

NBCI's

# *Bobwhite Almanac*

## **State of the Bobwhite 2012**

**New Initiatives in 4 States**

**USFS Stepping Up  
for Bobwhites at LBL**

**Kentucky Raises  
'Outreach Ante'**

**Bobwhite Habitat  
Inventory Project**





NBCI's

# *Bobwhite Almanac*

## **State of the Bobwhite 2012**



*... the unified strategy to restore wild quail*

[www.bringbackbobwhites.org](http://www.bringbackbobwhites.org)





NBCI's Bobwhite Almanac/State of the Bobwhite Report is an annual publication of the National Bobwhite Conservation Initiative (NBCI) to provide a range-wide snapshot of population, hunting and conservation status of the northern bobwhite, *Colinus virginianus*, as well as a sampling of major efforts underway to reverse the bobwhite decline. This report is made possible by the financial support of participating state agencies, the National Fish & Wildlife Foundation, and the University of Tennessee.

NBCI is an initiative by and for the National Bobwhite Technical Committee—25 state wildlife management agencies, along with numerous conservation groups, research institutions and federal partners—to provide national leadership, coordination and capacity to catalyze large-scale, strategic restoration of native habitats as the long-term means to restore widespread populations of wild bobwhite quail and, consequently, other species dependent on early successional habitat. NBCI is headquartered at the University of Tennessee.

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COVER PHOTO: Our sincere thanks to wildlife photographer Dick Wilberforce of Canadian, TX for his cover photo contribution (wilberforcephotoart.com).



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# INTRODUCTION

***One cannot figure out how to get from point A to point B, without first knowing the location of points A and B. Bobwhite enthusiasts now know where point B is—our vision of widespread huntable bobwhite populations, as depicted by the maps and desired density estimates from the NBCI 2.0's Biologist Ranking Information. This 2nd edition of the NBCI's annual "State of the Bobwhite" report provides the most comprehensive assessment ever compiled on point A—the current state of bobwhite conservation in the US. This crucial public information service is one of the fundamental objectives of the NBCI.***

This 2012 report includes the standard brief updates of quail management activities from all 25 NBCI states. On the NBCI website ([www.bringbackbobwhites.org](http://www.bringbackbobwhites.org)), these state reports, and much of the other content, have links to a wealth of additional information. This report also provides the first glimpse of the NBCI's ongoing work-in-progress to develop reliable estimates of annual quail habitat management activities by all conservation partners across the species' range, as well as current estimates of quail hunting activity and its economic impacts.

We take a very different tack in this second report from the first. In 2011, we painted the fullest, starkest assessment of the grim state of range-wide bobwhite populations, in an attempt to capture overdue attention. We combined that picture with a "Call to Action," outlining crucial leadership and activities that need to occur at national, state and local levels. This 2012 report aims to begin offering hope. We offer several positive features illustrating successful ongoing quail restoration efforts as well as major new efforts that are rising to the occasion, following our call to action.

At the national level, the NBCI is providing prominent leadership in calling for USDA to use public funds to replant drought-damaged pastures with drought-tolerant native, warm-season forages instead of the usual drought-susceptible introduced grasses such as fescue and Bermuda grass (see related information on pages 6-7). Native grasses—such as big and little bluestem, eastern gamagrass, Indian grass and switchgrass—provide excellent midsummer forage, long-term risk management benefits to livestock producers, and improved habitat for grassland birds. Hundreds of thousands, possibly millions, of acres of potential habitat are at stake. This simple national policy change could have a larger positive impact on quail habitat more quickly than any other single action.

At the state level, the increased number and activity level of state quail initiatives is beginning to demonstrate payoffs in multiple states, with vital investments by myriad conservation partners. At the local level, the USDA Forest Service's Land Between the Lakes National Recreation Area in Kentucky and Tennessee is launching an ambitious new savannah/grassland ecosystem initiative, to restore quail and grassland birds formerly abundant there.

Ten years ago, the bobwhite conservation world transformed. When the National Bobwhite Conservation Initiative (NBCI) was published in 2002, no one could foresee where it would lead. But, thanks to the NBCI, the collective quail conservation world is clearly more energized, organized and focused than ever.

We mark this 10th anniversary of the NBCI with mixed feelings. While bobwhites still are declining across their range, the entire community of bobwhite conservationists has made enormous strides in raising our game and increasing our capacity for effectively addressing the problem.

The NBCI's founding brain trust, the National Bobwhite Technical Committee (NBTC), and NBCI staff are increasing our level of leadership, coordination, activity and progress. For example, the bobwhite community is learning to count better together—birds, activities and acres. As this report goes to press, a group of NBTC quail and grassland bird experts is devising standard methods of counting birds on habitat restoration focus areas. This standardization process is dry and tedious but, if adopted by most states and partners, it should eventually yield important benefits such as numerous documented success stories, stiffened agency resolve and inspired sportsmen. Stay tuned!

On other important fronts, the NBCI has been tirelessly advocating for bobwhites in professional forestry circles, resulting in higher awareness and growing cooperation for quail habitat management. For example, the NBCI leads a fledgling regional movement that aims for widespread restoration of shortleaf pine savannahs, with robust native grasslands underneath the widely spaced trees. It's a mission that offers potentially millions of acres of new grassland

***"...thanks to the NBCI, the collective quail conservation world is clearly more energized, organized and focused than ever."***





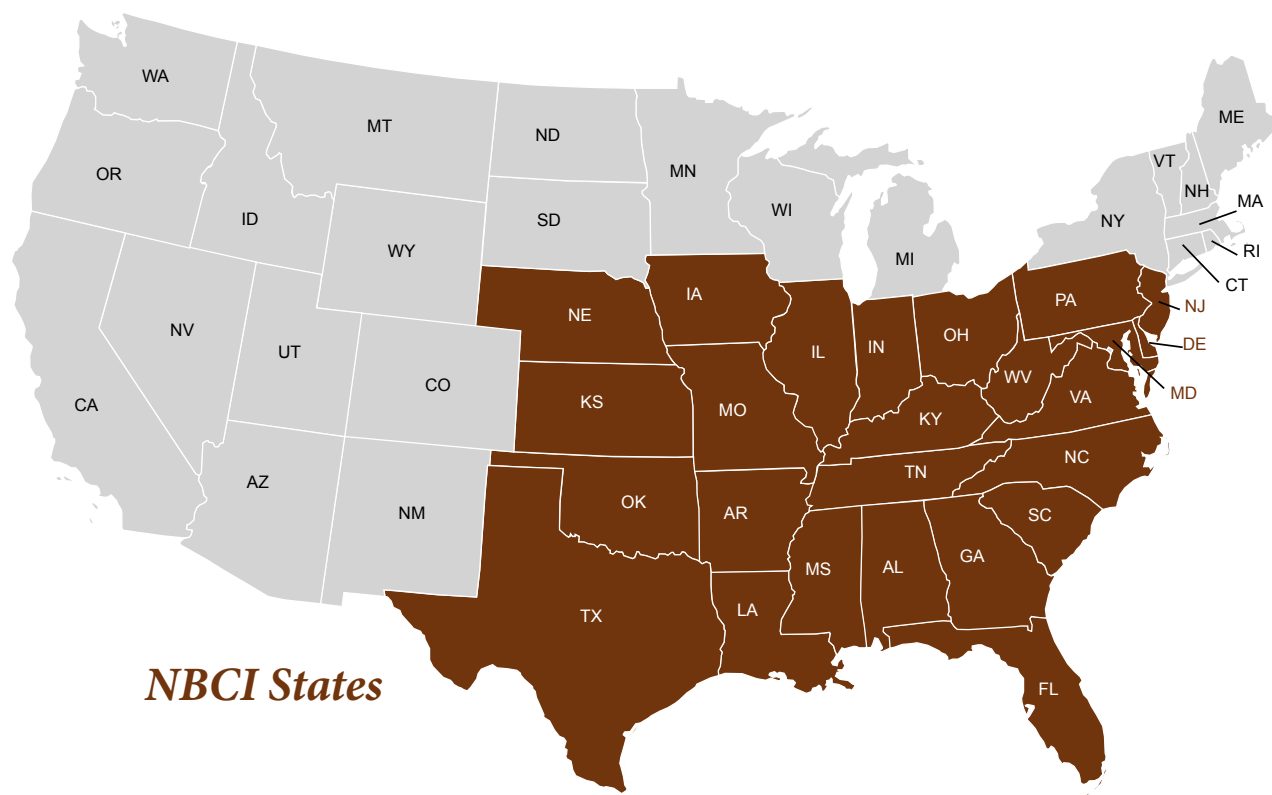
bird habitat across the Midwest and Midsouth.

NBCI staff have also been leading an increasing number of organizations in a national push for a long-overdue native plant policy within the USDA Natural Resources Conservation Service, to add more public wildlife habitat benefits to NRCS's traditional soil and water conservation functions. The NBCI also is addressing the highest levels of conservation administration, where state agency structures and functions have greater potential to elevate quail conservation effectiveness. Finally, the NBCI has escalated our ability to engage and inform the public. This report is one example, but check out the NBCI website to see more of how we aim to become "bobwhite central" in the near future.

Bobwhite restoration requires realistic expectations, for ours is a generational mission. We take gratification from the incremental but solid gains of the last decade, as we continue building for decades to come. The NBCI, the NBTC, the states and non-government organizations and institutes are overflowing with intelligence, experience and knowledge about bobwhite management. Further, the dedication and passion of bobwhite hunters and conservationists are unmatched. The big question for the next 10 years is whether the NBTC and the entire bobwhite community can muster the resolve, demonstrate the leadership, combine our resources, and build the effective teamwork—up, down, and across the board—that is essential for our ultimate success.

Don McKenzie  
Director, NBCI

K. Marc Puckett  
Chair, NBTC Steering Committee





July 31, 2012

Agriculture Secretary Vilsack  
U.S. Department of Agriculture  
1400 Independence Ave., S.W.  
Washington, DC 20250

Dear Secretary Vilsack:

We are the nation's leading sportsman and conservation organizations, and together have millions of members – including hunters, anglers, conservationists, and natural resource professionals – across all 50 states. We share your concern for the ranchers impacted by this year's widespread drought, and offer our ideas and help to turn the current crisis into an opportunity for long-term benefits to ranchers as well as our nation's wildlife and natural resources.

Most of the grazing land in the eastern United States has been converted to introduced forage grasses, which tend to be highly susceptible to drought conditions and typically provide poor quality habitat for wildlife and pollinators. The loss of introduced forage during drought can be extremely costly to livestock producers, while the impacts of the past conversions on wildlife habitat and populations are a loss for the American people.

Native warm-season forage grasses, however, provide the dual benefits of drought resistance and quality habitat. These deep-rooted native species are naturally adapted to dry conditions. Their peak growth occurs during the summer (as opposed to spring and fall for cool-season species), so a grazing operation with 20-33% of its forage acres in native, warm-season grass can support livestock with quality forage during a time of great need, even during drought. Several news outlets have even reported recently that native grass pastures are the only green forage currently available in drought-stricken areas. Additionally, native warm-season forage requires little or no fertilizer application, thereby reducing both nutrient run-off and long-term input costs. The University of Tennessee's Center for Native Grassland Management ([nativegrasses.utk.edu](http://nativegrasses.utk.edu)) and others have documented the many economic and nutritional benefits of native, warm-season forage.

We offer the following ideas for consideration by the US Department of Agriculture, to achieve naturally drought-proof pastures:

*Any program using public funds to reestablish pastures impacted by drought should ensure 20% to 33% of the affected acreage is re-planted with native, warm-season forages (including, if possible, palatable drought-tolerant forbs and legumes). We also recommend that participating producers receive foregone income payments during the approximately 2-year establishment period for the native forages.*

A "Naturally Drought-proof Pastures" approach would provide meaningful, long-term risk-management assistance to producers while providing multiple public benefits, including wildlife and pollinator habitat.

We, the undersigned organizations, look forward to working with your staff to address this issue and help America's farmers and ranchers conserve our nation's fish, wildlife and their habitats during these difficult times.

Sincerely,

Alabama Wildlife Federation  
Arkansas Audubon Society  
Association of Fish and Wildlife Agencies  
Audubon Miami Valley Ohio  
Audubon Society of Greater Denver  
Bird Conservation Network  
Central Hardwoods Joint Venture  
Cornell Lab of Ornithology  
Endangered Habitats League  
Environmental and Energy Study Institute  
National Bobwhite Conservation Initiative  
National Bobwhite Technical Committee  
National Sustainable Agriculture Coalition  
National Wild Turkey Federation  
National Wildlife Federation

Partners in Flight  
Pheasants Forever  
Pollinator Partnership  
Quail and Upland Wildlife Federation  
Quail Coalition  
Quail Forever  
Quail Unlimited  
Southeast Partners in Flight  
Tennessee Ornithological Society  
The Nature Conservancy  
The Wildlife Society  
The Xerces Society for Invertebrate Conservation  
Theodore Roosevelt Conservation Partnership  
Wake Audubon Society  
Wildlife Mississippi

cc: Harris Sherman, USDA  
Michael Scuse, USDA  
Robert Bonnie, USDA  
Dave White, NRCS  
Juan Garcia, FSA



# Do you want your cows

On this side of the fence? Or this side?



*Photo taken at the end of July 2012 in Shannon County. On the left is a hayfield of native warm season grasses established in 2009; on the right is fescue.*

## NATIVE GRASSES

- Produce quality summer forage
- Are drought tolerant
- Provide for wildlife needs

**WE CAN HELP.** Contact your local Missouri Department of Conservation office, USDA Natural Resources Conservation Service office or Soil and Water Conservation District office.



United States Department of Agriculture  
Natural Resources Conservation Service



# 4 States Rolling Out New Initiatives

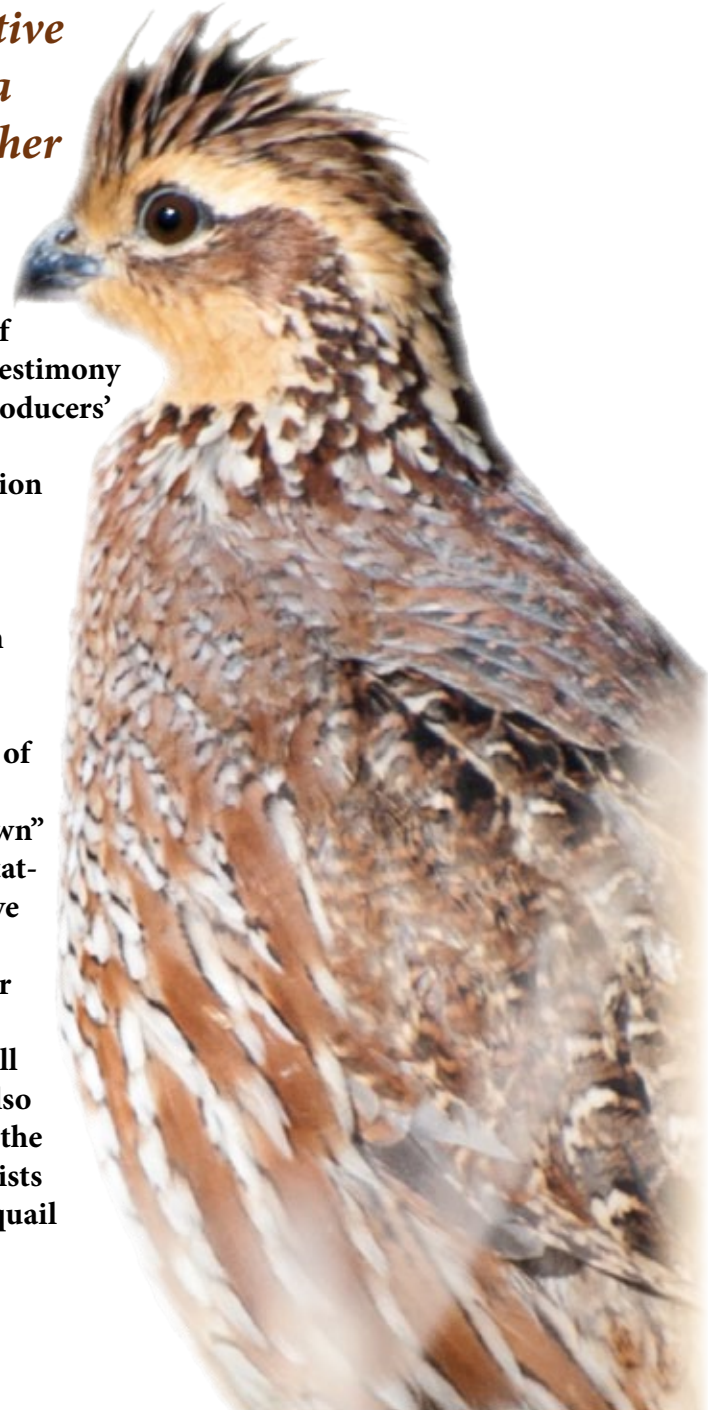
**I***n the 2011 issue, NBCI issued several calls to action. At the federal level, in particular, we called on the USDA to “step up to the plate” for livestock producers and wildlife by making drought-tolerant, nutrient rich and wildlife-friendly, native warm-season grasses the “default” choice when using tax dollars to subsidize pasture plantings ... instead of opting for aggressive, non-native grasses such as fescue, Bermuda and Bahia grass that offer poor habitat for quail or other wildlife.*

That single change could be more meaningful for quail and grassland wildlife habitat on private farmlands than any other action at any other level. Ironically, the impacts of this year’s drought on introduced pasture grasses offers vivid testimony on the economic costs of current practices ... from both the producers’ and the taxpayers’ perspectives.

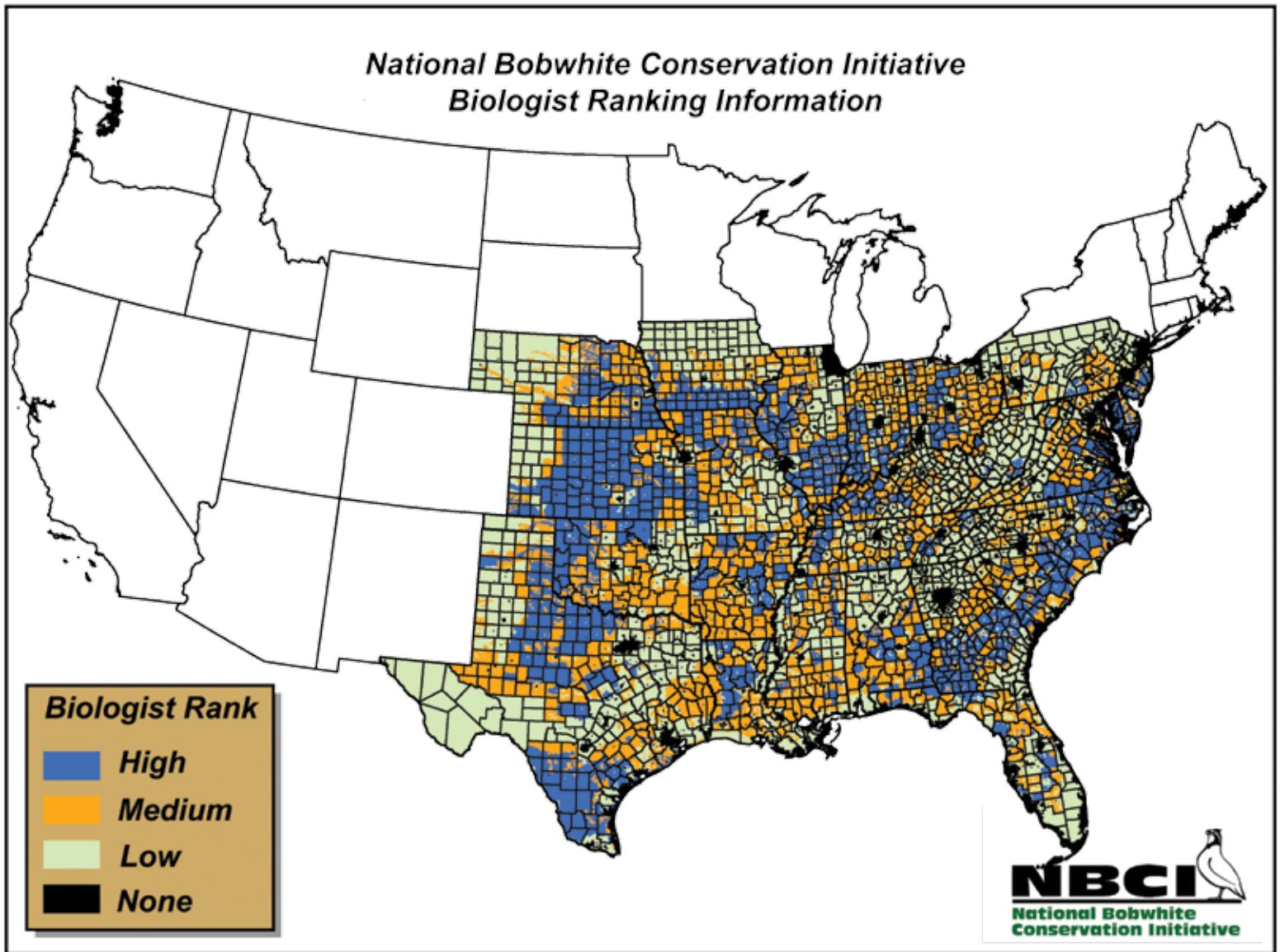
NBCI isn’t giving up. We’ve enlisted 29 other conservation organizations to help (see the letter to Agriculture Secretary Tom Vilsack on page 6), we hope to grow that list and plan to continue an extensive dialogue. Various state wildlife agencies are also working to increase the acreage of native warm-season grass pastures in their states. The Missouri Department of Conservation, for instance, has a full-page ad in this month’s Rural Missouri (see page 7), a magazine directed to customers of the state’s rural electric cooperatives.

Other calls to action, such as those to states to “step down” the NBCI strategy and to individuals to become active in habitat-based, upland conservation groups and support their respective state’s NBCI efforts, will likely be valid for some time to come. We won’t repeat them here as they are in last year’s issue on our website.

We’re taking a different approach here. Although we will continue to have ground-breaking technical content, we will also highlight a few of the many good things that are happening in the struggle for bobwhites and grassland songbirds. Conservationists are stepping up, such as the four states with new NBCI-based quail initiatives. So read on ... there is good news out there.







*The Biologist Ranking Index is the result of over 600 biologists, wildlife managers and conservationists reviewing and classifying 600 million acres of land in 25 states for potential bobwhite habitat management suitability. The effort resulted in the identification of 195 million acres of priority landscapes.*



# Georgia

## Uses NBCI Approach to Expand Quail Initiative

**A**fter 14 years of a grassroots Bobwhite Quail Initiative in 15 counties, the Georgia Department of Natural Resources Wildlife Resources Division (WRD) is in the final stages of magnifying and refining efforts for bobwhite restoration.

Under the banner of the National Bobwhite Conservation Initiative's (NBCI) national strategy for restoring wild quail at a landscape level, the new Georgia-NBCI plan expands state restoration efforts across parts of 68 counties constituting what might be called the state's "bobwhite belt"—a swath of counties from east central to southwest Georgia within the state's Upper Coastal Plain Physiographic Region.

That's not the only difference, says Reggie Thackston, the state's quail coordinator.

The state has divided these 68 counties into



*This pine savannah in Georgia is managed on a two-year prescribed fire frequency, creating ideal habitat for quail and a variety of other species*

three regions—Southwest, Central, East—based on multiple Soil & Water Conservation Districts (SWCD), each comprised of primarily of counties rated “high” or “medium” for bobwhite habitat restoration potential in the NBCI assessment. (The regions were based on SWCDs because they are the primary infrastructure through which USDA delivers Farm Bill Conservation Program practice funding to private landowners.)

Biologists then sliced and diced those regions into 22 spatially explicit sub-county focal areas based on:

- 1) their proximity to existing core bobwhite populations;
- 2) their current landscape context having potential for bobwhite habitat enhancement; and
- 3) their relatively low constraints or barriers to bobwhite habitat management.

- The Southwest Region includes 11 focal areas, averaging about 130,00



*Field borders and thinned pines are high priority landscapes in Georgia's restoration efforts.*





acres each, in parts of 11 counties

- The Central Region includes 6 focal areas, averaging about 68,000 acres each, in parts of 7 counties
- The East Region includes 5 focal areas averaging 64,000 each in parts of 4 counties.

Altogether the focal areas add up to 2.15 million acres. Thackston says the plan calls for targeting prioritized 1,500+acre “focal sites” within those focal areas that meet even more strict criteria. The end goal is generating the most quail response for the dollars available.

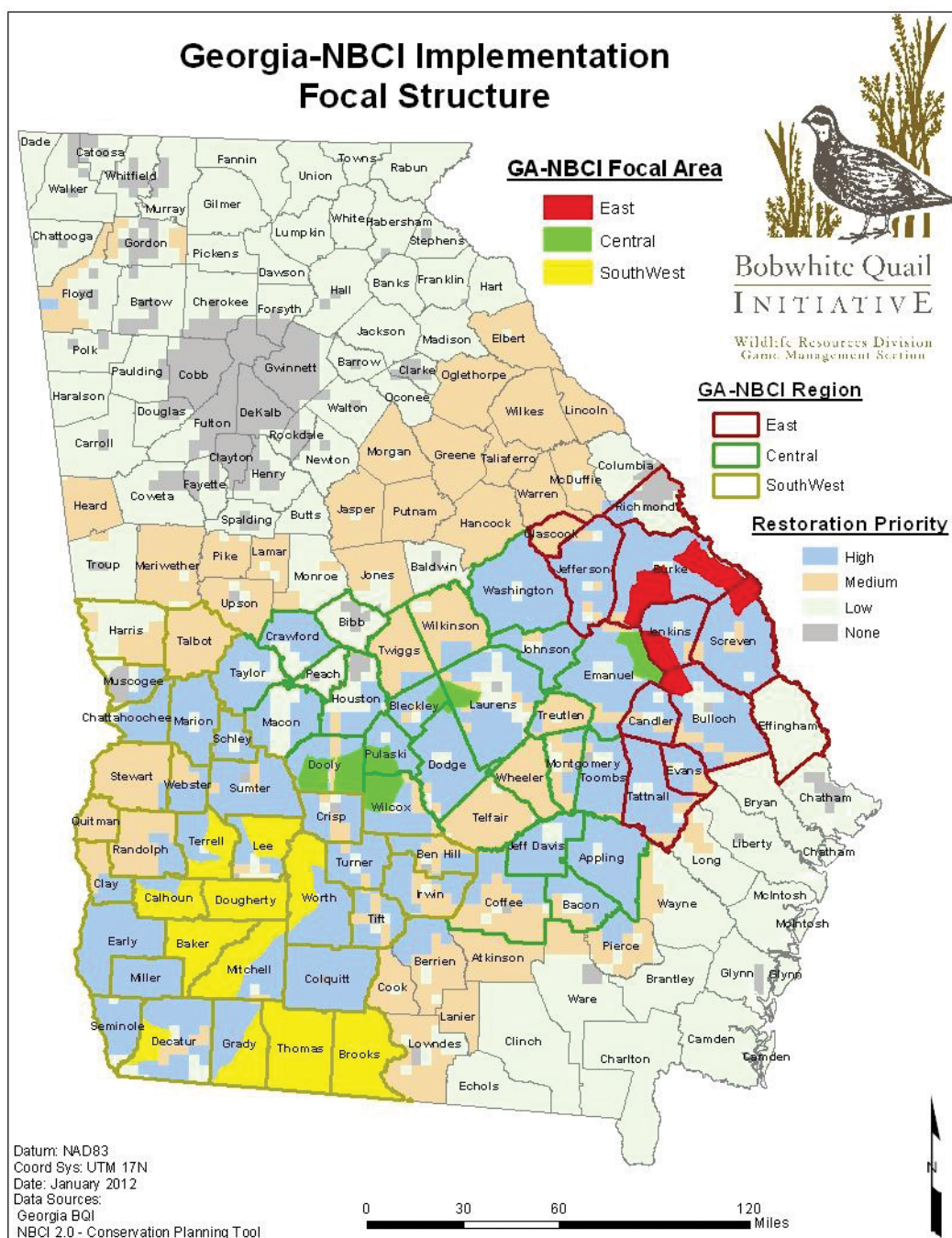
“Our highest priority will be these sub-county focal areas, next will be the “high” and “medium” priority 68 counties and, finally, we’ll work anywhere on focal sites, defined as more than 1,500 acres of high quality, early successional habitat. The number of focal sites and landscapes targeted will depend on landowner participation and the availability of funding, manpower, and conservation partner support,” explained Thackston.

“Management practices will remain the same,” said Thackston. “In Georgia, that’s primarily heavy pine thinning, frequent prescribed fire in pine stands, and direct management of fallow cropland margins with field borders, center-pivots corner and hedgerows. At present, there’s not much we can do with exotic grass grazing/haying lands because of the high cost of establishing native grasses. However, there is growing interest in using native warm season grasses as part of a rotational grazing or haying system based on new research and the increasingly common drought conditions.”

Funding for WRD’s bobwhite restoration and management is provided through sales of the Bobwhite Quail Initiative wildlife license plate along with grant funds and other contributions. Details are provided at [www.georgiawildlife.com/conservation/quail](http://www.georgiawildlife.com/conservation/quail).

[georgiawildlife.com/conservation/quail](http://www.georgiawildlife.com/conservation/quail).

Partnering with the state to help with the expanded initiative is the same impressive array of Georgia Bobwhite Technical Team members that assisted in earlier efforts. Members include the Natural Resources Conservation Service, Georgia Soil & Water Conservation Commission, Tall Timbers Research Station & Land Conservancy, Georgia Association of Conservation District Supervisors, Georgia Forestry Commission, Farm Service Agency, Georgia Chapter Quail Unlimited, National Wild Turkey Federation, University of Georgia Warnell School of Forestry and Natural Resources, Quail Forever, U.S. Forest Service, U.S. Fish & Wildlife Service and the U.S. Army (Forts Benning, Gordon and Stewart).





# Kansas

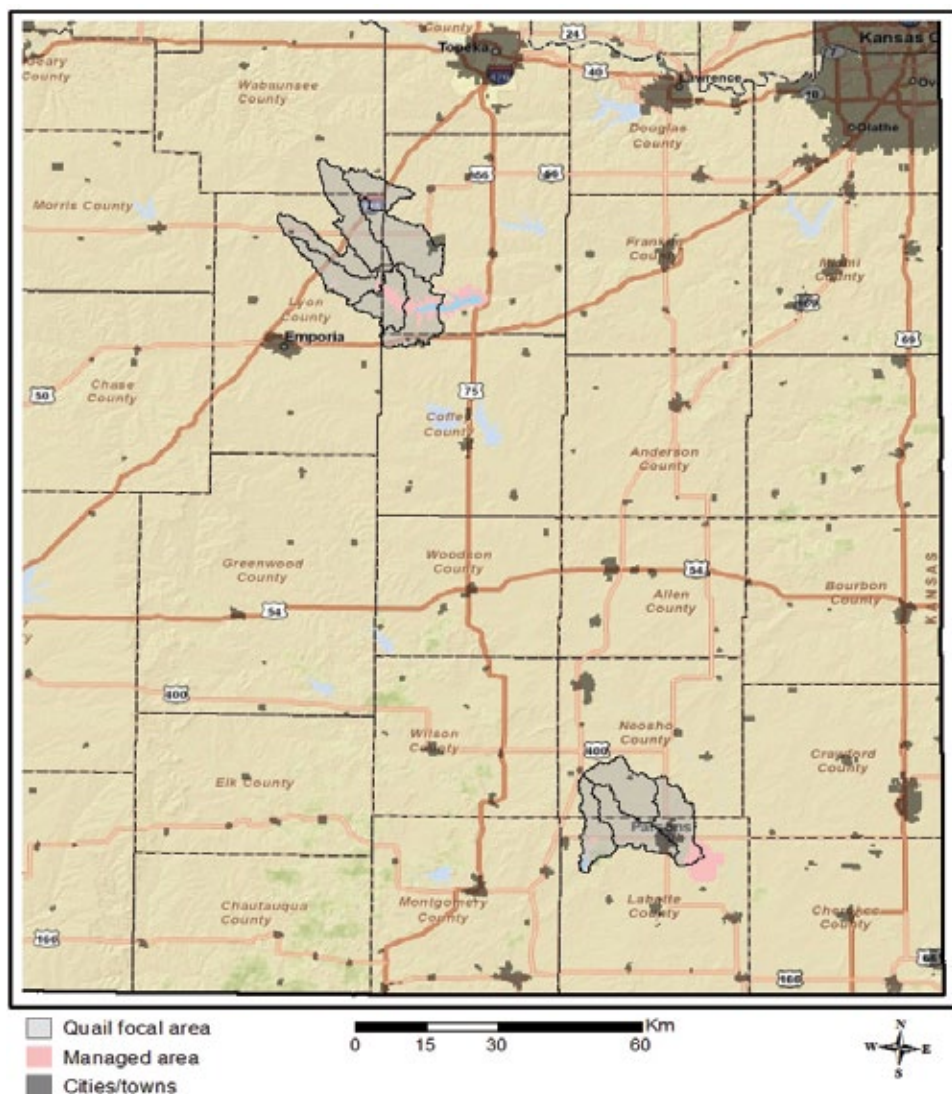
## NBCI-Based Initiative In Full Implementation Mode

**K**ansas is in full implementation mode for a new state quail initiative encompassing two massive new quail focal areas announced in April and Jim Pitman, the state's quail coordinator, expects to begin signing contracts with interested landowners any day.

Kansas is targeting nearly 310,000 acres, split between two focus areas. A 194,911-acre northern focal area includes parts of Lyon, Wabaunsee, Coffey, and Osage counties and has a bobwhite habitat management potential of "high," as rated in the National Bobwhite Conservation Initiative (NBCI). The core public lands are the 9,407-acre Melvern Wildlife Area and the 562-acre Lyon State Fishing Lake and Wildlife Area.

The 113,711-acre southern focal area includes parts of Labette and Neosho counties. Potential for bobwhite habitat management is rated "medium" by NBCI, but Pitman says that the additional sources of funding and partners available there made it a worthwhile target. Additionally, the public land centerpieces include the new Grand Osage Wildlife Area (formerly the Kansas Army Ammunition Plant) where approximately 9,000 acres will be managed by KDWPT, and the 1,320-acre Big Hill Wildlife Area.

Habitat improvements have been under way on those public properties since the announcement and will be used during field days this fall to discuss and

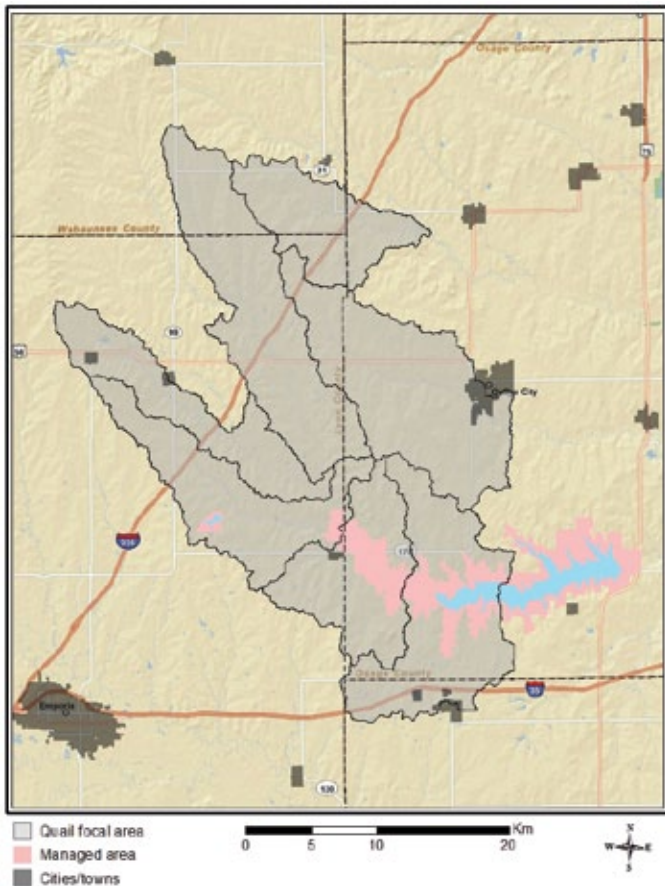


***Kansas is targeting nearly 310,000 acres, split between two focus areas***

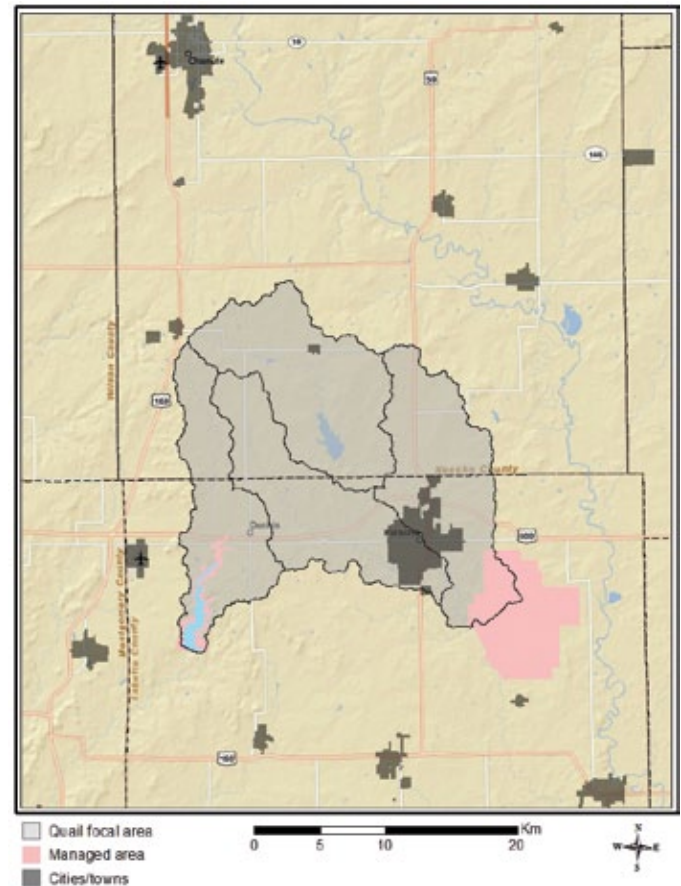
illustrate suitable bobwhite habitat, and the types of management activities required to create it, says Pitman. Improvements include planting native grass buffers along agricultural edges, hedge row renovations, prescribed burning, and conversion of cool-season grass to native species.

Pitman says they've initiated a bobwhite monitoring protocol for those areas, as well as on control





*The northern Quail Focus Area includes parts of Lyon, Wabaunsee, Coffey and Osage counties. It encompasses 194,911 acres, of which more than 160,000 are potentially improvable for bobwhite quail*



*The southern Quail Focus Area includes parts of Labette and Neosho counties. It includes 114,711 total acres, nearly 76,000 of which are potential bobwhite quail habitat*

sites, and have “good baseline data” against which to measure their results. Primary objectives are a 50% increase in bobwhite populations compared to the control areas and a 5% net increase in bobwhite habitat in each focal area.

Kansas has also designated up to a half-million dollars of wildlife fee funds to incentivize landowner participation. The state will use the money to cover the landowner share of participation in USDA quail-friendly cost-share programs with approval of the appropriate district biologist. Quail-friendly management practices not eligible for or accepted into the USDA programs will be covered solely with non-federal dollars.

Supporting the Kansas effort are USDA’s Natural Resources Conservation Service and Farm Service Agency, The Nature Conservancy, the Kansas Wildlife

Federation, Safari Club International, the National Wild Turkey Federation, the Quail & Upland Wildlife Federation and Quail Forever.

“The KDWPT is very pleased that such a diverse group of entities stepped up to the plate to support the effort,” Pitman said. “Restoring quail habitat across a large landscape is a monumental task which will require assistance from many different angles. The type of collaboration that has been generated will give us the best chance to sell the program to private landowners and get the needed practices implemented.”



# Pennsylvania

## Adopts First Comprehensive

## Bobwhite Recovery Plan in State History

**I**nitial work has begun on implementing Pennsylvania's first comprehensive plan, approved last October, for restoring and maintaining bobwhite quail in the state's history.

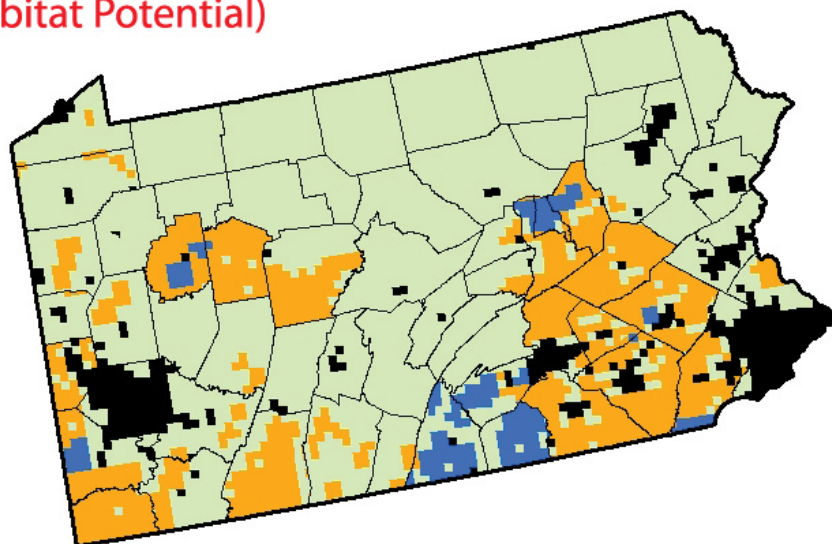
Although Pennsylvania's southern farmlands and shrub lands were once known for their native bobwhites, populations have plummeted to the point that the bobwhite is now listed as a "species of special concern" in the state's Wildlife Action Plan ... and the

Pennsylvania Game Commission (PGC) approved an extensive, detailed 10-year initiative—including a good deal of research, identifying focus areas, establishing best management practices for bobwhites in the Pennsylvania ecosystem and creating of a Bobwhite Habitat Manual—to reverse that situation.

Northern bobwhites were, in fact, relatively common across southern Pennsylvania until about 1945. Populations declined rapidly between 1945-1955, but made a recovery in the early 1960's, possibly in conjunction with the launch of specific federal

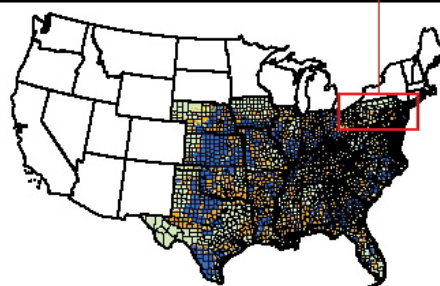
### National Bobwhite Conservation Initiative: Pennsylvania Biologist Ranking Information

(Bobwhite Habitat Potential)



#### Biologist Rank

- Blue High
- Orange Medium
- Light Green Low
- Black None







agricultural set-aside programs, such as USDA's Soil Bank program. Since 1966, however, with the ending of some of those specific programs and adoption of more intensive agricultural practices, the range and populations of bobwhites again declined precipitously ... all as the commonwealth has also grown to the sixth most populous, and ninth most densely populated, state in the country.

***“This plan will require the support of the sportsmen and women of PA ... and all Pennsylvanians,”***

***—Scott Klinger, PGC***

But Scott Klinger, PGC's Game Bird Section wildlife research biologist and the plan's author, is a believer. “If we can create and maintain early-successional habitats on public and private lands, we believe bobwhite populations can be restored,” said Klinger. “Restoring northern bobwhite quail to Pennsylvania will require a substantial annual expenditure on habitat improvements and monitoring and research, but many species of greatest conservation concern in Pennsylvania will benefit from this investment in farmland habitat.”

Overall, the state identifies six strategic goals it believes are necessary to achieve in order to return wild bobwhites to Pennsylvania from their current low ebb (guesstimated at 1,000 or fewer breeding birds in the southernmost part of the state):

- Determine the current distribution, population status and trends of bobwhite quail in the state ... and protect any residual wild populations. Working with the NBCI and Penn State University, researchers is using genetic and isotope techniques to determine identify wild versus pen-reared, and using museum specimens to determine the genetics of northern bobwhites to identify the subspecies adapted to PA. If wild northern bobwhites are confirmed breeding, biologists will propose regulations to protect those populations from hunting and the release of pen-reared bobwhite quail within the Wildlife Management Units.
- Determine the amount and type of habitat found where bobwhites do exist in the state and maintain and improve the habitat within Bobwhite Quail Focus Areas (BQFAs), (similar to the strategy used for Wild Pheasant Recovery Areas outlined in the Pheasant Management Plan). Working

with the NBCI, the PGC has identified high priority areas for recovery of bobwhites and will establish focus areas and habitat improvement targets within those areas.

- Create partnerships to achieve focus area habitat targets, especially with the U.S. Department of Agriculture, Pheasants Forever, Quail Forever, landowner cooperators and other partners to provide needed bobwhite quail breeding, brood rearing, and winter cover requirements;
- Assess baseline bobwhite quail populations on focus areas, develop and implement protocols for establishing wild populations through the trap-and-transfer of wild quail, then monitor the populations to determine if they are self-sustaining. The state proposes to release a minimum of 50 wild-trapped bobwhites each year for three years in the focus areas and monitor the results. (Quail hunting will be closed on the focus areas and pen-reared bobwhites and dog training for game birds will be prohibited.)
- Because an informed, supportive public will be necessary for success, the state will measure and monitor public knowledge and attitudes about bobwhites and their recovery as it implements the recovery activities; and
- In order to sustain hunting of wild bobwhites in Pennsylvania again, the next step will be to increase these populations and the distribution of bobwhites to all identified suitable habitat in Pennsylvania.

The estimated costs for research, monitoring, and translocation to support the recovery of northern bobwhites are \$60,000 annually for each focus area, the cost of habitat restoration within each are is estimated to be \$50,000 annually and the cost of habitat restoration in suitable habitat outside the focus areas is estimated to be \$1.5 million annually for improvement of farmland habitat across 1 million acres.

“This plan will require the support of the sportsmen and women of PA ... and all Pennsylvanians,” said Klinger. “Most importantly, it will require working with farmers, private landowners, and public landowners, the USDA, Pheasants Forever/Quail Forever and other conservation partners to restore farmland ecosystems to accommodate bobwhites. We can't do it alone.”



# Texas

## Teams with Joint Venture, Others on Focal Areas for Bobwhites, Grassland Birds

**O**ne of the last remaining historical strongholds of bobwhites, Texas, is rolling out the NBCI focus area strategy to counteract increasingly fragmented and degraded habitat primarily to blame for declining populations of a suite of grassland birds, including bobwhites, in the Lone Star State.

The Texas Parks & Wildlife Department has teamed with the [Oaks & Prairies Joint Venture](#) (OPJV) to identify the state's first three focal areas, in separate

eco-regions, and find \$200,000 for four years of intensive monitoring. The intent is to establish a model for bobwhite restoration that can be replicated across the Texas landscape.

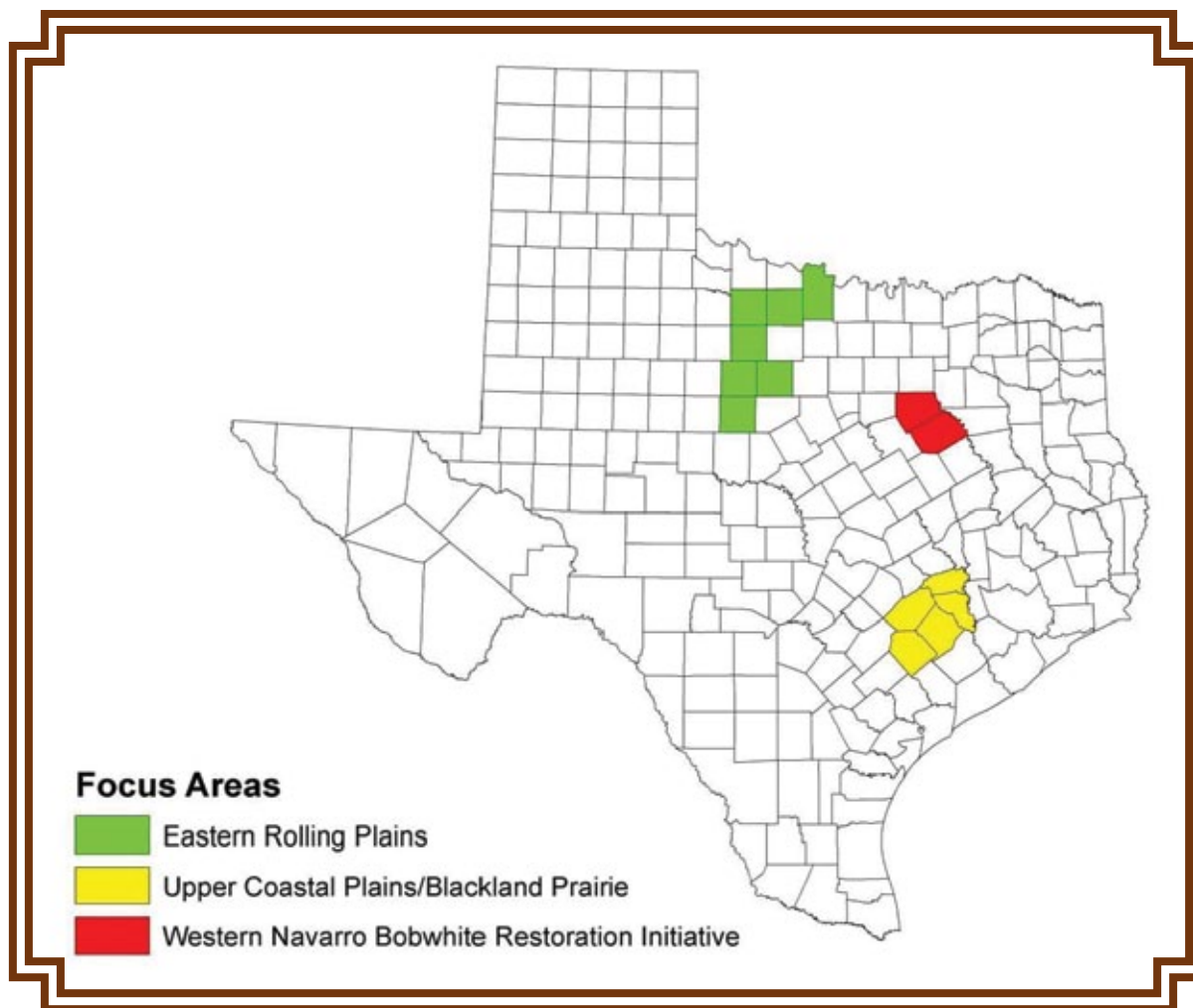
"State agencies do a lot of good stuff," said Robert Perez, Texas' game bird program leader. "But the funding is never there to measure it. We were able to secure \$200,000 in Pittman-Robertson funds for four years of monitoring. We view the monitoring as a 10-year project so we'll find the resources to continue the project." Perez says the money will be used to hire and train observers, grad students perhaps, to work during the monitoring periods.

Analysis of monitoring results will be handled by the state's primary partner, OPJV, which used NBCI's new online Conservation Planning Tool to choose the appropriate focus areas for bobwhites and other grassland birds of interest. The joint venture is a newly recognized U.S. Fish & Wildlife Service Bird Habitat Joint



*Restoration of native grasses, such as switchgrass and little bluestem, is an important component of habitat improvements in selected focal areas.*





Venture, a self-directed partnership of entities and individuals that has formally accepted the responsibility of implementing bird conservation plans within a “Bird Conservation Region.” In this case, it’s the Edwards Plateau of Texas (BCR 20) and the Oaks and Prairies of Texas and Oklahoma (BCR 21).

Each of the three focus areas has active quail management programs underway, and the state will partner with the responsible entity running those programs for involving private landowners. In each case, the target is 30,000 additional acres of connecting quail habitat.

The Upper Coastal Plain Focus Area includes Washington, Austin, Fayette, Colorado and Lavaca counties, where TPWD is partnering with the [Wildlife Habitat Federation](#) (WHF). Habitat programs there will be aimed at spraying Bermuda/Bahia grass and restoring native grasses, prescribed burning on existing native prairie sites, disking to promote brooding habitat and management of invasive or exotic woody species.

The WHF has been extremely active in this area, growing participation from one landowner to 25,000 acres and obtaining the first Conservation Innovation Grant ever awarded in Texas, according to Perez.

TPWD will partner with the [Western Navarro](#)

[Bobwhite Restoration Initiative](#) (WNBRI) in the two-county Navarro/Ellis Focus Area, southeast of Dallas and adjacent to the I-35 corridor. The state will apply similar habitat treatments here, but with more intensive woody cover management, said Perez.

The eastern Rolling Plains Focus Area currently encompasses seven counties—Clay, Archer, Baylor, Throckmorton, Shackelford, Stephens and Callahan—with efforts underway to identify priority areas where there is both landowner interest and habitat restoration potential as identified in the NBCI report. The state is partnering with the [University of North Texas’ UNT-Quail Program](#), specifically their quail corridor initiative, to find a subset of acres, likely in Clay County. Primary treatments in this rangeland area will be prescribed grazing and brush control.

“This is sure enough rangeland,” said Perez. “We’ll build a strong corridor based on remnant populations and working with private landowners to encourage proper grazing. The habitat won’t come back overnight, but we have to get them to try something different ... with just one pasture ... and then success breeds success.”

A fourth, undisclosed area of the state is already expressing interest in becoming a focal area.





# Forest Service

## Launching Bobwhite Initiative at Land Between the Lakes

***The largest inland peninsula in the United States and a historic home for bobwhites will be the setting for one of the newest initiatives to restore wild bobwhite quail and grassland bird habitats in this country.***

Land Between The Lakes National Recreation Area in Western Kentucky and Tennessee is joining the efforts of 25 state wildlife agencies, numerous conservation groups, private land owners, and research institutions in the National Bobwhite Conservation Initiative (NBCI) to achieve widespread restoration of native grassland habitats and restore plummeting wild quail populations.

“We want to bring bobwhites and other declining species of grassland birds back to their native lands.”

That, in a nutshell, is how U. S. Forest Service Acting Area Manager Pat Fowler describes what’s behind the new quail initiative at the agency’s 170,000-acre peninsula between Kentucky and Barkely Lakes.

“Overall, grassland birds, including quail, are in trouble, more so than any other suite of birds,” states Fowler. “These birds require tall grasses to hide their nests from predators in order to survive. Old timers in the region often talk about how the landscape used to be covered with quail and wonder when we are going to bring them back.”

Land Between The Lakes identified multiple 15,000-acre tracts as possible sites. To choose its first bobwhite focal area, Fowler and his staff are working locally with the Central Hardwoods Joint Venture, Tennessee Wildlife Resources Agency, Kentucky Department of Fish and Wildlife Resources, the National Wild Turkey Federation, the U.S. Fish & Wildlife Service, and the National Bobwhite Conservation Initiative.

Since adopting its 2004 Area Plan, the national recreation area has been working toward habitat



LBL National  
Recreation Area







improvements establishing demonstration oak-grassland areas and using prescribed fire to promote new growth and healthy forests. Not coincidentally, wildlife personnel have noted quail returning to the area. LBL wildlife staff will launch a quail-specific study to establish a baseline to measure success of the program.

“Quail response isn’t surprising,” said NBCI Director Don McKenzie. “LBL is not only historical habitat, but it and much of the land surrounding it was ranked ‘high’ for bobwhite habitat potential by the more than 600 biologists, conservationists and wildlife managers that ranked 600 million acres of land in the 25 core bobwhite states.”

Land Between The Lakes offers 230 days of hunting, which it uses to promote healthy populations of forest animals including white-tail deer, wild turkey, squirrels, and more. A hunter use permit is required along with the appropriate state license. More information and area hunt maps are located on the website at [www.lbl.org](http://www.lbl.org).

*Land Between The Lakes, a Forest Service National Recreation Area, offers 170,000-acres of outdoor activities and environmental learning between Barkley and Kentucky Lakes in western KY/TN. Visitors enjoy hundreds of miles of bike, hike, horse, hunt, and off-highway vehicle trails. Campgrounds and picnic areas offer lake access to swim, boat, and bank fish. Get up close to owls, foxes, bobcats, and other rescued native wildlife at Woodlands Nature Station. Experience life on an 1850's farm with period animals, crops, and hand-made tools at The Homeplace. Drive the 700 acre Elk & Bison Prairie to view native plants and wildlife. Daily shows at the Golden Pond Planetarium bring outer space to life in a 40-foot dome theatre. For more information, visit the Land Between The Lakes website at [www.lbl.org](http://www.lbl.org) or call 1-800-525-7077 or 270-924-2000.*







# Kentucky Brings Bobwhites To the Public

*NBCI states utilize a variety of imaginative tactics to reach the public when it comes to raising the visibility of bobwhite quail, the challenges they face and what the answers are. There are print and online reports, newsletters, Facebook pages, vehicle license plates, workshops, web pages, DVDs and classroom programs...Has Kentucky "raised the ante?"*

Some 70,000 people a year will now be seeing and learning about bobwhite quail—many for the first time—in a new exhibit at the Kentucky Department of Fish & Wildlife Resources' [Salato Wildlife Education Center](#) at the department's 262-acre headquarters complex in Frankfort.

The education center itself is unusual among NBCI states, and the focus on bobwhites in an interactive exhibit featuring live quail is unique.

"We had been pushing for some time for a quail-related exhibit in this native grass prairie portion of the center," said Small Game Biologist Ben Robinson, who along with Small Game Coordinator John Morgan, has worked hard to help elevate the visibility of the plight of bobwhites and their habitat in Kentucky.

On a broader scale, the state is trying to inform

Kentucky citizens about the loss of 99% of its "bluegrass prairie" habitat and the impact it has on wildlife. And as an "indicator" species for habitat and ecosystem loss, the bobwhite quail is a perfect "spokesman" in Kentucky, as well as a multitude

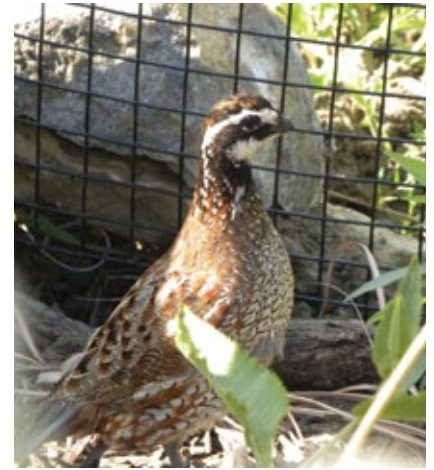
of other states since the eastern grasslands ecosystem carries the designation of the most threatened ecosystem in North America.

A central focal point is a 30' x 30' walk-thru quail aviary that provides visitors a chance to see and hear bobwhites, something many, if not most, have never experienced. Like the grounds around the exhibit, the aviary interior is planted in native vegetation, providing the most natural habitat possible.

The exhibit's "storyline" is that of a last-hatched quail chick in search of its siblings and mother. The chick is confronted with a series of choices along the journey (a 192-foot-long visitor trail) that highlight the differences

and dangers of a typical fescue monoculture that does nothing for wildlife versus a native grass prairie habitat that benefits bobwhites and a host of other species.

Interactive exhibits, particularly popular with kids, highlight such issues as the difficulty bobwhites would have navigating fescue-covered ground versus ground covered in native grasses that grow in clumps, and the availability of







protective cover from the “hawk” circling overhead.

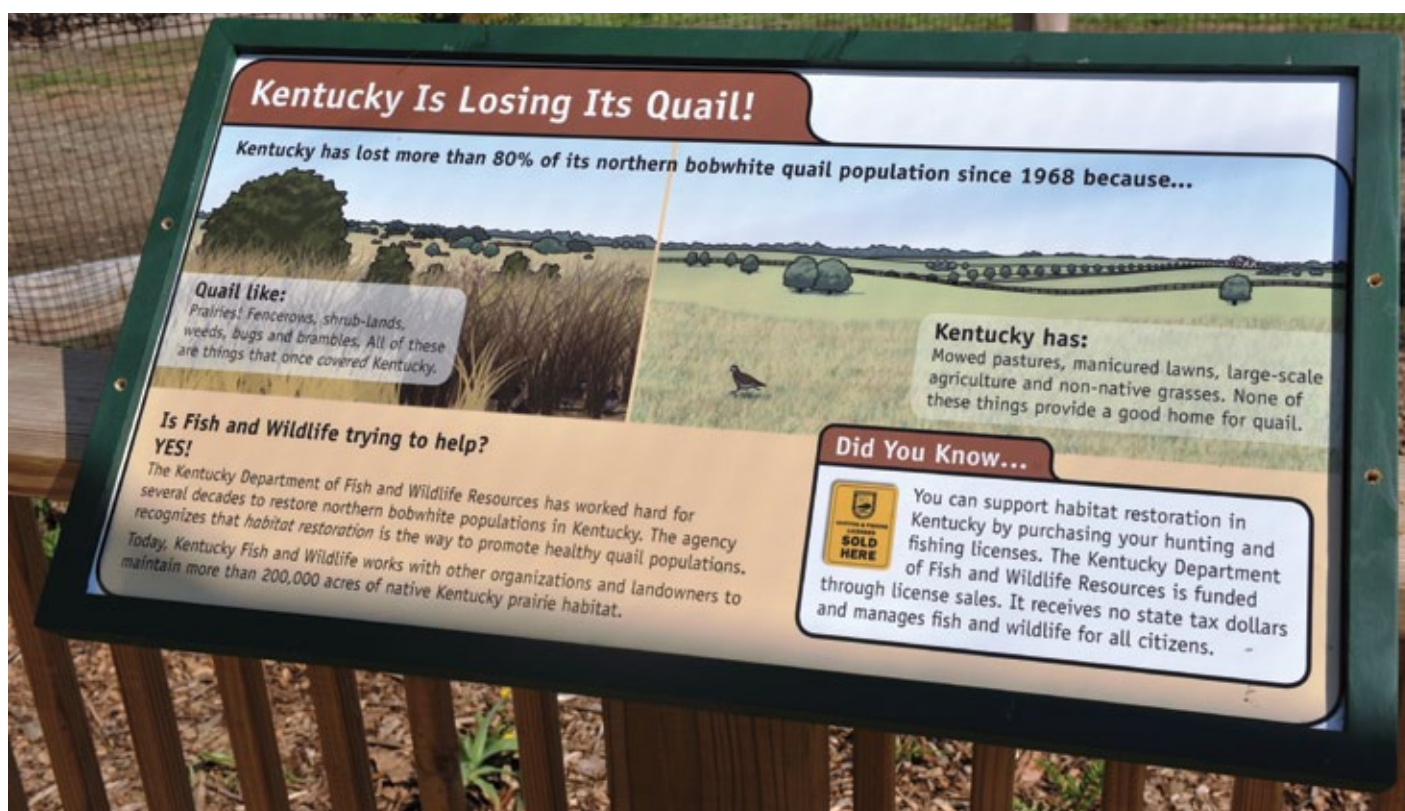
Brent McCarty, a conservation educator at the center, said the new exhibit appeals to a broad range of ages. “Young kids mostly play on the exhibits designed for that, while older visitors, including older siblings, teachers, parents and grandparents, actually pay attention to the parts that require making choices and learning from those choices.”

Many of the children, and even adults, may have never heard or seen a bobwhite or, even heard the word “quail.” Consequently, “that exposure of bobwhites to the public here is huge,” says Robinson. “And after their visit here, we would recommend they visit the 3,000-acre Shaker Village, just 25 miles away. It’s one of our

showcase management projects with a thousand acres of the kind of habitat we’re trying to save and the kind of habitat the exhibit demonstrates. They can see and hear wild quail and a lot of other wildlife in a real setting.”

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The Bluegrass Prairie exhibit also has another “storyline,” one that isn’t communicated to visitors but is nonetheless important in this day and age. Construction costs were reduced substantially by generous contributions from private quail conservation groups, the work of dedicated Salato Center volunteers, and donated tools and labor from Jackson Construction, a local company.

Kudos to Kentucky.





# 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 (page 5) during 2011-12. (Detailed state information is available through hyperlinks embedded in the electronic version of this report, which will be posted on the NBCI website, [www.bringbackbobwhites.org](http://www.bringbackbobwhites.org). 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 2011. For hunting information go to the state's web site or contact the state quail coordinator. New coordinators this year include Clifton Jackson (AR), Greg Hagan (FL), Mark Jones (NC) and Keith Krantz (WV).

The overriding theme from last year persists: bobwhite conservationists are aggressively planning and putting habitat on the ground in the face of record low bobwhite populations and hunting. The long-term decline in quail populations and

hunting documented here is made more sobering by the continued prohibition of wild bobwhite hunting by the New Jersey Department of Environmental Protection.

Conservation efforts in 2011-12 continued the emphasis on partnerships and resourceful use of a wide variety of programs and funding. Work on the ground was dominated by USDA programs and agencies (Farm Service Agency and Natural Resource Conservation Service) including the Conservation Reserve Program (CRP), Conservation Reserve Program Mid-Contract Management (MCM), Conservation Reserve Enhancement Program (CREP), Habitat Buffers for Upland Birds (CP33), Conservation Practice 38 (CP38), Conservation Reserve Program State Acres For Wildlife Enhancement (SAFE), Environmental Quality Incentives Program (EQIP), Wildlife Habitat Incentive Program (WHIP) and Voluntary Public Access and Habitat Incentive Program (VPA-HIP).

Other major multi-state bobwhite-centric efforts recognized in this report include the United States

Fish and Wildlife Service (USFWS) Joint Ventures (Oaks and Prairies; Central Hardwoods), USFWS Wildlife and Sport Fish Restoration Program (State Wildlife Grants and

***Non-government organizations—local, state and national—are an essential part of the fabric of bobwhite conservation.***





Pittman-Robertson programs), U. S. Forest Service, U.S. Army and U.S. Army Corps of Engineers.

Universities are playing a key role within states, and some projects are regional in scope, including Mississippi State University's CP-33 National Monitoring Program, research in the mid-south by The Center for Native Grasslands Management, University of Tennessee, mid-Atlantic research by the University of Delaware and Operation Idiopathic Decline in Texas and Oklahoma by the Rolling Plains Quail Research Ranch, Texas A&M University and the Quail Coalition.

In addition, quail coordinators this year cited contributions made by Kansas State University, Ohio State University, Oklahoma State University, Southern Illinois University, University of Georgia and University of North Texas. Other conservation entities, particularly USFWS Joint Ventures and Landscape Conservation Cooperatives, are partnering with state agencies, but were not specifically identified.

Non-government organizations—local, state and national—are an essential part of the fabric of bobwhite conservation. National partners recognized in state reports included National Wild Turkey Federation, Quail Forever, Quail Unlimited, Quail and Upland Wildlife Federation, Safari Club International and The Nature Conservancy.

Coordinators cite various habitats/approaches used on the ground, including irrigation center-pivot corners, crop field buffers, pine bluestem savanna, longleaf pine, shortleaf pine, early-successional

habitat, mixed-grass prairie, native warm-season grass, patch-burn grazing, prescribed fire, etc. Bobwhites are just one of the beneficiaries of this work; other key species in this report include gopher tortoises, pollinating arthropods, red-cockaded woodpeckers, prairie-chickens, ring-neck pheasants, etc.

Special research (not including bobwhite population monitoring) related to bobwhite conservation is reported in Delaware, Florida, Georgia, Illinois, Indiana, Kentucky, Missouri, New Jersey, Oklahoma, Pennsylvania, Tennessee and Texas. All states report outreach efforts that include bobwhites, with new and/or major outreach in Georgia, Indiana, Iowa, Kentucky, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Texas and Virginia.

In summary, quail conservation in 2011-12 was firmly rooted in a broad array of citizen-, organization-, university- and government-based conservation and hunting entities. Reports from each of the 25 NBCI states follow.

***Bobwhites  
are just one  
of the beneficiaries  
of this work; other key  
species in this report include  
gopher tortoises, pollinating  
arthropods, red-cockaded  
woodpeckers, prairie-  
chickens, ring-neck  
pheasants, etc.***



## **Alabama**

*Population:* Alabama quail populations have decreased annually by 3% over the last 5 years.

*Hunting:* no hunting statistics have been collected in Alabama in recent history.

*Management:* Wildlife and Freshwater Fisheries (WFF) continues to manage for quail with the following programs:

- WFF is continuing longleaf pine restoration on approximately 5,000 acres on Barbour WMA and Fred T. Stimpson Sanctuary. Also, a prescribed burning program is taking place on these two areas to restore grassland habitats. Shortleaf pine restoration continues 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 Act as well as USFWS partnership funds for projects with private landowners in high priority areas. During the past year, [1,500 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 Fred T. Stimpson Sanctuary to monitor the effects of longleaf pine restoration on quail and songbird populations. A similar survey program continues to be conducted on Barbour WMA.
- Alabama State Parks, in partnership with WFF and Quail Forever, is continuing implementation of a quail habitat demonstration area at Wind Creek State Park.

State Quail Coordinator: Carrie Johnson, Wildlife Biologist, [carrie.johnson@dcnr.alabama.gov](mailto:carrie.johnson@dcnr.alabama.gov)

## **Arkansas**

*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 approximately 6,000 acres in [CP33 Buffers](#) and 5,411.4 quail-friendly acres in CP38E/SAFE Grass.
- 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](#)
- Modification of our Acres for Wildlife program to be a Native Warm-Season Grass program. The program now requires a 5-year commitment. About 11,000 acres are currently enrolled.
- Continued outreach via prescribed fire workshops, habitat workshops, and distribution of educational materials.

State Quail Coordinator: Clifton Jackson, [cjackson@agfc.state.ar.us](mailto:cjackson@agfc.state.ar.us).



## **Delaware**

*Population:* 2011 statewide BBS bobwhite abundance index was 0.0 bobwhite per route – the first time no bobwhites have been detected on any BBS routes in Delaware. Bobwhite have declined an average of 9.3% per year during the long-term period 1966-2010. This decline is even more pronounced when examining the most recent short-term, 10-year period (2001-2010), during which bobwhite declined an average of 17.1% per year.

*Hunting:* 2010-11 estimated harvest was 4,002 quail. Total estimated number of hunters was 453. Of note, take of pen-raised, released birds comprised 90% of the total harvest.

*Management:* Our agency continues to operate as a partner with the National Bobwhite Conservation Initiative. In addition, we are continuing a comprehensive planning effort to identify quail focus areas, where management and research efforts will be directed. As part of the effort we have:

- Conducted intensive biological surveys in June and July to document the presence and distribution of bobwhite within potential focus areas.
- Completed a human dimensions survey to assess landowner attitudes. Survey respondents were generally very favorable towards restoring habitat on their property for bobwhite. However, our response rate was only 10% and could indicate a significant non-response bias.
- Revised our focus areas based on results from biological and human dimensions surveys. Remaining obstacles include securing stable funding and incentivizing a private lands habitat program that would be competitive with current CREP programs and commodity prices.

State Quail Coordinator: Matt DiBona, Wildlife Biologist, [matthew.dibona@state.de.us](mailto:matthew.dibona@state.de.us)

## **Florida**

*Population:* Florida's [bobwhite population](#) has declined by approximately 82% since 1966.

*Hunting:* Between 1970 and 2004, annual [bobwhite harvest](#) declined from 2.7 million to about 210,000 quail.

*Management:* Florida's restoration and management for bobwhites continues to operate under a [State Strategic Plan for Northern Bobwhite Restoration](#) 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 effort between the states 4 primary land management agencies. The primary goal of UERP is to prioritize, design, and implement on-the-ground management to improve populations of northern bobwhite and other grassland species on public lands throughout Florida.
- UERP comprises over 100,000 acres and has generated over \$400,000 of outside funding for increased land management. Collectively, under UERP and other projects, Florida has over 175,000 acres [under management for bobwhites](#) and other grassland species.
- Along with management, completed fall covey call counts and habitat and species monitoring for other grassland species were conducted on 10 focal areas across the state.
- Research: Initiated (January 2012) a cooperative project between FWC, Tall Timbers, and Mississippi State University on Babcock-Webb WMA to examine the effects of scale of fire on breeding season survival and reproduction and movements and survival post burn.

State Quail Coordinator: Greg Hagan, [Greg.Hagan@MyFWC.com](mailto:Greg.Hagan@MyFWC.com)





## Georgia

*Population:* Georgia's [bobwhite population](#) has declined by more than 85% since 1966.

*Hunting:* 2006-2009, [hunter numbers](#) remained stable; estimated quail harvest increased 30%.

Proportion of pen-reared birds in the harvest increased 59% (130,645); wild quail harvest declined by 79% (27,416).

*Management:* Georgia WRD's quail restoration efforts are transitioning from the Bobwhite Quail Initiative (BQI) to the National Bobwhite Conservation Initiative [step-down plan](#) that targets restoration efforts into spatially explicit sub-county Focal Areas. Quail management highlights include:

- From 2009-2011, 70 BQI financial incentive Cooperators enrolled 124 crop fields and 27 pine stands. Cooperators established 125 miles of field borders and with other BQI practices positively impacted more than 8,100 acres on working farms and forests across 15 Upper Coastal Plain counties.
- Farm Bill habitats include: CRP longleaf—200,000 ac; [CP33](#) buffers—2,222 ac; and CP38 pine savanna restoration—8,500 ac w/10,000 additional acres requested. EQIP/WHIP Longleaf - FY11 \$5.7M total, planted 15K acres, burned 14K; FY12 \$4M total, contracts in planning stages under the WLFW Gopher Tortoise.
- Wild quail translocation permits have been granted to expedite restoration on 5 sites.
- Current bobwhite research includes monitoring bobwhite population response to supplemental feeding and predator management at DiLane WMA.

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

## Illinois

*Population:* In [2011](#), observers recorded an average of 0.70 quail per stop (down 28.0%). Quail were recorded at 36.0% of the stops (down 16.9%).

*Hunting:* In [2010-11](#) an estimated 14,110 hunters (down 16.7%) harvested 99,812 quail (down 19.5%) Quail hunters averaged 1.64 quail per trip (up 49.0%). Quail harvest was 44.9% down and 54.0% down from previous 5- and 10-year averages.

*Management:* The agency continues to operate under a statewide [wildlife action plan](#) where quail are considered a species in greatest need of conservation and as a partner with NBCI. Quail management highlights include the following:

- [2,549 acres were enrolled](#) in focus areas within the quail range.
- Illinois submitted a request to expand SAFE boundaries and add shrubland wildlife focus areas in the spring of 2011 and again in 2012 under FSA's new protocol.
- Leah Berkman completed [her dissertation \(page 7\)](#), "Landscape Genetics of Bobwhite Quail and Swamp Rabbits in Southern Illinois" and found little genetic differentiation/isolation across Southern Illinois.
- Justin Shew completed the second year of monitoring in [his research project \(page 15\)](#), "Avian Response to Mid-Contract Management on Smooth Brome and Native-Grass-Dominated Conservation Reserve Program Fields in Northern Illinois".

State Quail Coordinator: Michael Wefer, Ag and Grassland Wildlife Program Manager, [mike.wefer@illinois.gov](mailto:mike.wefer@illinois.gov)



## **Indiana**

*Population:* The 2012 statewide bobwhite whistle count index of 0.58 birds/stop was unchanged from the 2011 index, but was significantly below the 5-year, 10-year, and long-term (37 years) averages, down 14%, 20% and 44%, respectively.

*Hunting:* [2010-2011 season survey](#) showed an estimated 15,080 hunters (+7.7% vs. '08-'09) harvested a record low 19,866 bobwhites (-6.5% vs. '08-'09).

*Management:* Within the Indiana Division of Fish and Wildlife, the Private Lands Unit, Public Lands Unit, and Wildlife Science Unit are working to improve quail habitat and management. Recent quail management highlights include the following:

- The Private Lands Unit is working with landowners to [create habitat](#) using increased incentives in 11 Quail Habitat Priority Areas.
- The Private Lands Unit has 13,734 acres enrolled in [CP-33](#) and 16,137 acres enrolled in the [CP-38](#), increased 411 ac and 3,405 ac respectfully, since Aug 2011.
- Through the Public Lands Unit's new Early Successional Habitat Initiative, 1,747 acres of potential quail habitat have been reclaimed on 12 fish and wildlife areas since Aug 2011.
- The Public Land Unit also conducts fall covey counts on 9 fish and wildlife areas and has or is planning to use this data for strategic harvest management.
- The Wildlife Science Unit continues monitoring population trends and harvest, and researching the impacts of disturbance on northern bobwhite productivity and dispersal at Glendale FWA. Our research was the focus of an [Indiana Outdoor Adventures Episode](#).

State Quail Coordinator: Budd Veverka, Research Biologist, [bveverka@dnr.in.gov](mailto:bveverka@dnr.in.gov)

## **Iowa**

*Population:* [2011 statewide bobwhite August roadside index](#) of 0.23 quail per 30-mile route was 36% below the 2010 index. This is 63% and 84% below the 10-year and long-term (49-years) averages, respectively.

*Hunting:* During the [2011-12 hunting season](#) an estimated 9,436 hunters (down 11%) harvested 4,539 quail (down 61%) compared to 2010-11 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 46,500 acre allocation of CP33 Buffers with 25,213 acres enrolled.
- Bobwhites are a species of conservation importance identified in the [State Wildlife Action Plan](#) (SWAP).
- Iowa [Upland Game Bird Advisory Group](#) recommended restoration activities for bobwhite should focus on habitat restoration and better landowner marketing.
- USDA [Voluntary Public Access funds](#) are being used to create more CP33 and CP38 practices that will create quail habitat and will be open for public hunting.

State Quail Coordinator: Todd Bogenschutz, [todd.bogenschutz@dnr.iowa.gov](mailto:todd.bogenschutz@dnr.iowa.gov)





## **Kansas**

*Population:* 2011 statewide bobwhite breeding abundance index was 14.6% below 2010 index and 13%, and 14% below previous 5-, and 10- averages, respectively.

*Hunting:* [2010-11 hunting season statistics](#) (77,407 quail hunters harvested 561,430 bobwhites).

*Management:* Kansas Department of Wildlife, Parks, and Tourism (KDWPT) continues to manage bobwhite throughout the state (no specific plan available) by partnering with multiple agencies, NGO and private citizens, as well as the National Bobwhite Conservation Initiative. Quail management highlights include the following:

- KDWPT has designated 2 focus areas in eastern Kansas for bobwhite quail restoration, and is teaming with NBCI on these projects. Pre-treatment monitoring began Spring 2012.
- Bobwhites are a species of conservation importance for both State Wildlife Grant and USDA program funding ranking process.
- KDWPT continues to evaluate CP33 buffers throughout the state working with Kansas State University researchers.
- USDA Voluntary Public Access (VPA) funds are being used to create more CCRP (CP33 and CP38) practices that will create quail habitat and become leased for public hunting for the life of the CCRP contract

State Quail Coordinators: Jim Pitman, [jim.pitman@ksoutdoors.com](mailto:jim.pitman@ksoutdoors.com), and Dave Dahlgren, [dave.dahlgren@ksoutdoors.com](mailto: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 81% since 1968. The 2011 index is 66.2% below our 1981 restoration target.

*Hunting:* Hunting trips per hunter cooperator has declined 22% over the last 5 years. Hunter harvest has declined by 9.3% over the same period.

*Management:* The agency continues to operate under a [statewide quail plan](#) and as a partner with the National Bobwhite Conservation Initiative. Quail management highlights include the following:

- Five focus areas, averaging 22,400 acres, have been established and monitored for grassland breeding bird density estimates.
- In [partnership with the University of TN](#), we are researching patch-burn grazing in a pasture setting at the Bluegrass Army Depot in Central KY.
- Peabody Wildlife Management Area has demonstrated an 84% increase in their fall population based on covey count data and [research](#) continues on the site.
- Shaker Village fundraising hunts continue to expand, generating nearly \$30,000 for quail management on the property. Covey count numbers increased to approximately 50 coveys.
- The [Kentucky Bobwhite Battalion facebook](#) membership increased to over 1,300 members.

State Quail Coordinators: John Morgan, [john.morgan@ky.gov](mailto:john.morgan@ky.gov), and Ben Robinson, [ben.robinson@ky.gov](mailto:ben.robinson@ky.gov)



## **Louisiana**

*Population:* The annual 2011 Bobwhite Whistle Survey combined results were not significantly different from 2009 and 2010. Quail whistles continue to be the lowest numbers since the survey began in 1983.

*Hunting:* The Big and Small Game Harvest Survey for 2011-12 estimated that 795 persons hunted wild quail and bagged an estimated 2,200 quail. The 2012 harvest does not include senior hunters aged 60 and over.

*Management:* The department continues to work with private, corporate, and government landowners to improve quail habitat. 4,033 acres were prescribed burned within the East Gulf Coastal Plain prescribed Burn Initiative. An additional 5,415 acres were enrolled in NRCS longleaf pine financial assistance programs for 2012. Management highlights include the following:

- West Gulf Coastal Plain and East Gulf Coastal Plain Prescribed Burning Initiatives funded by a SWG and USFWS grants resulted in a total of 4,173 acres burned.
- Worked with the NRCS, NWTF, and other agencies to hold two longleaf pine workshops for private landowners and land managers.
- Began planning a quail emphasis area on the Vernon Unit of the Kisatchie National Forest.
- Quail habitat development on three Wildlife Management Areas—Alexander State Forest WMA, Bodcau, and Sandy Hollow WMA.
- Additional contract prescribed burning planned on other WMAs.

State Quail Coordinator: Jimmy Stafford, Program Leader, [jstafford@wlf.la.gov](mailto:jstafford@wlf.la.gov)

## **Maryland**

*Population:* The 2011 statewide bobwhite abundance index was 9% below the 2010 index and 63%, 77%, and 96% below the 5-, 10-, and 45-year averages, respectively. Quail populations declined approximately 60% in the winter of 2009-10.

*Hunting:* In 2010-11, an estimated 194 quail hunters spent 444 days afield and harvested 335 wild quail. Wild quail hunting participation and harvest has declined more than 95% since the mid 1970's. Hunting of pen-raised quail remains popular but has not been quantified.

*Management:* MD DNR continues to partner with the National Bobwhite Conservation Initiative, focusing quail restoration efforts on suitable public lands within the current quail range and on private lands via Farm Bill programs. Management highlights include the following:

- 4 Wildlife Management Areas encompassing approx. 11,000 acres continue to be managed with a focus on quail. Population monitoring indicates stable or increasing quail numbers.
- Management of 41,463 acres in quail-friendly practices under the [Conservation Reserve Enhancement Program](#) (CREP) and 762 acres in CP33 (Habitat Buffers for Upland Birds).
- A statewide quail plan is scheduled to be completed in 2012.
- Research was initiated in 2009 to investigate quail ecology in 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 resume.
- Numerous information packets were distributed and several habitat seminars were conducted.

State Quail Coordinator: Bob Long, [blong@dnr.state.md.us](mailto:blong@dnr.state.md.us)





## Mississippi

*Population:* 2011 Wildlife Management Area [bobwhite abundance index](#) was 24% above 2010 index.

*Hunting:* [2010-11 hunting season statistics](#) were above previous year, similar to previous 5-year average, but below previous 10-year average.

*Management:* The agency continues to operate under a [statewide quail plan](#) and as a partner with the National Bobwhite Conservation Initiative. Quail management highlights include the following:

- Continued delivery of CRP, CP38 quail and prairie practices and [CP33](#) (Habitat Buffers for Upland Birds).
- Cooperated with conservation partners to implement quail-friendly habitat management via Mississippi Partners for Fish and Wildlife Program Uplands, Prairie, and Longleaf Committees and [“Fire on the Forty” initiative](#).
- Provided technical assistance on establishment/management of 1,000 acres of native grass and 800 acres of longleaf pine on private lands.
- Conducted quail-friendly forest and field management on 8 Wildlife Management Areas.
- Continued monitoring/support of quail abundance on [public lands](#), 4 quail focus areas, and state CP38 monitoring program.
- Continued outreach via public contacts, [website](#), Mississippi Outdoors [radio and magazine](#), [Outdoors ‘n Mississippi magazine](#), 1 prescribed fire workshop, and 2 quail focus area meetings.

State Quail Coordinator: Dave Godwin, Program Coordinator, [daveg@mdwfp.state.ms.us](mailto:daveg@mdwfp.state.ms.us); and Rick Hamrick, Program Leader, [rickh@mdwfp.state.ms.us](mailto:rickh@mdwfp.state.ms.us)

## Missouri

*Population:* [2011 statewide bobwhite abundance index](#) of 1.4 quail per 30-mile route was 36% below the 2010 index of 2.2. This is 52% below the 5-year average (2006-2010) and 56% below the 10-year average (2001-2010).

*Hunting:* [2011 hunter survey](#) cooperators bagged just over 141,000 birds, a 26% decrease as compared to the number reported for the 2008-09 season. Hunters spent an average 5.6 days afield and harvested an average of 1.4 quail per day.

*Management:* Missouri continues to implement a [statewide quail plan](#). Quail management highlights include the following:

- NBCI Inventory, see figures 1, 2, and 3 on pages 39-41 in this report.
- Major habitat/quail [success story](#).
- [Continued monitoring](#) of quail abundance on 19 public land Quail Emphasis Areas and two private land focus areas and participation in national [CP33](#) monitoring.
- Outreach efforts continue via the [Covey Headquarters Newsletter](#), quail [website](#), weekly [blog](#), [news items](#) and [public events](#).

State Quail Coordinator: Max Alleger, Grassland Bird Coordinator, [max.alleger@mdc.mo.gov](mailto:max.alleger@mdc.mo.gov)



## **Nebraska**

*Population:* Statewide, the abundance index from the 2011 Bobwhite Whistle Count Survey was 21% higher compared to 2010. Regional indices were higher everywhere except the East Central and North Central zones. The 2011 July Rural Mail Carrier Survey statewide index was 11% lower than in 2010.

*Hunting:* During the 2011-2012 bobwhite hunting season, 17,044 hunters harvested 62,824 bobwhites, while spending 113,763 days afield. Harvest and hunter numbers represented a 6.8% increase in the number of hunters, and a 7.1% increase in harvest compared to the 2010-2011 season.

*Management:* Nebraska continues to participate in the National Bobwhite Conservation Initiative, and has expanded its Focus on Pheasants program to include quail research and management on select focus areas in south central Nebraska. Management highlights include the following:

- Nebraska has approximately 10,000 acres in CP33 buffers.
- Nebraska has 5,000 acres in Upland Game Bird SAFE, which was designed with a woody component beneficial to bobwhites.
- An additional 75,000 acres for the SAFE programs were requested, but the number of acres actually allocated to Nebraska has not been released.
- Research projects designed to address issues related to bobwhite management are in the planning stages for the South Central Focus on Pheasants dual focus area.

State Quail Coordinator: Dr. Jeffrey J. Lusk, Upland Game Program Manager, [jeff.lusk@nebraska.gov](mailto:jeff.lusk@nebraska.gov)

## **New Jersey**

*Population:* 2011 statewide bobwhite abundance index was 16% below 2010 index and 19%, 73% and 98% below previous 5-, 10- and 45-year averages, respectively.

*Hunting:* [Wild quail hunting](#) season closed in 2011. 2011-12 hunting season statistics (3,054 quail hunters harvested 64,981 bobwhites, including pen-raised – 97% of total harvest).

*Management:* NJDEP Division of Fish and Wildlife will operate under a [statewide quail plan](#) and partner with multiple agencies, NGO and private citizens. Quail management highlights include the following:

- [Landowner Survey](#) sent to 585 recipients in 3 southwest counties.
- Two research papers ([here](#) and [here](#)) on modeling habitat occupancy in the mid-Atlantic region published. Similar research was conducted by lead author in NJ during 2010.
- [Quail in the Classroom project](#) initiated in cooperation with the NJ Outdoor Alliance and the NJ Quail Project now in 2nd year and expanded from 7 to 9 schools plus 3 organizations.
- Outreach initiated via online habitat references ([Managing for Wildlife](#) and [Bobwhite Basics](#)), one radio show and distribution of 1,000 promotional items.

State Quail Coordinator: Andrew W Burnett, Principal Biologist, [andrew.burnett@dep.state.nj.us](mailto:andrew.burnett@dep.state.nj.us)



## **North Carolina**

*Population:* The [2011 statewide bobwhite abundance index](#) continued a downward trend (~-4.0%). Downward trends continued in all regions of North Carolina, but mountain and piedmont estimates are no longer valid with the coastal trend estimate being relatively weak. In the mountain region, abundance indices have been zero for the second consecutive year leaving no remaining survey routes within the region. Small route-specific trend differences within regions are likely due to site-specific agricultural crop and forest management rotations.

*Hunting:* Results from the 2010-2011 hunting season ([hunting report](#) and [avid hunter report](#)) indicate coveys flushed and birds bagged have declined at a steady rate over the last 25 years.

*Management:* The agency continued our early-successional habitat program, [Cooperative Upland habitat Restoration and Enhancement](#) (CURE), and partnered with the NBCI. Quail management highlights include the following:

- Management of a 4-county private lands focal area in southeastern North Carolina. Over 15,000 acres are enrolled, and quail populations are increasing or stable. On Public lands, 4 CURE Game Lands provide approximately 10,000 quail-friendly acres. Other initiatives include agency biologists working inside NRCS offices in North Carolina's 3 regions.
- Continued outreach via [The Upland Gazette](#), covering early-successional species/habitats.

State Quail Coordinator: Mark D. Jones, Supervising Wildlife Biologist, Private Lands Program, [mark.jones@ncwildlife.org](mailto:mark.jones@ncwildlife.org), and Ryan Myers, Surveys and Research Biologist

## **Ohio**

*Population:* [2011 statewide bobwhite abundance index](#) was 6% below the 2010 index and is 5% 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 surveys](#) 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, revised in 2011. Quail management highlights include:

- Establishment of 15,700 acres in [CP33](#) Buffers.
- Collaboration with [Pheasants Forever](#)/Quail Forever (PF/QF) 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.
- [Research:](#) Within the last 3 years Ohio State University has compared breeding and non-breeding habitat use by bobwhites and identified seasonal variation in survival in landscapes typical of the Midwest. This year we teamed with the USFWS Private Lands Partners Program and PF/QF to complete edge habitat work within this area. In this experimental setting we hope to observe an increase in winter survival. Because of USDA-FSA restrictions on woody cover and downed tree structures in fields enrolled in CRP, edge habitat manipulation was done "across the fence" along woodlot edges.

State Quail Coordinator: Nathan Stricker, [Nathan.Stricker@dnr.state.oh.us](mailto:Nathan.Stricker@dnr.state.oh.us)





## **Oklahoma**

*Population:* Our [2011 roadside quail survey](#) showed a 37% decline from 2010 and an 81% decline since 1990. For 2011, drought and heat reduced production.

*Hunting:* [Hunter numbers](#) have declined 84% (111,000 to 17,341) and quail harvested by 96% (2,700,000 to 109,186) from 1986 to 2011.

*Management:* [Oklahoma's Quail Habitat Restoration Initiative](#) (QHRI) through the EQIP program has 5 focal areas. QHRI spent \$397,697 in 2011 on 18,827 acres in 2 focal areas, and over 5 years \$1.8 million across 94,000 acres. Management highlights include the following:

- Farm Bill habitats: our current inventory includes 1,054 acres of [CP33](#) buffers and 6,546 acres of [CP38](#) mixed-grass prairie.
- On WMAs restoring native grasses and the pine bluestem ecotype via prescribed burn was a priority in 2011.
- Research: We are cooperating in the [Operation Idiopathic Decline study](#) (disease and parasite) with [Texas Rollins Plains Quail Research Ranch](#).
- Research: At [Packsaddle and Beaver WMA's](#) we are collaborating with Oklahoma State University to study impacts of weather, patch burning and patch grazing on nesting and recruitment, and predator and insect abundance under different management practices.

State Quail Coordinators: Doug Schoeling, [schoelingd@pdi.net](mailto:schoelingd@pdi.net), Mike Sams, [mgsams@brightnetok.net](mailto:mgsams@brightnetok.net), and Jena Donnell, [jdonnell@odwc.state.ok.us](mailto:jdonnell@odwc.state.ok.us)

## **Pennsylvania**

*Population:* Between 1966 and 2010 Northern Bobwhite Quail populations have declined by 7.85% annually (2.93 annual index-1966 to 0.03 annual index-2010) (BBS data 1966-2011). 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 southern most 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 a survey of game bird propagators, we estimated that over 60,000 pen-reared bobwhites may have been released in PA in 2010. 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 PA Game Commission completed a final [statewide quail plan](#) and is a partner with the National Bobwhite Conservation Initiative.

State Quail Coordinator: Scott R. Klinger, Wildlife Biologist, [scklinger@pa.gov](mailto:scklinger@pa.gov)



## **South Carolina**

*Population:* 2011 [statewide bobwhite abundance index](#) was 10% below the 2010 index and 56% 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 Survey](#) increased from 0.36 coveys/hr to 0.43 coveys/hr.

*Management:* South Carolina is revising a statewide quail management plan, 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 3,000 acres of National Forest lands are being restored to pine savannah.
- We conducted fall covey counts on 6 wildlife management areas
- We're managing over 7,000 acres of state lands for bobwhites and grassland birds through a State Wildlife Grant
- USDA Farm Bill habitats include over 5,800 acres in [CP33](#) Buffers and approximately 1,000 acres in [CP38 Early Successional Habitat Restoration](#) (SAFE).
- We conducted one [wild quail management seminar](#) for 27 private landowners and resource professionals.
- Developed information for new quail page on the [SCDNR web site](#).

State Quail Coordinator: Billy Dukes, [DukesB@dnr.sc.gov](mailto:DukesB@dnr.sc.gov)

## **Tennessee**

*Population:* No population estimate.

*Hunting:* No harvest and hunter activity estimate.

*Management:* The agency is developing a quail plan as part of its comprehensive plan. Quail management highlights include:

- Total of 58,470 acres of habitat enrolled in bobwhite-friendly habitats in CRP (as of April 2012), as follows by practice type: CP2 Native Grasses – 41,421; CP4D Permanent Wildlife Habitat – 6,674; CP29 Marginal Pastureland Wildlife Habitat Buffers - 51; CP33 Habitat Buffers for Upland Birds – 5,153; CP38E SAFE Bobwhite Restoration Habitat – 5,171 (Note: many of the acres, particularly in CP2, may not be in suitable condition now if planned mid-contract management practices were not implemented).
- Total of 834.6 acres of bobwhite friendly habitat in EQIP Declining Habitat – Native Grasslands or Pollinators practices.
- Undetermined but substantial number of 8,785 acres of WHIP habitat are suitable for quail.
- Continued outreach via [www.TWRAprivatelands.org](http://www.TWRAprivatelands.org) and [www.tnwildlifehabitat.org](http://www.tnwildlifehabitat.org) websites, the “Habitat Corner” segment in the Tennessee Wildlife magazine, various magazine articles and videos, public presentations, workshops, and presence of TWRA & NRCS Private Lands Habitat booth at the annual National Wild Turkey Convention and Land and Wildlife Expo at the Gaylord Opryland Hotel in Nashville.

State Quail Coordinator: Roger Applegate, Wildlife Population Biologist, [roger.applegate@tn.gov](mailto:roger.applegate@tn.gov)





## **Texas**

*Population:* [2011 statewide bobwhite abundance index](#) was below the 2010 index in 4 of the 6 regions surveyed and below previous 10- and 32-year averages 5 of the 6 regions surveyed for bobwhite.

*Hunting:* [2011-12 hunting season statistics](#) were below previous year and previous 5- and 10-year averages.

*Management:* The agency continues to operate under a [statewide quail plan](#) and as a partner with the National Bobwhite Conservation Initiative. Quail management highlights include the following:

- Management of 4,842 acres in [CP33](#) (Habitat Buffers for Upland Birds) and 108,600 quail-friendly acres under EQIP and WHIP contracts in State [resource concern areas](#).
- Major [habitat/quail success](#) in the upper coastal prairie with the Wildlife Habitat Federation.
- Continued [science-based management](#) with monitoring of quail abundance on 3 public land areas and new monitoring beginning in 2012 on 3 private land focus areas and participation in national [CP33 monitoring program](#).
- Continued outreach via [Quail Web Page](#), [TPWD Magazine](#) articles, 23 landowner workshops, 35 quail presentations, 11 staff training courses, and quail-specific technical guidance provided on over 500,000 acres of privately owned lands.

State Quail Coordinator: Robert Perez, Upland Game Program Leader, [Robert.perez@tpwd.state.tx.us](mailto:Robert.perez@tpwd.state.tx.us)

## **Virginia**

*Population:* [Our quail population](#) continues to decline in many areas, but some increases are noted and the rate of decline has slowed.

*Hunting:* In 2011, 41 avid [quail hunters reported](#) on 445 hunts, finding 590 coveys, 1.3 per hunt, 0.39 coveys per hour. In the Tidewater region the rate was 0.46 coveys per hour, or 2 hours and 17 minutes to find a covey. The majority of hunting (58% of coveys) occurred in cut-over forest—highlighting the importance of forest management to quail populations and hunting.

*Management:* In the 4th implementation year of our [Quail Recovery Initiative](#) we continue many partnerships, including the NBCI. Highlights include:

- 6,137 acres of managed habitat via our 5 private lands wildlife biologists.
- 404 site visits, 275 management plans and 256 outreach events.
- Amelia and New Kent quail habitat demonstration projects progressing nicely.
- [Quail DVD “Answering the Call”](#) widely distributed.
- 206 tracts of land and 196 landowners in the [QMAP](#) program totaling 51,636 acres with 16% under some form of quail management.
- \$600,000 in wildlife BMP funding available in FY 2013.
- Development of new forestry-related BMPs nearing completion.
- Gearing up for the NBCI focus area plan in spring of 2013.

State Quail Coordinators: Marc Puckett, [marc.puckett@dgif.virginia.gov](mailto:marc.puckett@dgif.virginia.gov), and Jay Howell, [jay.howell@dgif.virginia.gov](mailto: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 has hired a quail coordinator and development of a quail conservation initiative is underway.

State Quail Coordinator: Keith Krantz, [Keith.D.Krantz@wv.gov](mailto:Keith.D.Krantz@wv.gov)

# BOBWHITE HUNTING REPORT

## Hunting Activity

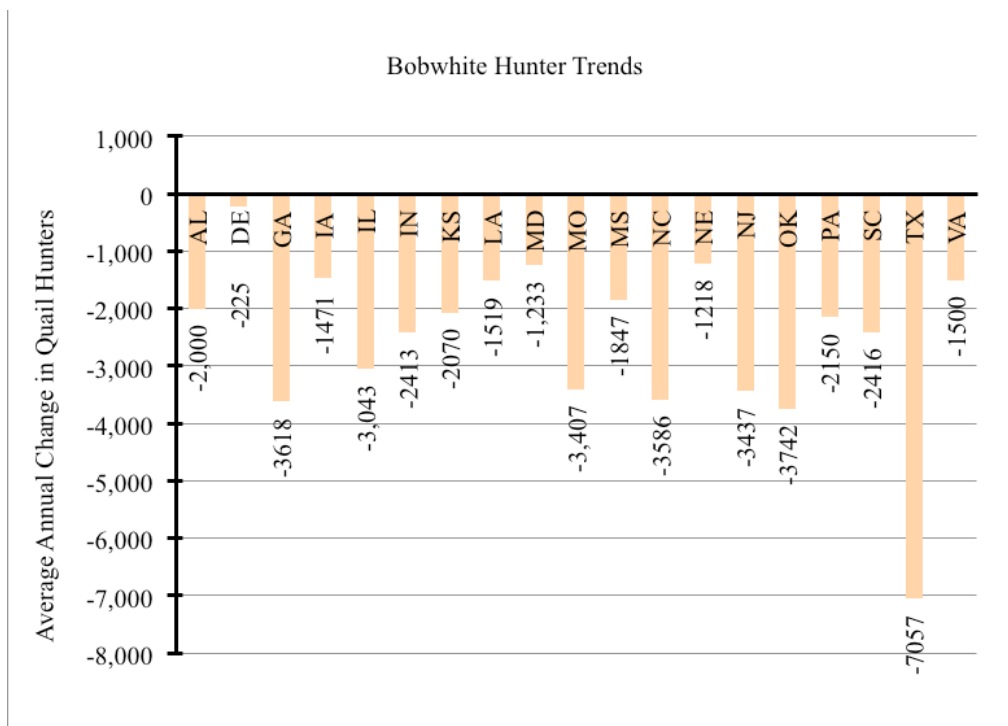
Last year's report on hunting emphasized the current status of number of hunters (357,542) and days spent in the field (1,996,390), and provided a retrospective analysis for Georgia and Missouri. The message this year remains unchanged: quail hunting has plummeted. Comparing the peaks in quail hunting, as early as the 1950s in some states, 1960s—1970s in most states, to the first decade of the 21st Century, the average annual decline across 19 of the NBCI states was 2,524 hunters. This should be viewed as an index of quail hunting trends for various reasons, for example most states do not require hunting permits, or obtain data, from youth and senior citizens. In addition to information on hunter numbers, 11 states (AL, DE, IL,

MD, MO, MS, NC, OK, SC, TX and VA) provided an estimate of the peak-to-low trend in number of hunting days. The average annual decline in hunting trips was 18,267 days.

## Economic Impact

The economic impact resulting from the decline in bobwhite hunting was identified decades ago by NBTC member Dr. L. W. Burger in an analysis of southeastern states. Based on the rate of decline in hunting between 1980 and 1995 (6.9% per year), Burger calculated that \$13 million in economic impacts were lost or diverted between 1991 and 1992.

As indicated in last year's report, bobwhite hunting in many states, particularly in the east, has shifted from wild to pen-raised bobwhites (e.g., 97% of Georgia's recent harvest was pen-raised quail), demonstrating persistent demand, and a love for this tradition-rich sport. Further analysis of quail hunting by Georgia Department of Natural Resources (GADNR files) for the 2008 hunting season provides some insight into the economic impact of bobwhite hunting in the state. In a telephone survey, hunters were asked to choose amongst a range of spending categories for their expenditures related to bird dogs, guns, shells, clothing, food, lodging, gasoline, access fees, etc. Based on an estimate by GADNR that 19,284 of the states 22,423 hunters spent money on bobwhite hunting, the following information estimates the total expenditures for each category chosen by hunters:



**Figure 1. Select major changes in number of bobwhite hunters for 19 reporting NBCI states. Emphasis was to compare the peaks in quail hunting participation to lows, which in all cases occurred during first decade of 21st Century. For most states this range of years covers the 1960s—1970s to the 2010 season.**





- 897 hunters (4% of 22,423 quail hunters) chose >\$5,000 expenditure category, which computes to a total expenditure of \$4.5 million assuming the minimum of \$5,000 per hunter;
- 1,570 hunters (7%) chose \$2,501-\$5,000, which computes to a total expenditure of \$3.9 million assuming the minimum of \$2,501 per hunter in this category;
- 2,915 hunters (13%) chose \$1,001-\$2,500, which computes to a total expenditure of \$2.9 million assuming the minimum of \$1,001 per hunter;
- 3,139 hunters (14%) chose \$501-\$1,000, which computes to a total expenditure of \$1.6 million assuming the minimum of \$501 per hunter;
- 1,345 hunters (6%) chose \$401-\$500, which computes to a total expenditure of \$539,497 assuming minimum of \$401 per hunter;
- 897 hunters (4%) chose \$301-\$400, which computes to a total expenditure of \$269,973 assuming minimum of \$301 per hunter;
- 1,121 hunters (5%) chose \$201-\$300, which computes to a total expenditure of \$225,351 assuming minimum of \$201 per hunter;
- 2,018 hunters (9%) chose \$101-\$200, which computes to a total expenditure of \$203,825 assuming minimum of \$101 per hunter;
- 2,242 hunters (10%) chose \$51-\$100, which computes to a total expenditure of \$114,357 assuming minimum of \$51 per hunter;
- 3,139 hunters (14%) chose \$1-\$50, which computes to a total expenditure of \$3,139 assuming minimum of \$1 per hunter;

Total expenditure above for hunters who said they spent money on quail hunting was \$14,256,992 assuming the minimum expenditure amount in each expense category. If we assume the expenditure for these hunters was the median within each expense category (except for >\$5,000 category which is held constant), total expenditure was \$21,602,542.

On the western side of the bobwhite's range, Texas is famous for its quail hunting, little of which is available on public land. As reported in [Quail VII](#) by Johnson et al., for the 2010 hunting season avid quail hunters (i.e., members of a quail-focused conservation organization) spent on average \$8,606 for hunting (dogs, leases, travel, equipment, supplies, etc.).

NBCI and its many partners take a habitat approach to bobwhite conservation, which translates to considerable economic impact. On one extreme, southeastern quail plantations, landowners will spend \$10-25 per acre on habitat, \$20-75 per acre for expenses other than habitat, and hunters will pay \$3,500 to \$7,500 for a half-day hunt (Bill Palmer, Tall Timbers Research

Station, personal communication). Likewise in South Texas, quail management and hunting leases were recently found to have direct impact of \$108.9 million, and the total value added to the South Texas economy was an estimated \$75.7 million, which supported 1,635 jobs (Leonard Brennan, Caesar Kleberg Wildlife Research Institute, personal communication).

Similar to the total value added reported by CKWRI, comprehensive economic analyses of hunting are done for most states by the U.S. Fish and Wildlife Service (USFWS; 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation <http://wsfrprograms.fws.gov/subpages/nationalsurvey/reports2006.html>). Because direct expenditures by hunters (most of the data cited above) provide an incomplete description of economic impact, the USFWS provides a more comprehensive estimate of economic impact by including additional spending that occurs throughout the economy as a result of hunting.

Data from the 2006 survey for 19 NBCI states are displayed in Table 1. These include expenditures that are lumped across quail, grouse and pheasants hunters. Economic values from states with relatively small numbers of pheasant and grouse hunters (AL, FL,

NBCI STATE	Retail Sales	Total Economic Impact for Upland Game Bird Expenditures
AL	\$20,778,235	\$ 34,007,647
FL	\$20,730,604	\$ 36,118,957
GA	\$37,483,337	\$ 64,296,605
IL	\$37,799,926	\$ 67,616,323
IN	\$56,265,858	\$ 84,065,345
IA	\$85,879,189	\$ 134,975,478
KS	\$110,540,078	\$ 192,800,271
KY	\$9,733,065	\$ 14,808,809
MD	\$3,688,556	\$ 6,137,079
MO	\$77,383,354	\$ 131,364,102
NE	\$108,254,584	\$ 169,586,906
NJ	\$13,313,361	\$ 22,797,440
NC	\$77,803,122	\$ 135,432,435
OH	\$23,116,618	\$ 38,834,575
OK	\$24,979,556	\$ 42,126,841
PA	\$143,377,938	\$ 246,760,366
TN	\$18,380,670	\$ 31,283,639
TX	\$80,699,062	\$ 145,219,123
VA	\$15,164,785	\$ 25,451,645
Total	\$965,371,898	\$ 1,623,683,586



GA, KY, MO, OK, TN and TX) are most indicative of the economic impact of bobwhite hunting alone. The bobwhite-centric total economic impact across these 8 states was \$499,225,723.

### Conclusion

The decline of bobwhite hunting has impacted cultures and economies across the species range. Although we lack a comprehensive retrospective analysis, and we cannot predict how hunter participation would respond to a major increase in bobwhite abundance, these economic figures point to large potential for bobwhite hunting to affect the economy in NBCI states. Similarly, in a much less tangible way, the disappearance of hunters and bird dogs across many parts of the country has profoundly reduced the quality of life.



## NBCI LAUNCHES BOBWHITE HABITAT INVENTORY PROJECT

In an era of steeply declining and stagnant bobwhite populations people simply want to know what is being done by state agencies to improve the future of the species. In the worst-case scenario, states' last management option is to discontinue hunting, as happened in New Jersey.

As part of the evolution of interstate, coordinated bobwhite conservation (NBTC & NBCI), at the March 2010 NBCI Management Board meeting, state agency directors directed NBCI to document "all things being done to benefit bobwhites in each state." The quail management community has long had a need for unified collection and dissemination of information on quail abundance, hunting activity and habitat management, and the Inventory projects provide that service.

Putting this degree of collaboration into action is challenging, requiring consensus on disparate habitat definitions, approaches to accountability, commitment to quail management and data management systems, across 25 state agencies and myriad partners. Thus, the habitat inventory project is a long-term project requiring years of improvement.

In winter 2011, state quail coordinators provided their first estimates of habitat management activity for 2010. This was part of the process to build a credible habitat inventory, and was followed by the first-ever state quail coordinators' meeting, a special session at

the NBTC meeting in Tallahassee. Further guidance followed, via the ad hoc habitat accomplishments committee (Mark Gudlin, TN; Robert Perez, TX; Reggie Thackston & James Tomberlin, GA; Jay Howell, VA; John Morgan, KY; Max Alleger, Beth Emmerich & Lisa Potter, MO; Todd Bogenschutz, IA; Jeff Dugay, LA and Jim Pitman, KS). By the end of 2011, most state quail coordinators had increased capacity to provide estimates of habitat management accomplishments with a fair degree of confidence in the suitability of those acres for sustaining quail populations. Data for 2011 are reported here.

### Developing Capacity

The 2011 NBCI State Agency Bobwhite Habitat Management data are reported as acres of habitat management during the past year. Although acres of management appear to be a definitive measure of accomplishment by state agencies, they are more appropriately viewed as an index of accomplishments, for reasons explained below.

States were asked to report acres of habitat management activity. This requires at least two determinations, (1) that acres are accurately captured, and (2) that the area being analyzed is suitable for bobwhites, now (the management year), or in the near future. Some states have accountability systems (GIS,





spreadsheets, accomplishment-based time sheets, etc.) in place to track quail-related management, others do not. Further, when large landscapes are being evaluated as potential habitat, it is very difficult to accurately assess bobwhite habitat suitability.

Development of a system that produces a measure of habitat that is consistent across the 25 NBCI states, and through time, is a multi-year endeavor. Key challenges are lack of common definitions for habitat characteristics and uniform approaches for accurately measuring habitat (e.g., not enough staff to conduct regular field checks and remote sensing does not measure key habitat characteristics). As a reflection of the difficulty of this project, numerous states (Alabama, Illinois, Nebraska, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee and West Virginia) lacked the capacity to capture both public and private land agency-based (work administered, funded or conducted by agency) quail habitat management activity.

For states that did report acreage we needed to characterize the coordinator's confidence in the quality of the data (i.e., expectations for the suitability of the area claimed for bobwhites), including 3 levels of confidence and 3 levels of uncertainty. This is to ensure that expectations for the presence of bobwhites are carefully controlled. This was particularly useful for large areas where bobwhites were known to exist, and some kind of habitat program had been implemented, but there is no

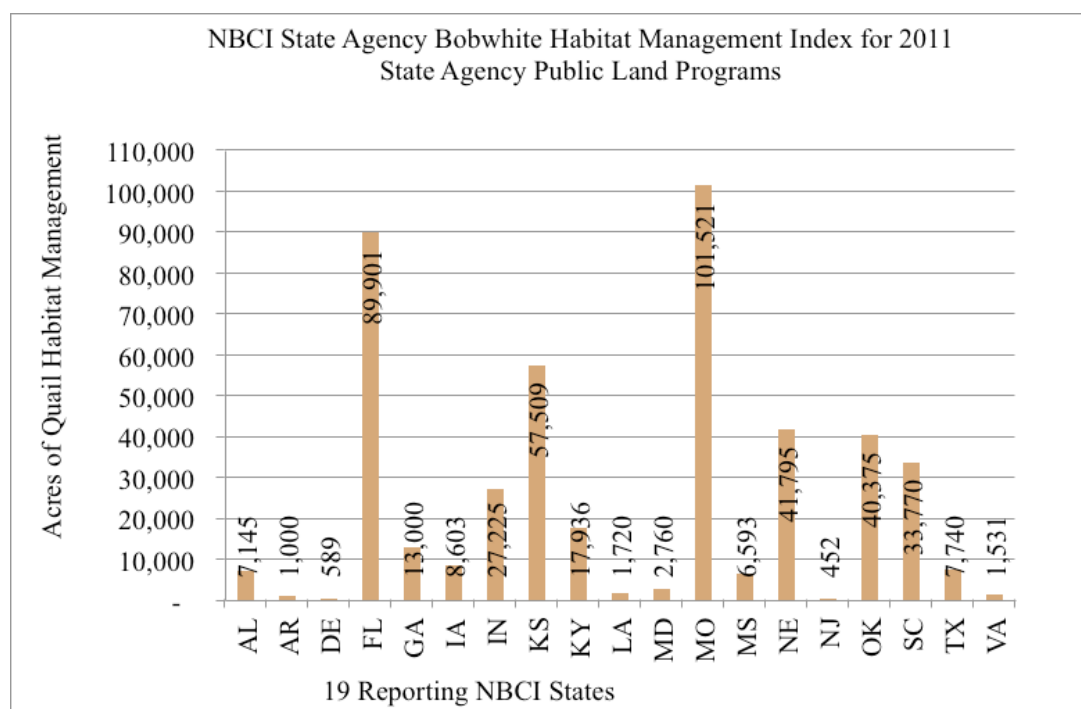
measurement of habitat quality or bobwhite abundance. Even in the second year of the Inventory, there was a wide variety of opinion and mixed evidence for documentation of habitat suitability; thus, comparisons among states are not very useful yet. Again, this is a work in progress.

States reported habitat management for a wide variety of categories including public lands, private lands, Farm Bill lands, U.S. Forest Service, and various non-government organizations. The three most commonly-reported categories are reported here, including state agency-based management of public and private lands (i.e., agency did the work or otherwise was directly responsible for getting the work done, including funding, contracting, grants, major leadership), and management of private lands enrolled in USDA Farm Bill programs.

## Results

In 2011, state wildlife agencies accomplished a tremendous amount of habitat management designed to benefit bobwhites. For agency-based public lands, Florida, Kansas and Missouri affected change on 57,509–101,521 acres, and across all 19 reporting states 461,165 acres were managed (Figure 1). State coordinator confidence levels in acreage figures and capacity for benefitting bobwhites were as follows: High Confidence: DE (379 acres), IN (2,516 acres), MO (87,456 acres), MS and TX; Moderate Confidence: AL, GA, IA, KS, KY and LA; Somewhat Confident: FL, IN (24,709 acres), MD, MO (14,065 acres), NJ, OK and VA; Somewhat Uncertain: DE (210 acres) and NE; Moderately Uncertain: SC; Highly Uncertain: AR.

For agency-based management on private lands, Texas was by far the most active with 63,600 acres, followed by Florida, Kansas and Kentucky with 13,000–16,830 acres (Figure 2). Total acreage for private lands for the 16 reporting states was 137,309. Coordinator confidence in acreage figures was as follows: High Confidence: GA, IN, KS (5,511 acres), LA, MO, MS, TN and TX (5,600 acres); Moderate Confidence: AR (900



**Figure 1. NBCI State Agency Bobwhite Habitat Management Index for agency's public land programs for 19 states. Index is acres of habitat managed by prescribed fire, disking, grazing, spraying herbicide, cutting, planting, etc., during the previous one-year cycle (ranging from July 1, 2010 to December 31, 2011, depending on state fiscal or calendar year reporting period). Total acreage is 461,165.**



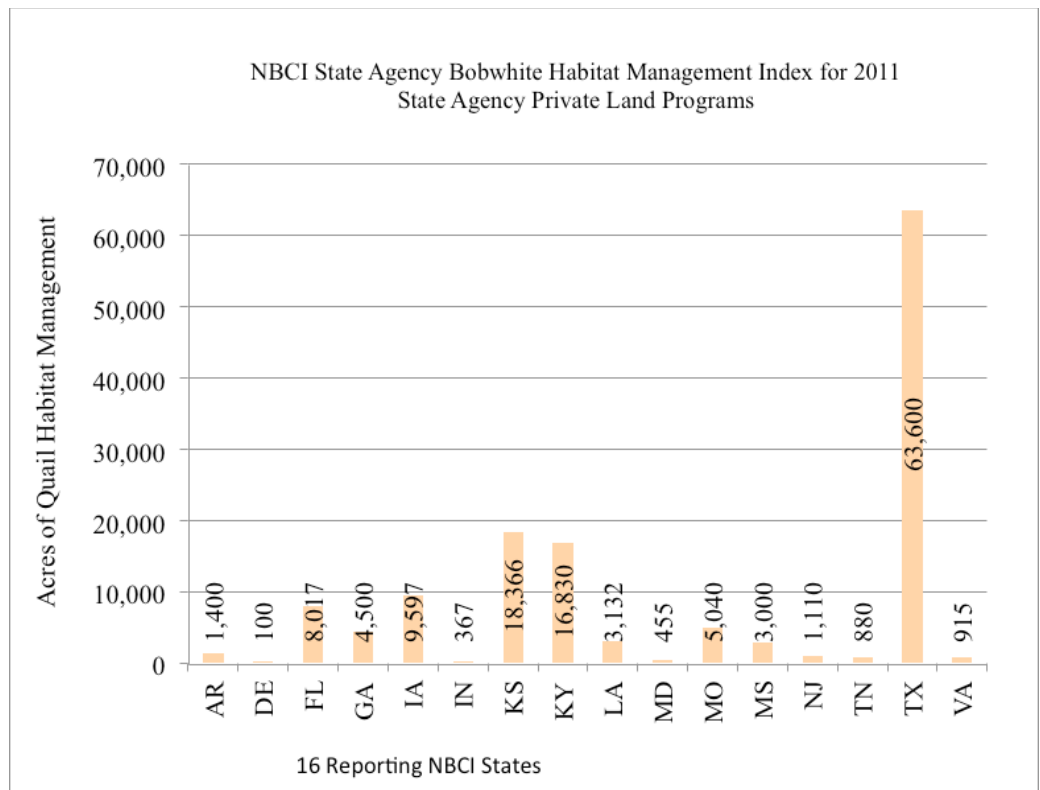
acres), DE, IA and KS (12,855); Somewhat Confident: FL, MD, NJ and TX (58,000); Somewhat Uncertain: KY; Moderately Uncertain: AR (500 acres); Highly Uncertain: no states.

For USDA Farm Bill lands, Kansas reported by far the most activity with 777,816 acres of management, followed by 243,341 acres in Texas, 134,920 acres in Oklahoma, and 11,123–14,630 acres in Indiana, Missouri and South Carolina (Figure 3). Total acreage for Farm Bill lands for the 12 reporting states was 1,207,957. Coordinator confidence in acreage figures was as follows: High Confidence: IA and TN CRP-EQIP-WHIP; Moderate Confidence: IN, KS CCRP, KS WHIP, MO CRP, NJ CRP and TX; Somewhat Confident: KS CRP, MD, OK and VA; Somewhat Uncertain: KS EQIP and TN WRP; Moderately Uncertain: SC; Very Uncertain: AR and KS CRP MCM.

Some of the miscellaneous quail habitat management reported included the following: Alabama reported Moderate Confidence in 62,956 acres by US Forest Service, whereas South Carolina reported High Uncertainty in 7,500 acres managed by US Forest Service. Virginia reported Somewhat Uncertain for 22,650 acres of US Department of Defense/US Corps of Engineers lands. Because of the potential for quail conservation on these federal properties this category will be a high priority for improvement of bobwhite habitat evaluation. Among non-government organizations, The Nature Conservancy was identified as a major contributor to bobwhite management (1,943 acres in Alabama rated Highly Confident, 1,900 acres in Virginia rated Moderately Confident and 450 acres in Kentucky rated Somewhat Confident). Pheasants Forever management on Farm Bill lands was also reported in Iowa (Figure 3). For detailed information on major contributors to bobwhite habitat management in each state consult the state reports.

## Discussion

Despite incomplete reporting and considerable uncertainty, state agency quail coordinators reported 1,806,431 acres of quail habitat management for 2011.



**Figure 2. NBCI State Agency Bobwhite Habitat Management Index for agency's private land programs for 16 states. Index is acres of habitat managed by prescribed fire, disking, grazing, spraying herbicide, cutting, planting, etc., during the previous one-year cycle (ranging from July 1, 2010 to December 31, 2011, depending on state fiscal or calendar year reporting period). Total acreage is 137,309.**

Specific benefits to bobwhites of this management are in some cases described in state reports in this report. We did not publically report the results for the 2010 Inventory because there was considerable uncertainty.

Coordinator confidence in reported acres improved markedly this year. For public lands, 16 of 19 reporting states had some level of confidence that the acreage they reported represented management for quail habitat suitability; this represents 83% of the total reported acreage. For private lands, 14 of 16 reporting states had confidence in their data, representing 87% of the total reported acreage. This was the first year for reporting Farm Bill acres, and consequently confidence was relatively low at 67% of the total reported.

Assuming that non-reporting states had little capacity in 2011 to identify acres of management of suitable bobwhite habitat, there is much work to be done. Similarly, some states reported many acres with a high level of uncertainty. As one state coordinator commented, "Although I classified my confidence as Very Uncertain because I lack data, I know those acres provide a great deal of benefit to bobwhites so I wanted to report something. Thus, I took a wild stab just so that practice would be identified as an important one in our state."

On the other hand, some states were very conservative in what they reported. For example,







# SURVEY OF STATE AGENCY ATTITUDES AND PRACTICES FOR MEASURING BOBWHITE ABUNDANCE

## Background

There is no more a historic tradition among state wildlife agencies than the surveying of bobwhite populations using inexpensive statewide roadside observations of birds seen or heard, with many of these surveys originating in the 1960s or earlier. This priority resulted from each state's need to provide information for hunting, with a short-term annual focus on production of chicks, and long-term emphasis on regional and statewide population trends. Such data have been invaluable for quantifying the steep decline of bobwhites.

Unfortunately the large-scale and small sample size inherent in traditional surveys is now inadequate for evaluating bobwhite restoration. State quail coordinators are increasingly concluding traditional surveys are not relevant anymore because remaining quail, and restoration, exist at a relatively small scale. As far back as 1988, state quail biologists and researchers held meetings aimed at improving evaluation of bobwhite population response to management and landscape and climate changes. Although much quail abundance data was being collected, many efforts lacked objectives related to management, techniques were not standardized and results were not comparable among states, hindering unified bobwhite conservation efforts.

Substantial progress to improve evaluation did not occur until the implementation of NBCI in 2002. This catalyzed the development of 46 state agency focus areas with statistically valid monitoring programs (see

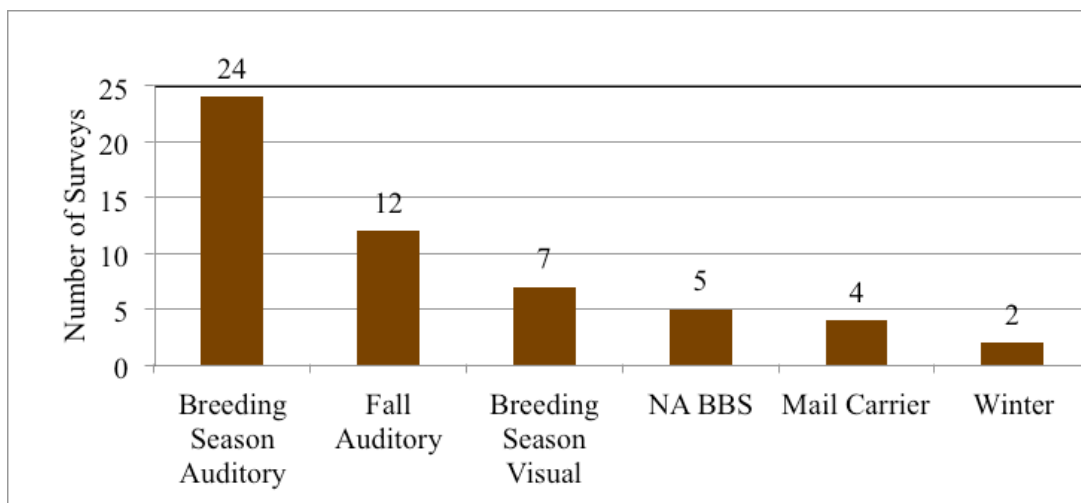
2011 State of the Bobwhite Report, pages 25-26). This was followed by the groundbreaking national [CP33](#) monitoring program. CP33 monitoring set a new standard for evaluation of bobwhite management. Combining the benefits of these two evaluation efforts, however, bobwhite conservation is still left with many states, and many restoration efforts, producing little evidence of success. This resulted in the call for a more scientific approach to bobwhite conservation in the new 2011 NBCI plan (pages 9 and 17-18 in the Executive Summary and pages vii and 191-204 in the full plan; <http://bringbackbobwhites.org>).

To begin the process of increasing the use of scientifically-based population monitoring, we designed a questionnaire about bobwhite population monitoring for state agency coordinators to complete in January 2012. (West Virginia did not participate in the survey because their state quail plan was in development.) This survey was comprehensive, requiring a minimum of 37 answers, and for states with many surveys, up to 113 answers. Major contributions to development and analysis of this survey were made by Matt Arndt, Bridget Collins, Ken Duren, John Morgan and Theron Terhune. This report provides a few highlights of the survey.

## Results

Bobwhite abundance was being measured in 2011-12 by 53 surveys across 24 NBCI states participating in the survey. By far the dominant survey

approach is listening for calling males in the breeding season (29 surveys), typically during May-June. The majority of these surveys (18) measured large landscapes, ecological regions or statewide. Often these surveys are part of a multi-species survey (e.g., North American Breeding Bird Survey, NA BBS) (Breeding Season Auditory and NA BBS in Figure 1). Many of these surveys



**Figure 1. Frequency of types of bobwhite population surveys conducted in 24 NBCI states during 2011-12. NA BBS is the North American Breeding Bird Survey. The Mail Carrier survey is counted twice, a 2nd time in Winter type to reflect a survey that covers multiple seasons.**



provide a long-term index of abundance, with the BBS beginning in 1966. Across the survey states, when asked if NA BBS bobwhite data are used for management purposes, answers were 21% *yes*, 33% *somewhat* and 46% *no*. We used the BBS for the 2011 State of the Bobwhite Report (pgs. 1-2), showing a steep, long-term decline for bobwhites, 3.75% per year since 1966.

Eleven surveys involve observations of adults and/or chicks seen, with 4 of these being conducted very inexpensively by rural mail carriers and 7 categorized as **Breeding Season Visual** with more detailed protocol (Figure 1). One state reported using the annual Christmas Bird Count, a winter index of bobwhite abundance, for tracking bobwhite population trends, and one state's mail carrier survey includes observations in October and January.

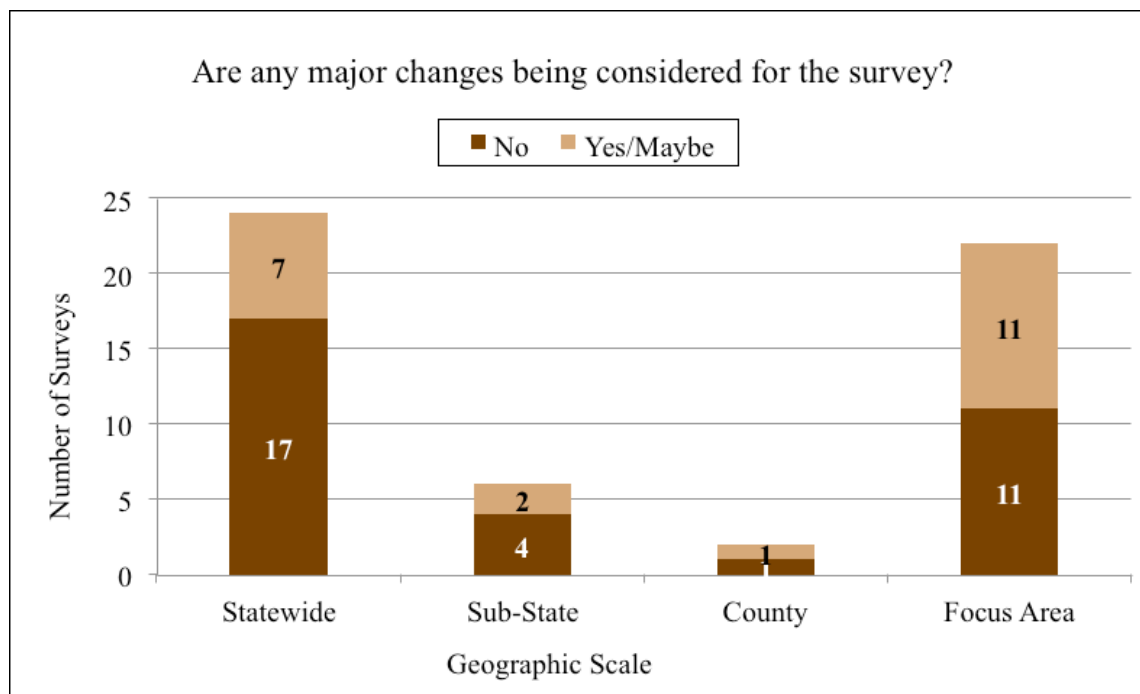
Because of the large-scale nature of the above approaches, observations are typically made along roadsides, and the observations are often not adjusted for factors that affect whether or not a nearby bird was actually seen or heard, such as height of vegetation, topography and observer ability. The inference, or true meaning, of these surveys is carefully worded, e.g., "this is an index of male quail heard along roadsides during June and does not necessarily reflect the abundance of quail, nor the abundance of male bobwhites across the landscape". Further, these estimates typically lack a measure of precision, making any comparison across time and space difficult at best. In a recent example of the weakness of these large-scale surveys, [Texas Parks and Wildlife Commission](#) decided against using such data for making decisions about hunting regulations.

Despite these shortcomings, indices have done a good job of identifying major changes in abundance, and because of their long-term nature (the majority of these surveys are >40 years old) biologists are able to better understand effects of long-term climate and landscape change on bobwhites. However, the monitoring survey and state reports revealed that some states are now questioning some of these values,

partly because quail abundance is so low that the index approaches are not detecting the positive changes that do occur. Unfortunately, this is because positive habitat change has occurred at a relatively small scale, hundreds or thousands of acres: "we no longer have a statewide population" ([Missouri](#), [North Carolina](#)).

As an alternative to large-scale approaches, many states have turned to measurement of coveys calling in the fall, classified as **Fall Auditory** (12 surveys, Figure 1). In most cases, this is providing population density, estimated as coveys per acre, typically on restoration focal areas where quail are a management priority. Much research has focused on behavior of calling fall coveys during the past decade ([Tall Timbers](#)) and it has become a popular approach for measuring bobwhite response to management on smaller (<5,000 acres) landscapes, while simultaneously providing information most pertinent to quail hunting.

Because researchers have documented average calling rates in some parts of the country, biologists in these regions are able to estimate abundance of quail, versus other techniques that are limited to abundance of *calling quail*, e.g., Breeding Season Auditory. The weakness of the Fall Auditory approach is that each observer can only measure one location per day, whereas during spring each observer can measure 10 or more locations per day. Thus, preference for the Breeding Season Auditory approach increases as the size of the monitoring area increases. Unfortunately for hunters, there is not a common range-wide technique for predicting fall hunting prospects based on abundance of males during the breeding season.



**Figure 2. State coordinators' indication of potential major changes in surveys based on geographic scale.**



Many of the Spring and Fall Auditory surveys reported by states provide higher quality measurements of quail abundance by following scientific design principles (e.g., randomly selected listening stations), and a more meaningful population measure is estimated, quail per acre. Quail-per-acre estimates typically can be compared from year-to-year and from place-to-place across the bobwhite range, whereas population indices are much less comparable.

Combining the different values of long-term, large-scale surveys, and recent focused surveys, coordinators indicated in the survey that both ends of the spectrum are important (Figure 2). Coordinators believe the majority of their statewide surveys (17) will not change, but that change is likely for focus area surveys, e.g., they are willing to invest more at this scale.

As indicated earlier, both the 2002 and 2011 versions of NBCI called for a more scientific approach to bobwhite conservation. According to the monitoring survey, coordinators are supportive of monitoring efforts: of 24 coordinator responses to a question about the priority of monitoring quail abundance, 17 indicated it was *very important*, 6 chose *somewhat important* and one coordinator was neutral. Also, recent history shows that monitoring on smaller areas, focus areas, is more scientifically based. In this regard, coordinators indicated they are much more willing to lead high quality monitoring (density) programs as the size of the

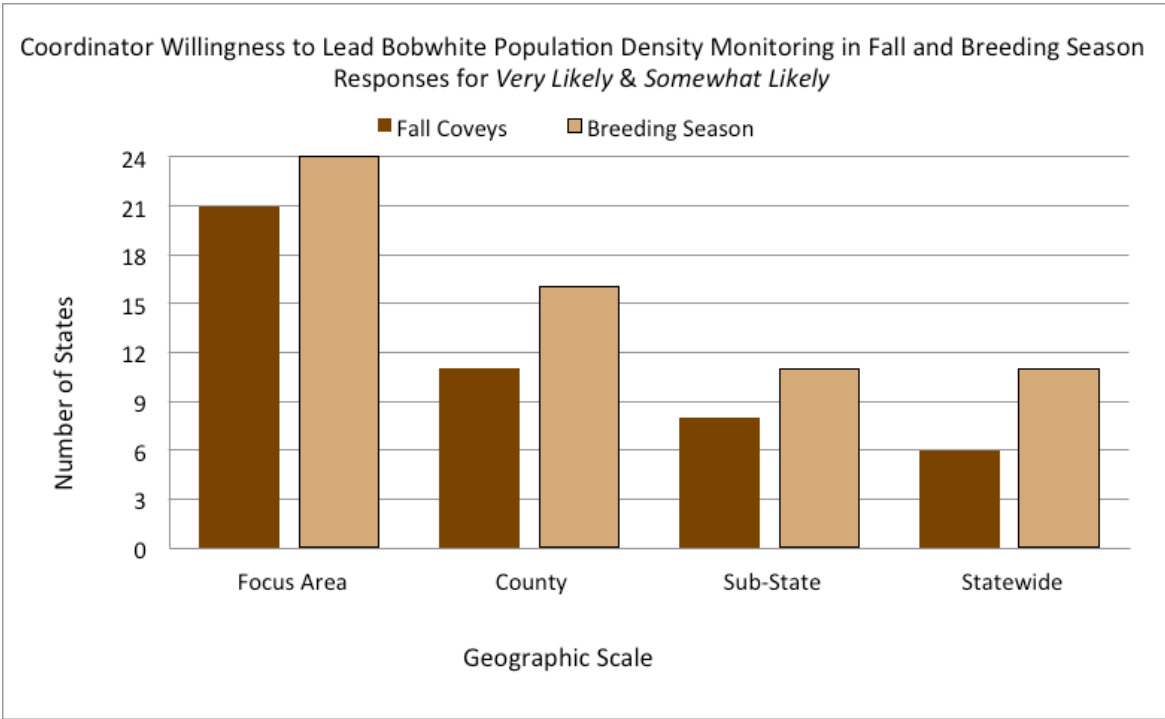
monitoring area decreases, with a strong preference for focus areas (Figure 3).

### Conclusion

This survey is just one part of a concerted effort to improve the effectiveness of bobwhite conservation.

Although state coordinators' responses were generally supportive of the concepts of science-based evaluation, they also indicated a dire need for more resources (funding, labor, technical assistance, etc.) to get the job done. As illustrated in the 2011 State of the Bobwhite Report, previous and current focused monitoring efforts ranged from excellent to non-existent.

A tenet of attitude surveys is that responses are hypothetical, and not necessarily a good predictor of future behavior. In order for the good intentions expressed in this survey to become reality, bobwhite enthusiasts—agency administrators, non-government organizations, field biologists, coordinators, hunters and landowners—have to make evaluation a high priority.



**Figure 3.** State coordinators' willingness to lead bobwhite density monitoring during fall and breeding season at the geographic scales of focus area, sub-state (e.g., ecological region), county and statewide.





# Quail VII: National Quail Symposia Series

**The Arizona Game and Fish Department hosted Quail VII, the Seventh National Quail Symposium, in Tucson, January 9-12, 2012. This technical meeting and published, scientific peer-reviewed proceedings, are part of the National Quail Symposia Series (Quail Series), conducted every 5-10 years at locations around the country (1972 and 1982 in Oklahoma, 1992 in Kansas City, 1997 in Florida, 2002 in Texas and 2006 in Georgia.**

In 2010, permanent management of the Quail Series was undertaken by the Research Subcommittee of the National Bobwhite Technical Committee (NBTC), and as such it is a service provided to all professional quail enthusiasts by NBTC/NBCI.

Quail VII participants have shared their experience in Tucson—check out what they are saying:

- Nick Prough, “QUWF Chief Wildlife Biologist Attends and Participates in Quail VII National Symposium,” January 2012 “Whistle Call” newsletter, page 9, QUWF
- Max Alleger, MDC Grassland Bird Coordinator, “Quail VII National Symposium,” Spring 2012 Covey Headquarters Newsletter, Covey-

Headquarters-Newsletter

- Katherine S. Miller, M.S. CKWRI, “My Perspective on Quail VII,” CKWRI Quail eNews - March/April 2012, CKWRI E News List
- Tom Dailey, “NBCI Co-hosts Quail VII, the ‘Consumer Reports’ of the Quail World,” Summer 2012 edition, Upland Almanac (have to be a subscriber or purchase individual edition)

The meeting featured 76 volunteered abstracts (presentations and posters—a record number for the Quail Series) and invited presentations were given by leading conservationists, including the directors of Arizona’s and Kentucky’s state wildlife agencies, Larry Voyles and Dr. Jon Gassett (available on NBCI’s YouTube channel), respectively; Katharine Armstrong, appointed to the Texas Parks and Wildlife Commission by Governor Bush in 1999 and selected by Governor Perry as the first woman to lead the Commission (currently chair of several organizations and companies); Bollenbach-

***Data reported for Quail VII have implications across these species ranges, from as far south as Brazil, northwest to Oregon, east to Nebraska, Ohio and New Jersey, and south to Florida.***





endowed chair, Dr. Fred Guthery, Oklahoma State University; Dave Brown, University of Arizona; Dr. James Grand, U.S. Fish and Wildlife Service/Auburn University; and Dr. Leonard Brennan, C. C. "Charlie" Winn Endowed Chair for Quail Research, Caesar Kleberg Wildlife Research Institute, Texas A&M University.

Quail VII topics included the National Bobwhite Conservation Initiative and the Western Quail Management Plan, the near extinction of the masked bobwhite, translocation of mountain quail and northern bobwhite, phylogeography of scaled quail and bobwhites (northern bobwhite, Yucatán bobwhite, spot-bellied bobwhite and crested bobwhite), hybridization of Gambel's and California quail, ecology, research and management of Mearns' quail. Other subjects included nutrition, arthropods, exotic grasses, Conservation Reserve Program, Surrogator®, predation, parasites, survival, reproduction, thermoregulation, harvest prescriptions, climate change, economics, politics, conservation planning, attitudes of private landowners toward quail per se and habitat management.

Data reported for Quail VII have implications across these species ranges, from as far south as Brazil, northwest to Oregon, east to Nebraska, Ohio and New Jersey, and south to Florida. The majority of Quail VII authors covered Texas bobwhites. Twenty-seven state and federal agencies, universities and institutes reported on their work at Quail VII.

Arizona's stellar hosting of the meeting included a reception at Safari Club International headquarters, an abundance of southwestern cuisine, field trips to habitats of four species of quail, including the facilities of the last remaining endangered masked bobwhite. NBCI/NBTC are indebted to Arizona Game and Fish Department's Director Larry Voyles, Quail VII Program



*Dr. Jon Gassett, chair of the NBCI Management Board and commissioner of the Kentucky Department of Fish and Wildlife Resources*

Chair Mike Rabe, and staffers Johnathan O'Dell, Kirby Bristow, Connie Weise and Ron Day, and Arizona-based sponsors including Safari Club International and The Wildlife Society.

A long-standing highlight of the Quail Series is recognition of outstanding contributions to quail conservation. Dr. Lenny Brennan recognized lifetime contributions by John Roseberry, Fred Guthery, Dave Brown, Walter Rosene (in memoriam) and John Crawford (in memoriam).

The proceedings will be published by early 2013, due largely to the editorial leadership of Clait Braun. Non-registrants will have the opportunity this fall to pre-order the proceedings. The proceedings is made possible by generous contributions by the National Wild Turkey Federation, Caesar Kleberg Wildlife Research Institute, Tall Timbers Research Station and Land Conservancy, Texas Tech Quail Tech Alliance, Rolling Plains Quail Research Ranch

and National Bobwhite Technical Committee. In the meantime, Quail VII abstracts and presentations are available now at [www.bringbackbobwhites.org](http://www.bringbackbobwhites.org).

Begin planning now for Quail VIII in 2017, where the focus will be progress, success and 'lessons learned' from implementation of the National Bobwhite and Western quail plans. Dr. Pat Keyser, Center for Native Grassland Management, University of Tennessee, graciously agreed to host Quail VIII, and most people are thinking "Music City."



# 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



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