STATE OF THE BOBYSON Grassland Conservation at a Crossroads

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Conservation Initiative











STATE OF THE BOBWHITE Grassland Conservation At a Crossroads



... the unified strategy to restore wild quail

2011 REPORT

SEPTEMBER 2011

National Bobwhite Conservation Initiative. 2011. T. V. Dailey, D. F. McKenzie, D. E. Figert and J. G. Doty. State of the Bobwhite 2011 Report: Grassland Conservation at a Crossroads. National Bobwhite Technical Committee Technical Publication, Knoxville, TN. 37 pages.

Cover Photo: John Brunjes, Ph.D./KDFWR:

Dwayne Steely of London, KY and "Buddy" participate in a 2010 fundraiser hunt at Shaker Village of Pleasant Hill in Kentucky. In a joint effort, Kentucky Department of Fish & Wildlife Resources and the Village sold chances to be drawn for the hunt, with all proceeds (\$15,000) going to continued habitat work. The Kentucky Department of Fish & Wildlife Resources has made notable strides in increasing the wild bobwhite population (along with songbirds and turkeys) through habitat management at the 3,000-acre tract, part of the state's implementation of the National Bobwhite Conservation Initiative (NBCI). Another hunt is scheduled this year. For more information, visit http://www.shakervillageky.org/, http://www.fw.ky.gov, http://www.bringbackbobwhites.org/blogs/kentucky and Kentucky Bobwhite Battalion on Facebook at http://www.facebook.com/KentuckyQuail. For more information on NBCI, visit http://www.bringbackbobwhites.org/success/success-stories/225-quail-haven-at-shaker-village.

Inset Photos, left to right:

Eastern Cottontail, Frank Doyle/USFWS Northern Bobwhite, Steve Maslowski/USFWS Gopher Tortoise, Brian VanAlstine Bumble Bee sp. (Pollinator), Bridget Collins/NBCI Bachman's Sparrow, Ed Schide

Cover Design: Heather Inman

EXECUTIVE SUMMARY

This first annual "State of the Bobwhite" report by the National Bobwhite Conservation Initiative (NBCI) and the National Bobwhite Technical Committee (NBTC) provides a snapshot of the population, hunting, and conservation status of the northern bobwhite, *Colinus virginianus*. This report provides an assessment of range-wide bobwhite population and hunting activity trends as well as state-by-state population, hunting, and management status summaries. Also featured are key perceptions of state quail coordinators on the trends and current status of quail conservation efforts in their state. These data were compiled in 2011 for the NBCI State Agency Inventory Project.

Northern bobwhites and the suites of birds sharing its native grassland habitats are in major longterm declines; the recent 5- and 10-year population trends may even be worse. One subspecies of the northern bobwhite (masked bobwhite) is near extinction, many populations of bobwhites in the eastern United States already are recreationally extinct—no longer supporting hunting and wild bobwhite hunting is a fading tradition in many states. The state of New Jersey recently suspended statewide wild quail hunting.

The recently completed NBCI 2.0—the March 2011-released complete revision of the original plan—provides better and more powerful planning tools to states and other bobwhite conservation partners. The 25 state reports presented here indicate that some states are taking aggressive action to implement the NBCI, to substantially increase focus, funding and manpower to bobwhites and their habitats, with effective habitat, research and outreach efforts.

However, a clear theme of the responses from state quail coordinators to the NBCI State Agency Inventory Project highlighted in this report is the tremendous variability among states in the commitment, priority and status of bobwhite conservation efforts. Overall, even 10 years after the launch of the original NBCI in 2002, it is apparent that the current small scale and inconsistent implementation of bobwhite restoration efforts among states and regions still fall far short of the challenge. Further, the continuing nationwide economic recession is forcing budget and staffing cuts to state and federal conservation agencies at the very time that increased resources and attention are needed for bobwhites and other native grassland birds that are still declining.

The current status of bobwhite conservation remains far inadequate to stop the declines of native grassland birds, much less to begin rebuilding populations to reach restoration goals. Decisive action is needed to reverse the decline.

A CALL TO ACTION

This first-ever "State of the Bobwhite" report presents a bleak assessment for bobwhite populations and recreational opportunity across the range of this popular game bird. The time for serious action is now. The National Bobwhite Conservation Initiative (NBCI) is the unified range-wide strategy of the states and their partners for restoring wild quail and their habitat, but strategies must be implemented... and our initiative cannot succeed alone. Restoring bobwhites across their range is an enormous challenge requiring determined movement at federal, state and individual levels.

NBCI and the NBCI Management Board—composed of the 25 state wildlife agency directors and administrators, and other conservation leaders—hereby call on all quail and native grasslands conservationists, and pertinent government agencies to step up without further delay. Fundamental action items needed in this first annual call to action include the following:

Federal Agencies

We are requesting that the USDA proactively step up to the plate with the bobwhite and wildlife community at-large in 2012 to become a more positive force in native grasslands and bobwhite restoration. Specifically, we are asking USDA to adopt a policy making native plant species the default first choice when it subsidizes plantings on private lands.

Wildlife, including bobwhites, is a public resource and private lands are essential to the recovery of bobwhites and other native grasslands/shrublands species. The U.S. Department of Agriculture (USDA), and its spectrum of programs on private lands, has more potential to benefit—or harm—bobwhites and related species that any other single entity in the nation. While there have been some bobwhite-friendly breakthroughs, many policies and programs continue to degrade wildlife habitat annually at public expense. One example is subsidizing the planting of aggressive, exotic grasses that create poor habitat and invade quality habitat nearby. The net result is that USDA can degrade habitat for a public resource as fast as (or faster than) it can be restored. In most cases, USDA could accomplish multiple resource benefits, including wildlife, by defaulting to native vegetation instead of imported species for taxpayer-financed programs.

State Wildlife Agencies

"Step Down" the NBCI 2.0 to your respective state...and announce your intentions to do so if you haven't already.

The recently revised NBCI—tagged as the NBCI 2.0—is the unified strategy for restoring wild quail. It is only valuable if it is being used.

Highlight NBCI in the context of your respective state in an issue of the state wildlife magazine in 2012.

Publicizing the NBCI or your own "state of the bobwhite" report in your magazine and explaining how your state is addressing the challenges is one way your state agency can

provide leadership and inspiration. Individuals can and will step up to help if they understand the problem and have leadership to follow.

Individuals

Join a grassland habitat-related conservation organization immediately.

Every person concerned about quail or other native grassland/shrubland wildlife should join one or more such organizations immediately. The on-the-ground habitat work, political power of grassroots organizations and the synergy developed working together are a vital part of a unified quail and grasslands/shrublands restoration "machine." Such organizations can only be effective if they have thriving memberships and strength. See http://www.bringbackbobwhites.org/about-us/conservation-partners for a list of example organizations.

Support your state's quail initiatives.

Quail initiatives developed with the leadership of your state wildlife agency need outside support. Your personal involvement, political connections, financial support, and other contributions can boost the chances of success for quail restoration focal areas. Contact and get to know your state quail coordinator (http://www.bringbackbobwhites.org/about-us/state-quail-coordinators), and ask how you can help. Attend and speak up on behalf of quail and other grassland/shrubland species at meetings of state wildlife agency boards or commissions.

Tell your local Congressional delegation to prioritize Farm Bill conservation programs.

Private lands are critical to bobwhite recovery. Farm Bill conservation programs are our best tool to create habitat on private land. Conservation programs have been cut disproportionately relative to other Farm Bill provisions—and conservation risks losing even more in the upcoming 'Supercommittee' and 2012 Farm Bill processes. Wildlife is a public resource impacted by agriculture on private lands. Therefore, tell Congress you support Farm Bill conservation, and that programs should place as much emphasis on wildlife habitat as they do on soil conservation and water quality. One website for contacting government officials is http://www.usa.gov/Contact/Elected.shtml.

FOREWORD

Bobwhites long have been an economically, socially, and ecologically important game bird. As the leaders of a 25-state consortium of wildlife agencies and their partners across the bobwhite range, the NBTC and its strategic initiative, the NBCI, are charged with assessing current conditions nationally and assisting states and our partners in crafting and implementing solutions (the structure of NBTC and NBCI are described in Appendix III). This report is the first-ever coordinated attempt to assess the status of bobwhite populations, hunting activity and conservation effort across all 25 NBCI states.

We thank the following people for their participation on the NBCI State Agency Inventory Project and for making this first annual State of the Bobwhite Report possible: Mark Sasser (AL), Steve Fowler (AR), Matt DiBona (DE), Chuck McKelvy (FL), Reggie Thackston (GA), Mike Wefer (IL), Gary Langell (IN), Todd Bogenschutz (IA), Jim Pitman (KS), John Morgan (KY), Jimmy Stafford (LA), Bob Long (MD), Rick Hamrick (MS), Max Alleger (MO), Jeff Lusk (NE), Andrew Burnett (NJ), John Wooding (NC), Nathan Stricker (OH), Doug Schoeling (OK), Scott Klinger (PA), Billy Dukes (SC), Roger Applegate (TN), Robert Perez (TX), Marc Puckett (VA) and Chris Ryan (WV). Other important contributions to this report were made by Matt Arndt (MO), Bridget Collins (D.C.), Dave Dahlgren (KS), Mark Gudlin (TN), Jay Howell (VA), Doug Inman (TN), Heather Inman (TN), Carrie Johnson (AL), Mark Jones (NC), Douglas Osborne (TN), Budd Veverka (IN), and Jerry Westfall (WV). This report would also not be possible without funding from the participating state wildlife agencies and the National Fish and Wildlife Foundation.

Bobwhite restoration is major "unfinished business" of the wildlife management profession and the state wildlife agencies that have stewardship authority for this species. NBCI is a strategic leadership initiative of the states and their technical group, the NBTC. Recent accomplishments catalyzed by the NBCI are described in this report and in companion reports available on the Initiative's website: www.bringbackbobwhites.org.

Unfortunately, the NBCI is a late entry into a long-running national drama. The accelerating momentum of the NBCI is countered by the relentless decline of bobwhite populations and hunting activity, and with a stubbornly recessed economy that is reducing the ability of federal and state conservation agencies and private conservation groups to step up to the challenge while there is time. Considering the continuing downward trend in large-scale bobwhite population measurements, the slow pace of measured bobwhite restoration successes, the relatively low *average* interest among states in bobwhite conservation, reduced availability of material resources, and the long timespan needed to address such large problems, it becomes clearer from this report that the prospects for bobwhites as a thriving species are not encouraging.

A much larger, long-term commitment by all states and conservationists is imperative to overcome the half-century decline in bobwhite habitats and populations. Bobwhites are slipping through our fingers, and time is not on our side. We have the expertise; now we need to muster the resolve.

~ The Linie

Don McKenzie Director, NBCI

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STATUS OF BOBWHITE POPULATIONS

Bobwhite conservation in North America is at a crossroads. Bobwhites have been extirpated in many places. From Ontario, Canada to Florida many bobwhite populations are recreationally extinct, no longer a quarry of hunters.

And it's not just the familiar bobwhite that is in big trouble. A bobwhite subspecies, the masked bobwhite (*C. v. ridgwayi*), last found in the wild in the United States in Arizona, is on the brink of population extinction, with conservation efforts now focused on captive rearing of the last remaining known members of this subspecies. Beyond bobwhites, many other birds associated with native grasslands are in a steep decline. Forty-eight percent of native grassland-breeding bird species are of conservation concern (NABCI 2008).¹

Bobwhite populations have experienced long-term (1966/67-2009), 10-year and 5-year negative trends in each state as measured by the North American Breeding Bird Survey (BBS) (Figure 1) and state agency surveys (see state conservation reports). The BBS trends indicate percent change per year in estimates of population abundance, based on observations of calling male bobwhites. The chart includes each of the 25 NBCI-member states and a survey-wide trend calculated using 10 additional survey states (CO, CT, MA, MI, NM, NY, RI, SD, WA, and WI) on the periphery of the range, for a total of 35. Across the entire survey range, bobwhites have been declining at a rate of 3.75 percent per year since 1966, and an alarming 6.48 percent since 2005.

Most of the bobwhite decline occurred over decades of diminishing habitat suitability as agriculture became less "quail-friendly," natural plant succession resulted in a more forested landscape and fire has been mostly eliminated as an ecological disturbance force. Many landscapes are totally unsuitable because of expansion of cities and industrialization. However, where land use patterns have resulted in suitable habitat on a landscape scale, bobwhite populations have actually increased, for example in central and western Kansas and the Red Hills of Florida and Georgia, largely because of improved habitat suitability.

Bobwhite populations in some regions have also experienced markedly steeper declines in the past 5-10 years (Figure 1). This is likely caused by a combination of severe weather reducing winter survival or summer reproduction. In the past 5-10 years, the Great Plains (e.g., Kansas, Oklahoma, Texas) experienced near record drought and high temperatures, the Mid-Atlantic and Midwest experienced record low temperatures and high snow accumulation, and some areas experienced record high rainfall during the nesting season (e.g., eastern Kansas and Nebraska, Iowa, Maryland, northern Missouri, western Illinois). The suspension of wild bobwhite hunting in New Jersey was precipitated by a long-term decline driven by landscape-level habitat loss, which has been exacerbated by recent severe winter events. Milder weather and restoration of extensive areas of suitable habitat will increase the potential for future statewide wild bobwhite hunting in New Jersey.



For this report, BBS data are used to illustrate historical trends on a large scale. Unfortunately, there are relatively few BBS routes in each state, precluding definitive conclusions about bobwhite abundance below the statewide level. Similar to state agency quail surveys, BBS trends are an accurate barometer of the big picture, but cannot be related specifically to bobwhite hunting in specific locales, or to bobwhite population recovery at smaller scales. Because of the these limitations, NBCI and states are pursuing new bobwhite monitoring approaches, and thus the BBS survey will not be a regular part of NBCI reporting.

STATUS OF BOBWHITE HUNTING

Bobwhite and small game hunting were once *the* dominant hunting sports east of the Rocky Mountains, but in the 21st Century bobwhite hunting has been greatly reduced. Although future reports will cover the long-term trends in hunting activity in greater detail, a few states illustrate the decline of this tradition. In the worst-case scenario, this past summer the New Jersey Fish and Game Council suspended statewide wild bobwhite hunting.³



Figure 2. Estimated number of annual quail hunters (pursuing wild or pen-raised quail) in select NBCI states during the period 2004-10 (most recent survey data ranged from 2004-05 hunting season to 2009-10 hunting season, when reported in January 2011). Original data are from state agency surveys of hunters. Arkansas, Florida, Tennessee and West Virginia have no recent measurement of the number of quail hunters.

In two prominent bobwhite hunting states, Georgia and Missouri, the numbers of bobwhite hunters have declined 80-90% since peaks of 135,000 and 186,000 hunters, respectively, in the 1960s. Both states now have about 22,000 bobwhite hunters (Figure 2 and see Georgia and Missouri conservation reports). Bobwhite hunting activity, both the number of bobwhite hunters and hunter trips (or days afield), across NBCI states is highly variable, and not all states measure quail hunting activity (Figures 2 and 3). The Plains states of Kansas, Texas and Oklahoma have by far the most quail hunting activity (e.g., 72,900 Kansas quail hunters during the 2009-10 season), and eastern states the least amount (e.g., 1,522 Maryland quail hunters during the 2009-10 season). We conservatively estimate that there were 357,542 bobwhite hunters (including both wild and pen-raised bobwhites) annually over the last decade, and that hunters annually spent 1,996,390 days in the field. These are minimum estimates for various reasons. Of the states that do measure hunting activity, most sample from the pool of people who are required to have hunting permits, leaving various populations—including youth, senior citizens, and military personnel—unaccounted for.



Figure 3. Estimated number of annual quail hunter trips (i.e., days afield) (pursuing wild or pen-raised quail) in select NBCI states during the period 2004-10 (most recent survey data ranged from 2004-05 hunting season to 2009-10 hunting season, when reported in January 2011). Original data are from state agency surveys of hunters, where the sample is drawn from licensed hunters. Because of various license exemptions across states (youth, senior citizens, military personnel, people with disabilities, etc.), not all quail hunters are surveyed, and thus the estimate of quail hunter trips is a minimum figure. Arkansas, Tennessee and West Virginia have no recent measurement of the number of quail hunters.

Although bobwhite hunting has greatly diminished over time, there is still an enormous amount of recreational activity associated with the sport. Considering that quail hunting and field trials typically involve bird dogs, the economic impact of the sport is far-reaching, going well beyond the equipment and travel associated with other forms of hunting. In the most recent published multistate analysis of bobwhite hunting activity, for 11 southeastern states in 1991, there were an estimated 524,157 bobwhite hunters and that they expended nearly \$95 million during 2.6 million hunter-days, resulting in an economic impact of over \$193 million (Burger et al. 1999).⁴ Beyond the economic impact, quail hunting makes large, but unknown, contributions to quality of life. Measuring these positive impacts is a high priority for NBCI, and at the upcoming Seventh National Quail Symposium, expenditures of Texas quail hunters will be reported.

Because interest in quail hunting traditionally responds to abundance of quail, it is widely anticipated that successful implementation of the NBCI 2.0 eventually will stimulate increased hunting activity along with expansion of habitat and quail populations.

Pen-raised Bobwhites

State quail coordinator reports on bobwhite hunting also addressed the rise of released pen-raised bobwhites as quarry. In a recent NBCI blog,⁵ NBTC member/Kentucky biologist Ben Robinson discussed the reality many quail hunters face: the lack of enough wild birds close to home for training dogs or for a quick hunt. But no one can be happy about the virtual replacement of wild quail hunting by pen-raised quail in large parts of some states. The vision of the NBCI is to restore habitat to support improved hunting of increased wild quail populations.

According to Georgia DNR data provided to the NBCI State Agency Inventory Project (Inventory), during the 2008-09 season 22,423 hunters harvested 808,036 quail, of which 97% were pen reared and 3% were wild (see Georgia Report). This upside-down situation is common in many states east of the Mississippi River, according to state quail coordinators. Maryland DNR's most recent quail harvest report estimates the state has almost twice as many people hunting pen-raised quail (1,000) than wild quail (522 hunters) (the two are combined in Figure 2). Further west, the situation is not as bleak, for example the Missouri Department of Conservation estimates that 75% of the reported quail harvest in the 2008-09 season was wild bobwhites. Although some states are documenting hunting activity associated with hunting of wild and pen-raised quail, many are not, leaving uncertain the true nature of bobwhite hunting in the United States.

STATUS OF BOBWHITE CONSERVATION

Unlike migratory bird species, which are under the legal authority of the federal government, bobwhite conservation is the responsibility of the individual states. The NBCI was formed out of the states' desire for improved regional leadership, increased across-the-border collaboration and for participation in regional and national conservation initiatives. This report provides an initial attempt to bring together information about efforts to organize conservationists and citizens toward the goal of recovering wild populations of bobwhites.

This report contains three key elements of bobwhite conservation: 1) recent actions and accomplishments within each state (State Conservation Reports), 2) a state agency self-assessment of short- and long-term progress toward conservation (NBCI State Agency Inventory Project), and 3) key NBCI accomplishments over the past year. Since the beginning of the NBTC in 1995, states have reported annual actions and accomplishments, but the self-assessment reported here was done for just the second time. We first present State Conservation Reports and the immense amount of work being done, followed by the retrospective analysis provided by the Inventory Project, and conclude with NBCI accomplishments over the past year.

State Conservation Reports

This section contains highlights of the status of bobwhite populations, bobwhite hunting, and conservation efforts in each of the 25 NBCI states (Figure 4) during 2010-11. Detailed information is available through the hyperlinks in the report. If there is no hyperlink for information you desire, contact the state's quail coordinator listed at the end of each state report. These reports are not intended to provide facts or a forecast of the upcoming hunting season. Many state quail surveys were incomplete at the time of the reporting period, so state bobwhite population data reported here are usually from 2010. For hunting information go to the state's website or contact the state quail coordinator.

Despite the large-scale downward trends in bobwhite populations and hunting, there are some examples of a turn-around in local bobwhite abundance. Missouri started off the reports of success in 2008, with two of its counties—Scott⁶ and Cass⁷—achieving NBCI goals for habitat restoration, and rebounds in quail numbers and hunting, and was recognized as a national leader. For 2010-11, many states have increased bobwhite restoration. Below is a list of highlights from the state reports that follow:

- Pennsylvania Game Commission and West Virginia Division of Natural Resources are preparing inaugural bobwhite conservation plans.
- USDA Farm Bill programs continue to be the most important tools for creating and managing habitat for bobwhites with all 25 NBCI states participating in this national effort.
- Inclusion of bobwhite habitats by Iowa and Kansas in the new USDA Voluntary Public Access and Habitat Incentive Program (VPA-HIP).
- Inclusion of bobwhites in conservation efforts aimed at increasing wildlife diversity through restoration of ecosystems, including longleaf and shortleaf pine (see state conservation reports for Alabama, Georgia, Louisiana, Mississippi, Oklahoma and South Carolina).
- Habitat management on 180 state agency-led *bobwhite* focus areas.
- Partnerships with a multitude of local, state, regional and national non-government organizations and government agencies and programs.
- New prescribed fire initiatives in Mississippi, Louisiana and Arkansas.
- Participation in the ground-breaking measurement of bobwhite abundance as part of the national CP33 monitoring program, or approved substitute, by 16 state agencies: Arkansas, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Mississippi, Missouri, Nebraska, North Carolina, Ohio, Oklahoma, South Carolina, Tennessee and Texas.

- Measurement of statistically valid estimates of quail abundance in response to habitat management on 45 focus areas in Florida, Georgia, Kentucky, Missouri, Oklahoma and Virginia.
- Continuing peer-reviewed publication of research on bobwhite conservation such as New Jersey's "Life on the edge: Northern bobwhite ecology at the northern periphery of their range" and Tennessee's "Problems with Avian Point Counts for Estimating Density of Northern Bobwhite—A Case Study," and the upcoming Seventh National Quail Symposium, January 2012, featuring 85 scientific abstracts and papers.
- Continuing research on myriad aspects of bobwhite conservation, with notable effort in Arkansas, Delaware, Florida, Georgia, Illinois, Indiana, Kentucky, Maryland, Missouri, Ohio, Oklahoma, Tennessee and Texas.
- Notable outreach efforts in Delaware (bobwhite fact sheet), Illinois ("The Bobwhite in Illinois: Its Past, Present, and Future" publication online), Kentucky (quail Facebook page and bobwhite automobile license plate), Missouri ("Covey Headquarters" newsletter, and "Wright Quail Management" and "Where-have-quail-gone?" magazine articles, quail blog, and Missouri Quail Summit workshop), New Jersey ("Quail in the Classroom" course), North Carolina ("The Upland Gazette" newsletter), South Carolina (new bobwhite web page), Texas (new bobwhite web page), and Virginia (quail DVD, "Answering the Call" and 160 outreach events).



• Texas meeting the challenge to host the 2012 NBTC Annual meeting.

Figure 4. Twenty-five member states of the National Bobwhite Conservation Initiative.

<u>Alabama</u>

Population: Alabama quail populations have decreased annually by 3% over the last 5 years. *Hunting:* From the 2010-11 hunter survey,¹ Alabama had an estimated 8,711 quail hunters who

- harvested 230,317 birds. On Wildlife Management Areas (WMAs) alone there were 1,216 quail hunter man days reported with 1,385 quail harvested.
- *Management:* The Division of Wildlife and Freshwater Fisheries (WFF) has filled the quail coordinator position in the Wildlife Section and continues to manage for quail with the following programs:
- WFF began Longleaf Pine restoration on approximately 5,000 acres on Barbour WMA and Fred T. Stimpson Sanctuary. Also, extensive burning is taking place on these two areas to restore native grassland habitats. Shortleaf Pine restoration was initiated on 1,850 acres on WFF and Forever Wild lands on Lauderdale and Freedom Hills WMAs.
- The WFF Landowner Incentive Program, Longleaf Pine Ecosystem Restoration Initiative, continued with funds received from the American Recovery & Reinvestment Act² as well as USFWS partnership funds for projects with private landowners in high priority areas. During the past year, 1,103 acres were restored and a prescribed burning program will be implemented on these projects for the next 30 years.
- A survey program was established at Barbour WMA to monitor the effects of Longleaf Pine Restoration on bobwhite and songbird populations.
- Alabama State Parks, in partnership with WFF and Quail Forever, is creating a Quail Habitat Demonstration Area at Wind Creek State Park.

State Quail Coordinator: Carrie Johnson, Carrie.Johnson@dcnr.alabama.gov

<u>Arkansas</u>

Population: 2011 statewide bobwhite abundance index was 11% below 2010 index and 43%, 47% and 70% below previous 5-, 10- and 29-year averages, respectively.

Hunting: no hunting statistics have been collected in Arkansas in recent history. *Management:* The agency continues to operate under a statewide quail plan and as a partner

with NBCI. Quail management highlights include the following:

- Management of 5,620 acres in CP33¹ buffers and 5,411.4 quail-friendly acres in CP38E/SAFE Grass.
- Completion of university research on success of quail habitat restoration in 2 focal areas.
- Continued science-based management with monitoring of quail abundance in all counties and 2 private land focus areas and participation in national CP33 monitoring program.²
- Completion of a 6-year Landowner Incentive Program that addressed the need for and implemented 13,373 acres of prescribed fire in the Fulton County Focal Area.
- Modification of our Acres for Wildlife program to be a Native Warm-Season Grass program.
- Continued outreach via prescribed fire workshops, habitat workshops, and distribution of educational materials.

State Quail Coordinator: Steven Fowler, scfowler@agfc.state.ar.us

Delaware

- *Population:* 2010 statewide North American Breeding Bird Survey bobwhite abundance index was 0.57 bobwhite per route. Bobwhites have declined an average of 8.1% per year during the long-term period 1966-2009. This decline is even more pronounced when examining the most recent short-term, 10-year period (2000-2009), during which bobwhite declined an average of 12% per year (Figure 1).
- *Hunting:* 2008-09 estimated harvest was 5,274 quail, of which pen-raised, released birds comprised 89%. Total estimated number of hunters was 509 (Figure 2).
- *Management:* Our agency continues to operate as a partner with the NBCI. In addition, we have begun a comprehensive planning effort to identify quail focus areas, where management and research efforts would be directed. As part of the effort we have:
- Identified potential focus areas for quail management. Focus areas are being evaluated for restoration potential (landowner attitudes, existing/restorable habitat and population status).
- Developed a human dimensions survey¹ to assess landowner willingness to manage habitat on their property for bobwhite quail.
- Created a biological fact sheet² highlighting the status of quail in Delaware.
- Conducted intensive biological surveys in June and July to document the presence and distribution of bobwhite within potential focus areas. Areas within the focus areas with concentrations of bobwhite will be prioritized for habitat conservation and restoration.

State Quail Coordinator: Matt DiBona, matthew.dibona@state.de.us

<u>Florida</u>

Population: Florida's bobwhite population¹ has declined by approximately 82% since 1966. *Hunting:* Between 1970 and 2004, annual bobwhite harvest² declined from 2.7 million to about 210,000 quail.

Management: Florida's restoration and management for bobwhites is based on a state strategic plan³ that is integrated with NBCI. Management highlights include the following:

- To advance Florida's strategy, the Upland Ecosystem Restoration Project (UERP) was developed in 2006 as a cooperative venture between the 3 primary land management agencies and Tall Timbers Research Station and Land Conservancy. The goal of UERP is to prioritize Florida's publicly owned upland ecosystems for restoration and to initiate large-scale restoration projects for the benefit of northern bobwhites and other imperiled native grassland species.
- UERP comprises 100,000 acres and has generated \$350,000 of private funding for management (see the UERP map⁴). Collectively, under UERP and other projects, Florida now has 167,000 acres under management for bobwhites and other native grassland dependent species (see the bobwhite focal map⁵).
- Along with management, fall covey call counts, vegetation monitoring, and surveying for other native grassland species were conducted and reported⁶ on 10 public focal areas across the state.
- Research includes the completion of the Babcock-Webb project (2002-2009), an evaluation of the effects of harvest and relationship between habitat, environmental factors, and vital rates. Beginning January 2012, work will initiate on a new study that examines the effects of the scale of fire on bobwhite survival and reproduction.

State Quail Coordinator: Chuck McKelvy, Chuck.McKelvy@MyFWC.com

Georgia

Population: Georgia's bobwhite population¹ has declined by more than 85% since 1966. *Hunting:* Between 2006 and 2009, hunter numbers remained stable while the estimated quail

- harvest increased by 30%. The proportion of pen-reared birds in the harvest increased 59% (130,645) while wild quail declined by 79% (27,416) (see the hunting report²).
- *Management:* Georgia Wildlife Resources Division's (WRD) quail restoration efforts are primarily focused through the Bobwhite Quail Initiative (BQI³) and NBCI. Georgia WRD is transitioning to a formal NBCI step-down plan (GA-NBCI⁴) that targets restoration efforts into spatially explicit focal areas across parts of 69 counties. Quail management highlights include:
- For 2008-2010, 117 BQI financial incentive private land cooperators enrolled 202 crop fields and 56 pine stands. Cooperators established 225 miles of field borders and with other BQI practices positively impacted more than 14,480 acres on working farms and forests.
- USDA Farm Bill habitats include 200,000 acres in CRP Longleaf,⁵ 2,222 acres in CP33 Buffers⁶ and 7,785 acres in CP38 Pine Savanna Restoration (SAFE⁷).
- Wild quail translocation permits granted to expedite restoration on 4 private land sites.
- Research includes ongoing efforts at DiLane Wildlife Management Area to monitor bobwhite population response to supplemental feeding and predator control.

State Quail Coordinators: Reggie Thackston, reggie.thackston@dnr.state.ga.us, and James Tomberlin, james.tomberlin@dnr.state.ga.us

<u>Illinois</u>

- *Population:* 2010 statewide bobwhite quail call count index¹ was 12% below the 2009 index and 15%, 14% and 39% below the previous 5-, 10- and 32-year averages, respectively.
- *Hunting:* For the 2009-10 hunting season¹, an estimated 16,948 hunters (down 22.8% from 2008-09) harvested 123,933 quail (down 18.0%). Hunters experienced better daily success (up 13.5% from 2008-09).

Management: Increasing quail populations is a major goal in the Illinois Wildlife Action Plan.² Quail management highlights include the following:

- There are 54,590 acres of CP33 Buffers and 8,891 quail-friendly acres in CP38 State Acres for Wildlife Enhancement (SAFE³). The Illinois SAFE⁴ program has created major quail habitat successes.
- PhD student Leah Berkman is finishing up her work on quail landscape genetics at SIU. Her data suggest that there is still good gene flow across the landscape.
- In 2010, IDNR changed its upland bird monitoring scheme to better estimate upland game and native grassland bird numbers and allow biologists to compare our results with other surveys like the North American Breeding Bird Survey and with habitat changes. We conducted 74 upland routes and 10 State Habitat Area point counts in 2011.
- The Bobwhite in Illinois: Its Past, Present, and Future⁵ by John Cole and John Roseberry is now available online.

State Quail Coordinator: Mike Wefer, mike.wefer@illinois.gov

<u>Indiana</u>

- *Population:* The 2011 statewide whistle count index was down 19% from the 2010 index, and was also 17%, 24% and 37% below the 5-year, 10-year, and 36-year averages, respectively.
- *Hunting:* During the 2008-09 season, an estimated 14,000 quail hunters harvested 21,100 bobwhites which declined 34% and 28% from 2005-06, respectively. 2010-11 data is incomplete.
- *Management:* Within the Indiana Division of Fish and Wildlife (IDFW), three units of the wildlife section assist in quail management: Private Lands, Public Lands, and Wildlife Science. Recent quail management highlights include the following:
- The Private Lands Unit began its step down of the NBCI in 2004; 11 IDFW Quail Habitat Priority Areas were developed; landowners within these areas receive additional incentives;¹ 13,323 acres are enrolled in CP33² buffers; 12,732 acres are enrolled in CP38 State Acres for Wildlife Enhancement (SAFE³).
- The Public Lands Unit has formed a committee to develop habitat management and harvest strategies to place a greater emphasis on upland game; \$100,000 for succession control has been allocated to 8 Fish & Wildlife Areas and 27 Game Bird Habitat Areas; over 400 acres of public land quail habitat has been created through succession control and fescue conversion.
- The Wildlife Science Unit continues to monitor population trends and harvest, and is conducting radio-telemetry research examining the impacts of disturbance on northern bobwhite productivity and dispersal at Glendale Fish &Wildlife Area.

State Quail Coordinators: Budd Veverka, bveverka@dnr.in.gov, and Gary Langell, glangell@dnr.in.gov

<u>Iowa</u>

- *Population:* 2010 statewide bobwhite August roadside index¹ of 0.23 quail per 30-mile route was 70% below the 2009 index. This is 63% and 84% below the 10-year and long-term (48-years) averages, respectively.
- *Hunting:* During the 2010-11 hunting season² an estimated 10,604 hunters (up 4%) harvested 11,620 quail (down 4%) compared to 2009-10 season.
- *Management:* Iowa Department of Natural Resources (IADNR) manages bobwhite by partnering with multiple agencies, NGOs and private citizens, as well as the NBCI. Quail management highlights include the following:
- Management and private lands staff have identified 2 public wildlife areas and 1 private focal area for intensive bobwhite management.
- Iowa has 25,000 acres of CP33³ buffers and 33,750 acres of CP38 State Acres for Wildlife Enhancement (SAFE⁴).
- Bobwhites are a species of conservation importance for both State Wildlife Grant⁵ and private lands program staff.
- IADNR continues to participate in national CP33 monitoring.⁶
- USDA Voluntary Public Access and Habitat Incentive Program (VPA-HIP) funds are being used to create more CP33 and CP38 practices that will create quail habitat and will be open for public hunting.⁷

State Quail Coordinator: Todd Bogenschutz, todd.bogenschutz@dnr.iowa.gov

<u>Kansas</u>

Population: 2010 statewide bobwhite breeding abundance index was 3.6% below 2009 index and 3.3% and 1.4% below previous 5- and 10-year averages, respectively.

Hunting: for the 2009-10 hunting season,¹ 72,900 quail hunters harvested 485,000 bobwhites. *Management:* Kansas Department of Wildlife and Parks (KDWPT) manages bobwhite

- throughout the state by partnering with multiple agencies, NGO and private citizens, as well as NBCI. Quail management highlights include the following:
- KDWPT has designated 2 focus areas in eastern Kansas for bobwhite restoration, and is teaming with NBCI on these projects.
- Bobwhites are a species of conservation importance for both State Wildlife Grant and USDA Wildlife Habitat Improvement Projects funding ranking process.
- KDWPT continues to evaluate CP33 Buffers throughout the state.
- USDA Voluntary Public Access funds are being used to create more habitat through CP33 Buffers and CP38 State Acres for Wildlife Enhancement (SAFE²).
- CP38 and CP33 practices that will create quail habitat and become leased for public hunting for the life of the contract.

State Quail Coordinators: Jim Pitman, jim.pitman@ksoutdoors.com, and Dave Dahlgren, dave.dahlgren@ksoutdoors.com

Kentucky

Population: According to the Kentucky Department of Fish and Wildlife Resources (KDFWR) statewide mail carrier survey, the bobwhite population has declined by more than 83% since 1968. The 2010 index is 69.8% below our 1981 restoration target.

- *Hunting:* Hunter participation in hunter cooperator logs has declined 6% over the last 5 years. Hunter harvest has declined by 36.6% over the same period (see the hunting report¹).
- *Management:* Kentucky initiated a state-wide bobwhite restoration plan² in 2008 that includes 33 endorsing partners. Quail management highlights include:
- Five focus areas, averaging 22,400 acres, have been established and monitored for grassland breeding bird density estimates.
- The Green River Conservation Reserve Enhancement Program established over 100,000 acres of grassland habitat in south central Kentucky. KDFWR is monitoring the impact to native grassland birds.
- Peabody Wildlife Management Area bobwhite research project is entering its 3rd of six years.
- In partnership with Quail Unlimited, a bobwhite specialty license plate was created in 2009. In 2010, roughly \$15,000 in bobwhite projects was funded by the plate revenues.
- Shaker Village restored roughly 1,000 acres of habitat representing KY's first restoration success stories by growing 6 coveys to 40 coveys.
- The Kentucky Bobwhite Battalion (KY Quail Facebook³) was created to continually update quail enthusiasts about KDFWR's bobwhite restoration efforts.

State Quail Coordinators: John Morgan, john.morgan@ky.gov, and Ben Robinson, ben.robinson@ky.gov

Louisiana

- *Population:* The annual 2010 Bobwhite Whistle Survey¹ combined results were not significantly different from 2009. However, the 2010 survey did produce the highest number of "zero whistles" since the survey began in 1983.
- *Hunting:* The Big and Small Game Harvest Survey² estimated 1,100 wild quail hunters and 4,100 quail bagged for 2010-11. The number of quail hunters remained unchanged from the 2009-10, but harvest was down 20%.
- *Management:* The LA Department of Wildlife and Fisheries (LDWF) restructured its biological staff in to emphasize private landowner assistance. Highlights include:
- West Gulf Coastal Plain and East Gulf Coastal Plain Prescribed Burning Initiatives funded by a SWG and USFWS grants resulted in 4,173 acres burned.¹
- NRCS Longleaf pine: 411 acres planted, 1,138 acres planned and 1,668 acres improved.
- Formation of Acadiana Grassland Restoration Initiative partnership with LDWF, Acadiana RC&D Council, TNC and Atchafalaya Region Chapter of Quail Forever.
- NRCS Strategic Watershed Action Team partnership to restore longleaf pine.¹
- Quail habitat development on 3 Wildlife Management Areas (WMA): Alexander State Forest WMA, Bodcau WMA, and Sandy Hollow WMA.
- Additional contract prescribed burning planned on other WMAs.

State Quail Coordinators: Jimmy Stafford, jstafford@wlf.la.gov, and Jeffery Duguay, jduguay@wlf.la.gov

Maryland

- *Population:* The 2010 statewide bobwhite abundance index was 60% below the 2009 index and 65%, 77%, and 96% below the 5-, 10-, and 44-year averages, respectively. The significant decline between 2009 and 2010 is likely attributable to severe winter weather.
- *Hunting:* In 2009-10, an estimated 521 quail hunters spent 1,568 days afield and harvested 1,501 wild quail. Quail hunting and harvest have declined more than 95% since the 1970s.
- *Management:* Maryland Department of Natural Resources (MDNR) focuses quail restoration on suitable public lands within the current quail range and on private lands via USDA Farm Bill programs:
- Four MDNR Wildlife Management Areas containing 10,500 acres are focused on quail. Population monitoring shows stable or increasing quail numbers.
- Farm Bill practices that have the potential to benefit quail total about 43,000 acres and include: CP33 Buffers (718 acres), CP2-native grass (2,699 acres), CP4D-wildlife habitat (1,558 acres), CP21-filter strips (37,407 acres), and CP25-rare and declining habitats (311 acres). Most of these practices have been enrolled as part of the popular Conservation Reserve Enhancement Program (CREP¹).
- Research was initiated in 2009 to investigate quail ecology in the species' northern range but was suspended due to the nearly complete loss of quail on the site during the winter of 2009-10. Surveys suggest increasing numbers on the study site and the research may be resumed.
- Numerous information packets were distributed and a habitat seminar was conducted. State Quail Coordinator: Bob Long, blong@dnr.state.md.us

Mississippi

Population: No state population estimate.

Hunting: 2009-10 hunting season statistics¹ were above previous year but below previous 5- and 10-year averages (see also small game survey²).

Management: The agency continues to operate under a statewide quail plan³ and as a partner with the NBCI. Quail management highlights include the following:

- Continued delivery of CRP, State Acres for Wildlife Enhancement Initiative (CP38⁴), and CP33⁵ buffers.
- Cooperated with conservation partners to implement quail-friendly habitat management.
- Assisted in establishment/management of 1,200 acres of native grass, 140 acres longleaf pine, and 325 acres of upland pine habitat on private lands through CRP, Landowner Incentive Program, and Mississippi Partners for Fish and Wildlife Program.
- Conducted quail-friendly forest and field management on 7 Wildlife Management Areas.
- Hired new private lands biologist to deliver Longleaf Pine Technical Assistance Program.
- Assisted development of state's first Prescribed Burn Association.⁶
- Continued monitoring quail abundance on public lands and 4 quail focus areas and national CP33⁷ and state CP38 monitoring programs.
- Continued outreach via Small Game Program Report⁸, Mississippi Outdoors and Outdoors 'n Mississippi magazine articles, and one game bird workshop.

State Quail Coordinators: Dave Godwin, daveg@mdwfp.state.ms.us, and Rick Hamrick, rickh@mdwfp.state.ms.us

Missouri

- *Population:* 2010 statewide bobwhite abundance index¹ of 2.2 quail per 30-mile route was 17% below the 2009 index of 2.7. This is 29% below the 5-year average (2005-2009) and 37% below the 10-year average (2000-2009).
- *Hunting:* 2009 hunter survey¹ cooperators flushed 0.44 coveys per hour, which is 10% less than that reported in 2000, the last time this survey was conducted. Hunters spent an average 3.25 hours per trip and harvested an average of 2.4 quail per trip.

Management: Missouri continues to implement a statewide quail plan² as a partner with the NBCI (MO-NBCI³). Quail management highlights in 2010 include:

- Staff implemented quail-friendly management on 127,391 acres of public land and provided technical assistance and/or funding on 116,409 additional acres of private land. USDA programs include 28,490 acres in CP33⁴ buffers and 13,000 acres in Conservation Reserve Enhancement Program (CREP⁵).
- Ongoing Missouri quail research.
- Monitoring of quail abundance on 19 public land Quail Emphasis Areas, 2 private land focus areas⁶ and in national CP33 monitoring.⁷
- Continued outreach via Covey Headquarters Newsletter⁸, articles ("Wright Quail Management,"⁹ "Where-have-quail-gone?," ¹⁰ MO Quail Blog¹¹), and the recent Missouri Quail Summit.¹²

State Quail Coordinator: Max Alleger, max.alleger@mdc.mo.gov

<u>Nebraska</u>

- *Population:* Statewide bobwhite indices from the 2011 Bobwhite Whistle Count survey were 21% higher than in 2010. Regional increases were also noted for the Northeast, Republican, Southeast, and West Platte bobwhite management zones. Data from the July Rural Mail Carrier also indicated increases in these regions.
- *Hunting:* During the 2010-2011 hunting season, 15,966 hunters harvested approximately 58,670 wild bobwhites. The bobwhite is the second most popular upland species in terms of hunter participation, and third most popular in terms of total annual harvest.

Management:

- Private Lands: Nebraska has enrolled 5,891 acres of the 8,900 acres of CP33 allotted (~66%) to the state. Additionally, Nebraska received an additional 25,000 acres for its CRP-SAFE practices. There are requirements related to shrub cover for Greater Prairie-Chicken (thicket every 10 acres) and Upland Game Bird (thicket every 5 acres) practices.
- Public Lands: Wildlife Management Areas across the state are managed under an Early Successional Habitat Initiative to maintain, where suited, early successional habitat types necessary for bobwhites and other upland game birds.
- Analysis and Inventory: Bobwhite populations and harvest are monitored annually. Population assessment is accomplished through the whistle count and rural mail carrier surveys. Harvest is assessed using an end-of-season hunter mail survey.

State Quail Coordinator: Dr. Jeffrey J. Lusk, jeff.lusk@nebraska.gov

New Jersey

- *Population:* 2010 statewide bobwhite abundance index was 19% above 2009 index and 7%, 77% and 98% below previous 5-, 10- and 44-year averages, respectively.
- *Hunting:* 2009-10 hunting season statistics¹ (4,826 quail hunters harvested 59,297 bobwhites, including pen-raised). Wild bobwhite hunting has been suspended in New Jersey, precipitated by a long-term decline driven by landscape-level habitat loss, which has been exacerbated by recent severe winter events.
- *Management:* New Jersey Department of Environmental Protection, Division of Fish and Wildlife, will operate under a statewide quail plan² and partner with multiple agencies, NGOs and private citizens, as well as NBCI. Quail management highlights include the following:
 - 800 acres added to Dix Wildlife Management Area will receive quail-friendly management.
 - \$700,000 in approved funding to promote wildlife-related incentive programs over the next 5 years.
 - Research publication, "Life on the edge: Northern bobwhite ecology at the northern periphery of their range."³
 - A pilot Quail in the Classroom⁴ project was initiated in cooperation with the New Jersey Outdoor Alliance and the New Quail Project.

State Quail Coordinator: Andrew W. Burnett, andrew.burnett@dep.state.nj.us

North Carolina

- *Population:* 2010 statewide bobwhite abundance index¹ continued a downward trend. Downward trends occurred on 21 of the 26 routes. Upward trends occurred on 3 routes, and 2 routes were relatively stable. Since 1995, 7 routes have been dropped from the survey due to lack of quail.
- *Hunting:* Results from the 2009-2010 hunting season² indicate coveys flushed and birds bagged have declined at a steady rate over the last 25 years.
- *Management:* The agency continues to operate under the early-successional habitat plan, called Cooperative Upland Habitat Restoration and Enhancement, or CURE,³ and as a partner with the NBCI. Quail management highlights include the following:
- Management of a 4-county private lands focal area in southeastern North Carolina. Farms containing over 15,000 acres are enrolled and quail populations are increasing or stable. On public lands, 4 CURE game lands are managed for approximately 20,000 quail-friendly acres. Other initiatives include agency biologists working from NRCS offices in North Carolina's 3 administrative regions.
- Continued outreach via The Upland Gazette,⁴ a biannual publication covering early successional species and habitats.
- State Quail Coordinator: Vacant, contact for quail and habitat-related issues: Mark D. Jones, Supervising Wildlife Biologist, Private Lands Program, mark.jones@ncwildlife.org

<u>Ohio</u>

- *Population:* 2010 statewide bobwhite abundance index¹ was 38% below the 2009 index and is 6% of the 1985 index. Trend analysis indicates that Ohio's bobwhite population declines at a rate of 9% annually.
- *Hunting:* Analyses of 2009-2010 hunter harvest surveys¹ suggests that there are about 10,500 hunters pursuing bobwhites in Ohio, a 40% decline from 2002.
- *Management:* Quail management is included in grassland ecosystem management guided by a statewide Grassland Tactical Plan which was revised in 2011. Quail management highlights include:
- Establishment of 15,509 acres in CP33² buffers.
- Collaboration with Pheasants Forever and NRCS to fund 6 Farm Bill biologists that provide one-on-one consultation for habitat improvement on private lands across 22 of Ohio's 88 counties.
- Provided 5 landowner workshops throughout Ohio's quail range about opportunities for habitat improvement on private lands.
- Research: Within the last 3 years Ohio State University has compared breeding and nonbreeding habitat use by bobwhites and identified seasonal variation in survival in landscapes typical of the Midwest. Future efforts will examine effects of edge feathering on winter survival.

State Quail Coordinator: Nathan Stricker, Nathan.Stricker@dnr.state.oh.us

Oklahoma

- *Population:* According to the Oklahoma Department of Wildlife Conservation (ODWC) roadside quail surveys,¹ the population index in 2010 showed a 71% decline since 1990, but has fluctuations like most ground nesting birds.
- *Hunting:* According to the annual phone surveys conducted from 1986 to 2010, hunter numbers¹ have declined by 72% (111,000 to 31,000), and the estimated quail harvest also decreased by 82% (2,700,000 to 478,000).
- *Management:* Oklahoma's Quail Habitat Restoration Initiative (QHRI) through the USDA EQIP program has 5 focal areas throughout Oklahoma. In 2011 the program was able to spend \$397,697 on 18,827 acres in 2 focal areas. The program has been able to spend over \$1.8 million on over 94,000 acres over the last 5 years. Management highlights include:
- Farm Bill habitats include: CP33 Buffers about 750 acres and CP38 mixed-grass prairie restoration about 5600 acres.
- ODWC is also working on Wildlife Management Areas (WMAs) throughout the state to restore native grasses from exotics and also pine bluestem restoration.
- Research: ODWC is a cooperator² in the Operation Idiopathic Decline study in Texas. Also is conducting research³ with Oklahoma State University on Packsaddle and Beaver WMAs.

State Quail Coordinators: Doug Schoeling, schoelingd@pldi.net, Mike Sams, mgsams@brightnetok.net, and Jena Donnell, jdonnell@odwc.state.ok.us

Pennsylvania

- *Population:* Between 1966 and 2010 Northern Bobwhite Quail populations have declined by 7.6% annually (BBS data 1966-2010). Because of the release of pen-reared quail it is very difficult to estimate the actual bobwhite population in PA. The Bobwhite is a Species of Greatest Conservation Concern in the PA Wildlife Action Plan. We believe the populations of wild bobwhites are very restricted to the southernmost counties of the state and may be less than 500 individuals.
- Hunting: In 2010-11, hunting season was closed in 20 PA counties in south-central and southeast PA. The remainder of the state was open with a daily bag limit of 4 and a possession limit of 8. The PGC does not raise and release bobwhite quail, but many sportsman clubs and shooting preserves raise and release bobwhite quail throughout PA. Based on our Game Take Survey, 5,424 quail hunters harvested 16,527 bobwhite quail (16,216 of those were taken on regulated shooting preserves and 311 on public and private lands). We believe the majority, if not all of the harvest, is from pen-reared birds. Hunters spent 30,545 days hunting. Because of a small sample size, the confidence intervals for these mean estimates are very large.
- *Management:* The agency completed a draft statewide quail plan¹ and is a partner with the National Bobwhite Conservation Initiative.
- State Quail Coordinator: Scott R. Klinger, Wildlife Biologist, scklinger@pa.gov

South Carolina

- *Population:* 2010 statewide bobwhite abundance index¹ was 6% below the 2009 index and 53% below the long-term average.
- *Hunting:* Most recent information on quail hunting (2005) indicates that approximately 6,500 quail hunters hunted approximately 29,000 days and harvested 59,470 wild quail. Hunter success in the annual Quail Hunter Survey² decreased from 0.58 coveys/hr to 0.36 coveys/hr.
- *Management:* South Carolina is in the process of developing a statewide quail management plan, and utilizing the data and tools contained in the NBCI 2.0. Quail management highlights include:
- Since 2006, SCDNR has cooperated with the USDA Forest Service and multiple other partners in developing habitat on the Indian Creek Wildlife Habitat Restoration Area. Over 2000 acres of National Forest lands are in the process of being restored to pine savanna.
- Over 7,000 acres of state lands are being managed for bobwhites and grassland birds through a State Wildlife Grant.
- USDA Farm Bill habitats include over 5,000 acres in CP33³ buffers and approximately 600 acres in CP38 (SAFE⁴).
- One Wild Quail Management Seminar⁵ was conducted for 29 private landowners and resource professionals.
- Developed information for new quail page on the SCDNR web site (WEB PAGE⁶).

State Quail Coordinator: Billy Dukes, DukesB@dnr.sc.gov

Tennessee

Population: Tennessee Wildlife Resources Agency (TWRA) has no state population estimate. *Hunting:* No current harvest estimate with acceptable confidence interval.

- *Management:* NBCI-based bobwhite restoration plan is in review. Management highlights include the following:
- Primary personnel that provide technical assistance on bobwhites to private landowners are 4 biologists co-funded with NRCS and 4 NRCS area wildlife biologists.
- About 60,000 acres (41,329 acres of CP2, 7,705 acres of CP4D, 5,118 acres of CP33, 4,935 acres of CP38 SAFE-Bobwhite) of the 204,762 acres of CRP in TN are believed to have potential to benefit bobwhites, with mid-contract management a weakness.
- In past 1.5 years about 35,000 acres of bobwhite-friendly vegetation was established or managed under NRCS programs or technical assistance, and 778 acres of bobwhite habitat were created or improved through TWRA's "Farm Wildlife Habitat Program."
- Vegetation analyses of CP33 buffers revealed that in 15 of 40 buffers where exotic forages were more than a minor occurrence (≤5%; primarily Bermuda grass and fescue) the exotic forages comprised an average 30.6% of the buffer vegetation.
- 5,000 acres of Wildlife Management Area improved for bobwhites in July 2010-June 2011.
- Concluded the final year of CP33 monitoring, and have 10 SAFE-Bobwhite contracts on which bobwhites and native grassland songbirds are being monitored.
- One research project, "Problems with Avian Point Counts for Estimating Density of Northern Bobwhite—A Case Study", published.¹

State Quail Coordinator: Roger Applegate, roger.applegate@tn.gov

<u>Texas</u>

- *Population:* The 2010 Rolling Plains ecoregion bobwhite population abundance index was 17% above 2009 index and 41%, 56% and 63% below previous 5-, 10- and 33-year averages, respectively. The 2010 South Texas Plains ecoregion bobwhite abundance index was 40% above 2009 index and 29% above the previous 5-year average and 8% and 54% below previous 10- and 33-year averages, respectively (see the population survey¹).
- *Hunting:* In 2009-10, 48,246 hunters harvested 584,533 bobwhite and hunted 221,322 days. Hunting statistics² were below previous year and previous 5- and 10-year averages.
- *Management:* Texas Park and Wildlife Department (TPWD) quail conservation efforts are focused through the Upland Game Bird Strategic Plan³ and NBCI. Quail management highlights include:
- TPWD biologists work one-on-one with private landowners to make habitat recommendations and complete wildlife management plans. Completed over a dozen field days, workshops, and staff training programs.
- Ongoing restoration⁴ in the coastal prairie region of Texas.
- TPWD Quail Management⁵ webpage completed and Conservation partner driven website developed for landowners to find Habitat Management Resources.⁶
- Research includes evaluation of the quail surrogator, predator avoidance behavior, sustained yield, helicopter census technique and several other projects through the Center for Quail Research,⁷ Team Quail,⁸ Rolling Plains Quail Research Ranch,⁹ and Quail-Tech Alliance.¹⁰

State Quail Coordinator: Robert Perez, Robert.perez@tpwd.state.tx.us

<u>Virginia</u>

Population: Virginia's quail population¹ continues to decline in many areas, but some increases are noted and the rate of decline has slowed.

- *Hunting:* 2009-10 hunting season statistics¹ (8,199 quail hunters, 40,782 harvested) were below previous 1-, 5- and 10-year levels; data for 2010-2011 are not analyzed.
- *Management:* The Virginia Department of Game and Inland Fisheries' Quail Recovery Initiative² is entering its 3rd implementation year. We continue to partner with multiple agencies, NGOs and private citizens, as well as the NBCI. Quail management highlights include:
- 5,354 acres of new habitat via our 5 private lands wildlife biologists.
- 540 site visits and 406 new landowner contacts (new contacts on 81,972 acres).
- Amelia Wildlife Management Area quail habitat demonstration project.
- Quail DVD² "Answering the Call" widely distributed.
- 94 tracts of land and 83 landowners in the QMAP² program totaling 24,188 acres with 18% under some form of quail management.
- \$600,000 in approved funding for the wildlife Best Management Practices program.
- Participation in 160 outreach events.
- Quail density monitoring on 3 quail demonstration areas and in 6 target regions.

State Quail Coordinators: Marc Puckett, marc.puckett@dgif.virginia.gov, and Jay Howell, jay.howell@dgif.virginia.gov

West Virginia

Population: No state population estimate.
 Hunting: No current harvest estimate with acceptable confidence interval.
 Management: West Virginia Division of Natural Resources is initiating quail conservation planning during the upcoming year.
 State Quail Coordinator: Jerry Westfall, Jerry.A.Westfall@wv.gov

NBCI State Agency Inventory Project

The NBCI State Agency Inventory Project (Inventory) provides a barometer of bobwhite conservation within each state and is intended to provide planning guidance to the NBTC, NBCI and the NBCI Management Board. We asked each state's quail coordinator to do a self-assessment of their state's progress toward conservation of bobwhites and to provide basic data on habitat management and hunting. State agencies answered similar questions in a NBCI survey conducted in 2006. The self-assessment included important questions about leadership and allocation of resources, and thus was seeking potentially sensitive information and perceptions. This degree of transparency was not intended to embarrass any state, and thus most answers do not identify specific state responses. Instead the focus is on states learning from each other, what is working to put quail habitat on the ground, increasing quail populations and benefiting quail hunters and citizens.

An overriding theme of responses in the NBCI State Agency Inventory Project is that there are tremendous differences among states in the status of bobwhite conservation, with only a handful of states taking aggressive action. This widely-different commitment of quail management resources is clearly shown in the charts that follow, and also by what was *not* done: some states did not answer all Inventory questions, or even have the ability to provide data. For example, some states have no mechanism for documenting annual habitat management activity (e.g., acres of prescribed fire) and some states do not estimate how many people hunt bobwhites. This condition is not surprising in some ways considering differences in states' interest in bobwhites, and the difficult economic climate. Nonetheless, the Inventory Project provided an assessment of the challenges to restoration of bobwhites.

On the bright side, the Inventory revealed that leaders in bobwhite conservation efforts had these things in common: 1) leading agencies publicly supported bobwhite conservation, building expectations in citizens, hunters and natural resource professionals; 2) leading agencies had citizens and natural resource professionals, in and outside the state agency, that were trained to understand the nature of bobwhite conservation and that habitat management was the best solution for reversing quail population declines; 3) leading agencies had integrated bobwhite conservation into broader state and national conservation efforts such as a State Quail Plan, State Wildlife Action Plans and the NBCI; 4) leading agencies provided adequate labor, time, money and technology (e.g., ArcGIS resources, bobwhite information on the Internet) to meet the goals set forth in conservation plans; and 5) leading agencies were evaluating habitat management outcomes and investigating the causes of success and failure.

The model in Missouri and other aggressive states included key items such as:

• an NBCI-linked state quail restoration plan

- public commitment
- leadership at all levels of the agency
- allocation of resources by the state agency
- partnerships with game bird and non-game NGOs and government resource agencies, particularly the USDA Natural Resources Conservation Service
- education and training of natural resource professionals and citizen quail enthusiasts
- research and monitoring

Inventory: Agency Public Commitment, Leadership And Support

On-the-ground bobwhite habitat management can be expensive, sometimes requiring establishment of suitable plants, restoration or eradication of existing plants, and/or management of plant succession. Accomplishing this work requires leadership, funding, research, outreach, education, training, staff resources, and policy development. Because of the significant decline in bobwhite populations, bold leadership by states is necessary to assemble the ingredients of a program aimed at achieving a rebound by the species. The Inventory asked key questions of coordinators about their perception of some these key program elements.

Public identification of bobwhites as a priority (Figure 5): Coordinators were asked the degree to which the state agency has publicly identified bobwhite restoration as a priority, either for the first time, or continuing. Answers were 20% for "High," 28% for "Moderate," 24% for "Some" and 28% for "Zero." Consolidating the non-zero responses, 72% of states had publicly identified bobwhites as a priority. This is up from 45% from a similar questionnaire in 2006, so states have made progress in this area of conservation.



Leadership comes in many forms, and a key to the success of some states' quail programs has been collaboration among state and federal agencies, NGOs, and citizens. As an example of the importance of this element of conservation, NBCI and the Quail Symposium committee invited Katharine Armstrong, Director of Images for Conservation and formerly the Chairman of the Texas Parks and Wildlife Commission, to present a plenary session lecture at the Seventh National Quail Symposium on her experiences leading the Texas Quail Council, a diverse group of conservation leaders. Missouri too, had a citizen led quail council, the Missouri Quail and Grassland Bird Leadership Council, which was instrumental in increasing funds and staff resources available for bobwhite management. Both groups have been reorganized, with the Texas group now functioning as the "Upland Game Bird Advisory Council" and the Missouri group as the "Quail and Small Game Advisory Team." The latter group coordinates the operational activities of Missouri's quail partners under the auspices of the Conservation Federation of Missouri, a citizen-led organization. Whatever name, composition and authority a state-based group might have, the key is a common vision for habitat conservation among agencies, NGOs and citizens.

For the Inventory we asked quail coordinators to identify for 2010 whether or not their state agency had convened a state-level interagency, multi-partner council, committee or task force meeting aimed at bobwhite management policy and administration. Coordinators indicated that 3 states each fell into the categories of "High," "Moderate" and "Some" degree (combined positive responses of 36%) of this kind of collaboration and leadership, and most, 16 states (64%), had no such emphasis (Figure 6). This is a similar response to the same question asked in the 2006 survey when 41% of states indicated this collaborative leadership was present.

After leadership, the foundation of a conservation program is material resources, so coordinators were next asked for their perception of those trends for both the state agency and entities outside of the agency (Figures 7 and 8). Coordinators believe that support within their agencies since the 2002 advent of NBCI has generally been stable or up, with 15 states (60%) classified as such (Figure 7). Coordinators were asked the same question about resources provided by entities outside of the agency, such as the USDA Farm Bill, NGOs and public and private grants. In this case coordinators perceived a large increase in resource support, with a positive trend since 2002 in 19 (76%) states (Figure 8).

Another tangible indicator of investment in nationally organized bobwhite conservation is the commitment to a state coordinator of NBCI-related conservation. The good news is that many states have increased their NBCI work, with 5 of 22 (22.7%) states having an "NBCI state quail coordinator" at the time of the 2006 NBCI survey and 17 of 25 (68%) states having a coordinator in 2010. However, not all coordinators have been participating in annual NBTC meetings. For the annual meeting of the NBTC/NBCI in Wichita Kansas in August 2010, 8 coordinators did not attend. NBCI worked with the NBCI Management Board in March 2011 to make travel to annual NBTC meeting a priority, and we are happy to report that for the 2011 meeting in Tallahassee, Florida, only 3 coordinators did not attend.





Inventory: Science-Based Conservation

There are many aspects of a science-based conservation program, and a key one for bobwhites is that many states have adopted a focused approach to bobwhite conservation, based partly on the need to demonstrate to hunters, administrators and policy-makers that large-scale habitat management *can* provide desired levels of bobwhite abundance. Toward that end, NBCI and Tall Timbers Research Station provided states with the latest GIS technology with the release this year of the NBCI 2.0 ArcGIS Conservation Planning Tool (NBCI CPT), allowing states to identify geographies with potential for restoration. Although going forward the NBCI 2.0 has bobwhite population goals for states, regions and the entire NBCI geography, state work was already being done on the ground at a smaller scale, under guidance of the 2002 NBCI. In either case, the focus is on large-scale restoration, thousands of connected acres of habitat, ranging from private farmland ringed by CP33 buffers to tens of thousands of contiguous acres of native plant communities. The common theme is that there are enough acres to support a huntable population of bobwhites, and that the entire area, or a representative sample, be subject to *measurement* of bobwhite population density.

For the Inventory state coordinators were asked to identify for 2010 the existence and nature of quail focus areas, defined as geographies where quail are the number one priority and there are political boundaries that affect allocation of funding, cost-share, incentives, personnel time, partnerships, outreach and monitoring (Figure 9). Across the 25 NBCI states, 12 states had 180 quail focus areas, and for the 8 states that reported size, focus areas encompassed >10 million acres. Focus area size for these states ranged from 300 acres to 2.3 million acres. Of the 180 focus areas, quail abundance was being monitored on 75 areas, 45 of which were producing statistically valid estimates.

In addition to monitoring of quail population response to habitat management in focus areas, state agencies are heavily invested in the groundbreaking national monitoring program for CP33 – Habitat Buffers for Upland Birds, under the continuous Conservation Reserve Program. Sixteen states participated in this monitoring effort, or an approved substitute, and 9 states continue in the longer-term evaluation program (Figure 10).

Bobwhite researchers and management biologists across the country are also providing technical information (research results, technical guidelines, etc.) and technical management tools (economic decision support tools, GIS mapping programs, etc.) for professional natural resource managers. A partial listing by state coordinators for the Inventory revealed that for 2010, 22 publications and 14 tools were produced. Some of these are listed in State Conservation Reports. In addition, state biologists continued to provide input on the NBCI 2.0 ArcGIS Conservation Planning Tool.

During the upcoming year these technical products will increase exponentially leading up to the Seventh National Quail Symposium (Quail VII) being held in January 2012. This once-every-5-year meeting has 85 scientific abstracts and papers, most of which are about bobwhites. The entire quail symposia series is now located on the NBCI website and the NBTC/NBCI are partnering with the host of Quail VII, Arizona Game and Fish Department.



Inventory: Outreach

The majority of state agencies, 16 (64%) (Figure 11), have reached out to landowners, hunters and citizens with proactive messages about the challenges and opportunities for improving bobwhite abundance. Additionally, 15 coordinators indicated that their state had substantial bobwhite success stories (bobwhite populations responding to habitat management) that inspired landowners, hunters, and citizens. Although not all states are aggressively promoting quail conservation, leading states, NBTC, NGOs and NBCI are collaborating to provide support—for example, with NBCI's www.bringbackbobwhites.org website, blogs, news releases, videos, etc. In addition, for 2010, Florida, Iowa, Illinois, Maryland, Mississippi, North Carolina and Texas reported distribution of 14 popular publications (see state conservation reports for links to some of these publications).



Inventory: Habitat as Solution to Bobwhite Decline

One of the reasons past bobwhite conservation efforts have floundered is because of competing ideas about causes and solutions for reversing the bobwhite population decline. News stories and coffee-shop talk about predators, fire ants, and other minor or proximate issues can result in inaction on the primary and ultimate solution: habitat management. The first step toward a focus

on habitat management as the primary solution is that the professional biologists and staff, and then non-professionals, must believe in this idea. Convincing biologists and the public takes research on the causes and solutions, and evidence—via monitoring, and education and training—that habitat can produce desired levels of bobwhite abundance. Whether or not people support the habitat-management approach, then, is dependent largely on science and outreach.

In a large majority of states, 19 (76%), coordinators indicated that their state's natural resource professionals are "Very Supportive" of the habitat management approach (Figure 12). Likewise, 5 states fell into the "Moderately Supportive" category and 1 state was rated as "Neutral." Similarly, non-professionals in most states support the habitat approach with 19 state coordinators indicating that "enthusiasm and confidence by landowners, hunters and citizens in habitat-based quail conservation" was "Stable" and 5 indicating confidence was "Up Somewhat," compared to previous years (Figure 13).

So states have done an overall good job of pointing their professionals and non-professionals in the direction of habitat management as the solution to the bobwhite decline. This requires tremendous commitment to science-based conservation and to informing the public and natural resource professionals. Moreover, state agency support for the NBCI is an extension of that commitment to restoration of wildlife through habitat management.



Figure 13. Response of 25 states to the question: "In 2010, enthusiasm and confidence by landowners, hunters and citizens in habitat-based quail conservation was up, down or stable, compared to previous years?" Choices were Up Somewhat, Stable, or Down Somewhat.

NBCI's Progress for Bobwhites in 2011

Although the situation for bobwhite quail and other native grassland/shrub land species is grim, there have been a number of notable accomplishments in the past year that are fundamental to the foundation for future success.

(For a more thorough look at NBTC and NBCI achievements over time, please visit http://www.bringbackbobwhites.org/newsroom/fact-sheets for the Accomplishments & Milestones fact sheet.)

A few examples:

- In March 2011, NBTC completed and unveiled the new, expanded and digitally-based NBCI 2.0 at the North American Wildlife and Natural Resources Conference in Kansas City, MO. The NBCI 2.0 is an online assessment of the entire 25-state bobwhite range and a suite of digital tools (GIS) to assist biologists in focusing efforts and resources where they will do the most good. As "the unified strategy to restore wild quail," the NBCI approaches bobwhite management on the landscape scale (national and regional), while providing the states the ability to "step down" the national, landscape approach to fit their respective ambitions. (To read the full assessment, go to http://www.bringbackbobwhites.org/strategy/nbci-full-plan.)
- NBCI established additional capacity to work with the states and at the regional and national level with the hiring of a science coordinator, a USDA Farm Service Agency liaison/agricultural policy coordinator, a communications director and a forestry coordinator, all under the University of Tennessee, Knoxville umbrella.
- NBCI established a website, www.bringbackbobwhites.org, to provide a central national clearinghouse of bobwhite information ("Bobwhite Central") and a platform to support and increase the visibility and activity of quail conservation. The site is under constant growth, development and refinement.
- NBCI's daily presence in the USDA headquarters in Washington, DC has provided continual opportunities to help enhance wildlife habitat in the Conservation Reserve Program (CRP). Additionally, NBCI is advancing a "Natives First" proposal, which encourages the Natural Resources Conservation Service to make native vegetation (instead of exotics) the default first choice for use in taxpayer-funded cost-share programs.
- NBCI helped create a new national organization dedicated to promoting the restoration and management of historic shortleaf pine-bluestem ecosystem that once covered much of the eastern U.S. and provided premium grassland (pine savanna) habitat for bobwhites when actively managed with prescribed fire. The first Shortleaf Conference, coordinated by NBCI, was in Huntsville, AL in September 2011.

- NBCI has elevated bobwhite habitat needs among the forest community at-large in the bobwhite range, including developing a solid and close working relationship with state foresters and land management chiefs in order to develop joint policy initiatives for improved forest management programs for bobwhites.
- NBCI has established partnerships and working relationships with other organizations who share similar concerns over the demise of grassland habitat, including pollinator organizations, USFWS Joint Ventures and USFWS Landscape Conservation Cooperatives.
- NBCI is now the keeper and manager of the National Quail Symposia Series, the cuttingedge science behind quail management. NBCI is coordinating, with the Arizona Game & Fish Department, the Seventh National Quail Symposium in Tucson, AZ in January 2012.

To view NBCI's full annual report to the NBCI Management Board, please visit http://www.bringbackbobwhites.org/downloads/doc_details/122-2011-nbci-annual-report.

APPENDIX

I. Literature Citations/Internet Links

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West Virginia Report

No internet links

II. Acronyms

BBS – Breeding Bird Survey

CP – Conservation Practice (as used in the Conservation Reserve Program)

CP21 – Filter strips CRP

CP25 - Rare and declining habitats CRP

CP33 – Habitat buffers for upland birds CRP

CP36 – Longleaf pine CRP

CP38 – State Acres for Wildlife Enhancement, SAFE

CP4D - Permanent wildlife habitat CRP

CPT – Conservation Planning Tool, NBCI 2.0

CREP – Conservation Reserve Enhancement Program

CRP – Conservation Reserve Program

DNR – Department of Natural Resources

EQIP - Environmental Quality Incentives Program

FSA – Farm Service Agency

GIS – Geographic Information System

NABCI – North American Bird Conservation Initiative

NBCI – National Bobwhite Conservation Initiative

NBTC – National Bobwhite Technical Committee

NFWF – National Fish and Wildlife Foundation

NGO - Non-Governmental Organization

NRCS – Natural Resources Conservation Service

SAFE – State Acres for Wildlife Enhancement, CP38

USDA – United States Department of Agriculture

VPA-HIP – Voluntary Public Access and Habitat Incentive Program

WHIP – Wildlife Habitat Incentive Program

WMA – Wildlife Management Area

III. NBTC/NBCI Structure

National Bobwhite Technical Committee (NBTC)

The NBTC began life as the Southeast Quail Study Group in 1995 as the creation of the member states of the Southeastern Association of Fish & Wildlife Agencies to jointly examine bobwhite quail issues on a range-wide basis. The SEQSG produced the first Northern Bobwhite Conservation Initiative (NBCI) in 2002, a 22-state strategic recovery plan which caused such a positive stir on the national level that it attracted the active involvement of other states in the bobwhite range ... and a name change to the "National Bobwhite Technical Committee." It is this range-wide NBTC that this year unveiled the 25-state National Bobwhite Conservation Initiative (NBCI 2.0), a digital (GIS-based), online assessment of the habitat potential in the 25 member states and a suite of tools to assist biologists in focusing efforts and resources where they will do the most good. In short, the NBTC is the heart, soul, brains and fire behind the NBCI.

Membership in the NBTC is comprised not only of the state agencies but also federal agencies, private conservation groups and academic research institutions. The NBTC is guided by a 12-member Steering Committee. The group also has six working subcommittees: 1) Agricultural Policy, 2) Forest Management, 3) Mine Lands, 4) Grassland/Grazing Land, 5) Outreach, and 6) Research. For more information on the NBTC, visit http://www.bringbackbobwhites.org/about-us/national-bobwhite-technical-committee.

National Bobwhite Conservation Initiative (NBCI)

Formerly the "Northern" Bobwhite Conservation Initiative, the expanded and renamed National Bobwhite Conservation Initiative is an initiative of the NBTC ... that is, an initiative by the states, for the states. As "the unified strategy to restore wild quail," the NBCI approaches bobwhite management on the landscape scale, while providing an array of digital tools to the states and their biologists to "step down" the national, landscape approach to fit their respective ambitions. Headquartered at the University of Tennessee/Knoxville, NBCI also includes a staff of five that works at the national, landscape levels and between the states to assist in removing obstacles, identifying opportunities, highlighting successes and creating a one-stop "bobwhite central" for information on the bobwhite quail. For details, visit www.bringbackbobwhites.org.

NBCI Management Board

Comprised of directors and administrators of member state wildlife agencies, and executives of private conservation groups, the NBCI Management Board provides high-level administrative oversight, guidance and support for the Initiative. It convenes twice annually—in March at the North American Wildlife and Natural Resources Conference, and in September, at the Association of Fish & Wildlife Agencies conference.