

# QUAIL NEWS

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The newsletter of game bird research and management from the Bollenbach Chair in Wildlife Ecology, Oklahoma State University.

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## THE QUAIL INCREASE

Information contained in the proceedings of the Fifth National Quail Symposium, a compendium of recent research results from throughout America, should be somewhat encouraging to members of the quail appreciation league. Quail V transpired at Corpus Christi, Texas, during 23–26 January 2002.

Portions of this great nation have been experiencing **The Quail Increase** since the federal government started dispatching breeding bird surveyors about 1966. When you hear of The Quail Decline, it is often, but not always, based on the results of the annual breeding bird survey. Information on continental populations trends also comes from Christmas Bird Counts done by the Audubon Society and from annual counts conducted by state game departments.

Markus Peterson and associates from Texas A&M University analyzed some 35 years of breeding-bird-survey data from throughout the United States. They simultaneously matched up data on land use trends and bobwhite population trends.

During 1978–1987, bobwhite abundance apparently increased in a broad, southwest-to-northeast band running from the Permian Basin of Texas towards the Great Lakes and ending in southern Illinois. During 1987–1997, increases were evident

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in a region centered on western Kansas and including southwestern Nebraska. There were also increases in portions of the Rolling Plains of north Texas and western Oklahoma and south of Lake Michigan.

“Although northern bobwhite abundance typically decreased at the rangewide spatial scale, trends in abundance varied considerably spatially, either exhibiting no trend or increasing in many western and northern portions of this species’ range,” report Peterson and associates.

These researchers observed that there was no single land-use practice that could explain declining populations in most of bobwhite range. In other words, increases or reductions in crops and increases or reductions in farm size did not explain the quail decline throughout the regions where bobwhites have been declining since the mid-1960s and earlier. This finding suggests management solutions to declines will have to be tailored to specific regions.

There were general tendencies for bobwhite abundance to be positively associated with rangeland and certain crops (sorghum, rice, wheat, oats, barley). Abundance was negatively associated with cotton, hay, and corn. These findings held for data from 1978, 1987, and 1997.

The National Quail Symposium is held

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every 5 years. Oklahoma State University sponsored the first symposium in 1972.

For further information on bobwhite population trends, contact Markus J. Peterson, Department of Wildlife and Fisheries Sciences, Texas A&M University, College Station, TX 77843-2258. Ask for a reprint of *Rangewide Trends in Landuse and Northern Bobwhite Abundance: an Exploratory Analysis*.

Copies of the Proceedings of the Fifth National Quail Symposium (254 pages) are available from the Caesar Kleberg Wildlife Research Institute, Texas A&M University, Attn: Quail V Proceedings, MSC 218, Kingsville, TX 78363-8202.

Earlier proceedings are available from Publication Sales, Tall Timbers Research Station, 13093 Henry Beadel Drive, Tallahassee, FL 32312-0918.

## BOBWHITES INCREASE BY 400% ON A GEORGIA PLANTATION

Bobwhites on Whitehall Plantation in Laurens and Bleckley counties, Georgia, have increased from 10 coveys in the early 1990s to 45 coveys in association with habitat development.

“After many years of high populations and good quail hunting through the 1970s, most of the old fencerows were cleaned up to make way for bigger farm equipment. This was followed by a population decline through the 1980s that was made worse when the property

### *Editorial: beware the Jubjub bird*

→ A thought-goblin is haunting the minds of some liberal thinkers as we crash into the Third Millennium. It is called postmodernism. We used to think the universe had patterns, history repeated itself, and knowledge of the past gave us some insight into events of the future. Not so, say the revisionary thinkers. The truth, they say, depends upon the nature and aspirations of those who seek truth and think they've found it. The truth, they say, is more or less whatever you want it to be.

→ I'm afeared that a mild form of postmodernism is seeping into the minds of quail enthusiasts from Midland to Miami, from St. Louis to San Antonio.

→ Take The Quail Decline. Whereas there is no doubt quail have declined over large chunks of America since the late 1800s, there may be conflicting data about population trends in specific regions. When these conflicts arise, there is a tendency amongst people to see truth in whichever population trajectory fits their immediate needs and aspirations. Truth is then what one wants it to be. Postmodern, eh?

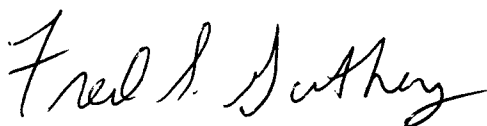
→ Take the effects of hunting regulations on quail populations. There is a bewildering array of contradicting opinion out there, despite the fact that there is quite an amassment of data on the effects of hunting regulations on state populations of quail. Moreover, there are elegant approaches to maximizing the long-term harvest on specific management areas, where bag limits, season lengths, shooting hours, and shotgun plugs are demonstrably irrelevant. But despite patterns borne out by history, truth as seen by any individual tends to depend on circle of friends, not on the historical patterns that characterize quail harvest management.

→ Take the effectiveness of management practices. It seems that nowadays practices discredited in the past are being revived. Managers and in some cases researchers apply **several** practices in areas with good habitat and conclude all the practices work, that past research results are wrong, and that current research results are wrong if they happen to discredit a practice that seems to work when in league with sundry other practices. The problem is it is impossible to determine the effects of any one practice when it is applied with several other practices, but this certainly frees one up to find truth wherever he wants to find it.

→ I realize I am dealing with a two-headed snake here because in much of life one person's truth is another's chimera, and one person's chimera is another's truth. You might rightly question whether I'm under the sway of fact or fantasy.

→ Nonetheless, there's management wisdom in the observation of Steven Pinker (*How the Mind Works*, W. W. Norton, 1997): "[I]n a universe with any regularities at all, decisions informed by the past are better than decisions made at random." Likewise, decisions informed by the past are better than decisions made by wishful thinking, which is the politically correct form of postmodernism.

→ The moral? "Beware the Jubjub bird, and shun the frumious Bandersnatch." The Jubjub bird tells you what you want to hear. The frumious Bandersnatch tells you truth is a matter of opinion. Neither Jubjub birds nor frumious Bandersnatches help to raise carrying capacities and stabilize populations on quail range.



Fred S. Guthery  
Bollenbach Chair in Wildlife Ecology

was cleaned up even more to make way for center-pivot irrigation,” report D. Clay Sisson and associates, Auburn University

When habitat development began, the plantation consisted of 55% crop fields, 40% unmanaged woodland, and 5% other habitats.

Now it consists of 22% crop fields, 21% managed woodlands, 21% planted longleaf pine, 12% hedgerows and old fields, 10% mature hardwoods, and 5% fallow land with the balance in other cover classes.

“The goal was to make as much of the uncultivated acreage as possible usable space for quail,” report Sisson and associates.

For further information contact Sisson at Rt. 1, Box 115, Newton, GA 31770. Ask for a reprint of *Northern Bobwhite Population Response to Intensive Modification of a Farm Landscape in Middle Georgia*.

## PREDATOR CONTROL FLOPS IN NORTH CAROLINA BOBWHITE EXPERIMENT

“Increases in bobwhite abundance associated with predator reduction on small farms with field borders would not be economically feasible in most circumstances,” report Peter T. Bromley and associates, North Carolina State University.

*Feel free to use the information in Quail News. Please acknowledge the Bollenbach Chair and the Oklahoma Agricultural Experiment Station.*

Bromley used 4 management treatments in the experiment: (1) no treatment (experimental control); (2) establishment of 5-to-10-yard wide borders (permanent cover) around agriculture fields; (3) removal of raccoons, opossums, and foxes; and (4) a combination of field borders and predator removal.

An average of 42 predators was removed from 500-acre areas in each of 3 years of study. Removals took place during January–June.

“There were no differences in the number of coveys heard between predator reduction and non-reduction farms,” Bromley reported. “Field borders were a practical technique to increase bobwhite abundance on small farm blocks.”

For further information, contact Bromley at Fisheries and Wildlife Science Program, North Carolina State University, Raleigh, North Carolina 27695-7646. Ask for a reprint of *Effects of Field Borders and Mesomammal Reduction on Northern Bobwhite and Songbird Abundance on Three Farms in North Carolina*.

Copy *Quail News* to kith and kin.

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Quail Questions.....

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*What do you think about starting [quail season] the first week of December and running till the end of February?* —**Sue Selman, Buffalo, OK.**

There is a vast amount of data from state game departments that indicate state regulations don't make much difference unless they are extremely restrictive. For example, it doesn't make much difference to the total harvest in a state whether a bag limit is, for example, 8 or 16 birds. Season length doesn't make too much difference because most hunters only hunt a few days and this effort tends to pile up around major holidays.

I see debates over the nature of state hunting regulations as a form of tilting at windmills, i.e., killing windmills in search of dragons.

If I were a commercial provider, I would want maximum flexibility handed down from the state; e.g., 1 November–28 February hunting seasons. Then you can take advantage of long seasons if you have plenty of bobwhites, you can shorten seasons if you don't; you have control.

On a particular piece of land the key feature in harvest management is the number of birds at the start of breeding season. It makes no difference how you get to that number as long as you get to it. Nature will contrive to prevent you from doing that at times, as it did last

winter in Oklahoma and parts of north Texas.

It is true that a bird shot later in the season has more impact on breeding density than a bird shot earlier in the season. Again, this doesn't matter much from the state perspective, where hunting regulations are to some degree pagan ritual, but it might on a particular management area. The key question is breeding density on specific management areas.

*I have 1,100 acres of land near Cheyenne, OK. The quail population has plummeted. The land is used primarily for grazing. I would like to improve the habitat for quail but I do not know where to start. I had thought that woody cover was what quail needed. But after reading some articles I found that brush cover such as sumac or blackberry was better. I was wondering if brush piles using red cedars would be effective and what food plots work best. Both of these would be for the short term until more permanent cover and forage could be provided.*—**Kevin O'Brien, Cheyenne, OK.**

You are not alone in experiencing a low bobwhite population this winter (2001–2002). Populations are down as much as 70% from this time last year.

The hard winter of 2000–2001 was devastating to the birds. Production probably wasn't much better than average in the last breeding season. But the main problem was the winter.

Woody cover (young trees, brush) is the foundation of bobwhite habitat in western Oklahoma and other places.

Sumac and sand plum provide excellent woody cover in your neck of the woods.

Bobwhites will use brush piles such as those you mention. Placement of brush piles can open up more of a ranch to occupation by quail because of their need for nearby woody cover. But brush piles probably cannot completely replace natural woody cover as bobwhite habitat.

I do not recommend that you spend any money and effort on food plots if your goal is to increase population abundance. If your goal is to concentrate the birds so that they are easier to find, then food plots probably will work. Food plots might provide a weak hedge against winters like the last one, but last winter our research team observed substantial fall–spring declines on a ranch with feeders. Because you are grazing the area, you are creating foods for quail.

If your ranch has low coverage of native brush (5% or less), the grazing must be relatively light. As of the first of March, herbaceous vegetation (ground cover) should average the height of a Wellington boot or slightly taller. Light grazing is one of the real keys to bobwhite management in semiarid environments, especially when there are low quantities of woody cover.

The goal of quail management is to make each and every square inch of a management area usable by bobwhites each and every day of the year. Attainment of this goal involves provision of ample woody cover (brush, young trees) and fairly robust ground cover throughout the management area.

## BITS AND PIECES.....

- Based on feeding trials of bobwhites, L. Andrew Madson and Robert J. Robel, Kansas State University, recommend bobwhite soybeans, dove proso millet, Florida beggar weed, and WGF sorghum as winter foods in northern climes. Their data suggest buckwheat, Illinois bundleflower, partridge peas, and sesbania should be avoided in the northern portions of bobwhite range. For further information contact Madson at Waycross College, 2001 South Georgia Parkway, Waycross, GA 31503. Ask for a reprint of *Energy Characteristics and Consumption of Several Seeds Recommended for Northern Bobwhite Food Plantings*.
- The hedgeapple (osage orange, bois d'arc) is a good quail cover plant in portions of Oklahoma and Texas. The pioneers used bois d'arc as living fence lines. Here's how they created bois d'arc borders: (1). Collect the fruit in autumn when it falls to the ground. Put these in a barrel and keep an inch or so of water in the bottom. (2). Let the barrel sit out all winter. It is important the seeds experience cold temperatures (including freezing). (3). Mash the hedgeapples in early spring and plant the slurry in furrows about 3–5 inches deep. Expect 50% germination and 50% summer survival, meaning you need to plant four seeds for every tree you want to establish. Keep in mind that establishing trees in prairies may be costly to prairie-adapted wildlife, including prairie-chickens and songbirds.

- Coming soon: *Bobwhites on Oklahoma Farms and Ranches: Management Options for Landowners* by Fred S. Guthery, Ronald E. Masters, and Michael D. Porter. This extension publication takes a realistic, no-holds-barred look at bobwhite habitat developments and expected population responses.
- One reason that pen-raised bobwhites survive poorly upon release in the wild may be because they are weak fliers based on research by Robert Perez and associates, Texas Parks and Wildlife Department, Austin. Wild birds flew at speeds of about 29.0 mph, whereas the value for pen-raised bobwhites was 18.7 mph. Wild birds flew at least twice as far as pen-reared birds when they were released. For further information, contact Perez at P.O. Box 1081, La Vernia, TX 78121. Ask for a reprint of *Survival and Flight Characteristics of Captive-reared and Wild Northern Bobwhite in Southern Texas*.
- "Supplemental feeding with whole milo appears to increase survival of bobwhites on deep sand range sites in south Texas. However, this increased survival did not result in increased densities the following fall," report Ted B. Doerr and Nova J. Silvy, Texas A&M University. Feeding had no effect on the productivity of the population. For further information, contact Doerr at Los Alamos National Laboratory, 528 35<sup>th</sup> Street, Los Alamos, NM 87544. Ask for a reprint of *Effects of Supplemental Feeding on Northern Bobwhite Populations in South Texas*.
- Experimental supplementation of bobwhites on the Oklahoma Department of Wildlife Conservation's Packsaddle Wildlife Management Area during 1991–1996 had no effect on covey size or autumn density. Density at the start of hunting season averaged 0.51/acre on the experimental control (no feed) and 0.54/acre on the area with milo supplementation. For further information, contact Steve DeMaso, former ODWC biologist now with the Texas Parks and Wildlife Department, 4200 Smith School Road, Austin, TX 78744-3291. Ask for a reprint of *The Effect of Quail Feeders on Northern Bobwhite Density in Western Oklahoma*.
- *On Bobwhites* by Fred S. Guthery (Texas A&M University Press, 2000) is available from the Department of Forestry, 008C Ag Hall, Stillwater, OK 74078 for \$25, including shipping and handling.
- Coming in March 2002: *The Technology of Bobwhite Management—The Theory Behind the Practice* by Fred S. Guthery (Iowa State University Press).

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