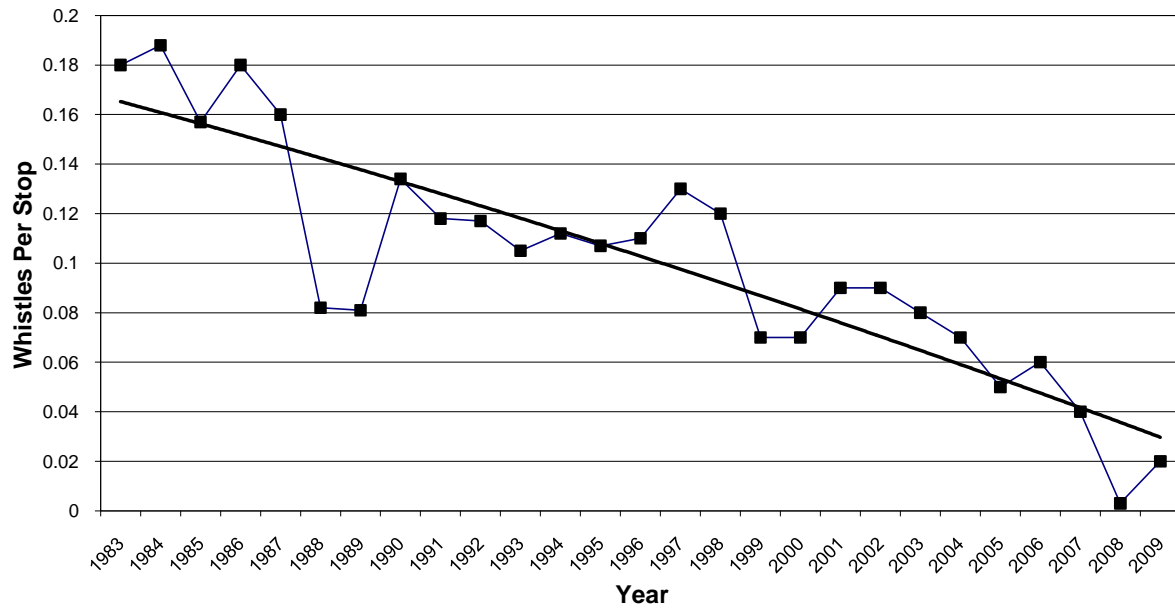


Figure 2.

■ Whistles — Poly. (Whistles)

# Fall Bobwhite Survey Southeast Loblolly

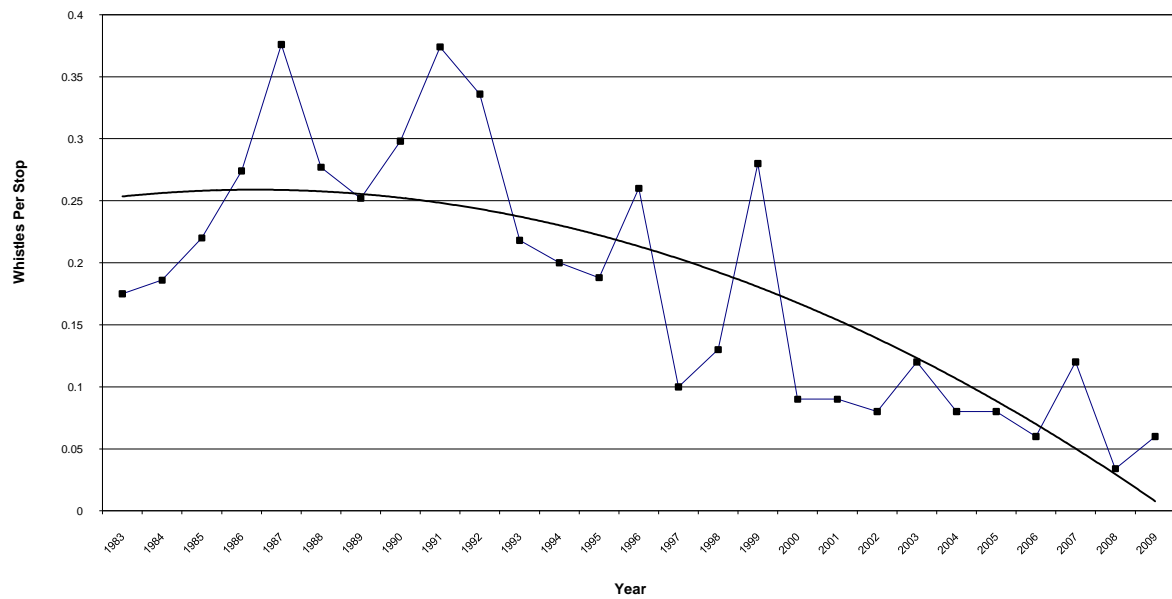


Figure 3.

■ Whistles — Poly. (Whistles)

### Fall Bobwhite Survey Longleaf Pine

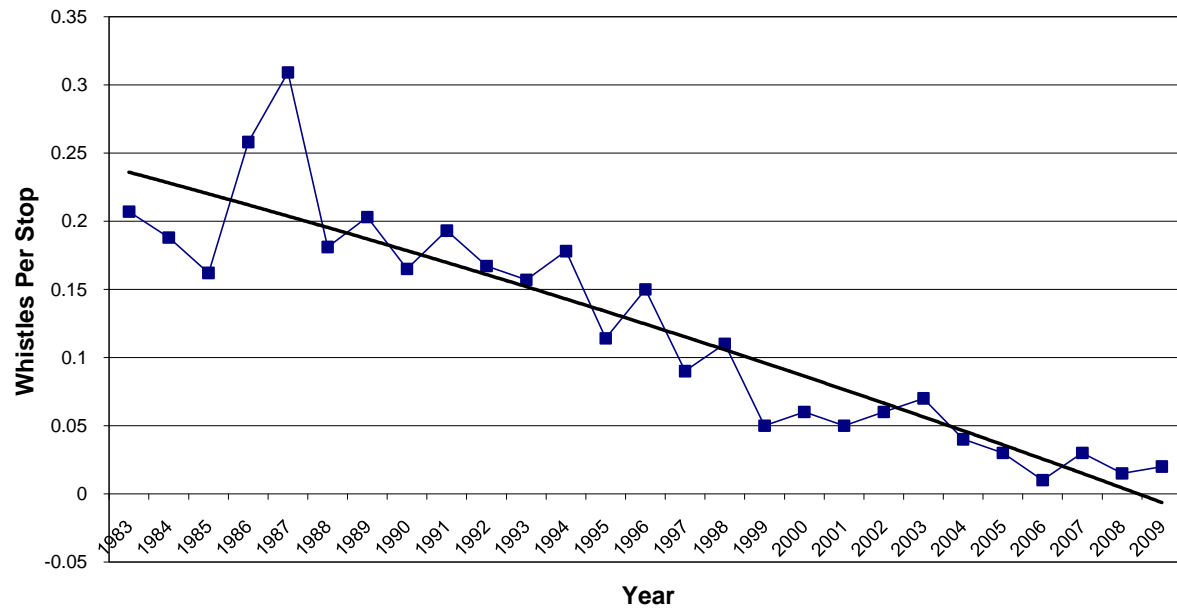


Figure 4.

■ Whistles — Poly. (Whistles)

### Fall Bobwhite Survey Acadiana Rice Belt

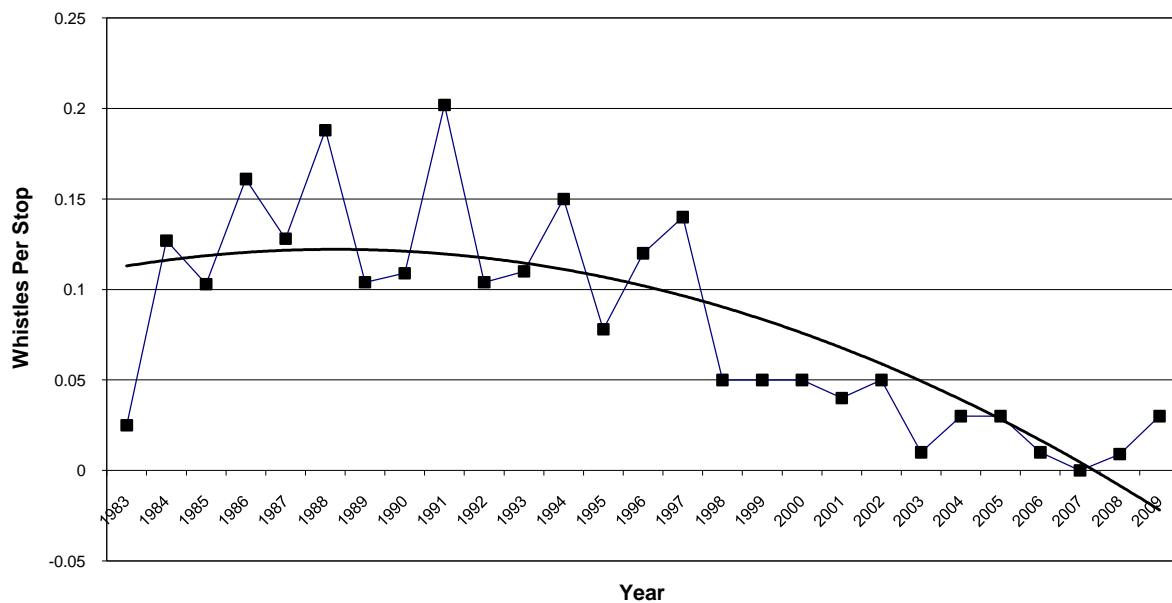


Figure 5.

■ Whistles — Poly. (Whistles)

Fall Bobwhite Survey  
Mississippi / Atchafalaya Agriculture Belt

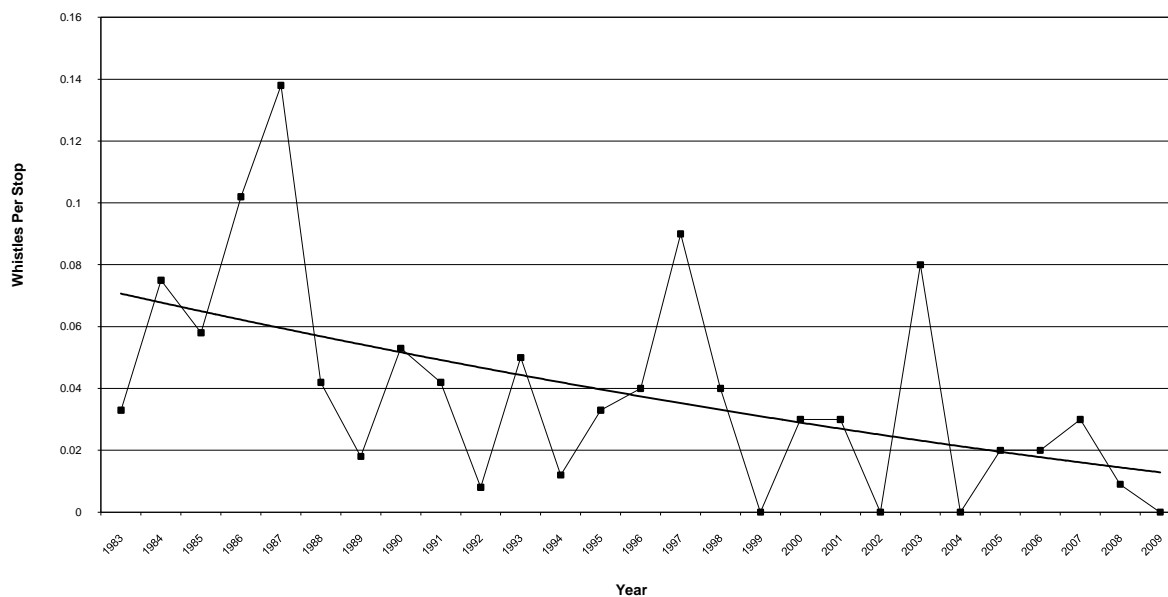
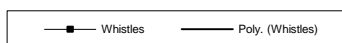


Figure 6.



Fall Bobwhite Survey  
Mississippi / Atchafalaya Agriculture Belt

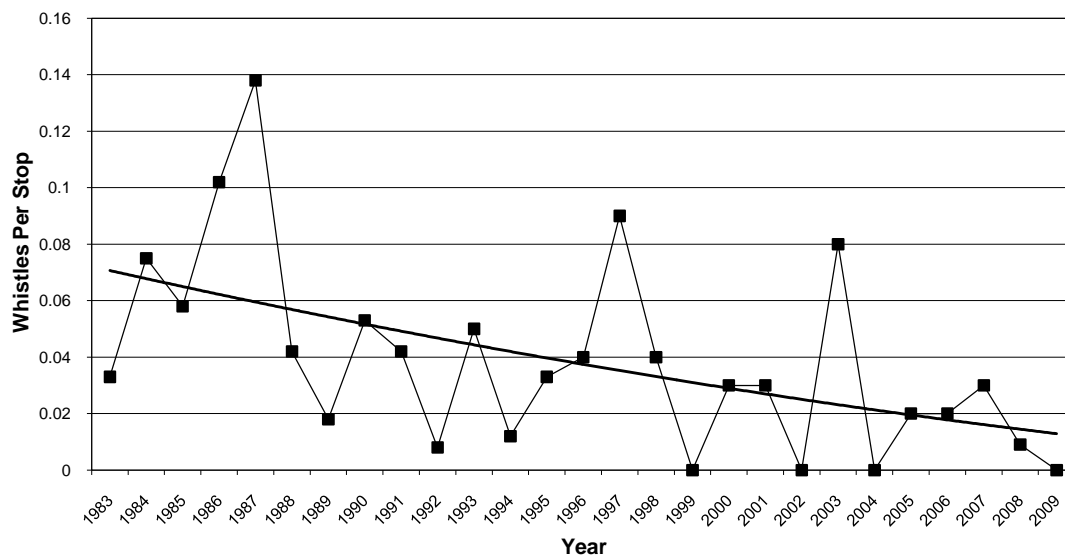
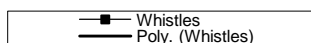


Figure 7.



### Fall Bobwhite Survey Vernon District, KNF

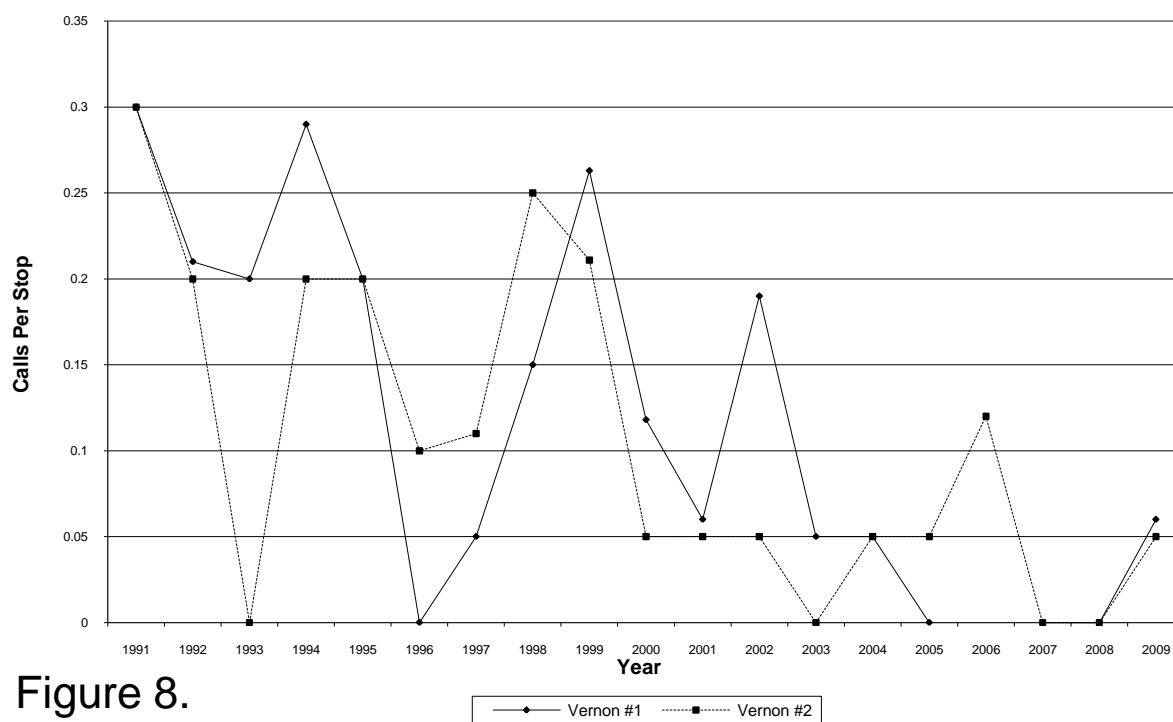


Figure 8.

### Fall Bobwhite Survey Ft. Polk Area

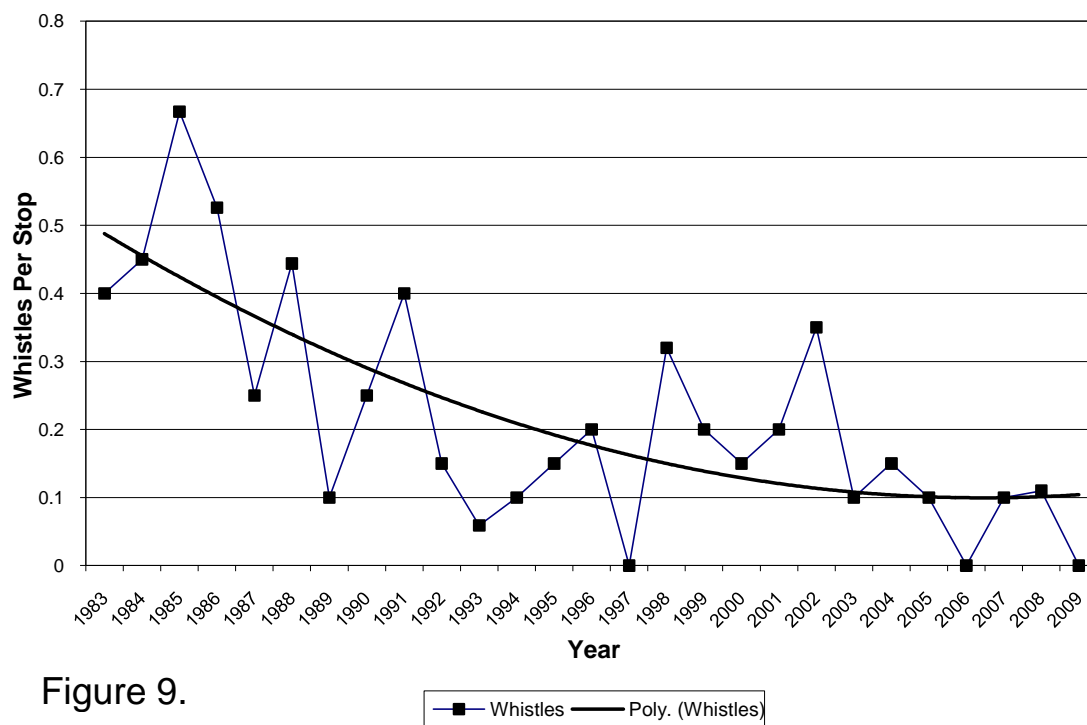


Figure 9.

# **MARYLAND**

## **POPULATION STATUS**

The most reliable bobwhite population data for Maryland are obtained through the Breeding Bird Survey (BBS). Based on the most recent BBS data, statewide bobwhite populations have declined 5% annually since 1966 and 7% per year since 1980. The Maryland Breeding Bird Atlas also has documented the disappearance of quail in many areas. The number of surveyed blocks identified as having confirmed or probable breeding quail declined from 756 in 1983 to 376 in 2002-2006. Declines have not been uniform across the state. Portions of the eastern region still harbor moderate quail populations but pockets of habitat containing quail in the remainder of the state are increasingly rare and isolated.

## **HUNTING AND HARVEST**

Paralleling the quail population decrease has been greater than a 95% decline in both quail hunting participation and harvest since 1975. The annual Maryland hunter mail survey estimated 384 quail hunters harvested 1,189 wild bobwhites in the 2008-09 season. Quail hunting at this level is not thought to be limiting bobwhite populations on a large-scale. However, increasing pressure on public hunting areas led us to reduce the season length and bag limit on lands owned or managed by DNR for the 2010-11 hunting season. The season on state lands will occur November 6 - January 15 with a bag limit of 3. Hunting regulations for private lands were not changed and will end on February 15 in the eastern zone with a bag limit of 6.

## **PRIVATE LAND HABITAT PROGRAMS**

The Conservation Reserve Enhancement Program (CREP), jointly administered by the Maryland Departments of Agriculture and Natural Resources, has the most potential to make landscape-level habitat changes in Maryland due to the competitive incentives offered. Enrollment in the Maryland CREP was just below 70,000 acres at the end of June 2010, a slight decrease from the previous 2 years. New and re-enrollments have slowed, presumably due to changes in eligibility criteria and landowner attitudes.

CP-33 participation has been limited with less than 1,000 acres enrolled in Maryland. The CP-33 practice does not provide the large incentives that CREP does and therefore only has been attractive to landowners with a sincere interest in quail habitat management.

The Landowner Incentive Program (LIP) has been used for the past several years to establish fallow fields on a 3-year rotation on properties with an interest in managing for bobwhites. Monitoring of enrolled sites documented a positive quail response to the LIP fallow field practice.

## **MANAGEMENT AND RESEARCH**

A 2+ year research project was initiated in fall 2009 with objectives that focused on determining key population parameters and habitat use patterns of northern bobwhite in

Maryland. Cooperators included MD DNR, Chester River Field Research Center, and Tall Timbers Research Station. Preliminary results suggest that fall-winter survival was exceptional low and insufficient to maintain a stable population. Only 1 of the 76 radio-transmitted quail survived past February 2010. Additional survey data confirm that overwinter survival was likely <5%. We speculate that the high mortality documented was a result of the exceptionally deep and prolonged snow cover, coupled with inadequate escape cover and high numbers of predators. Snowfall amounts were historically high this winter and we are confident that our results were not representative of a typical winter. Due to the very low numbers of quail that survived through the winter on the study site, the project has been suspended until surveys suggest that the population has sufficiently rebounded.

Work continues on several Wildlife Management Areas (WMAs) with a focus on early-successional habitat. A variety of bobwhite habitat creation and enhancement practices including herbicide application, timber thinning, field border development, and fallow field management are being employed in conjunction with annual population monitoring. Fall covey call surveys are conducted on 4 WMAs and have documented a substantial increase in bobwhite populations following management on most sites.

# MISSISSIPPI

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## **Bobwhite Restoration Plan Activities**

The Mississippi Department of Wildlife, Fisheries, and Parks (MDWFP) cooperated with Mississippi State University, Forest and Wildlife Research Center (FWRC) to develop a state bobwhite restoration plan. A popular planning document is being developed for promotion of the bobwhite restoration plan. The MDWFP continues to work with state, federal, and private conservation partners to implement bobwhite habitat management practices to accomplish goals and objectives established in restoration plans. The Mississippi Bobwhite Working Group met during October, 2009 to discuss accomplishments, action items, and other items pertinent to bobwhite conservation. Several targeted delivery efforts are planned for priority bobwhite habitat areas in Mississippi during 2010 to reach landowners within bobwhite habitat “hotspots.”

## **Private Lands Habitat Accomplishments**

Mississippi enrolled all of its initial acreage allotted to Conservation Reserve Program (CRP) CP38 – Bobwhite Quail Habitat (2,950 acres) and CP38 – Black Belt Prairie (2,500 acres) practices during 2009 and 2010, respectively. An additional 6,450 acres were allocated to the CP38 – Bobwhite Quail Habitat practice (9,400 acres total allotment) in 2010. Additional acres are being requested for the CP38 – Black Belt Prairie practice. About 2,200 acres of CP33 – Habitat Buffers for Upland Birds are currently enrolled in Mississippi. Successful delivery of CP38 was the result of promotion and technical assistance provided by USDA-Farm Service Agency, USDA-Natural Resources Conservation Service (NRCS), Delta Wildlife, MDWFP, Mississippi State University, and Wildlife Mississippi.

Wildlife Mississippi and the U. S. Fish and Wildlife Service planted about 1,500 acres of longleaf pine on private lands. About 1,300 acres of longleaf pine were planted on private lands using the Landowner Incentive Program administered by the MDWFP.

About 75 acres of native warm-season grasses were established through a Conservation Innovation Grant (CIG). Funds from the CIG were used to promote and establish native warm-season grass forages for grazing and haying in a 14 county focal area in North Mississippi. The CIG was co-authored by the North Central Mississippi RC&D and MDWFP. Partners include NRCS, Mississippi State University Extension Service, Mississippi Soil and Water Conservation Commission, National Wild Turkey Federation, Quail Unlimited, and Desoto County Soil and Water Conservation District.

The Strawberry Plains Audubon Center in Holly Springs, MS continues to promote and provide funds for native grassland establishment and management to improve water quality and wildlife habitat in the upper Coldwater River watershed. During the past year, Audubon and the MDWFP cooperated to conduct 175 acres of prescribed burning, apply herbicides to eradicate non-native vegetation and establish or release native, early successional communities on 270 acres, and plant 120 acres of native warm-season grasses.

Other accomplishments reported during the past year include:

- Almost 2,000 acres of prescribed burning was conducted on private lands with assistance provided by MDWFP Private Lands Habitat Program (PLHP).
- Technical guidance was provided by the MDWFP PLHP on more than 600 acres of native warm-season grass establishment (including CRP).
- 170 acres of timber stand improvement and prescribed burning was cost-shared by the Mississippi Partners for Fish and Wildlife Program.
- Wildlife Mississippi and the MDWFP PLHP planted over 2,000 acres of native warm-season grasses for CRP or for Landowner Incentive Program projects.

## **Public Lands Management**

Charles Ray Nix Wildlife Management Area is a 4,000-acre, state-owned WMA in Panola County. This WMA has undergone intensive habitat management activities to benefit bobwhite quail and other wildlife. In 2007, old hay fields were treated with herbicide to eradicate bermudagrass and fescue. Agricultural fields were removed from a farm lease, and about 800 acres of former row crop fields were planted to native warm-season grasses. Forest management plans have been implemented to improve structure and composition of upland hardwood forests on the area. Prescribed fire has already been reintroduced to these upland forest stands and will continue to be a part of the forest management strategy. Upland forest thinning began in September 2008, and to date more than 1,000 acres of upland forest have been thinned to increase ground layer vegetation development. Prescribed burning and selective herbicide treatments will continue to be used to manage brush and non-native vegetation in forest and field areas. Breeding season bobwhite relative abundance is currently 5 times greater since habitat management was initiated in 2007. In 2010, 1.3 calling males were detected per count station.

About 200 acres of longleaf pine was planted on T. A. Mars, Jr. Memorial Wildlife Management Area in Pearl River County. The MDWFP has been aggressively treating a suite of non-native vegetation, planting longleaf pine, and reintroducing prescribed burning on this 900-acre, state-owned WMA since 2007.

Herbicide applications to control non-native vegetation in old fields on Divide Section in Tishomingo County were delayed due to heavy autumn and winter rains (prohibited autumn site preparation and fescue spraying). These grassland habitat restoration projects will be revisited in the coming year. Divide Section WMA is part of US Army Corps of Engineers mitigation lands associated with the Tennessee-Tombigbee Waterway project.

The MDWFP is currently implementing a comprehensive forest management plan for state-owned Wildlife Management Areas. When fully implemented, this proactive forest



management plan should result in improved bobwhite quail habitat on several WMAs throughout the state.

The US Forest Service continues to enhance early successional habitat on some National Forests in Mississippi. The Chickasawhay and DeSoto Ranger Districts in Southeast Mississippi have conducted substantial prescribed burning and longleaf pine restoration through Stewardship and other initiatives. The Bienville District in Central Mississippi recently utilized Stewardship funds to conduct a small-scale timber stand improvement project.

## **Population Monitoring and Surveys**

During 2010, breeding season bobwhite call counts were conducted on Wildlife Management Areas to gain information on bobwhite population trends and relative abundance. Public lands with upland habitat management potential were selected for monitoring efforts. Data were received from 15 public lands surveyed during June, 2010. The overall average count was about 0.8 calling bobwhites per survey point. Sites ranged from a low of 0 to a high of almost 3 birds heard per survey point during 2010 (Table 1).

The MDWFP conducted breeding season bobwhite call counts along county road routes within localized regions of Clay, Monroe, Panola, and Prentiss counties (Figure 1, Table 2). These routes were implemented to evaluate whether landscape-level population increases can be detected within localized areas where habitat is accumulating and management is being actively promoted.

The MDWFP continues to conduct a volunteer quail hunter survey (wild birds only). During the 2009 – 2010 hunting season, data were received on 159 wild quail hunts representing 84 private land hunts and 75 public land hunts. Hunting party size was generally 1 hunter and averaged about 2.6 hours of hunting. Hunters flushed 0.24 coveys per hour and bagged 0.23 birds per hour. Of survey participants that responded, 60% perceived quail populations to be greater or about the same as the previous season.

The MDWFP continues to cooperate with Mississippi State University, FWRC to monitor bird populations associated with CRP, CP33 – Habitat Buffers for Upland Birds and CP38 practices. The fifth year of CP33 monitoring was completed in 2010, while CP38 monitoring has just begun. Analyses of 2010 data are in progress, but data from 2006 to 2009 show that CP33 buffer habitats continue to provide positive benefits to bobwhites and several high-priority breeding songbird species. There was considerable variation in populations among years, but breeding male bobwhite density (Figure 1) was greater at CP33 sites compared to control sites in all years measured. Bobwhite male density was about 5 times greater at CP33 sites than control sites over the four years of monitoring.

## **Outreach and Education**

- The MDWFP conducted a Gamebird Workshop in Tupelo in February, 2010.
- The North Central Mississippi RC&D, NRCS, MDWFP, and Mississippi State University Extension Service conducted a field day focusing on native warm-season grass forage and bobwhite management in Panola County in June, 2010.

- Quail Forever, MDWFP, and Mississippi State University Extension Service and FWRC supported 2 youth quail hunts in February and March, 2010. Youth and parents were educated on bobwhite ecology and management and youth were taken quail hunting.
- Quail Unlimited, National Wild Turkey Federation, MDWFP, Mississippi State University Extension Service and FWRC, and Noxubee National Wildlife Refuge supported a youth gamebird field day in June, 2010. Youth and parents were educated on bobwhite and turkey ecology and management, hunting, and shooting.
- The Mississippi Prescribed Fire Council ([www.msfirecouncil.org](http://www.msfirecouncil.org)) held its third annual meeting in Starkville, MS during May, 2010.

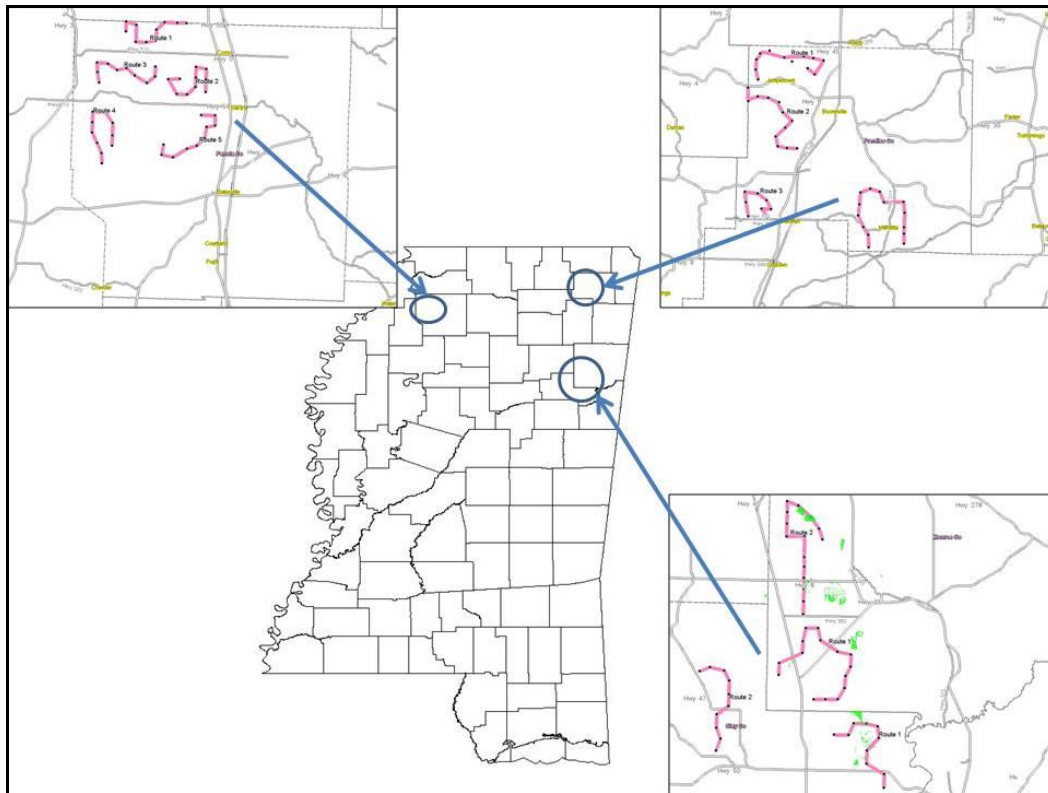
**Table 1.** Three-year average breeding season bobwhite call counts for Mississippi Wildlife Management Areas with upland habitat management potential.

Site	Year		
	2008	2009	2010
Bienville WMA	0.00	0.06	0.06
Caney Creek WMA	0.02	0.04	0.06
Caston Creek WMA	0.82	0.79	0.75
Charles Ray Nix WMA	0.05	0.65	1.30
Chickasaw WMA	0.00	0.00	0.00
Chickasawhay WMA	-	0.37	0.65
Choctaw WMA	0.26	0.22	-
Copiah County WMA	0.52	0.68	-
Divide Section WMA	0.08	0.61	0.94
Hell Creek WMA	1.95	3.20	2.74
Leaf River WMA	0.10	0.74	-
Marion County WMA	1.80	1.22	1.02
T. A. Mars, Jr. WMA	0.50	0.83	0.33
Mason Creek WMA	0.51	0.31	0.49
Red Creek WMA	0.79	0.74	1.79
Sardis Waterfowl WMA	-	0.50	0.80
John Starr WMA	0.43	0.80	0.54
Tallahala WMA	0.30	0.18	0.21
Ward Bayou WMA	0.75	1.50	-

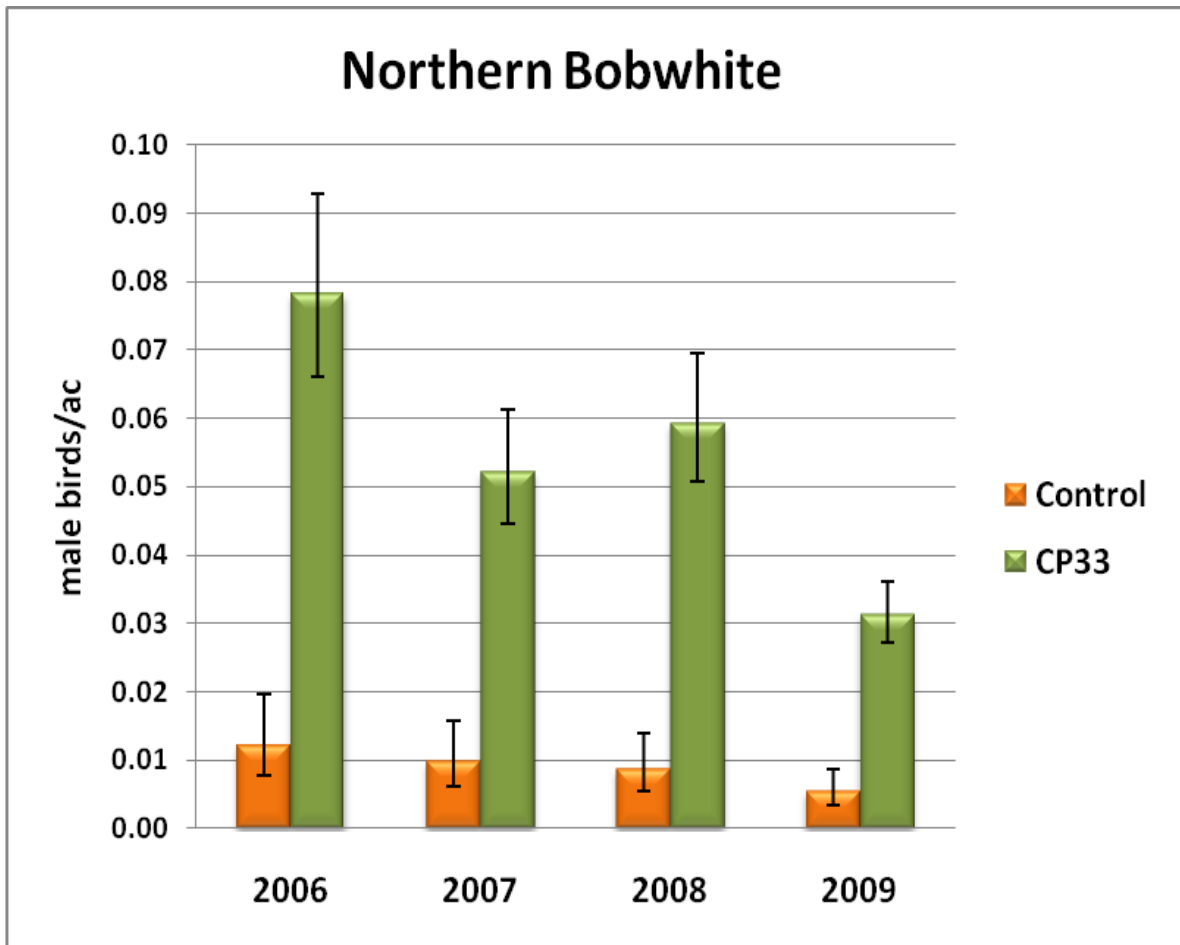
**Table 2.** Average breeding season bobwhite call counts by county and route, June 2010 (averages represent greatest average count from 2 survey repetitions).

County	Route	Survey Points	Average
Clay	1	10	0.80
Clay	2	10	0.20
Monroe	1	15	0.13
Monroe	2	15	0.40
Panola*	1	10	1.20
Panola*	2	10	0.30
Panola*	3	10	0.00
Panola*	4	10	0.70
Panola*	5	10	0.10
Prentiss	1	12	1.83
Prentiss	2	12	1.17
Prentiss	3	8	0.63
Prentiss	4	14	0.64

\* Only 1 repetition conducted.



**Figure 1.** Bobwhite call count monitoring route locations in North Mississippi.



**Figure 2.** Northern bobwhite breeding season density (95% CI) for CP33 and non-CP33 (control) sites in Mississippi, 2006-2009.

# MISSOURI

**Beth Emmerich, Agricultural Wildlife Ecologist  
Missouri Department of Conservation**

## **QUAIL ABUNDANCE**

Conservation Agents conducted roadside counts of bobwhite quail from August 1-15 in 110 of Missouri's 114 counties. Clay, Jackson, St. Louis, and St. Charles counties are not included because they are high density urban areas near Kansas City and St. Louis. Surveyors count the number of quail observed while driving  $\leq 20$  miles per hour along permanent 30-mile gravel road routes. Participants are instructed to conduct counts beginning at sunrise on clear, dewy mornings with light winds to increase chances that bobwhite will be near roadsides. These observations are used to provide an index of quail abundance across the landscape. Because only a small portion of each county is sampled, the index best represents quail population trends at large scales, such as statewide and multi-county blocks such as the zoogeographic region. The statewide long-term trend of the index closely follows other statewide indices of abundance, including the North American Breeding Bird Survey (BBS) and Missouri quail harvest estimates. The roadside survey routes are run almost entirely through private land, so the quail index is a reflection of conditions on Missouri's private lands.

This year's statewide index of 2.7 quail per 30 mile route is 7% below last year's index of 2.9. This is 19% below the 5-year average (2004-2008) and 26% below the 10-year average (1999-2008) (Table 1). Production appeared to be low this year at the time of the survey, with the statewide average chick count at 0.8, which was the same as last year. Total quail counts were variable among zoogeographic regions with counts being highest in the Northwest Prairie (4.2), followed by the Western Ozark Border (3.9) and the Western Prairie (3.0). Counts were lowest in the Northern and Eastern Ozark Border (1.3) and the Mississippi Lowlands (1.4) (Table 1). Statewide long-term trends (1983-2008) are shown in Figure 2 and trends by zoogeographic region are shown in Figure 3. Both figures illustrate a long-term downward trend in bobwhite populations.

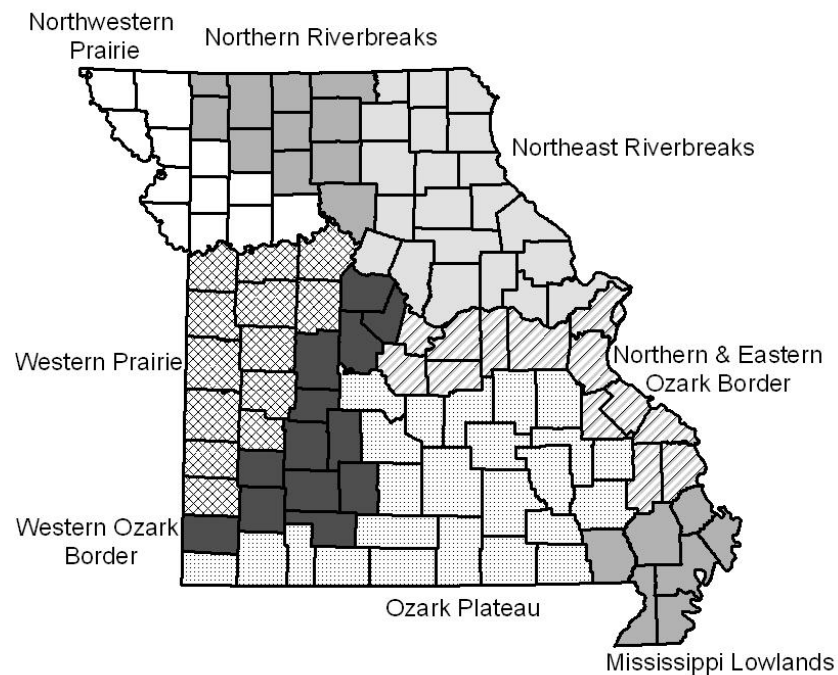
Winter weather was fairly mild this year, with above normal temperatures and below normal precipitation across most of the state. An unusual warm spell in February saw temperatures reaching 70° F. A severe ice storm event moved across southeast Missouri from January 26-28 resulting in widespread damage to trees and buildings. Spring 2009 brought cooler than normal temperatures and another year of higher than normal precipitation. While precipitation amounts were lower than those of spring 2008, the weather was still not conducive to good reproduction. A drier August may have provided some opportunities for late-season nesting attempts.

Habitat conditions in Missouri vary from good to poor throughout the state. Over-grazed, fescue-dominated pastures, loss of native grass stands, removal of low growing, dense woody cover, and increased commodity prices have all led to losses in preferred bobwhite habitat. Many programs are in place to assist private landowners in improving bobwhite habitat on their property, including the USDA Conservation Reserve Program (CRP), Conservation Buffers for Upland Birds (CP 33), MDC programs, and habitat programs from organizations including Quail Unlimited and Quail and Pheasants Forever.

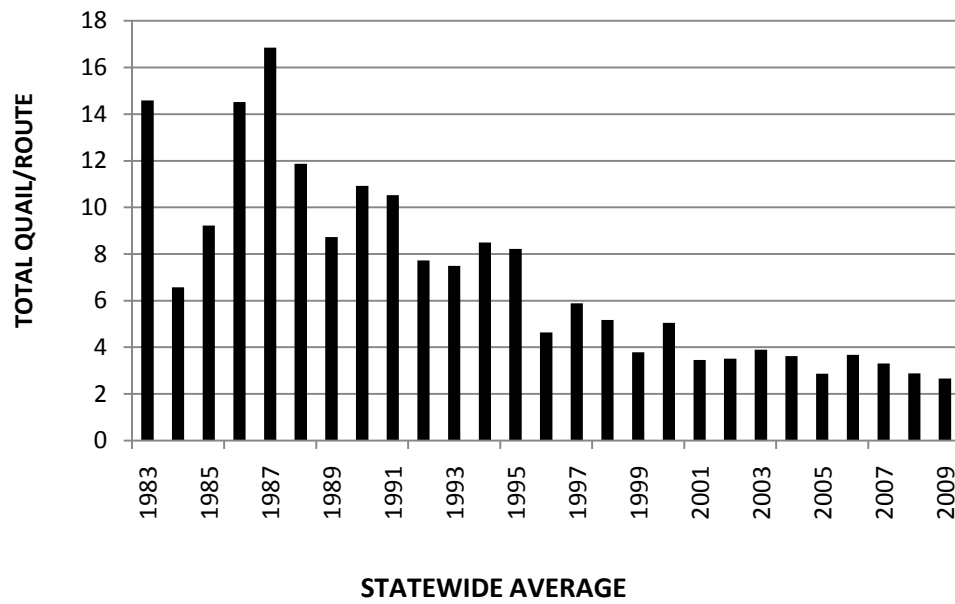
**TABLE 1.** Average number of quail counted per 30-mile route by Conservation Agents along 110 routes during August 1-15, 2009.

Zoogeographic Region <sup>1</sup>	# of Routes In 2009	Quail counted 2009	Quail counted 2008	Long Term Average 1983-2008	% CHANGE from Long-Term Average	% CHANGE 2008 to 2009
Northwest Prairie	11	4.18	2.82	7.87	-46.9%	48.4%
Northern Riverbreaks	11	2.91	2.40	7.84	-62.9%	21.2%
Northeast Riverbreaks	20	2.70	4.95	9.59	-71.9%	-45.5%
Western Prairie	12	3.08	3.08	15.50	-80.1%	0%
Western Ozark Border	13	3.92	2.45	6.88	-43.0%	59.8%
Ozark Plateau	24	2.00	3.17	2.98	-32.8%	-36.8%
Northern & Eastern Ozark Border	12	1.25	0.67	2.77	-54.9%	87.5%
Mississippi Lowlands	7	1.43	0.86	5.73	-75.0%	66.7%
Statewide	110	2.66	2.88	7.21	-63.1%	-7.5%

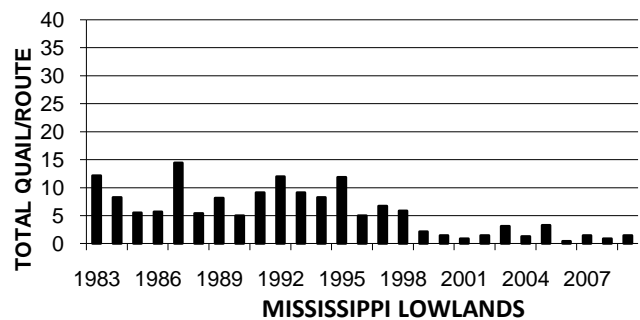
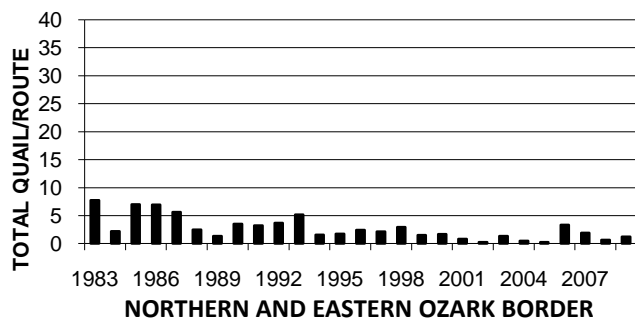
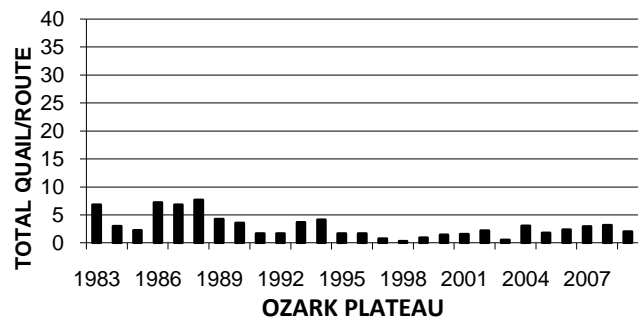
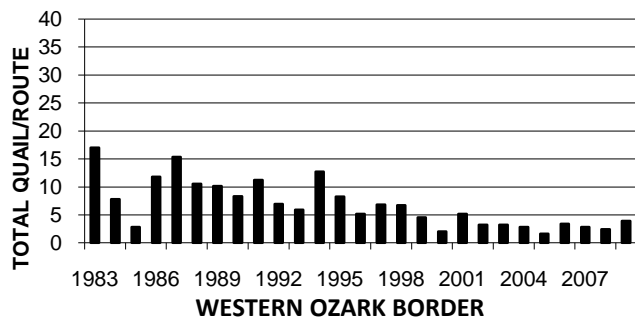
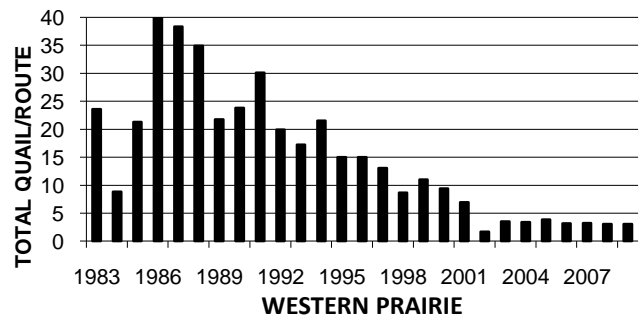
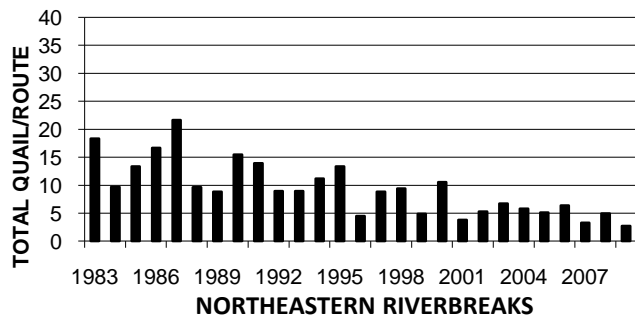
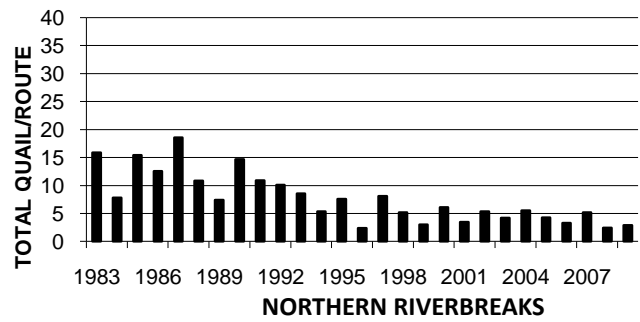
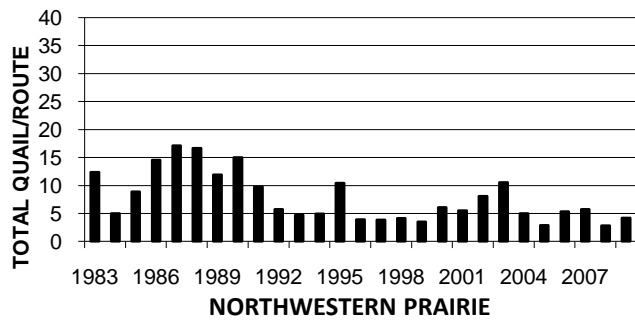
<sup>1</sup>See figure 1.



**FIGURE 1.** Zoogeographic regions of Missouri.



**FIGURE 2.** Statewide average number of quail counted per route from 1983-2009.

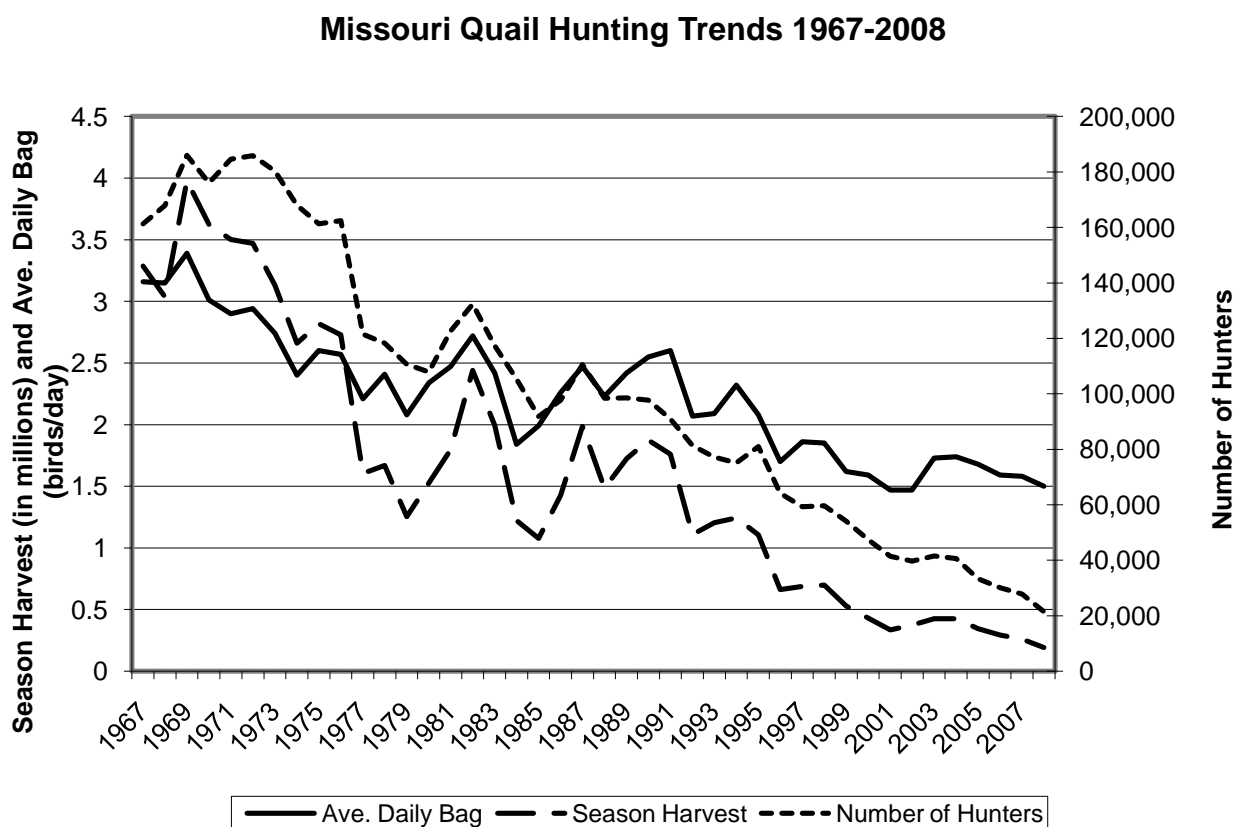


**FIGURE 3.** Mean number of quail per 30-mile route by zoogeographic region from 1983-2009.



## 2008 HUNTING SEASON

MDC collects harvest information from a post-season mail survey of a random sample of Missouri small game permit holders to estimate hunting activity at regional and statewide scales. The 2008 season (November 1, 2008 to January 15, 2009) again showed a decrease in both the number of quail hunters and quail harvest. The number of quail hunters during the 2008 season was 21,459, which was 21% lower than the 27,830 hunters from the 2007 season. This was the 3<sup>rd</sup> largest drop in hunter numbers since 1967. The total number of birds harvested in 2008 was 191,172, a 23% decrease from the 2007 season when hunters harvested 258,448 birds (Figure 4). An estimated 1,408 individuals participated in the youth quail season in 2008. While the numbers of hunters and birds harvested continue to decline, the number of birds bagged per day (a statewide index of hunting success) remains relatively stable. The number of birds bagged per day was 1.5 in 2008 compared to 1.6 in 2007. In the 2008 season, quail hunters averaged 6 days afield and had an average season bag of 8.9 birds. Overall hunters spent 129,210 total days afield in 2008.



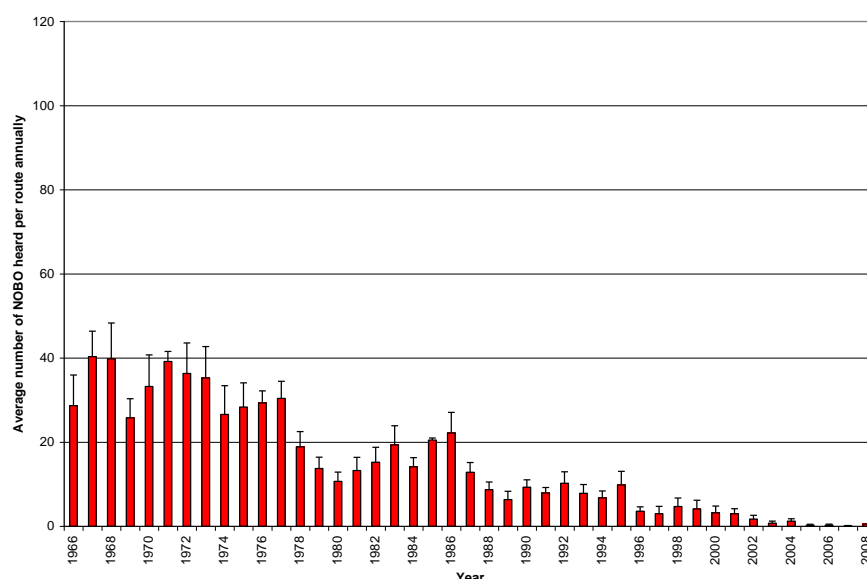
**FIGURE 4.** Missouri quail hunting trends from 1967-2008. Hunting season bag in millions and daily bag (birds/day) are combined on the left axis. The right axis shows the number of hunters per year.

# NEW JERSEY

## STATUS:

While northern bobwhite populations have declined throughout most of their range, New Jersey's declines are among the most precipitous recorded, and are largely explained by poor survival. The annual adult mortality rate of 91.4% is too high to sustain a viable population. Habitat loss and fragmentation are believed to be major factors in the low survival and continued decline of bobwhite in NJ. Two deep snowfalls (~20") occurred during the winter of 2009-10, leading to concerns of catastrophic winter mortality within the already low population. The NJ Division of Fish and Wildlife (Division) drafted a Bobwhite Action Plan, which is available online at [http://www.njfishandwildlife.com/bobwhite\\_plan10.htm](http://www.njfishandwildlife.com/bobwhite_plan10.htm).

Figure 1. Average number of bobwhite (+SE) heard in New Jersey south of Route 33 during USGS North American Breeding Bird Surveys, 1966-2008.



Population models indicated that winter mortality, which includes hunting, is a critical factor in population growth. At low bobwhite population levels harvest is not self-limited because the ratio of hunters to birds, efficiency of the hunters, and harvest rate increase as bobwhite abundance declines. Releases of pen-reared birds exacerbate this problem and may introduce disease, reduce genetic diversity, or compromise population surveys. At its current low level, New Jersey's wild bobwhite population should benefit from restricted harvest.

## HABITAT IMPROVEMENT:

An average of 3,450 acres have been improved annually in the State from 2003-2008. At the same time, nearly 14,000 acres of farmland and forest were lost to development annually from 1995-2002. Many acres of habitat improvements, focusing on quality, quantity, and connectedness of habitats, will be required to improve bobwhite survival throughout the year.

The Division manages approximately 200,000 acres of potential bobwhite habitat south of State Route 33. The majority of this land (~ 116,000 acres) consists of unmanaged, closed canopy, pine-dominated woodlands within the New Jersey Pinelands National Reserve (PNR). These unmanaged

woodlands are generally between 40 and 90 years of age and provide little or no useable space for bobwhite. Currently, administrative procedures of the Pinelands Commission greatly limit habitat restoration for all wildlife species within the PNR. A significantly improved process for implementing habitat projects in the PNR is anticipated in the near future.

A new and innovative approach has been developed to maintain and create early successional habitats on State Wildlife Management Areas (WMA) has been developed through the use of in-kind services in lieu of payment from contract farmers. Beginning in 2010, farmers that lease State-owned farmland will be required to plant, mow, disc, and otherwise maintain early successional habitats in proximity to their leased farmland. The amount of habitat work to be done is based on the value of the lease, which is established by a bidding process and the value of in-kind services as determined by the USDA and other knowledgeable sources. Under this program, thousands of additional acres of early successional habitat can be created and maintained on WMA without increased operational cost to the Division.

Division staff helped to form and have participated in several meetings of the NJ Early Successional Habitat Coalition Group, which is a partnership comprised of the Division, USDA-NRCS, USDI-FWS, the New Jersey Quail Project (NJQP), and the Ruffed Grouse Society. The NJQP was formed in March 2007 by a group of concerned sportsmen and sportswomen in response to the decline of bobwhite populations in NJ. The NJQP is currently working to improve habitat at several southern New Jersey locations, one of which may serve as a source for wild bobwhite if restocking of other areas is deemed necessary. Please visit the NJQP website <http://njquailproject.org> for more information.

## **SEASONS AND BAG LIMITS:**

From 1960 to 2004, the bobwhite season spanned a period of about 3 months, from the first week in November to the middle of February, with a daily bag limit of 7 birds. This format was the most liberal season structure and bag limit for bobwhite within the northeastern U.S. In 2005, the NJ Fish and Game Council identified the area south of State Route 33 as potential wild bobwhite habitat and reduced the hunting season in the southern half of the State (ending January 31) and lowered the bag limit to 4 birds. In December 2009, the Council approved a total season closure in the southern half of the State effective with the 2011-12 hunting season.

## **SURVEYS**

**Bobwhite Quail Whistling Cock Survey** – This survey was conducted 1972-1983 and 2003-2009, producing trend data that paralleled the USGS North American Breeding Bird Survey. Routes were established in eleven southern counties, and 15-mile surveys were conducted between June 9-20 on one morning (1972-1983) and 1-2 mornings (2003-2009). The average number of calling males during 1972-1983 was 29.2 per route and the average number of calling males during 2003-2009 was 0.3 per route.

**Firearm Hunter Harvest Survey** – A random sample of firearm hunters are contacted after the hunting season biennially and provided with a mail questionnaire and return envelope. Hunters are asked to provide information on hunt location, days hunted, harvest and land type. The mean seasonal harvest for wild bobwhite was 3.6 per hunter compared to a mean seasonal harvest for pen-reared bobwhite of 16.6 per hunter in 2007-08. Analysis of the 2009-10 survey is currently underway and results will be available to interested parties in the fall of 2010.

## **EDUCATIONAL PROGRAMS AND TECHNICAL LITERATURE:**

The NJQP, supported by the NJDEP Divisions of Fish & Wildlife and Parks & Forestry, has developed a pilot “Quail in the Classroom” program modeled after that used in Mississippi. The program is anticipated to begin during the 2010-11 school year in 10 schools throughout the State.

## **RESEARCH PROJECTS:**

In conjunction with the University of Delaware, breeding season (Apr 1-Sep 30) radio telemetry studies of bobwhite were conducted on a 48 mi<sup>2</sup> study area in Cumberland County, NJ from 2006-2008 and yielded the following results: breeding season home ranges averaged 86.6 acres ( $\pm$  SE 15.1); probability of nest incubation was 68.7% for females (n = 15) and 20.2% for males (n = 4); average clutch size was 14.2 eggs ( $\pm$  SE 0.58); nest success estimated to be 45.4% ( $\pm$  SE 1; n = 20 nests); hatchability of successful nests was 96.1% ( $\pm$  SE 2.0); and, adult breeding season survival was 34.3%. Non-breeding season (Oct 1-Mar 31) radio telemetry studies of the same bobwhite population yielded the following results: covey home ranges averaged 72.2 acres; and, non-breeding season adult survival was 25.2%. Predation was the leading mortality factor (85.5%) in both studies. Avian predators (e.g., hawks and owls) were the primary predators, followed by mammals. Domestic cats accounted for 10.1% of bobwhite mortality. Direct hunting mortality was 1.4%, however the indirect effects of hunting (e.g., non-retrieved loss, increased predation or reduced covey survival when covey size falls below 11 birds) was not estimated. The annual adult survival rate was 8.6%, which is not sufficient to sustain a viable bobwhite population.

In 2008, the Division developed a spatial model of suitable bobwhite habitat by examining the habitat patterns surrounding reported bobwhite locations. The model predicted that preferred bobwhite habitat contains more than 10% grassland interspersed with forest edge, shrubby, and barren areas. Large blocks of forest or wetland habitat or any area of urban land use were negatively correlated with bobwhite occurrence. The model predicted approximately 800,000 acres of suitable habitat south of State Route 33. Field surveys conducted during 2008 estimated that only 18% of predicted habitat was then occupied. At present, the Division is conducting a 500-random point survey south of State Route 33 where each point will be visited once during three 4-week periods from May 15-August 15 to estimate bobwhite occupancy and population size, validate or improve the habitat model and assess the effect of deep snow from the preceding winter. Observers will note the number of northern bobwhite as well as grasshopper sparrow, field sparrow, prairie warbler, eastern meadowlark and yellow-breasted chat. The non-game species have habitat requirements similar to bobwhite and may indicate potentially suitable bobwhite habitat.

# OKLAHOMA

## Status

Quail Populations in Oklahoma have declined 1.3 percent annually since 1966 according to the breeding bird survey. However, quail populations in portions of the Western part of Oklahoma have remained stable since 1966.

Roadside surveys during the fall of 2009 decreased 10% over the previous year and 64% below the previous 19-year average. Our annual roadside counts suggested the 2008-2009 quail season would be a down year but the ample cover from a few years of average to above average rainfall has interfered with seeing birds on the surveys. Although many sportsmen and biologist from across the state reported seeing more birds than they had the year before. The 2009 season seemed to be very similar to the 2008 season with hunters finding similar number of quail each year. Due to the rainfall that we had in the spring and summer there was plenty of vegetation for the birds to utilize.

The estimated number of quail hunters that hunted the 2008-2009 season was 30,659 which is up 6% from 2007-2008 season. Quail hunters hunted on average 5.55 day during the 2008-2009 season and averaged 2.22 birds in the bag. Oklahoma's estimated quail harvest for the 2008-2009 season was 375,653 birds which was down 1% from the previous season (380,847).

## Focal Area Restoration of Quail Habitat

The Oklahoma Department of Wildlife Conservation (ODWC) and the Natural Resource Conservation Service (NRCS) have developed the Quail Habitat Restoration Initiative (QHRI) to advance quail restoration efforts. The QHRI will operate under the Environmental Quality Incentive Program (EQIP) to provide cost-share and incentive payments to landowners willing to restore and manage quail habitat. Restoration efforts will center on focal areas that have been identified as having a high potential for eliciting population growth and expansion.

QHRI Details: Landowners who enroll in the EQIP-QHRI will have the opportunity to receive cost-share assistance on a variety of practices traditionally offered through EQIP such as brush management, prescribed burning, and prescribed grazing. In addition, landowners may qualify for incentives for implementing a patch-burn-graze system, reducing annual burning to a 3-year rotation, implementing a new grazing system, and for doing upland wildlife habitat management.

Technical Assistance: All applicants received some measure of technical assistance depending on the attributes of their property and how they were ranked. Through the ranking process we were able to fund 11 applicants affecting approximately 11,340 acres in Oklahoma. Total EQIP dollars allocated for FY 2009: ~ \$454,000. We have been able to spend \$1,926,000 on 87,300 acres.

Continued Outreach: Through continued contact with landowners within the focus areas we hope to find landowners that are willing to implement a habitat management program that will benefit northern bobwhite quail. We will provide at minimum technical assistance and if a landowner feels that they would like financial assistance we have a tool available to assist them. In addition a minimum of one public outreach effort per focus area and through continued "door-knocking" we hope to have as many contacts this year as we did last year.

## Management Activities

Technical Assistance: During 2009 ODWC has offered technical assistance to over 105 private landowners that incorporate over 54,000 acres. This is a little below the 5 year average of 100,000 acres but met with the average number of landowners.

Equipment Rental: With help from the National Wild Turkey Federation, Quail Unlimited, Charles Blankenship (Big John Tree Spade Company) and private donations, the Department has some specialized equipment for habitat enhancements. The Department has two tree spades with support equipment and one roller chopper that are available for landowners to use for wildlife habitat enhancement projects. The equipment can be rented for a small fee that is used to defray maintenance costs.

Wildlife Habitat Improvement Program (ODWC): Annually the ODWC provides cost-share to Oklahoma landowners for improving wildlife habitat. Funds administered are specific to quail, deer, turkey, prairie chickens, waterfowl and pheasant. Biologists developed management plans for 49 applications for this year's allocation and obligated \$217,000.

Landowner Incentive Program (LIP): The ODWC received a LIP grant to provide cost-share incentives to landowners in Western Oklahoma to address habitat restoration for species of special concern. Restoring habitat for Bell's Vireo, Bewick's Wren and Lesser Prairie Chickens will have a positive effect on Northern Bobwhite populations. To date there is no activity but the current allocation is \$200,000.

Wildlife Habitat Incentive Program (WHIP): Since July of 2003 the ODWC has served as a Technical Service Provider for the NRCS's WHIP. Four technicians with ODWC provide the project rankings, management plans and conducts status reviews as part of the agreement. This year's appropriation for the WHIP in Oklahoma totaled \$560,000 with preliminary funding of 47 projects. Oklahoma's annual appropriation for WHIP consistently ranks in the top three nationally. Since its inception, WHIP has provided 780 Oklahoma landowners with financial assistance totaling over \$6.5 million. However, to date the remaining un-funded applications total more than \$3.3 million.

Buffers for Upland Birds (CP-33): Buffers remain a hard sell to Oklahoma farmers. With the current grazing restrictions wheat farmers are unwilling to sign up for a program that mandates fencing. After reallocation Oklahoma has been allotted 2,000 acres. To date just over 1112 acres of CP-33 has been contracted in Oklahoma this is an increase of over 500 acres. Monitoring showed a 180% increase in northern bobwhite quail and a 169% increase in ring neck pheasants in Oklahoma.

CRP-SAFE: The Oklahoma Dept. of Wildlife Conservation and USFWS wrote a proposal to install 15,100 acres of cropland back to native brushy habitat. This project is located in Northwest Oklahoma and has a Bobwhite Quail emphasis. We have been able to get 817 acres enrolled and think that once the crops are removed from the fields that we will get more people to sign up due to high fuel prices.

# SOUTH CAROLINA

**STATUS:** South Carolina's quail population has declined dramatically over the past 40 years as a result of large-scale changes in land use and the resultant habitat loss and degradation. Between 1952 and 2008, pine plantation acreage in South Carolina increased from approximately 200,000 acres to approximately 3.1 million acres. Urban sprawl and changes in farming practices have also reduced habitat availability and suitability. USFWS Breeding Bird Survey results indicate an approximate decline of 4.8% annually in bobwhite quail abundance in South Carolina from 1966-2005. 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. Bobwhite quail habitat and population goals have been updated through the National Bobwhite Conservation Initiative (NBCI) planning and revision process are being incorporated into state planning efforts, as well as regional bird conservation efforts such as the South Atlantic Migratory Bird Initiative (SAMBI), a regional bird conservation initiative being conducted through the Atlantic Coast Joint Venture.

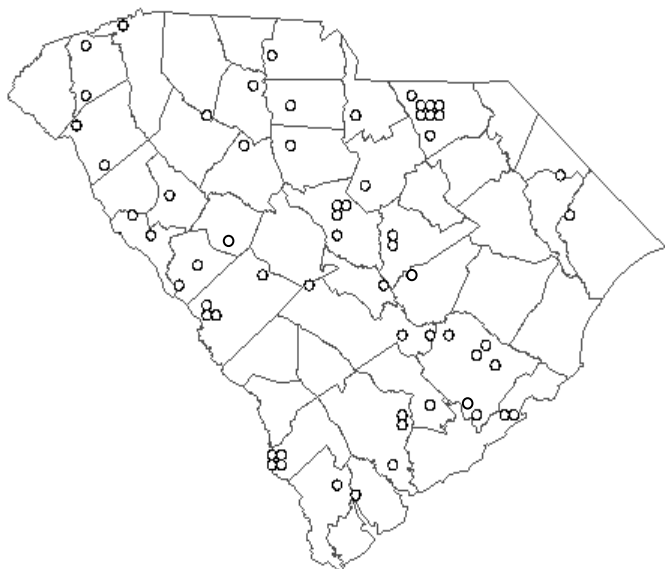
**HABITAT IMPROVEMENT:** SCDNR offers small game management technical assistance to private landowners through the Small Game Project. Select properties in the Wildlife Management Area (WMA) program are intensively managed for quail. Habitat enhancement for quail on WMA's consists of the standard practices of annual plantings, prescribed burning, strip disking, timber thinning, and creation of forest openings. 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 the Monday before Thanksgiving Day through March 1. Bag limit is 12 birds per day.

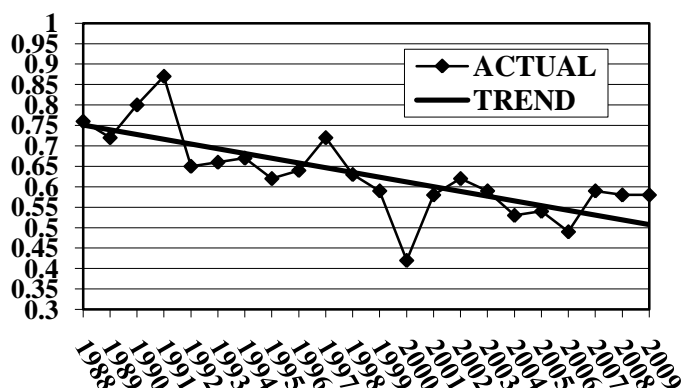
## SURVEYS:

**Bobwhite Quail Whistling Cock Survey:** This survey has been conducted for the past 31 years, producing reliable trend data that parallels field observations and the USFWS Breeding Bird Survey. Sixty-five 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 during the 2009 survey (66 routes with usable information) was 9.9 per route, an increase of 15 percent from the previous year.

**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 1 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 2009 survey was 2.3:1, lower than in 2008.



**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.

#### Coveys per hour index and trend, South Carolina Quail Hunter Survey, 1988-2009.

The coveys per hour index remained at 0.58 coveys per hour in 2009-10, identical to the previous year. Quail hunters participating in the survey bagged 0.41 birds/hour in 2009-10.

**Fall Covey Counts:** Fall covey counts were conducted on 10 WMA's during October and November, 2008. 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 25 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 2010.

## EDUCATIONAL PROGRAMS AND TECHNICAL LITERATURE

For the past 23 years, the Small Game Project has conducted annual wild quail management seminars for private landowners, land managers, and natural resource professionals. Over 1300 people have participated in this highly-successful seminar series which combines classroom instruction with field demonstrations.

### AGRICULTURAL LIAISON ACTIVITIES

Small Game Project staff continues to work with NRCS and other USDA agencies to incorporate quail-friendly practices into farm conservation plans. Three Farm Bill cost-share biologists were hired in June 2006 to provide private lands technical assistance and program delivery. These positions are supervised by the SCDNR Small Game Project and are housed in NRCS offices in the upper coastal plain of South Carolina. Each biologist is responsible for a 7-9 county area. Currently, 2 of the 3 positions are vacant due to state agency budgetary constraints.



## **FOCUS AREA INITIATIVES**

Since October 2004, Project staff and partners have been successful in establishing a 16,000-acre public land (USFS)/private land habitat enhancement cooperative entitled Indian Creek Wildlife Habitat Restoration Initiative (Initiative). National forest lands within the Initiative boundary are slated for woodland savannah restoration through selective thinning and prescribed burning, including growing season burns. WHIP funds, along with National Forest Foundation and Fish and Wildlife Services' Partners in Wildlife funds have been utilized for habitat enhancement on private lands within the project boundary. Answer the Call funds have been utilized on national forest lands. Approximately 16 landowners (3800± acres) participate in the Initiative and management plans have been written for each landowner. This innovative partnership includes representatives from the USDA Forest Service, USDA NRCS, SCDNR, Quail Unlimited (State and Newberry Chapter), National Wild Turkey Federation, Clemson Cooperative Extension Service, Newberry Soil & Water Conservation District, and the East Piedmont Resource Conservation and Development Council as well as private landowners.

The Initiative received two awards in 2008 on behalf of work conducted in the Initiative area: the South Carolina Wildlife Federation's Wildlife Conservation Award and the national John McGuire Award. The Initiative was notified in January 2009 that it has been awarded the Two Chiefs' Partnership Award for one of the four Group Award Winners.

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.

A third focus area for quail and grassland bird habitat enhancement has been established on Wildlife Management Area lands in the Upper Coastal Plain. The area is comprised of approximately 7000 acres in 3 tracts. The project is designed to demonstrate effective quail and grassland bird habitat enhancement techniques on working agricultural and silvicultural landscapes. Management practices to date have consisted of pine thinning, prescribed burning, native warm season grass establishment, field border establishment, and Bermuda grass eradication. Quail and grassland bird populations are monitored annually through breeding season counts and quail are also monitored through fall covey counts and hunter success.

South Carolina's SAFE acreage (2,300 acres) was originally allocated to a three-county area in the lower coastal plain. In 2010, eligibility was expanded statewide, and 510 acres have been enrolled to date. Quail and grassland songbirds are the primary focus of the SAFE initiative, which will target whole-field retirement and establishment of native warm season grasses.

## **RESEARCH PROJECTS**

Two research projects examining the effectiveness of selected Farm Bill practices and the resultant population responses of northern bobwhite and other species have been completed under the USDA-NRCS/MSU Bobwhite Restoration Project.

One project was conducted in the upper coastal plain at the Pee Dee REC, and another project was conducted in the lower coastal plain on a private plantation. Both projects were conducted through Clemson University.

## **NBCI STATE PLANNING MEETING**

South Carolina held a NBCI Revision Meeting on December 4, 2008 in Columbia, SC. Twenty-six participants representing SC Department of Natural Resources, Farm Service Agency, US Fish & Wildlife Service, Department of the Army-Fort Jackson, Conservation Districts, Natural Resources Conservation Service, USDA Forest Service, SC Forestry Commission, Clemson Cooperative Extension Service, Tall Timbers and a private consultant identified opportunities and obstacles for bobwhite habitat restoration for the state based on expert biological and landscape knowledge. This landscape planning and conservation design workshop was conducted as part of the comprehensive NBCI revision.

Since the initial meeting in 2008, habitat rankings have been revised and current and potential quail densities have been estimated for all habitats in the medium- and high-ranked categories.

## **PERSONNEL CHANGES**

In March, 2010, Judy Barnes, DNR Small Game Project Biologist, Assistant Project Supervisor, and Farm Bill/Ag Liaison Biologist retired after 16 years with DNR and 13 years with the Small Game Project. Her talents and enthusiasm will be sorely missed.

# TENNESSEE

Roger D. Applegate & Mark J. Gudlin, Tennessee Wildlife Resources Agency

TWRA did not conduct its mixed mode small game harvest survey for the 2009-2010 hunting season. The Avid Hunter Survey was completed for the 2009-2010 season and continues to show a decrease in participation and increase in cost. Results of this survey have not been finalized but will be made available on the internet at [www.tn.gov/twa](http://www.tn.gov/twa) as soon as it is available. The mixed mode survey is being conducted for the 2010-2011 seasons.

Most of the past year has been spent in developing and writing a bobwhite restoration plan that and assisting with various aspects of the NBCI and three Joint Ventures. These activities have taken up the bulk of time. The bobwhite restoration plan should be complete and published by January 2011 and will identify specific focus areas and state owned anchors that will be provided to Joint Ventures and Landscape Conservation Cooperatives for use in bird conservation planning.

State Wetlands Maintenance funds have been used to jump-start habitat projects on several wildlife management areas that are being proposed as anchors for focus areas. Early successional habitat is being developed on these areas by use of pine thinning, prescribed fire, and gyro trac mulching machines. Gyro trac has been used to assist in expanding a native prairie tract that is part of a state natural area located adjacent to a wildlife management area. In other cases, these machines have been used to help clear firebreaks for prescribed burning. In the past wetlands funds have acquired significant upland areas associated with wetlands or hydric soils. Many of these sites provide significant opportunity for early-successional habitat development that will continue as long as funds are appropriated.

TWRA's Private Lands Wildlife Biologists have been busy working with landowners to put habitat on the ground. Additional allocations of EQIP and WHIP money were awarded to Tennessee. We currently have over 3,000 acres of SAFE Bobwhite Restoration Habitat in approved contracts, and another 3,000 acres of offers in some stage of the application and approval process. Although Tennessee was awarded an additional 2,500 acres of CP33, little activity has taken place due to lack of promotion by FSA. The private lands group is crafting some promotion for the fall. As with most other states, the one-week notification by FSA that CRP signup is to begin August 2 has us scrambling to prepare for the signup, as it was not until July 26 that there was any release of information such as the EBI, which is necessary to determine how practice standards need to be revised and recommendations developed for landowners as to how to maximize their chances of getting their CRP offers accepted.

# VIRGINIA

As you all know, Virginia's Quail Recovery Initiative began officially on July 1<sup>st</sup> 2009, thus we are but 3 weeks into year 2. Further you may notice we do not refer to it as the Virginia Department of Game and Inland Fisheries Quail Plan, as this has become a multiple partner effort. Below are pictured some of the members of our quail team. This was taken in early January before the second round of snow hit us. There are many, many more that we hope to recognize in the future.



Left to right: Drew Larson, Region 2 District Biologist, Marc Puckett – DGIF Small Game Project Leader, Carol Heiser – DGIF Outdoor Education Coordinator, Jay Howell – DGIF Small Game Project Leader, Tiffany Beachy, Ken Kesson and Katie Martin – Private Lands Wildlife Biologists, Galon Hall – USDA NRCS State Wildlife Biologist, Andy Rosenberger and Mike Budd – Private Lands Wildlife Biologists. Quail Focus Team Leaders not pictured: DGIF District Wildlife Biologists – Aaron Proctor, Todd Engelmeyer, Dan Lovelace, Bill Bassinger, David Kocka and Mike Dye.

There are many aspects of Virginia's Quail Recovery Initiative (QRI), but the three main levels, or layers are the 1) foundation, or rock, of cooperatively hired Private Lands Wildlife Biologists (PLWBs), 2) providing additional funding for quail habitat in target areas, and 3) establishing a Quail Management Assistance Program to function regardless of cost-share funding levels and over the long term. The first three sections of this report are based on those most important layers of the QRI.

## **Private Lands Wildlife Biologists:**

We were not able to advertise the positions until early September due to pending approval through the State Department of Planning and Budget. Once announced, with help from the Conservation Management Institute, we reviewed 79 applications, conducted preliminary phone interviews for 24, and in-depth phone interviews with 17 finalists. We were able to make offers by early November and the first PLWBs were working in Virginia by December 15<sup>th</sup>. All five were working by mid January. We were able to hire five outstanding biologists. These positions are year-to-year funded thus we are trying hard to find ways to guarantee funding for a longer period to give them more job security. Currently they are funded through June of 2011. They have integrated well into their respective USDA work environments. Their accomplishments have been many, but it is immeasurable the difference they are making by being in the USDA offices on a near daily basis. This has strengthened the relationship between all agencies involved.

In spite of heavy snows and generally bad weather for two months, our PLWBs still managed to accomplish an impressive amount of work. To date they have:

- **Made nearly 300 landowner site visits**
- **Helped establish or maintain over 6000 acres of habitat (2200 new acres – 3800 maintenance contracts)**
- **Nearly 30% of this habitat is in the 6 QRI target counties**
- **This habitat represents over \$500,000 in Federal funds and \$300,000 in DGIF funds (Wildlife BMPs)**
- **Participated in over 100 outreach events of various kinds, reaching a conservative estimate of 2000 landowners / professionals**
- **Helped conduct new quail call counts designed to develop quail density estimates**

These were tasks directly related to the QRI. They have also helped perform many other tasks for the USDA NRCS including threatened and endangered species reviews, conservation planning and contract follow-up and completed class work towards certification as USDA Level 1 Planners.

The PLWB's hiring and employment would not be possible without the partnership of the Conservation Management Institute at Virginia Tech and Executive Director Scott Klopfer's willingness to do so much to help. In addition, CMI's Ken Convery was the project leader for hiring the PLWBs and his organizational and human resources skills are what lead to a successful hiring process. The foresight of NRCS State Biologist Galon Hall and his supervisor Wade Biddux, and DGIF's Gary Norman was instrumental in developing this partnership. Special thanks are due NRCS Area Conservationists Julie Hawkins, Alvin Phelps, Louis Hiedel and Keith Boyd, and NRCS District Conservationists, Bobby Whitescarver, Rodney Williams, Rex Rexrodes, John Dille, Brian Saunders, and Raymond Cocke.

#### **Additional Funds for Habitat Enhancement (DGIF Wildlife BMPs):**

We would be remiss in this section if we did not thank our partners in the Department of Conservation and Recreation, and our friends in Virginia's Soil and Water Conservation Districts who have helped make this program a success. They are: Mark Meador, Gary Moore and Stephanie Martin – DCR State Office, Debbie Cross, Stacy Horton, Brian Powell, Mark Hollberg, and Wayne Davis – DCR District Coordinators, and John Kaylor, Greg Wichelns, Wayne Pierson, Stacy Bradshaw, Bruce Pearce, and Rachel Havens – target county Soil and Water Conservation District Conservation Specialists. There are also many behind the scenes in their offices that have helped keep this program on track. Many thanks to all of you!

The six target areas included: Augusta County (Headwaters SWCD), portions of Orange, Madison and Culpeper Counties (Culpeper SWCD), King and Queen County (Three Rivers SWCD), Sussex County (Chowan Basin SWCD), Halifax County (Halifax SWCD), and Wythe County (Big Walker SWCD).

Approximately \$300,000 in DGIF funds (of a potential \$900,000) were allocated through the Virginia Agricultural Cost Share Program and the target county Soil and Water Conservation Districts. Approximately \$150,000 was paid, and another \$157,000 allocated for payment upon practice completion.

By practice in acres:

- **WL-1 – Field borders – 180 acres**
- **WL-2 – Idle Crop Lands – 404 acres**
- **WL-3 – Fescue Conversion to Warm Season Grasses – 636 acres**

**TOTAL = 1220 acres**

Given the bad weather and snow cover, PLWBs had essentially 4 good months to promote the BMP program and we consider their results remarkable. They will have all of FY 2011 to allocate a guaranteed \$700,000 in BMP money with the promise of an additional \$200,000 if needed.

#### **Quail Management Assistance Program:**

The Quail Management Assistance Program in concept is planned to be the part of the QRI that functions through the long term when cost-share funding ebbs. Dollars for “buying” quail habitat are ephemeral and will not last forever at a high level. Quail recovery has to revolve around changing landowner attitudes towards weeds and brush. The real answer to quail recovery lies in developing a deeply felt appreciation for early-successional habitats such as grasslands, shrub lands and “weedlands.” The QMAP program comes with no new funding or cost-share. It is designed to link like minded landowners through a listserv, provide a forum for discussion of habitat management and success stories, allow quick communications with participants, track quail habitat management with or without cost-share attached, and develop landowner recognition. All participants receive an educational DVD and booklet, information on available cost-share programs and who to contact, a visit from a private lands wildlife biologist and a recognition certificate. We hope that this program will lead to the development of “quail quilts” or clusters of habitat in relatively small areas to affect portions of the landscape.

**So far QMAP is progressing well:**

- **Tracts enrolled – 53**
- **Landowners – 43**
- **Total Acreage – 14,289**
- **Acreage under active management – 3150**
- **Clusters of enrollees - Augusta (7), King and Queen / Essex – (8), Sussex (3), Orange (4)**

In the upcoming year we plan to develop an e-newsletter to help us better communicate with QMAP and Virginia Quail Council members.

### **Outreach Efforts:**

Outreach is key to all successful program delivery. During year one, in addition to the work of the PLWBs, our quail team continued to develop our listservs for the Virginia Quail Council (100 addresses) and the QMAP (43 addresses). Further, our website has been updated, we submitted articles to Virginia Wildlife (thanks to Sally Mills – Virginia Wildlife Editor for all her help), QU Magazine and Covey Rise newsletter detailing our Quail Recovery Initiative, and articles on the QRI appeared in the Richmond Times Dispatch, Wytheville News, and several local newspapers in Augusta County. Our biggest outreach effort last year was the mailing of information on the QRI and cost-share programs too over 4000 landowners in the 6 target areas. This had immediate results in increased queries to the PLWBs for assistance. We waited until February to conduct this mailing to allow all the PLWBs to get to know their work areas and local teams before the “onslaught” began. We plan to do 2 more mass mailings this year. We also helped conduct 3 workshops specific to quail management in southern Virginia which had a combined attendance of over 150.

We began work on our DVD titled “Answering the Call: Virginia’s Quail Recovery Initiative.” This DVD has been in the works since last September and we are excited to see it nearing completion. It should be ready for wide distribution by early fall. Thanks to Ron Messina and Lee Walker of DGIF’s Outreach Team, landowners Phil Bain, Eric Brittle (DGIF Fisheries Biologist) and Hudson and Pat Reese, consultant Jenna Shepherd, NRCS District Conservationist Brian Saunders, NRCS State Conservationist Jack Bricker, DGIF Director Bob Duncan, Galon Hall - NRCS State Biologist, Emily Horsley – Farm Services Agency Program Manager, Phil West – DGIF Lands Manager, landowner Mike Jones – NRCS retired, and some we may be forgetting (our apologies) for helping make this DVD possible.

### **Wildlife Management Area Quail Habitat Demonstration Projects:**

Amelia and Powhatan Wildlife Management Areas and New Kent Forestry Center were selected as our QRI quail habitat demonstration areas. Amelia and Powhatan are DGIF owned properties totaling about 6500 acres. New Kent Forestry center is a Virginia Department of Forestry property of approximately 500 acres cooperatively managed by DGIF and DOF.

**Collectively on these management areas 1190 acres of habitat improvements have been completed in FY 2009 and 2010. This includes timber thinning and burning, old field reclamation using forestry mulching, burning and herbiciding, open field burning, selective herbicide applications, field border and warm season grass establishment and food plot planting.**

Fall covey count surveys have been conducted on these areas in 2008 and 2009. Last year’s results showed slight increases in covey numbers from 2008 to 2009. Amelia averaged one covey of quail per 68 acres of suitable quail cover in 2008 and averaged one covey per 53 acres of suitable habitat in 2009. Powhatan WMA averaged one covey of quail per 320 acres of suitable habitat in 2008 and one covey per 106 suitable acres of habitat in 2009. It should be noted that sample sizes were small and highly variable. Our method of counting increases in accuracy as quail numbers increase. We will continue to monitor coveys on the areas through time.

We also worked with the Wildlife Foundation of Virginia on their Fulfillment Farms property in Albemarle County where they have applied quail management strategies for several years now. We have only one year’s data for Fulfillment, but were impressed with the number. There is one covey per

42 acres of suitable quail cover on Fulfillment Farms. A good target density for quail is one covey per 30 to 50 acres, so you can see these areas approach or exceed that level.

Thanks to all the hard work of the following people on the demonstration projects: Bob Turney, Jimmy Stinson, Drew Larson, Brian Moyer, David Ellinghausen, Steve Vandereit, Phil West, Donald Hayes, Jamie Moore, and Jenny West. Additional to these were those who helped us conduct fall covey counts – Joe Ferdinandsen, Mike Dye, Danny Johnson, Terry Allgood, Cale Godfrey, Jim Bowman...and our apologies to any we may have missed. There have been so many to help us and we are thankful to them all. We should have started a log book when this project began to see in the end just how many people worked together to accomplish something on a large scale.

### **Research and Monitoring:**

In August of 2009, DGIF Data Analyst Jay Howell was hired as the Small Game Project Leader for Research and Monitoring. It is a big task to try to track not only habitat improvement acres, but then also monitor those improvements and document wildlife response. This is critical to determining success. Jay is a wildlife biologist with a strong background in monitoring quail response to habitat improvements.

Jay developed a tracking and time accounting system for the 5 PLWBs that captures much of the needed information up front in an easy to query format. In addition, Jay began improving our quail monitoring protocol by testing new call count methods this June that will allow actual quail density estimates. Past methods have done well at documenting trends, but were not detailed enough to allow density estimation. Jay also worked with wildlife diversity staff to incorporate 8 songbird species of concern into the June Call Counts (eastern kingbird, meadowlark, towhee, field sparrow, grasshopper sparrow, grey catbird, indigo bunting and prairie warbler). Thanks to Sergio Harding, DGIF Diversity Biologist for his assistance in this effort.

Research is also ongoing in southwest Virginia investigating the potential of reclaimed surface mined lands for early-succession wildlife species. Dr. Dean Stauffer of Virginia Tech submitted a proposal for conducting a habitat suitability study for bobwhite quail on reclaimed mined lands in Wise and Dickenson Counties. Dr. Stauffer, with help from Mike Giles, Jon Lawson and Jerre Legg of the Department of Mines Minerals and Energy was able to line up numerous sites for sampling. Dr Stauffer found two excellent field technicians, Caleb Haymes – VT Senior, and Troy Pannell – recent VT wildlife graduate to conduct the less than glamorous but highly important vegetation work. Results should be available this fall. This may lead to further research in the area. The local coal companies have been very helpful in providing sites for sampling. They include: Penn-Virginia, A&G Corporation, Sigmon Coal Company and the Powell River Project/Red River Coal Company. Many thanks!

### **What about hunting???:**

Virginia's quail hunting heritage is of great concern to us. In 1973, Virginia quail hunter numbers peaked at 143,000. Today our surveys tell us less than 10,000 remain. Obviously bringing quail numbers back to huntable levels in many parts of Virginia is the biggest thing we can do for quail hunting. Until then, there are some things we can do now. We developed the "Upland Gamebird Trail" to promote Virginia's commercial hunting preserves. It is available on our website and was published in Virginia Wildlife in February of 2009 as a "stand alone" pull out center section. Thanks to author Clarke C. Jones for his interest in moving this forward. We have also promoted Virginia's hunting preserves via our



hunting digest every year since 2009. In this year's digest on page 39, adjacent to our small game regulations, is a bordered paragraph highlighting Virginia's hunting preserves with information on how to find out more. In 2009, all 27 of Virginia's commercial hunting preserves were interviewed by phone to gauge interest in their hosting of free quail hunts, particularly for young hunters. Nineteen replied they would be interested. We hope to focus on this aspect this year. There are legalities and logistics to work out. We continue to try to find unique quail hunting opportunities with partners and are open to suggestions.

Additionally, we have opened two new lottery quail and rabbit hunts. Though limited in scope, they offer successful applicants a chance to hunt wild bobwhite in areas with no other quail hunting pressure. The hunts are at New Kent Forestry Center (thanks to Phil West and the VDOF staff) in New Kent County, and at Fulfillment Farms in southern Albemarle County (new this year – thanks to Jenny West and the Wildlife Foundation of Virginia).

Much more has been done, but we will not run on. Undoubtedly we forgot to list many folks who have helped us. This document does not include all the folks who have attended the Virginia Quail Council meetings, though many have helped in other ways and are recognized above. We only hope we have thanked everyone along the way and that they all know they are appreciated.

#### **Acknowledgements:**

In addition to those recognized above, we thank the following people for their help along the way and offer apologies to those we undoubtedly missed:

Chris Burkett – DGIF State Wildlife Action Plan Coordinator, Dave Morton – DGIF GIS Program Manager, David Murr and Tim Tassitano – DGIF webmasters, Suzie Gilley – DGIF Project Wild and Outdoor Education Coordinator, Carol Kushlak – DGIF Graphics Designer, Rick Busch – DGIF Assistant Director of Wildlife, Dan Soloman – NRCS, Ken Carter NRCS Retired, Emily Pels – DGIF Illustrator, Reggie Arrington – NRCS, Jason Fisher and Neil Clark – Virginia Cooperative Extension, Dan Hammond and Andy Jones - H&H Forest Management.

From other states: Reggie Thackston, Theron Terhune, Craig Harper, Bill White, Bill Palmer, Billy Dukes, Don McKenzie, Aaron Jeffries, John Morgan, Tom Daily, Mark Jones, Clay Sisson, and others we have certainly missed.

## CHAIRMAN'S ADDRESS

Good morning, and on behalf of the National Bobwhite Technical Committee Steering Committee, I want to welcome you to our 16th Annual Meeting, the first 15 as the Southeast Quail Study Group. I also want to extend my sincere thanks to Kansas Department of Wildlife and Parks Commission Chairman, Kelly Johnson, Fisheries and Wildlife Division Director, Joe Kramer, Jim Pitman, Tonya Hoeme, and all of the staff for your efforts in hosting this meeting. South Carolina DRN hosted the joint meeting of the Southeast Quail Study Group and Southeast Partners in Flight last year, and believe me when I say I can fully appreciate the time and effort that goes into making this meeting a success.

I'm proud to say that I have attended all of the previous Southeast Quail Study Group meetings, and it has been particularly gratifying to see several things occur over the years. We have maintained a core of original members and we continue to recruit new members into our ranks, from both the game and non-game arenas. Through the years, we have maintained our focused, problem-solving working group approach to bobwhite restoration. The NBCI has been widely-recognized as a model for bird conservation planning efforts, both for its scale and for its approach of setting specific habitat and population goals.

As my tenure as NBTC Steering Committee Chair nears its end, I would like to point out some of the significant accomplishments which have occurred over the past two years.

- 1) In 2009, as a group we held our first-ever joint meeting with Southeast Partners in Flight, further cementing our solid relationship with that group. This relationship will continue to pay dividends for bobwhites and non-game birds for many years to come.
- 2) As an organization, we have undergone a name change and group expansion from the Southeast Quail Study Group to the National Bobwhite Technical Committee, engaging all states within bobwhite range with the NBCI becoming a truly rangewide initiative in the process.
- 3) We have established a permanent home and operations center of the NBCI at the University of Tennessee, increasing capacity and stability of the Initiative.
- 4) We have established an NBCI Management Board to provide high-level guidance, leadership, and support for the NBCI.
- 5) Along with several partners, including the American Bird Conservancy and Southeast Partners in Flight, we have been successful in securing a grant for an Eastern Grassland Birds Initiative, a keystone initiative of the National Fish and Wildlife Foundation. This grant has allowed us to hire the necessary resource, technical, and outreach personnel to begin making even greater strides for bobwhite conservation in various resources arenas and get the word out on the many great things we are doing for bobwhite and grassland bird conservation.
- 6) Another significant accomplishment is the signing of an MOU between the NBTC, the UT Institute of Agriculture, and FSA to establish an IPA position in the National FSA

Office in Washington, allowing us to provide biological and technical input into FSA conservation programs and practices.

- 7) Finally, the new and improved NBCI is nearly completed. This significant technological leap forward will again position the NBCI and the NBTC as leaders in the bird conservation arena.

I want to make it perfectly clear that I'm not taking credit for these accomplishments, only pointing out what we as a Group have accomplished through our combined efforts. None of these accomplishments would have been possible without the hard work and dedication of our Committee Chairs, our bird conservation partners, individual state wildlife agencies, and many of you in this room.

As this is maybe my last opportunity to address the whole group, I would like to pass on a few messages:

- 1) This challenge that we have embraced, the challenge of restoring bobwhites to huntable levels across the range of the species, is a marathon not a sprint. Most of us are goal-oriented and results-oriented, and we like immediate success. Embrace and savor the small victories, but dig in your heels for the long haul.
- 2) I encourage each of you to take the calls for nominations for Steering Committee positions each year seriously, and nominate one of your peers, or nominate yourself! If you have time, energy and passion for bobwhites, you're qualified! Likewise, consider nominating one of your peers for the NBTC Annual Award. There are lots of deserving folks out there who deserve a little recognition and a pat on the back.

Before moving on to the Committee Charges, I would like to take this opportunity to announce tentative plans for the next three NBTC meetings. The 2011 meeting will be in Florida, likely in the Tallahassee area. The 2012 meeting will be in Abilene, Texas, and the 2013 meeting will be at a location to be determined in the Commonwealth of Virginia. The fact that we are now able to plan our meetings three years out says a great deal about the stability of the NBTC and the NBCI and the commitment of our member states and partners.

At the 8<sup>th</sup> Annual Meeting of the Southeast Quail Study Group in 2002 in Waynesboro, Georgia, then-Chairman Mark Gudlin offered these words of advice and council.

*"As we move to make the NBCI a truly national plan, it is likely that the very structure of our group will need to change to officially include the full membership of quail range states. As we do, we need to keep in mind that what makes the Southeast Quail Study Group unique is that it is a dynamic working group, not just a study group. The annual meeting is primarily a working session where we develop strategies that are acted upon throughout the year. To remain effective, I strongly believe that we need to continue to embrace this structure."*

Now the change that Mark spoke of, becoming a rangewide group, has become a reality, and I would echo his comments on the importance of our Standing Committees and working group format.

I strongly encourage each of you to attend the meetings of one of the Standing Committees, participate fully in the discussions, and assist the Committee Chairmen with post-meeting and between-meeting assignments and issues.

The following Chairman's Charges were developed with input from the respective Committee Chairs.

Ag Policy Committee – Chuck Kowaleski, Chairman

- 1) Provide a regionally-based, or state-by-state, briefing to the NBTC FSA Liaison, Bridget Collins, of obstacles, issues, successes, and lessons learned in dealing with CRP.
- 2) Identify needed changes to the 2012 Farm Bill.
- 3) Discuss opportunities for “Quail and CRP” field training crash course for Bridget.

Forestry Committee – Reggie Thackston, Chairman

- 1) Meet jointly with the Grasslands/Grazing Lands Committee to discuss common issues related to the use of prescribed fire, and make recommendations to the Steering Committee related to the need for a separate Prescribed Fire Subcommittee.
- 2) Provide a regionally-based briefing to the NBCI Forestry Coordinator, Mike Black, of forestry issues, opportunities, and obstacles to habitat improvement for bobwhites throughout the species range.
- 3) Assist NBCI Forestry Coordinator in identifying potential target audiences, partnership organizations, and forestry-related habitat issues to be addressed in the next year.

PRI&E Committee – Elsa Gallagher, Chairperson

- 1) Develop an annual public relations/outreach plan for the NBTC which includes lists of target media outlets and annual press releases like announcement of the annual meeting and award winners.
- 2) Provide information and orientation to NBCI Outreach Coordinator, John Doty, on web site structure and content for both the NBCI and the NBCI.
- 3) Provide a report and recommendations on the revision and reprinting the Bobwhite Basics brochure.

Research Committee – Nathan Stricker – Chairman, Theron Terhune – Vice Chair Presiding

- 1) Identify the proper metrics for reporting progress on NBCI habitat and population goals, and discuss the mechanics and logistics of compiling and archiving that data.
- 2) Discuss existing and proposed monitoring programs of Farm Bill practices which will add value to overall monitoring and reporting of NBCI progress.
- 3) Present and discuss scientific and technical aspects of NBCI revision, with opportunity for input and questions by Committee members.

- 4) Discuss the role of the Research Committee and individual members in advancing bobwhite conservation through LCC's.
- 5) Define the role of the Research Committee in the Quail VII symposium, specifically with respect to editing and publication of Proceedings.

Grassland/Grazing Lands Committee – Dr. Dale Rollins, Chair

- 1) Meet jointly with the Forestry Committee to discuss common issues related to the use of prescribed fire, and make recommendations to the Steering Committee related to the need for a separate Prescribed Fire Subcommittee.
- 2) Develop regionally-specific BMP's for converting tame pastures to Native Warm Season Grasses (from 2009).
- 3) Compile and compare economics of grazing Native Warm Season Grasses versus tame pastures on a regional basis.
- 4) Develop a plan to better integrate biologists with Extension agronomists, the American Forage and Grasslands Council, and other grazing lands specialists and associations.

ALL Committees:

- 1) Convene a brief meeting of Committee Chairs to discuss items and issues of mutual interest and possible joint recommendations.
- 2) Hold elections for Vice-Chairman positions in committees where appropriate
- 3) Provide, as part of your written Committee reports, the names of your Committee Chairs and Vice-Chairs and dates of term expiration.

Finally, I want to say THANKS:

To the Steering Committee, thank you for your dedication and commitment to the NBTC, the NBCI and bobwhite conservation.

To Don McKenzie - thank you for being the engine and the fire behind the NBCI. I personally, and the NBTC collectively, owe you a debt of gratitude for shepherding the NBCI to its current level of respectability and prominence.

To Pat Keyser and Keith Belli, thank you for being supporters and advocates of the NBCI at UT. We wouldn't be where we are today (literally) without your support.

To Tom Dailey, who will be stepping down as Chair-elect of the Steering Committee and assuming the position of Assistant Coordinator and Science Coordinator for the NBCI, thanks for all your hard work. Tom was largely responsible for the revisions to the new NBTC website at [www.bobwhitetechn.org](http://www.bobwhitetechn.org).

To Dave Godwin, who will be rotating off the Steering Committee after fulfilling his 6-year commitment as Chair-elect, Chair, and Past-Chair. Thank you for your leadership and guidance through some big changes for the group and the NBCI.

Most of all, I want to say thanks to you, the members of the National Bobwhite Technical Committee, for your vote of confidence in allowing me to serve as Chairman of your Steering Committee for the past two years. It has been a supreme honor and privilege to serve, and I'm sure that I will count this experience as one of the highlights of my career. Thank you.

# AWARDS

## 2010 NBTC Annual Award

The National Bobwhite Technical Committee (NBTC) presented the 2010 NBTC Annual Award to Dr. Bill Palmer during the group's annual meeting in Wichita, Kansas. Bill has been actively involved in the NBTC (formerly SEQSG) having served as chair of the Research Committee (1999-2000) as well as serving on the Steering Committee (2003-2005). He has coordinated and guided the NBCI revision, using a novel approach including a spatially explicit GIS analysis and interactive process on a state-by-state basis to identify landscapes with greatest potential for bobwhite restoration. This revision process has included inputs from 100's of biologists/managers encompassing the bobwhite's range. Bill has provided valuable leadership and greatly contributed to the strength and credibility of the NBTC and NBCI through his involvement.



In addition to his involvement in the NBTC and NBCI, Bill has been a leader in the quail research field through his position as Game Bird Project Leader at Tall Timbers Research Station since 1997 where he currently serves as Senior Scientist and Associate Research Director. Bill also conducted Game Bird research through his graduate work at both Mississippi State University and North Carolina State University. Bill's work is known for its scientific credibility as well as its practicality, a rare combination in today's world. His academic achievements include 55 scientific publications and 20 extension and popular articles. Bill has made numerous presentations to professional groups as well as lay groups at meetings and field days across the bobwhite range. He has also developed and disseminated high quality quail research/management information through the Tall Timbers Research Station website and outreach programs. He has mentored 25 graduate students at several universities where he holds adjunct appointments and has served on eight student's committees. Most of these students worked on game bird related topics and currently serve as professionals in the field, continuing to wave the banner for bobwhites. In fact, seven of these biologists are working in four Southeastern States (GA, AL, SC and FL).

Bill has been and continues to be a strong advocate for prescribed fire at frequencies needed to restore and maintain fire dependent ecosystems to benefit bobwhites and other grassland obligates. During this past year he traveled to Washington DC and assisted with presentations to US House and Senate Ag Liaisons and to USDA leadership on the need for Pine Savanna Restoration to meet NBCI goals and objectives.

Much of Bill's work has been ground breaking and innovative and has made strong contributions to the understanding of bobwhite ecology and management. His accomplishments include cutting edge research on pesticides, field borders, supplemental feeding, predation management, census techniques, brood ecology, genetics, and remote camera monitoring of nest predators. Bill is considered by professional biologists and landowners alike to be a leading expert in the field and looked to often for his advice and experience on quail management issues. In 2005 with the threat of bobwhites being listed as a species of special concern in Florida Bill organized the first bobwhite summit to address bobwhite management on state and federal public land in Florida. From that meeting the UERP (Upland Ecosystem Restoration Project) coalition was started to address timber volume issues and prescribed

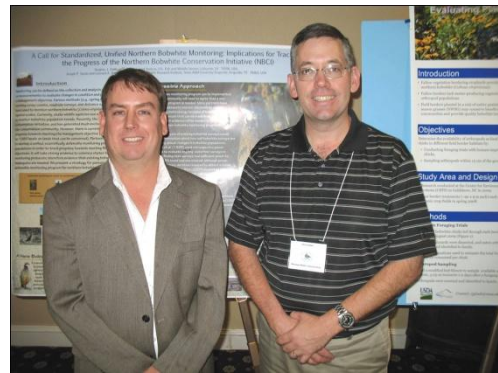


fire uses on public lands that had potential for bobwhite and early successional species. To date, the project is working on 9 public land sites and impacting 90,000 acres of potential bobwhite habitat.

Although grounded in science, Bill remains practical as well as management and hunting oriented. He is an avid bird dog trainer and quail hunter, which contributes to his abilities to communicate effectively with landowners, managers and hunters. Dr. Palmer's efforts through research, management and outreach have positively impacted many thousands of acres for bobwhites and other grassland species, and continue to make strong contributions to restoring, sustaining and increasing bobwhite populations. Congratulations to Dr. Palmer for this well-deserved award.

### **Past Chairman's Award**

Outgoing Steering Committee Chair Billy Dukes (left) recognized Dave Godwin (right), Past-Chair, for his outstanding contributions as Steering Committee member and Chairman of the NBTC Steering Committee. Godwin served as Chair of the Southeast Quail Study Group (SEQSG) from 2004-2006. During his tenure as Chair, he initiated the NBCI revision process, began the process of expanding the SEQSG to the NBTC, and conducted a nationwide search that resulted in the establishment of a permanent home and operations center for the NBCI at the University of Tennessee.



**COMMITTEE  
REPORTS &  
BUSINESS  
MEETING  
MINUTES**

# AGRICULTURAL POLICY SUBCOMMITTEE

Chair: Chuck Kowaleski

## Day 1:

Intros

Charges to Committee from Billy Dukes

Intro Bridget Collins; planned tour through TX, OK, other states

First Order: Elect Vice-Chair

Nominees: Mike Sams, James Tomberlin: Mike then declined, James Tomberlin voted in

Actions since last meeting:

Chuck discussed background of idea for FSA liaison at previous SEQSG meeting in SC; David Hoge, NWTF took the torch to work with Don McKenzie to get position established. Bill White, Chuck Kowaleski and others drafted grant that was accepted to provide support funding. This grant had a quick turnaround. In September the AFWA grant was considered, voted on and accepted. MOU signed at AFWA spring meeting. Bridget was hired May 13, 2010.

BCAP rule. Comments by committee were submitted to USDA in April.

1. CP33 – first national habitat practice directed at upland birds. FSA however required monitoring component. CP38 was extension of this effort. Sally Benjamin pushed this idea within FSA. First practice for states to submit ideas for wildlife practice proposals. Typically, most states that have been successful have had field personnel available to actively promote on the ground. Some states had “turn-key” programs where the agency did the work required. TX – mixed grass with sage (lesser prairie chicken) SAFE is starting to have success and currently has more acres in applications than remaining in its allocation.
2. What are issues on CRP programs with other states
  - a. Troy Schroeder – would like to see managed grazing occur on CP25 (declining habitat). Keith Jackson – need to make this a state by state decision, only if concurrence by state wildlife agency. This is due to fact that CP25 composition varies so much between states.
  - b. Dave Howell – Asked for input regarding the possibility of adding a high intensity, short-term grazing practice for CRP mid-contract management. He had been approached by a grazing specialist with NRCS in Indiana about this. Chuck: would want to run this idea by the duck groups. Troy – what is preventing this from being done right now; is this state or national issue. Gudlin: concern about lack of compliance, too intensive grazing of stands. Mark asked Chuck to clarify the specifics of what is going to be allowed to happen on managed h/g –

how much reduction of payments, any percentage of the stand to be left not impacted by the managed h/g? Chuck – it is a 25% reduction in payment (Chuck got a sneak peak at the manual with the details). Emergencies, managed harvest for biofuels, incidental grazing, prescribed/routine h/g. Chuck – some concern on not enough return to LO; needs to be commensurate with local grazing rates; get rid of current “one size fits all” 25% reduction. Mayberry – we already have county marginal pastureland rental rates. McGuire suggested that routine h/g be different rates from emergency h/g; lose more wildlife benefits with emergency. Chuck: emergency h/g should also have an interval restriction, as this can occur too often and damage the stand and/or significantly reduce the wildlife benefits. If, via climate change, we see more severe weather patterns, we need to take more caution in how grasslands protected; recommend implementing the same state set allowed grazing interval regardless of routine or emergency; maybe if emergency then less reduction in payment than if routine. Different impacts on haying than on grazing. In TX, can graze a month earlier than hay (NOTE: ask Chuck whether this is good or bad). Chucks’ note: both area biologists and the Department’s ornithologist aren’t worried about grazing during primary nesting/broodrearing season if it is done within NRCS specs.

- c. Troy Schroeder: haying issue. Following NWF lawsuit on h/g issue. When FONSI came out, the restriction on only being able to h/g 50% of stand disappeared. It is bad that they took the restriction out. Why did they do this? Emergency haying is restricted to 50%; routine grazing (haying?) should be the same. Recommend finding out why restriction was taken out, and lobby to get it put back in again. Chuck’s addition – many fields are just old cropland fields and don’t have fencing, water sources. Biomass harvesting could also become a big issue.
- d. Chuck – concern about Miscanthus (exotic) being promoted for biofuels. Does not have high metals content like other biofuels that leave a slag on boilerplates which subsequently need to be cleaned. CRP is being considered as a source for biofuels material or lands to grow biofuel crops. New rules for harvesting biomass; rental rate reduction of 25% applies.
- e. Gudlin: might need to look at the whole concept of LO profit off of CRP land, both during and after the contract term. Increasing emphasis on providing profit to landowner, both during and at end of contract term. Need a good discussion prior to next Farm Bill. Are profits overriding environmental benefits? Is there now a better case for pine straw harvesters to get that approved.

- f. Mid Contract Management – need to change wording to reduce restrictions on applying management to just certain years of a contract, and could start MCM during year 1 on reenrollments.
- g. Mike Sams – question on CRP Environmental Benefits Index and points towards Enduring Benefits on trees vs. grasses; trees currently rate much higher than grasses for carbon sequestration. Need to look closer at scientific data; some indication tall native warm season grasses (nwsg) can sequestration almost as much as trees.
- h. Mayberry – Marginal (near water) Pastureland Wildlife Habitat Buffer CP29 - question on site eligibility. Gave story on how TN was able to get approval of practice. Answer from national depended on how we phrased that question.
- i. VA – no guidance on killing the grass (esp. exotic) before planting the trees. Actually often need to spray twice and current 2 year cover establishment window may be too short to do the job properly.
- j. Any developments on removing practice caps? Problem with removing the caps is that CCRP practices are typically more expensive; if cap removed, where does the extra money come from. Potential threat: could be non-wildlife practices come up and rival the wildlife practices. Figert suggested that individual states could have caps; if state hasn't reached cap in 2 years, open it up. Problem with caps – if you're successful in interesting LOs, then you have to shut things down and get the momentum going again. Would be nice to be able for states to have flex to shift CCRP capped acreage from one practice to another. Also, why only caps for wildlife CCRP practices (e.g. CP8 not capped)?
- k. (VA) Increase minimum CP33 widths to 50 foot. Group recommended that could be done at state level in standard.
- l. Keith Jackson (MO) – the problem with FSA continuing to shift CRP eligibility years; (i.e. 2002 FB required cropping history 4 out of 6 years from 1996-2001, 08 FB changed that cropping history to 2002-2007) is it can encourage breaking out of new land. Probably more of an issue in Great Plains and western states with native prairie. Some LOs intentionally farm new land in order to later put it in CRP.
- m. Gudlin brought up the issue of extremely short lead times on CRP general signups. Chuck said that LO will have opportunity to back out of a contract (w/in a certain amount of time) but only if there are significant changes in final conservation plan from initial (temporary) conservation plan.

- n. Howell: CP33 – anything we need to consider regarding recommending changes that would make the practice better and/or more attractive to LOs? Wider minimum width; extra 20% rental payment. Use as turnrows; pros and cons.
3. Monitoring of wildlife practices. FSA seems now to be in the pattern of requiring monitoring on any new wildlife practice. Recommended that if another practice comes up and FSA wants us to monitor, they set aside enough (certain % of program) to fund monitoring, and they ask us for a monitoring protocol to go along with it. Figert suggested that if we (wildlifera) request a new practice, we design in a monitoring component.
  4. How are states doing with quail populations? Any new or innovative approaches that we are using?
    - a. KY – quail may have stabilized over last 8-10 years. Have good cadre of biologists (15 cooperative NRCS biologists). HIT Teams (Dave Howell) explained further. Struggling with ways to get good continual mgmt. on the ground.
    - b. OK – cooperative agreement w/WHIP. For every \$1 being contracted, only \$.38 is being spent. Are other states having that problem? Figert – benefit of cooperative biologists is that they keep in closer touch with LOs and prompting them to get their practices done. TN and IA – using screening tool and shorter contracts to increase % of money obligated actually being spent. Chuck (TX) – have been hammered this year with 2 of their initiatives, put out without much consultation with TPWD. USDA in rush to spend money does not get it spent well (NOTE; get better explanation from Chuck as to the problem here). Chuck’s note: Early indications are that of the nearly \$5 million in EQIP and WHIP spent on the lesser prairie chicken initiative in Texas, a lot was spent outside the core area and might have negligible short term impact. Actual figures for money and acreage: 51.5% of WHIP \$ and 61% of WHIP acres; 64.5% of EQIP \$ and 74% of EQIP acres were in core LPC counties.
    - c. TN – just scrambling to address demand and get people enrolled in SAFE, EQIP and WHIP (including CCPI), and waiting for go-ahead with CP29 practice.
    - d. TX – expanded core range on lesser prairie chicken SAFE areas .
  5. McKenzie interrupted meeting to mention John Doty, as new NBCI Outreach Coordinator, is available to assist committees in addressing their strategies through his expertise.

6. Figert – would like to see WHIP go to block grants to state fish and game agencies; one reason is to reduce paperwork, especially shorter/easier contracts.
7. “Quail and CRP” trainings are in the works for Bridget Collins. TX, OK, KS; KY, TN, GA, MO. This is our chance to help her understand the issues. Chuck said upper Midwest should also think about it.

Day 2:

Discussions continued on using farm bill programs for improving quail habitat.

Chuck – have used EQIP for special projects, about \$1.5M per year in focus area projects for quail and other at-risk wildlife. However, as of last year NRCS moved EQIP resource areas to WHIP. Chuck was worried that WHIP funding is lower and more erratic than EQIP and could reduce the amount of work being done for quail.

Keith Jackson (state) – they had a “quail bundle” of practices grouped together

McGuire – use argument that wildlife should be considered across all programs; incorporate wildlife adequately in ranking. Use wildlife friendly practices in the state level ranking.

Figert – have 3 “grassland focus areas”. Hard to track some of accomplishments through NRCS tracking system. Also have Forestry focus areas that are basically savannah creation. However, not sure how much success we are actually having on the ground.

McGuire – We are missing on Local Working Group (LWG) avenues in EQIP. Is there some way to get these local groups to be a littler broader (in participation; in theory they do include wildlifers and other groups, but in reality not always have many other groups). Figert – in KY, only the DC and SCD in each county have a vote. Wildlifers can come but don’t have a vote. So even if you have good coordination at national and state level, local level is still a big key in getting good practices on the ground. Varied implementation among and within states. Sams – been getting ~\$500,000; approaching 5<sup>th</sup> year; now getting kickback wanting to shift wildlife emphasis in EQIP. Mayberry – in TN, have forest resource mgmt. plans in EQIP that pay for LO to hire forester to develop forestry plan. Figert, Sams – problem in NRCS tracking is that any tree planted is counted as a wildlife practice.

TN Bobwhite and Pollinator CCPI in the works

TX CCPI – removal of salt cedar and planting of cottonwood; another CCPI on Houston toads, some of habitat work in both should be of benefit to quail. CIG grant - native prairie restoration; do have quail w/o shrubs or woody vegetation in area; idea was to show LOs that they could take rice fields or Bermuda grass areas and convert back to native pasture. Sams –Soil Conservation Districts in OK submitted CIG proposal to buy and sell “wildlife credits”; not sure if this has been approved.

2012 Farm Bill issues to address:

1. Better follow through in LWGs getting invites to the other resource/NGO groups to participate in the meetings. Make sure language in the FB addresses this.
2. Need stronger language about wildlife being a co-equal resource in EQIP. Reminder that wildlife and forestry agreed to give up FLEP in 2008 FB in return for stronger emphasis in EQIP.
3. CRP – shoot for 45 million acres

4. CCRP acres not to count as loss of base acres (affects DCP payments). Some “double-dipping” resistance to this discussed.
5. EQIP – reduce the 60% requirement to be spent on livestock issues.
6. Sodbuster and Swampbuster provisions. If you break out any native prairie, lose insurance, USDA benefits.
7. CRP – don’t change the eligibility years anymore.
8. Longer term CRP – sign up for 20 to 30 years at reduced payment, but allow some limited use. Would essentially be CRP structured more like GRP.
9. Prior to making recommendations, need whole-program review of CRP and how it addresses income (both during and after contract) and its impact on wildlife benefits. This needs to encompass the emergency and routine h/g, any percentage required to be left unhayed/ungrazed. In TN/KY, most fields are not set up to be grazed (no fencing, water sources). Difficulties foreseen in compliance even if do get incorporated.
10. How do we address energy harvests, which will be a push by non-wildlife interests in Farm Bill? How might this tie in for CRP cap? Maybe request any CRP energy acres be added on top of existing CRP national cap.
11. CSP – is anyone getting what they want out of CSP? Paying landowners but getting little to show for it on the ground. E.g. forestland owner getting paid for several thousand acres that gets credit for putting up a few bird boxes. Allow states opportunity to enhance the enhancement criteria. Even if worked right, not enough money nationwide.
12. A lot of interest in Voluntary Public Access (VPA); will have to see whether the implementation will be good.
13. EBI – analyze what the changes were from previous EBI, and evaluate how it worked after the Signup 39 enrollment is complete. 4.4M acres expiring this year, 4.4 M acres in 2011, 6.5M acres in 2012. Can we expect signups the next 2 years? **ACTION ITEM: Work on recommendations for EBI after signup 39. Both NBTC recommendations and work with AFWA. Need to include Grassland and Forest Subcommittee recommendations also. One recommendation – get rid of the wildlife water development points.**
14. Chuck will send out BCAP comments and final CRP-2 Manual to all. (Chuck’s note – Done)
15. Need to define what “pollinator habitat” is, how to manage it (MCM practices). Is a national standard being developed on this?



16. Allow haying/grazing on CP25, where grasslands are a component. May need to be a state option with state wildlife agency concurrence. Under national standard, is not allowed except for “in appropriate manner on appropriate acres” (?).
17. Dave Howell raised issue of requirements of lime and fertilizer on native grass plantings. Typically has been state by state issue. Concern whether seeing it required/desired on biofuels stands for maximum production.
18. Chuck suggested promoting a 10-year Farm Bill instead of current 5 year version. It takes 2-3 years to get new rules written and approved then Congressional meetings begin for the next Farm Bill. Longer farm bills would allow more program stability and landowners to adjust to latest rules.

#### AG POLICY SUBCOMMITTEE REPORT TO MEMBERSHIP

By Chuck Kowaleski

1. James Tomberlin elected to Vice Chair position.
2. Introduced Bridget Collins and her mission within FSA. Committee voiced concerns on CRP. Discussed additional states training sessions for Bridget: TX, OK, KS in September and KY, TN, GA, MO also.
3. Discussed many issues by program, and potential improvements we’d like to see in the 2012 Farm Bill.
4. **ACTION ITEM: Work on recommendations for EBI after signup 39. Both NBTC recommendations and work with AFWA. Need to include Grassland and Forest Sub-committee recommendations also.**
5. Concern about how BCAP and biofuels issue might impact CRP (and potentially other programs) and quail habitat in the future.
6. Bridget had submitted comments from a select group on the new EBI. There was a one week window that FSA gave to do so, and did not want to have the draft EBI widely distributed.
7. Developed a list of Farm Bill concerns to address in upcoming venues.

# FORESTRY SUBCOMMITTEE

Chair: Reggie Thackston

Chair, Reggie Thackston opened the meeting with introductions of attendees. Fourteen participants signed the attendance list.

Mike Black was introduced as the new NBTI Forester and Forestry Sub-committee Liaison.

Reggie reported that the Forestry Sub-committee drafted 2 letters (attached) that were sent by the NBCI Chair:

1. Supporting emphasis on active forest management in the NJ Pinelands National Reserve Comprehensive Management Plan to support viable populations of bobwhites and other grassland obligates.
2. Recommending changes to CRP tree practices so as to provide producers with economic incentives for heavy thinning and frequent prescribed fire to establish and maintain woodland savanna.

Reggie provided an update on the trip that he and Bill Palmer made to Washington DC in June to meet with House and Senate Agriculture Committee staff and USDA leadership to discuss the need for a woodland savanna initiative. The trip was coordinated and facilitated by Dave Nomsen and Kim Price with Pheasants/Quail Forever and Jen Mock-Schaefer with AFWA.

Don McKenzie addressed the committee, pointing out that the Outreach Committee needs to integrate and support NBTC resource committee needs. The Forestry Committee identified the following areas where the Outreach Committee could provide support to the Forestry Committee:

1. Explain and promote the importance of woodland savanna
2. Explain and promote the value of early successional habitat
3. Explain and promote the necessity of prescribed fire for maintaining healthy forest ecosystems

The need for a definition of “woodland savanna” was discussed. Most definitions are subjective and are subject to varying interpretations. There is a need for objective and quantifiable definitions to promote consistency in terminology and practice standards. Additionally, nomenclature and definition is needed to describe the desired forest condition such that policy and program administrators, and landowners can better visualize the forest overstory and groundcover. The committee reviewed other efforts to define this type and agreed to adopt the following:

Across the NBCI Range Woodland Savanna is comprised of two primary types: 1) Pine Savanna; and 2) Oak/Hardwood Savanna. The NBTC Forestry Sub-committee agreed that ideally for bobwhites these forest types should be quantitatively defined/managed as follows:

## 1) Pine Savanna

- Pine forests maintained through time at 40 to 60 square feet per acre basal area; or pre-commercial pine forests stocked at less than 605 trees per acre; or pine forests with 40% to 60% canopy cover; and

- Greater than or equal to 70% herbaceous native ground cover; and
- A 2 year fire frequency

2) Oak/Hardwood Savanna

- Predominately hardwood forests maintained through time at 20 to 50 square feet per acre basal area; or 40% to 60% canopy cover; and
- Greater than or equal to 70% herbaceous native ground cover; and
- A 3 year fire frequency

The committee had a general discussion of what is working and what is not regarding forestry provisions of the Farm Bill. The following issues were identified and discussed:

1. There is significant funding in EQIP, but in many cases this is not being used for forestry practices
2. Even though funding is available for prescribed burning there is a shortage of practitioners
3. EQIP contracts are relatively short, so fewer burns are accomplished
4. There is a need to pursue EQIP funding for pine savanna restoration
5. CRP compliance and monitoring are issues that need to be quantitatively assessed to make sure that programmatic intent is being fully achieved on the ground.
6. Incentives for heavy thinning and frequent fire are needed in Farm Bill programs for lands with and without cropping history

As charged by the NBCI Chair, the Forestry and Grasslands/Grazing Committees met jointly to consider whether a stand-alone subcommittee is needed to address prescribed fire issues.

Concern was expressed that since prescribed fire is such an integral part of forest and grazing land management, that the practice cannot be separated.

The joint committee attendees decided to recommend an *ad hoc* committee composed of up to 2 members of each standing committee. These members should be selected by the respective committees. Initially, this Prescribed Fire Committee should have a 2-year life-span and the need for continuing the *ad hoc* committee or making it a separate subcommittee can be reevaluated. Charges to the Prescribed Fire Committee were identified as follows:

1. Consider barriers to implementation of prescribed fire (compile information already available)
2. Address frequency and seasonality issues
3. Promote the need for prescribed fire in cooperation with the Outreach Committee
4. Summarize current cost-share programs, certification requirements, burn laws, prescribed fire councils, etc. – it was thought that most of this has been done and is available
5. NBTC needs to participate in the Assoc. of Prescribed Fire Councils and other relevant efforts

Mike Black and Russell Walsh were selected as the Forestry Committee representatives to the Prescribed Fire *ad hoc* Committee.

It was reported that the East Gulf Coastal Plain Joint Venture is working to develop Desired Forest Conditions (DFCs) for the upland forest systems in the EGCP. There was discussion that the DFCs need to be broad enough to encompass the variety of conditions needed by bobwhites.

It was reported that the West Gulf Coastal Plain Joint Venture has developed a framework for the development of Conservation Delivery Networks (CDNs). CDNs create a structure to facilitate implementation of regional conservation efforts and encourage interagency cooperation.

State Wildlife Action Plans (SWAPs) are being rewritten and bobwhite advocates need to become involved to get NBTC objectives incorporated. It was recommended that bobwhite focal area maps be incorporated in SWAPs.

Forestry Committee vice-chair, Fred Kimmel, will resign after this meeting because of a change in job duties. Chuck McKelvy, Florida Wildlife Commission, was elected vice-chair.

Meeting was adjourned.

Submitted by Fred Kimmel, 8/22/10

# GRASSLANDS/GRAZING LANDS SUBCOMMITTEE

Chair: Dale Rollins

Subcommittee Chair Dale Rollins called the meeting to order; reviewed minutes from the previous meeting, minutes were accepted by the subcommittee

Updates on action items from the previous meeting:

- BMP's for converting tame pastures to NWSG were developed and will be formatted for inclusion into the NBCI revision (John Gruchy) and/or the NBTC website
- BMPs for optimal disturbance regimes are being developed for inclusion into the NBCI revision (Rollins, Max Klinger, Gruchy) and/or the NBTC website
- Prescribed burning facilitation – to be addressed at joint meeting of Forestry and Grasslands Subcommittee (Aug 5)
- Economic models comparing tame grass and native grass pastures are under way at the University of Tennessee Center for Native Grasslands Management (Pat Keyser)
- Seek better integration of biologists and Extension/SRM; Rollins discussed bobwhite session at the joint meeting of the AFGC and the SRM in Louisville

New topics and charges to the committee

- Elected Nick Prough as co-chair
  - o Terms are as follows for 2011 – 2012 Chair – Gruchy, Co-Chair – Prough
- State updates from MS, TX, TN, AR, MO, NE, and KS (highlights)
  - o MO – Max Klinger – having problems with costs/logistics associated with new requirements for using local ecotype seed – recommended the subcommittee gather more information on the topic draft a letter to the MO-NRCS (Gruchy) concerning cost/benefits of ecotype seed and possible impacts to bobwhite habitat
  - o MO – Max Klinger – MDC is also having problems with USDA concerns about burning in riparian areas that transect grasslands (impacts on water quality); are concerns warranted? What can be done in terms of policy?
- Discussed plan to better integrate biologists and beef cattle producers
  - o Keyser – need for better cost share practices to encourage producers to adopt native forages; group expressed a need for better language and/or preference in EQIP to define NWSG practices and encourage producers to adopt practices
  - o Synthesize information about cost-share programs within each state for converting tame pastures to natives for grazing (Gruchy/others?)
  - o Identify impediments in programs for landowners, sources of discontinuity across states for EQIP, and other programs, etc.
  - o Work with Bridget Collins (new NBCI liaison with FSA) on policy issues
  - o Roger Wells – Tallgrass Legacy Alliance is a success story with regards to integration of wildlife and grazing interests
  - o Pursue I&E outlets such as the state Cattleman's Associations; work with Jon Doty (new NBTC Outreach coordinator) to reach agricultural outlets such as Progressive Farmer
  - o Rollins – committee should investigate the possibility of incorporating a grazing/basic agronomy course into undergraduate curriculum requirements for TWS certification; Gruchy will follow up with B. Leopold at MSU

- Develop a plan working with extension to integrate biologists
- Patch-burn grazing – what do we know re bobwhites?
  - MO, NE, TX, and KS each have patch-burn grazing studies either complete or near completion – it is recommended that the subcommittee attempt to synthesize patch-burn grazing studies for possible inclusion in the NBCI revision (Keyser/Doxon?); the CNGM at UT could act as a hub for disseminating this information to landowners
- Grazing school for biologists
  - Jason Hardin – recommended bringing in Larry Redman and Jim Willis to get better information about range management and bobwhites, Rollins supports idea
  - Suggestion is made to involve Stevie Collins with SRM (good at BMPs as well)
  - Regional grazing schools have been conducted in several regions (TN, MO, NE); Keyser recommends coordinating with state extension
  - After discussion the committee recommends that the NBTC pursue outside funding for grazing schools for biologists
  - The subcommittee will create a model agenda for grazing schools (Klinger)
- Discussion of prescribed fire (in preparation for joint meeting with forestry)
  - Subcommittee members expressed concerns about annual burning/grazing on western ranges and the potential negative impacts to bobwhites/plant communities
  - Fire impacts on forb communities (season of burn) and invasive species (serotia)
  - Jeff Hodges – concerns about prescribed fire policies and difficulty implementing burns due to policy barriers

#### Joint meeting with forestry subcommittee about prescribed fire needs

- Rollins – suggests creating an ad-hoc subcommittee on fire for a 2 year trial
- Thackston/Keyser recommend inviting up to 2 members from each subcommittee to be involved in the ad-hoc prescribed fire subcommittee
- Charges to the ad-hoc fire subcommittee
  - Identify regionally specific barriers to implementation of Rx fire
  - Liaise with other organizations concerning NBTC interests in Rx fire
  - Synthesize a list of fire information by state including information about fire policy, Prescribed Fire Councils, Burn Associations, available cost-share, certification programs (current/needed), etc.
  - Work with Outreach subcommittee to develop a PR approach to fire for NBTC
  - Work with Research subcommittee to develop regionally specific information on historic fire frequency and season of burn (produce a white paper?)
  - Develop a plan to help NBTC facilitate prescribed burn associations
- Grasslands/Grazing lands subcommittee elects to place a representative from the east and one from the west on the ad-hoc prescribed fire subcommittee
- Dave Hoover volunteers to represent the western interests for Grasslands/Grazing lands subcommittee, an eastern representative could not be located at this meeting
- An eastern representative will be determined after the meeting (Gruchy)

# OUTREACH SUBCOMMITTEE

Chair: Elsa Gallagher

Members Present: Elsa Gallagher, Lance Hedges, Ben Robinson, Jeff Powelson, Craig Alderman, John Doty

## Introduction

### INTRODUCING JOHN DOTY

- John is our new Outreach Employee for the NBCI, John will be officed at UT and will be working with Outreach Priorities throughout the year. His background is in print press as well as serving as a writer in many venues. He has many contacts within the Southeastern Outdoor Press Association (SEOPA). He's excited to be joining us and he has a good working knowledge of quail habitat recovery and wildlife conservation in general.

## NBCI logo

### INFORMATION SHARING

New NBCI Logo



- The discussion in our group centered around a general negative opinion from the general membership about this current logo developed by UT graphics staff. More discussion developed and the decision was made to bring this up to the steering committee
  - The Outreach Committee met with Billy Dukes, Don McKenzie and Dave Godwin to discuss the logo and the fact that it wasn't popular among the general membership. The members of the steering committee asked our Outreach committee to come up with some other ideas.
    - Our Committee discussed the logo and made several recommendations:
      - Re-work the logo to make the quail look more like quail
      - Develop a new single-quail logo more stylized
      - Get rid of the quail all together and just use the rest of the logo
      - It was decided that we would try the first option, to re-work the logo – Craig Alderman would check with his graphics artist to see what she would charge for this work. If she didn't work out (too expensive), we would work with UT or find another graphics artist.
      - If the first option doesn't work, then we will work with artists to develop a single quail logo.
- In the discussion about the NBCI logo, there was a lot of discussion among our group about the need to develop a SEQSG (National Bobwhite Technical Committee) logo as well. Ben volunteered to send on some line art copies of a quail that he thought would work well for our logo. We plan to bring a few options to the next meeting OR to send the logos out through the listserve and garner opinions that way.

## Public Outreach Plan

### BRAINSTORM SESSION

Develop an annual public relations/outreach plan for the NBTC which includes lists of targeted media outlets. Develop annual press releases (meeting announcements, award winners, etc.)

- We discussed with John some of the priorities for the year, including the AFWA meeting which was when the Steering Committee planned to do a big show with the new NBCI. We discussed the development of a CD/DVD package for interested parties and a “press packet” to be developed for targeted audiences. We identified priority times of the year when the NBCI staff would need to have these press packets available to them and also opportunities that might come up unexpectedly like the trip to D.C. on Conservation that occurred 2 years past.

## Website Development

### GROUP DISCUSSION

- One of John’s biggest challenges will be to seeing the website updated. We gave him copies of last year’s website design that our committee developed in South Carolina. John will work with UT staff to see the development of the website continues to be a priority. Elsa will send John success stories that were compiled in the past year.

## Bobwhite Basics

### GROUP DISCUSSION

- We discussed the development and timeline of the Bobwhite Basics update. Dave Howell has agreed to take the lead in the development of the brochure. Several ideas were discussed and we agreed on the following:
  - Make the brochure larger
  - Incorporate more up-to-date pictures (people need updated, old uniforms, etc.)
    - Prescribed burning pictures (Jeff P. can contribute)
    - People working with landowners (Ben or Lance can contribute)
    - Any other photos that might work
  - Add a “Facts and Myths” section
    - To be reviewed by this committee
    - Dave will need ideas as soon as possible
  - The brochure would be developed and ready for printing by the New Year
    - Dave will accept all orders and work with the printer
    - Elsa will email the listserve to ask for orders and send them to Dave

## Officer Elections

One year left on the term of Chair. Mark Smith is the vice-chair and will take over at the 2011 meeting. A new vice-chair will be elected at this time.

## Other Items from the floor

Main discussions from the floor revolved around how we could help John to be successful early on with his Outreach duties.

Jeff Powelson will be the liaison between the Outreach Committee and the Ad-hoc fire committee.



# RESEARCH SUBCOMMITTEE

Chair: Nathan Stricker

The research subcommittee was called to order by co-chair Theron Therune due to the absence of Nathan Stricker. The Research sub-Committee (RsC) averaged 28 participants and discussed monitoring, NBCI/NBTC's role in Quail VII, and prescribed fire council.

1. During day 1, we had small presentation (20 minutes followed by question/discussion) session to prepare attendees for discussion germane to committee charges and to help facilitate discussion.
  - a. Kristine Evans, MSU: presented and led discussion on the NBCI-revision, monitoring chapter. Important comments:
    - i. It was recommended that all in attendance review the monitoring chapter and notify authors of omissions, thoughts and suggestions for inclusion and/or changes.
    - ii. Need to "massage" the meaning and utility of fall vs. spring density with the tie in of harvest data for individual states. The ultimate goal needs to remain density estimation for states. The need for inclusion of harvest language is essential.
  - b. Ken Duren, Univ. of Delaware: presented occupancy data relevant to Master's work and large scale monitoring in Delaware, New Jersey and Maryland. Interesting comments:
    - i. Need to link occupancy to density and the likely link is a density dependence schema. Density estimation in low density areas can be very cost ineffective and effort draining.
    - ii. Integration of both density and occupancy models are need to best inform population recovery.
  - c. Lindsey Singleton, MSU: presented and engaged those in attendance with question regarding pragmatic application of monitoring and its incorporation in Farm Bill related programs (e.g. SAFE). Interesting comments:
    - i. Issues of confidentiality of FB contracts.
    - ii. Cost of monitoring is expensive and must provide some means of dollars for defraying costs for states.
  - d. Bill Palmer, TTRS: presented data on Male Calling Behavior in terms of cautioning use of bird counts alone for monitoring populations and increase the utility of gathering density data from count data by integrating male calling "correction factors" to increase the validity of counts for NBCI purposes. The goal being density as the primary metric for assessing NBCI success! Interesting comments:

- i. Population estimates are often tabulated without male calling rates incorporated.
    - ii. Dale Rollins – Can simply obtaining a mean calls heard be a surrogate to assessing male calling rate for adjusting biased counts (e.g. BBS data)?
  - e. Tom Dailey & Beth Emmerich: Presented and led discussion on Citizen Science – the utility of using volunteers to collect monitoring data. Interesting comments:
    - i. Data collection must be preceded by some sort of training.
    - ii. Organization structure is a MUST prior to submitting request of volunteers to participate, especially w.r.t. archiving data, presenting data, and keeping spatial integrity of the data.
    - iii. Need to seriously conduct planning efforts prior to utilizing this technique.
  - f. James Martin, MSU: presented archiving monitoring data in terms of what are we collecting as “NBCI”, where the data is kept, who collects and owns the data; and how is the data to be collected?
    - i. James and Theron led discussion on how to move forward with monitoring and NBCI’s role in state monitoring plan as well as how to archive the data. Much of this process and discussion was formulated as fodder for discussion and call to action during day 2 (Thursday morning @ 8am – 9:30am).
  - g. Close of session, Bill Palmer and Steve Demaso, made comments about the distinction between inventorying and monitoring. Theron summarized the meeting prior to adjourning by recapping the discussion in light of the presentation and challenged the participants to ruminate on concepts and come prepared to discuss and make recommendations for moving forward.
2. During day 2: call to action session.
- a. **\*\*\*Vice Chair** nomination and election: James Martin and Jeffrey Lusk were nominated and by majority vote James Martin was voted the Vice Chair starting in 2011.
  - b. **Research subcommittee charge 1&2:** *Identify the proper metrics for reporting progress on NBCI habitat and population goals, and discuss the mechanics and logistics of compiling and archiving that data. Discuss existing and proposed monitoring programs of Farm Bill practices which will add value to overall monitoring and reporting of NBCI progress.*
- \*\*\*\* Value of Monitoring:** Continued discussion on monitoring from Wednesday (4 August 2010) by first defining monitoring and inventorying. It was, additionally, referred to that the NBCI revision and the idea of using density as the metric for

assessing NBCI success. It was also mentioned that density should remain the scientific precedent to strive for in the NBCI.

- i. Motions made and passed with respect to the value of monitoring: \*\*\*\* RsC created an *ad hoc committee* to develop the Operational Monitoring Plan which will address defining what information (e.g., citizen science/volunteer data collection) should be inventoried by NBCI to allow for demonstration of the effort put forth by states and other entities for the conservation of bobwhites. The RsC established the ad hoc committee composed by nominating the following: Theron Terhune, Bill Palmer, James Martin, Kristine Oswald, Ken Duren, Steve DeMaso, John Morgan, Jay Howell, and Marc Puckett with the charge to develop the objectives of this plan by revision roll-out at the AFWA meeting in September. John Morgan was nominated (and he accepted) to lead this ad hoc committee. This Operational Monitoring Plan will work directly with the NBCI Science Coordinator, Tom Dailey. Bill Palmer established that there will be a link in the Revision that will be updated through time but finalized by February in time for the steering committee meeting for review but not later than the North American meeting in Spring 2011.

\*\*\*\* We established that determining the density of bobwhites on areas managed within the high BRI areas around the country so as to demonstrate the effect of management actions over time. This is the metric identified in NBCI and ultimately the most important indicator of success for a bobwhite conservation planning effort. The *RsC strongly recommended* that NBCI conduct its own inventory, especially Monitoring, of activities through a reporting mechanism from states. Tom Dailey, will coordinate with each sub-Committee to get a single representative for an ad hoc committee. Motion was made and passed: that the ArcGIS NBCI tool and database developed as part of the NBCI revision provides the necessary framework to begin collecting spatial data, such as the location of quail restoration projects and basic density information, which will be identified in the plan.

\*\*\*\* The RsC recommended that NBCI strives to keep the NBCI tool and database relevant through constant updates and improved functionality over longer time frames. It was communally established to be very important that the NBCI RsC identify, in the future, how the NBCI tool will remain relevant as necessary. As such, funding should be made available to accomplish entity and/or personnel in charge of maintaining and updating the GIS database – steering committee to provide direction on how to proceed to acquire appropriate funding to keep database improving through time.

- ii. \*\*\*\*\*RsC made motion and passed motion unanimously to *develop tasks for Ag/Policy Liaison*, Bridget Collins to bring to Washington, D.C. for action needing to be accomplished. Action items discussed and called (motion passed) to submit for immediate attention was:

1. States need access to contracts and shapefiles of landowner FB programs to increase productivity through modeling and efficacious delivery of outputs (i.e. monitoring sites where FB habitat is present).
  2. Value of monitoring is important! States NEED dollars to collect the monitoring data. This monitoring data is required by FSA for certain CP programs but states lack the funds to adequately meet this requirement.
- c. **Research sub-Committee charge 3:** *Present and discuss scientific and technical aspects of NBCI revision, with opportunity for input and questions by Committee members.*

This charge was not addressed in the RsC meeting because a sub-Committee meetings were shortened to allow a “special” session on Thursday (10:30-12:00, 5 Aug. 2010) for demonstration, review and discussion of the NBCI revision.

- d. **Research sub-Committee charge 4:** Discuss the role of the Research Committee and individual members in advancing bobwhite conservation through LCCs.

Related to above (see RsC charge 3) we did not have time to discuss LCCs.

- e. **Research subcommittee charge 5:** *Define the role of the Research Committee in the Quail VII symposium, specifically with respect to editing and publication of Proceedings*

\*\*\*\* **NBCI RsC’s role in Quail VII:** NBCI’s role is to help establish both the scientific program and the scientific precedent of the proceedings. Ron Day was present and gave overview of AzDG&F’s involvement with Quail VII.

- i. Steering committee to address the need for Funding to publish proceedings (copy-editor and etc.): ~\$30,000
  - ii. Deadlines for manuscripts to meet scientific standards – Full MSs are due by October 1, 2011 (3 months prior 2012 meeting). This means that the call for MS submissions should be made within the next two weeks (no later than October 2010). RsC recommended that Jan 2013 as the publication of proceedings’ deadline.
  - iii. Scientific Precedent – NBCI science coordinator to develop an *ad hoc committee* for associate editors and science quality and discuss development of scientific program, invited speakers, and minutia of review process.
- f. **Other Business:**

**Prescribed Fire Council** volunteers/nominees representing the RsC: Bill Palmer & Steve Fowler

# BUSINESS MEETING MINUTES

National Bobwhite Technical Committee (NBTC) Chairman Billy Dukes called the business meeting to order at 3:34 p.m.

NBTC Subcommittee reports were presented prior to the business meeting:

- Elsa Gallagher, Chair of the Outreach Subcommittee, reported these items: (1) intend to obtain NBCI/NBTC membership with Congressional Sportsman's Caucus; (2) revising NBCI logo and will obtain trademark; (3) reprinting Bobwhite Basics by October; (4) outlined John Doty's near-term priorities to include preparation for AFWA NBCI Revision roll-out, launch of NBCI-UT web site and development of a marketing plan.
- Chuck Kowaleski, Chair of the Ag Policy Subcommittee, reported that James Tomberlin, Georgia DNR, was elected Vice Chair. Resource items: (1) upcoming tour by Bridget Collins of Kansas, Oklahoma and Texas, and more to come; (2) working with other committees on improvements we'd like to see in the 2012 Farm Bill; (3) discussed BCAP; and (4) committee recommends that NBTC begin discussion to change the USDA Environmental Benefits Index with the assistance of grassland and forestland subcommittees.
- Reggie Thackston, Chair of the Forestry Subcommittee, reported that Chuck McKelvy, Florida Fish and Wildlife Conservation Commission, was elected Vice Chair. Resource items: (1) reviewed pine thinning CRP problem and the need for these funds to be directed to quail BMPs; (2) sent a letter to FSA in support for NJ pine restoration; (3) defined woodland savanna; (4) identified incentives for heavy thinning and frequent fire as a policy priority for the Farm Bill; (5) committee recommends that an effort be made to get NBCI shape files into state wildlife action plans; (6) met with grassland/grazing committee--recommend an NBTC ad hoc prescribed fire committee with members from all subcommittees—Mike Black & Russ Walsh will represent Forestry.
- John Gruchy, incoming Chair of the Grassland/Grazing Subcommittee, reported that Nick Prough, Quail and Upland Wildlife Federation, was elected Vice Chair; Dave Hoover, Missouri DOC, was elected to a new ad hoc position, Western Fire Committee Representative; an Eastern Fire Committee Representative is still needed. Resource items: (1) intend to provide management information (e.g., tame grass conversion) and economic analyses (e.g., UT and MDC products) for NBCI web site; (2) intend to publish quail-related articles in farm producer outlets (magazine, web, etc.); and (3) need funding for grazing school for biologists.
- Dr. Theron Terhune, incoming Chair of the Research Subcommittee (substituting for Nathan Stricker who could not attend), reported that Dr. James Martin, Mississippi State University, was elected Vice Chair, to begin in 2011. Other items: (1) introduced Ron Day, Quail VII meeting chair, Arizona Game and Fish Department, and reported progress on a timeline for Quail VII (call for papers October, abstracts due January 2011, manuscripts due October 2011, meeting January 2012, proceedings published January 2013) and the need by October 2011 for \$30,000 for hiring a proceedings managing editor; (2) created an ad hoc committee (Morgan et al.) to craft an operational monitoring plan for review by NBCI Science Coordinator Tom Dailey at the February NBTC steering committee meeting; (3) created an ad hoc inventory committee, including Marc Puckett and John Morgan, to work with Dailey

on the inventory project; (4) committed the Research Subcommittee to keeping the GIS tool relevant; this requires immediate funding for personnel to maintain and update the GIS database; (5) asked that Bridget Collins work to increase access to FSA spatial data for monitoring projects and that monitoring funding be built into habitat restoration programs; and (6) identified Bill Palmer and Steve Fowler as Research representatives on the ad hoc prescribed fire committee.

Chairman Dukes provided an overview of the activities and actions of the NBTC Steering Committee. Items of particular importance included the work done with the NBCI management board at the annual meetings of the Association of Fish & Wildlife Agencies and the North American Wildlife and Natural Resources Conference; a proposed bylaws revision that expands the scope of the NBTC and restructures the Steering Committee; implementation of the MSCG and NFWF grant; and the selection of Dr. William Palmer for the 2010 NBTC Annual Award.

Chairman Dukes introduced NBCI Coordinator Don McKenzie for a review of recent NBCI progress. NBCI staff members Mike Black, Bridget Collins, Tom Dailey and John Doty gave a description of their background and expectations for their role in NBCI.

Chairman Dukes recognized this year's meeting as an outstanding achievement and acknowledged Jim Pitman and meeting steering committee members and staff of Kansas Department of Wildlife and Parks and the National Park Service for their tremendous effort. Chair Dukes paid special recognition and thanks to the NGOs and companies that provided in-kind and financial support for the meeting.

Tom Dailey, NBTC Secretary-Treasurer, presented the Treasury Report. As of the steering committee meeting on August 3, 2010, there were 186 paid members and a treasury balance of \$12,513.31. Dailey noted that treasury documents had been audited by three Steering Committee members as prescribed in the NBTC bylaws.

Chairman Dukes introduced the proposed change in NBTC bylaws submitted to membership July 5, 2010. In summary, the bylaw revision reflects our expansion to a range-wide initiative with increased representation among AFWA regions and NGOs, and our new affiliations with the NBCI Management Board and the University of Tennessee. Chair Dukes reviewed the elected positions that needed to be filled, and introduced Past Chair Dave Godwin, supervisor of the nominations and election. Godwin reported that the bylaws passed, and that Dan Figert was elected NBTC Chair, Marc Puckett Chair-Elect, Mark Gudlin Member-At-Large and Kristine Evans Academic Representative. Chair Dukes thanked Roger Applegate, Chuck Kowaleski, James Tomberlin and James Martin for their willingness to be considered candidates for NBCI positions.

Chairman Dukes thanked the NBTC Steering Committee members, Subcommittee Chairs and newly elected Vice Chairs for their dedication to the work of NBTC. Chairman Dukes introduced incoming Chair Dan Figert.

NBTC Chair Dan Figert adjourned meeting at 4:58 p.m.

# **POSTER ABSTRACTS**

**A Call for Standardized, Unified Northern Bobwhite Monitoring: Implications for Tracking the Progress of the Northern Bobwhite Conservation Initiative (NBCI)**

Stephen J. DeMaso, Gulf Coast Joint Venture, National Wetlands Research Center, 700 Cajundome Blvd., Lafayette, LA 70506

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Leonard A. Brennan, Caesar Kleberg Wildlife Research Institute, Texas A& M University-Kingsville, MSC 218, 700 University Blvd., Kingsville, TX 78363

**ABSTRACT:** Monitoring can be defined as the collection and analysis of repeated observations or measurements to evaluate changes in condition and progress toward meeting a management objective. Many methods have been used to monitor northern bobwhite (*Colinus virginianus*) populations at broad spatial scales (i.e., spring male whistle counts, fall morning covey call counts, roadside surveys, and distance sampling at points). Currently, state wildlife agencies use a variety of these methods to monitor bobwhite population trends and harvest. Recently, the NBCI has become a national conservation initiative, and has generated much excitement and enthusiasm from the conservation community. However, there is currently no way to evaluate our progress towards meeting our management objectives (i.e., restoring populations to 1980 levels on lands that can be conserved). Partners within the NBCI need to develop a unified, scientifically defensible monitoring program for bobwhite populations and harvest in order to track progress towards meeting the NBCI management objective. A defensible monitoring program should (1) have objectives that are linked to management goals; (2) estimate metrics with sampling methods that permit unbiased and statistically powerful results while minimizing cost and logistical problems; (3) ensure program continuity despite changes in personnel, technology, and objectives; and (4) make monitoring results available to a wide audience, including policymakers. It will take strong evidence to convince states to change their bobwhite monitoring protocols; therefore evidence that existing bobwhite surveys are inadequate will be needed. We present a strategy for a unified, statistically defensible monitoring program for northern bobwhites



**Citizen Science: Using volunteers to aid in scientific research in Missouri**

Beth Emmerich, Missouri Department of Conservation, Resource Science Division, Kirksville, MO, USA

Thomas Dailey, National Bobwhite Conservation Initiative, Assistant Director & Science Coordinator, University of Tennessee Institute of Agriculture, Knoxville, TN, USA

**ABSTRACT:** Citizen science projects provide the opportunity for researchers to collect more data over a larger geographic area than in one small research project alone. Citizen science is not a new concept, but has increasing in use and popularity. The first citizen science project is widely recognized as the National Audubon Society's Christmas Bird Count, which started in 1900. As research dollars are limited, using data collected by citizen scientists allows us to enlarge our sample size, with less expenditure. In Missouri, we conduct multiple projects that citizens provide valuable data to inform our decision making process. The Gobbleteer Study is one example of using citizen science information in Missouri. We were examining the effect of latitude of turkey gobbling activity to determine if changes were needed in the season structure. Individuals entered data via a web-based application, so it was immediately available to researchers. We have also used volunteers on multiple bobwhite survey projects. We evaluated fall covey numbers both inside and outside of two private land focus areas as well as examined effects of edge feathering projects on quail numbers. We trained a variety of volunteers including high school students, college biology majors, as well as landowners in distance sampling procedures to increase our sample size and area. This poster presents some of the benefits as well as challenges of recruiting and training volunteers to aid in data collection.

## **Survival and habitat use of Northern Bobwhites on private lands in Ohio**

Adam K. Janke<sup>1</sup>, Bret M. Graves, Mark J. Wiley, Marjorie R. Liberati, and Robert J. Gates, The Ohio State University, School of Environment and Natural Resources, 2021 Coffey Road, Columbus, OH, USA.

**ABSTRACT:** Survival during the nonbreeding season is an important factor affecting population growth rates of Northern Bobwhites (*Colinus virginianus*). Nonbreeding survival is particularly important in northern populations where declines exceed the national average. We studied bobwhite population dynamics on 5 private land sites in the core of the bobwhite range in Ohio. The sites vary in habitat composition, covey density (0.017 to 0.300 coveys/ 10 ha), and area (520- 1,022 ha). We used pointing dogs and covey surveys to locate coveys on each site between 1 October 2009 and 31 March 2010. We radio-marked 161 individuals from 29 coveys and monitored their survival and habitat use. Predation was the primary cause of mortality (71.6%) while harvest accounted for 7.8% of mortalities. An extended period of snow cover (>15 cm for >14 days) coincided with 72.0% mortality of radio-marked birds. Daily locations were used to generate home range estimates for 23 coveys with  $\geq 30$  relocations. Mean 90% and 50% kernel home range estimates were 43.76 ha (SE 6.79) and 12.68 ha (SE 2.06), respectively. Compositional analysis revealed that coveys were selecting for habitat non-randomly at both the study area ( $P=0.002$ ) and home range scale ( $P=0.002$ ). Strong preference was shown for linear woody features on the landscape (fencerows and agricultural ditches). This investigation is also considering dispersal, reproduction, and microhabitat utilization. With data collected during both the nonbreeding and breeding seasons we hope to link survival, dispersal behavior, reproduction, and habitat use to better understand factors that affect abundance and persistence of bobwhites in Ohio.

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**Feeder use by northern bobwhites and other wildlife species on DiLane Wildlife Management Area, Burke County, Georgia: research in progress.**

Buck Marchinton, James Tomberlin and Reggie Thackston, Georgia Department of Natural Resources, Wildlife Resources Division

**ABSTRACT:** We are testing northern bobwhite (*Colinus virginianus*) population response on Dilane Wildlife Management Area, Burke County Georgia to supplemental feeding grain sorghum (*Sorghum bicolor*) via a modified version of a commercially available feeder. Supplemental feeding is often used on lands intensively managed for bobwhites. Stationary feeders have two benefits over broadcasting grain: they may be designed to exclude deer and turkey use to alleviate baiting concerns, and they may require less grain per unit time and have less non-target use. We are using infrared trail cameras to monitor feed and feeder use by bobwhites and other wildlife species at 40 feeders located in four cover types (plum thicket, brier thicket, bicolor lespedeza patch, and forest edge). From August 2009 through May 2010, bobwhites were recorded 272 times, with over two-thirds of visitations in plum thickets and less than 10 in briers. Bobwhites accounted for less than 2% of total feeder visitations, with songbirds and rodents accounting for three-quarters of visitations. Bobwhite use prior to the 2010 breeding season was sporadic, while use during April and May 2010 suggests that breeding pairs may make frequent visits. Fieldwork will be completed in summer 2011. Analysis will include frequency of occurrence by species, by month and time of day; and use relative to cover type, compared by season and time of day.

# **Evaluating planted field borders as brooding habitat for northern bobwhite in North Carolina.**

Charles Plush<sup>1</sup>, Christopher Moorman, David Orr, Chris Reberg-Horton, North Carolina State University, Raleigh, NC, USA.

**ABSTRACT:** Strips of fallow vegetation bordering cropland are an effective strategy for providing northern bobwhite (*Colinus virginianus*) habitat. However, a limitation of fallow borders is the lack of nectar-producing vegetation needed to sustain many beneficial insect populations. Planted borders that contain mixes of prairie-flowers and grasses may harbor more diverse arthropod communities, but the relative value of these borders compared to fallow borders is unknown. We used groups of six human-imprinted bobwhite chicks as a bioassay for comparing four border treatments (planted native grass and prairie-flowers, planted prairie-flowers only, fallow vegetation, or mowed vegetation) as bobwhite brooding habitat from June-August 2009 and 2010. All field border treatments (0.33 ha each) were established around nine organic crop fields. Chicks were led through borders for 30-minute foraging trials and immediately euthanized, and their crops and gizzards were later dissected and eaten arthropods were identified, measured, counted. We used allometric equations to estimate live weight of arthropods consumed. A modified leaf-blower was used to sample arthropod availability in the borders. In 2009, mean foraging rate was numerically highest in borders planted in native grass and prairie-flowers (0.16g/chick), however mass of arthropods consumed per chick did not differ significantly among treatments ( $F=0.38$ ,  $p=0.77$ ). Similarly, there was no difference in the number of arthropods consumed among treatments ( $F=0.97$ ,  $p=0.43$ ). Arthropod sampling results showed no difference in number of available arthropods across treatments ( $F=0.54$ ,  $p=0.67$ ). Our 2009 results suggest that planted field borders may provide brooding habitat equivalent to fallow borders while also promoting beneficial insects.

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### **Decision support tool for birds associated with open-pine ecosystems.**

James B. Grand, USGS, Auburn University, AL, Kevin Kleiner, Auburn University, AL, and Catherine Rideout<sup>1</sup>, East Gulf Coastal Plain Joint Venture, Auburn University, AL.

**ABSTRACT:** The East Gulf Coastal Plain Joint Venture (EGCPJV) is a self-directed partnership of federal, state, and private stakeholders dedicated to the conservation of priority birds in the East Gulf region. The EGCP JV has identified open-pine ecosystems as a priority habitat for conservation action, and we have developed a planning tool to enable the strategic conservation of open-pine habitats to support high priority species including Northern Bobwhite (*Colinus virginianus*). We intend for this tool to guide decisions about implementing conservation based on a comprehensive landscape analysis and the application of key conservation biology principles to maximize benefits for birds and other wildlife. We identified priority areas for conservation through an integrated analysis of where sustainable populations of important species likely exist, where potential habitat exists that could augment or create sustainable populations, where open-pine systems could be maintained in the long-term, where suitable sites exist for open-pine systems, and where these systems are likely to be managed with frequent fire. We intend for this map to be used in conjunction with current land use-land cover data to prioritize areas for the implementation of on-the-ground conservation programs and to include strategies such as reforestation of agricultural lands, habitat management of existing pine habitats, acquisition of high quality stands, and conversion of off-site loblolly and slash pine to longleaf pine. Currently, this tool is available for the EGCPJV boundary area, and an intensive effort is underway to expand the tool to the entire range of longleaf pine.

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## Estimating Adult Survival and Population Growth for Northern Bobwhites in the Rio Grande Plains of Texas.

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Andrew N. Tri, Caesar Kleberg Wildlife Research Institute, Texas A&M University-Kingsville, MSC 218, 700 University Boulevard, Kingsville, TX 78363, USA

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Stephen J. DeMaso, Gulf Coast Joint Venture, U.S. Fish and Wildlife Service, 700 Cajundome Boulevard, Lafayette, LA 70506, USA

Robert M. Perez, Texas Parks and Wildlife Department, La Vernia, TX 78121, USA

**ABSTRACT:** Annual adult survival rate ( $\hat{S}$ ) and finite rate of population growth ( $\lambda$ ) are critical parameters to consider when subjecting a species to annual harvest. To estimate these parameters, we used a dataset of 148 estimates of northern bobwhite (*Colinus virginianus*) age ratios ( $R$ ) derived from hunter-harvested wings in the South Texas Plains. We used adjusted estimates of  $R$  to account for higher harvest vulnerability of juveniles, and the regional estimate of  $\hat{S}$  (30.6%) to calculate estimates of  $\lambda$  at the ranch (local) scale. We also calculated ranges of probability of nest success ( $1-q$ ), nest attempts per hen ( $n$ ) and the proportion of hens contributing to production in a breeding season ( $z$ ) based on our corrected estimates of  $R$ . Mean adjusted  $R$  was  $2.79 \pm 0.13$ . In stable populations ( $\lambda = 1$ ) mean regional  $\hat{S}$  was  $30.6 \pm 0.1\%$ . Given an annual  $\hat{S}$  of 30.6%, mean regional  $\lambda$  was  $1.16 \pm 0.04$ , and single year  $\lambda$  estimates ranged from 0.40–3.03 among individual properties. Given 2 nesting attempts per hen, the mean ( $\pm$  SE) estimate of nest success ( $1 - q$ ) was  $24.4 \pm 1.1\%$ . These data have implications for bobwhite harvest management because of variable population growth rates ( $\lambda$ ) at a localized scale. When local populations are declining there is an increased probability of overharvesting the population. However, as our data indicate, using only a regional estimate of  $\lambda$  may mask local population trends, which carries the potential for mismanagement of harvest within a given property by making harvest recommendations that are too high (overharvest) or too conservative (loss of opportunity).

## **Northern Bobwhite Population Ecology on Reclaimed Mined Land**

Evan Tanner<sup>1</sup>, Ashley Unger, Patrick Keyser, and Craig Harper, Center for Native Grasslands Management, University of Tennessee, John Morgan and Eric Williams, Kentucky Department of Fish and Wildlife Resources

**ABSTRACT:** The decline of northern bobwhite populations throughout the species' range has led to increased concern for this important game bird. One opportunity to increase habitat within the bobwhite's range is through management of reclaimed mined lands. However, establishment of dense stands of sericea lespedeza and other exotic species has resulted in unfavorable habitat for bobwhite quail. Therefore, we have undertaken an assessment of bobwhite populations using banding and radio telemetry on Peabody WMA, a reclaimed coal mine site in western Kentucky. Two units (Sinclair and Ken) were chosen for this study and assigned control and treatment areas encompassing roughly equal amounts of key habitat types. This project will investigate bobwhite population responses to large scale habitat improvements (prescribed fire, disking, spraying, and establishment of food plots) including mortality rates (hunting/non-hunting) by sex and age class and fecundity, including nest success, nest productivity, and brood survival. These parameters will be monitored along with hunting pressure and changes in habitat condition resulting from the experimental habitat manipulations. Analysis will include evaluation of survival in relation to habitat quality for winter home ranges, nest sites, and brood ranges. Though still in year one of a six year study, a total of 236 birds have been collared and monitored. Preliminary data analysis has yet to be completed for year one of the project, but crude mortality rates are 80% and 77% (Sinclair), and 56% and 39% (Ken) for the treatment and controls, respectively.

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## **Conservation Reserve Program Practice CP 36 Groundcover Assessment.**

Nick Brown, James Tomberlin and Reggie Thackston<sup>1</sup>, Georgia Department of Natural Resources, Wildlife Resources Division

**ABSTRACT:** The USDA Farm Service Agency Conservation Reserve Program (CRP) Conservation Practice 36 Longleaf Pine Initiative (CP36) began in 2006 as an effort to restore longleaf pine (*Pinus palustris*), native groundcover and associated wildlife species. The Georgia Department of Natural Resources, Wildlife Resources Division (WRD) worked with the Georgia Forestry Commission, Farm Services Agency and Natural Resources Conservation Service in 2009 to evaluate groundcover across a sample of CP36 sites. The study objectives were to: 1) survey sites after at least one growing season, and evaluate groundcover occurrence and composition; 2) assess groundcover relative to site preparation methods; and 3) quantify and evaluate CP36 implementation results and provide programmatic feedback to optimize cost/benefit. Groundcover was dominated by forbs regardless of chemical site prep treatment. Exotic grasses were detected in approximately 44% of fields, with bermudagrass being the most common. CP36 fields fallowed one year or less prior to site preparation and planting had significantly greater coverage of exotic grasses than fields fallowed for more than one year ( $P=0.02$ ). Exotic pasture grasses, especially bermudagrass, tend to dominate sites and out compete native vegetation, reducing wildlife value. We provide recommendations to maximize control of exotic pasture grasses prior to tree and native groundcover planting so as to optimize CP36 natural resource benefits.

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## **Avian Response to Production Stands of Native Warm-Season Grasses**

Andrew West, Patrick Keyser, David Buehler, John Morgan, and Roger Applegate, Center for Native Grasslands Management, University of Tennessee, Knoxville, TN, USA.

**ABSTRACT:** Grassland birds have declined more than any other guild in the US, primarily due to habitat loss resulting from conversion of native grasslands to crops, non-native pastures, or urban areas. The Farm Bill has restored some habitat for these birds by establishing native warm-season grasses (NWSG) through the Conservation Reserve Program (CPR), but populations continue to decline. Other uses for NWSG such as haying, grazing and biofuels may have the potential to affect substantially more area due to market-based incentives they provide to landowners. Although these production practices and their effect on grassland birds have been studied to a limited extent in the Great Plains, they have not been evaluated in the eastern US. We examined production stands of NWSG in Kentucky and Tennessee including control (fallow), forage (grazing and haying), seed, and biofuel production fields. In 2009, we monitored 95 fields across three sites. Each field was visited three times for 10-minute point counts to assess presence of 9 target species (northern bobwhite, eastern meadowlark, prairie warbler, field sparrow, Henslow's sparrow, grasshopper sparrow, red-winged blackbird, horned lark, and dickcissel), and a fourth time to measure vegetation (species composition, density, height, and litter cover and depth). Seed production fields had the highest species richness (all nine target species), while grazed fields in KY and control fields in TN had more birds per field (14). Northern bobwhite was detected in all treatment types. Field sparrows were the most abundant species detected (40% of total). Litter depth was greatest in controls fields (>1.5 cm) while treatment fields were < 1.1 cm ( $p < 0.0001$ ).

**Preliminary Assessment of the Genetic Structure of Scaled and Gambel's Quail Populations in the Southwestern United States.**

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Randy DeYoung, Caesar Kleberg Wildlife Research Institute–Texas A&M University–Kingsville, Kingsville, TX 78363, USA

Leonard A. Brennan, Caesar Kleberg Wildlife Research Institute–Texas A&M University–Kingsville, Kingsville, TX 78363, USA

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**ABSTRACT:** The scaled quail (*Callipepla squamata*) and the Gambel's quail (*C. gambelii*) are distributed throughout much of the southwestern United States and northwestern Mexico. Both species are divided into several subspecies based on variations in plumage coloration. Knowledge of genetic structure and phylogeography is necessary for conservation as it aids in identifying historically independent populations that can be designated as management units. We conducted the first study of genetic variation in these two species based on mitochondrial DNA obtained from the feathers or muscle tissue. Our study encompassed the ranges of three subspecies of the scaled quail : *C. s. pallida* (Arizona and western Texas), *C. s. squamata* (southern Texas), and *C. s. hargravei* (Colorado and northern Texas) and two subspecies of the Gambel's quail: *C. g. gambelii* (Arizona) and *C. g. ignoscens* (western Texas). We obtained 382 basepair sequences and 13 haplotypes from 129 scaled quail and 396 basepair sequences and 12 haplotypes from 86 Gambel's quail. Scaled quail haplotypes were closely related and exhibited a star phylogeny, whereas the Gambel's quail haplotypes were arranged in 2 distinct groups with 11 haplotypes forming a star phylogeny and a single haplotype restricted to Arizona separated by 14 mutational steps. Scaled and Gambel's quails exhibited relatively low haplotype and nucleotide diversities. The star phylogenies of both species suggest recent expansion from a single source, although the deep phylogenetic division between Gambel's quail haplotypes suggests 2 phylogenetically distinct populations may exist in the Arizona.

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## PAST MEETING LOCATIONS AND DATES

Organization	Venue	City, State	Dates	Annual Award Recipient
Southeast Quail Study Group	Webb Wildlife Center	Garnett, SC	Aug. 15-18, 1995	None
Southeast Quail Study Group	Ramada Inn/Tall Timbers	Tallahassee, FL	Sept. 3-6, 1996	Breck Carmichael
Southeast Quail Study Group	Sheldon's Restaurant and Motel	Keysville, VA	Sept. 15-18, 1997	Don McKenzie
Southeast Quail Study Group	Ames Plantation	Grand Junction, TN	Sept. 14-17, 1998	Dr. Ralph Dimmick
Southeast Quail Study Group	Mississippi State University	Starkville, MS	Sept. 27-30, 1999	Reggie Thackston
Southeast Quail Study Group	Camp Kanuga	Hendersonville, NC	Oct. 2-5, 2000	Rocky Evans
Southeast Quail Study Group <sup>1</sup>	Omni Bayfront Hotel	Corpus Christi, TX	Jan. 23, 2002	Stephen W. Capel
Southeast Quail Study Group	Augusta Technical College	Waynesboro, GA	August 26-29, 2002	Mark J. Gudlin
Southeast Quail Study Group	YMCA of the Ozarks	Potosi, MO	August 25-28, 2003	Terry Sharpe
Southeast Quail Study Group	Winrock International	Morrilton, AR	August 2-5, 2004	Dr. Pete Bromley
Southeast Quail Study Group	Kentucky Dam Village State Resort	Gilbertsville, KY	August 14-17, 2005	Dr. Wes Burger
Southeast Quail Study Group	The Hotel at Auburn University	Auburn, AL	Aug. 6-9, 2006	Stephen J. DeMaso
Southeast Quail Study Group	Quartz Mountain Resort	Lone Wolf, OK	Aug. 6-9, 2007	D. Clay Sisson
Southeast Quail Study Group	Hilton Lafayette	Lafayette, LA	July 15-18, 2008	Dave Howell
Southeast Quail Study Group <sup>2</sup>	Columbia Marriott	Columbia, SC	March 24-26, 2009	Stan Stewart
National Bobwhite Technical Committee	Hyatt Regency Wichita	Wichita, KS	August 3-6, 2010	Dr. Bill Palmer

<sup>1</sup> Held in conjunction with Quail V

<sup>2</sup> Held in conjunction with Southeast Partners in Flight

## MEETING SPONSORS, 2010

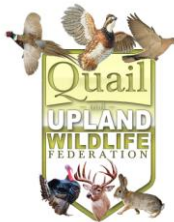
### Diamond Level (≥\$5,000)



### Platinum Level (\$2,000—\$4,999)



### Gold Level (\$1,000—\$1,999)



### Silver Level (\$500—\$999)

