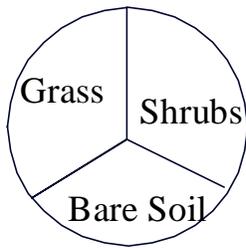




THE COVEY HEADQUARTERS

Volume 10 Issue 2 Summer 2011

This newsletter is aimed at cooperators and sports-people in Missouri to provide information on restoring quail. This is a joint effort of the Missouri Department of Conservation, USDA-Natural Resources Conservation Service, and University of Missouri Extension. If you would like to be removed from this mailing list or have suggestions for future articles please contact jeff.powelson@mdc.mo.gov or 816-232-6555 x122 or write to the address shown.



The name of this newsletter is taken from an old concept....that a quail covey operates from a headquarters (shrubby cover). If the rest of the covey's habitat needs are nearby, a covey should be present. We are encouraging landowners to manage their quail habitat according to this concept. Use **shrubs** as the cornerstone for your quail management efforts. Manage for a **diverse grass, broadleaf weed and legume mixture and provide bare ground** with row crops, food plots or light disking **right next to** the shrubby area.

Turkasaurus Rex?

Scott Sudkamp, Private Land Conservationist, Nevada, MO

In 2006 I was at a motel parking lot in Tomahawk, Wisconsin, unloading my truck after a day of hunting ruffed grouse (the other white meat). A fellow hunter pulled in and struck up a conversation, asking how we'd done and had we seen many birds? In the ensuing conversation, he told me that he'd hunted in this particular area since the mid-70s, and that grouse numbers were lower than they had ever been. Why am I telling you any of this in a blog about bobwhites? Because this hunter was firmly convinced that turkeys were the reason he now found fewer grouse in the same coverts he had hunted for the past 30 years. Many hunters are convinced that the wild turkey is some super predator, crashing through the thickets and fields like the *T. rex* from Jurassic Park. But there's no evidence to suggest this is the case.

A lesson from statistics

One thing that sticks out in my mind more than anything else from a statistics class I once took is that "correlation does not imply causation." Just because two things happen at the same time does not necessarily mean that one caused the other. In the past 30 years, Missouri's turkey populations have increased dramatically, while at the same time quail populations have declined. But in that same time period, the price of gasoline has gone up 1,000 percent. Have higher gas prices caused a decline in quail numbers? Of course not. But neither have increased turkey populations. While we can follow the logic that suggests increased turkey numbers could cause reduced quail populations, the evidence for this simply is not there.

How do we know?

Wild turkey populations have been studied extensively throughout their North American range. Dozens of food-habits studies have been undertaken to explore the foods that turkeys consume throughout the year. In examining the crop contents of thousands of turkey crops, wildlife scientists have not reported even a single instance of finding quail, quail eggs or quail parts. Herbert Stoddard, a quail biologist in the 1930s, did report on

a case of a turkey destroying a quail nest, but I know of no other such findings in the wildlife management literature.

Tall Timbers Research Station in Florida has a long history of quail research. *In a project on quail nesting success*, they placed cameras on dozens of bobwhite nests. They found a lot of predators on quail nests (even a deer!), but wild turkeys weren't among them.

So do I think it's impossible that turkeys might eat quail chicks? No, in fact I'm pretty sure that turkeys do occasionally nab a newly hatched quail. But consider four things before you curse the turkey as the culprit. First, quail chicks grow very quickly, likely exceeding a turkey's mouth volume within seven to 10 days. Second, even if turkeys do prey on the occasional bobwhite chick, occasional predation is not enough to cause statewide population declines. Thirdly, numerous other bird species that share the same habitat requirements as bobwhites have experienced very *similar population trends*. Many of these are not ground-dwelling birds, so blaming burgeoning turkey populations for limiting their populations is suspect. I think few would suggest that turkeys are climbing into shrubs and small trees to eat brown thrashers or Bell's vireos. Finally, there are many areas throughout Missouri (as well as the entire bobwhite range) where healthy bobwhite populations coexist with robust turkey populations. If turkeys are preying on quail, why are these areas maintaining solid quail populations?

It's all about HABITAT!

Wild turkeys are not the reason for ruffed grouse declines in the north woods, and they're not the reason that bobwhite numbers have dropped in Missouri. While there are many factors that negatively influence small game populations, *the most important factor continues to be habitat loss*. The reason that hunter in Wisconsin wasn't finding as many grouse as he used to is that the coverts he's hunted for years have aged to the point where they no longer serve grouses' needs. The same can be said for many areas where quail used to thrive. What were once weedy, brushy fields have aged and are now grown up into tall trees. Turkeys are more tolerant of this habitat type than quail, and turkeys will use turkey habitat. It doesn't mean they killed or ran off the quail. The quail just aren't adapted to these present conditions.

But if it makes you feel better...

While there's not a fiber in my body that believes that turkeys are suppressing quail populations, I'm still going to sit against a tree this week and try to shoot one. If you're still not convinced and want to reduce the turkey population on your property just in case, I'm sure you can find a local "turkey control specialist" who'd be glad to help! *Audubon of Kansas* has more good reading on turkeys and quail.

Woody Cover Control – the Saga Continues

John Murphy, Private Land Conservationist, Kirksville, MO

"Who are those guys?!"...this is what Paul Newman kept asking Robert Redford in *Butch Cassidy and the Sundance Kid*. No matter where they ran away to, the nameless, ominous posse was right behind them, almost appearing from nowhere. This line often pops into my mind as I'm chainsawing honeylocust and autumn olive trees from a friend's CRP ground. I no sooner straighten my dislocated back, ready to bask in my progress, only to survey my surroundings and feel despair creeping in. Myriads of thriving sprouts suddenly appear, mocking me. "I *just* killed you!" erupts from my mouth like a bad zombie movie. If you manage any piece of open land in Missouri, this probably strikes a chord with you.

Missouri is set up very well to grow woody cover. Whether it be loess and glacial till soils up north or limestone glades in the south, our rainfall and temperate climate all but guarantee that no field will stay open forever; yet, climate and soils were not the driving ecological force behind the grasslands and open woodlands of days long ago - it was intense disturbance. One of the greatest fairy tales is the notion that when Europeans saw this part of the world it was all in a pristine, untouched stage of vegetative climax. In reality, Native American populations were ubiquitous and there was intense agriculture, erosion, and purposeful land management with the use of

fire (Denevan, 1992). Journals and data collected from coast to coast have shown that in the absence of wholesale disturbance, e.g. fire, woody plant succession does quite well (Stewart, 2002). That idiom holds true today. In the lack of disturbance, the majority of our grasslands are overwhelmed by woody cover.

So what's the big deal? Aren't trees what you conservation guys want? And what's the big push to get things looking like pre-settlement Missouri? How is it that a biologist can walk your property and recommend to enhance woody cover here *and* to reduce woody cover there and keep a straight face? Ultimately, it's based on *your* objectives as the landowner and what are the priority resource needs. That's the beauty of being the humans; we're the ones with the saws and herbicide, passing vegetative judgment on who stays and who goes. For example, grasslands around the world are the first ecotype to see human alteration, good or bad, because they are the easiest and cheapest to change. That is why grassland birds that rely on these systems are declining at greater rates than any other suite of wildlife. So when the opportunity arises to help out grassland birds by preventing fragmentation from invading trees, my bias will be to do so. In that case, cedar encroachment into a remnant prairie is a weed, and a "weed" is a plant in a place we don't want it. We often read the quail models that espouse keeping least 5% of our property in woody cover; but that's beneficial, shrubby cover, not the emerging locust/elm wasteland that my pasture wants to be. I could get 5% in locust cover by taking a nap. In my job, I have recommended keeping a cedar thicket in south facing old fields for deer bedding, but have also scorched many more thousands of cedars in grasslands to enhance nesting and brood rearing. When you evaluate the woody cover on your property, you are assigning a **value** to your cover types, and what species will enjoy the benefits. Management for specie "X" will almost always have a conflict with another species or two out there, and no management at all *is* a management decision because nature marches on.

In large part, the parceling up of land, suppression of fire, and reduction of fuels by overgrazing, allows woody plants a foothold in much of what was formerly treeless or much more open than today. Those pioneering sprouts, when left unchecked, have a greater impact on management than just the physical space that one tree occupies. Through shade and competition for resources they change the micro-environments around them; thus, creating a "fire shadow" by reducing fuels which will lessen the impact of prescribed fire. Then, locust begets locust and makes a fuel-altering march across a field. As I evaluate numerous properties in North Missouri, I'm convinced that much of our grasslands have advanced far enough into "woodiness" that we're past fire alone as the answer. I have heard, "I did the burn and the sprouts came right back." Yes, the burn was a necessary first step; however, in many cases, that one spring burn, at 50% humidity, will not cure 20 years of trees gaining a foothold on your property. You don't till your garden once in April and walk away from it, expecting a weed free environment in July, nor should you expect your living, dynamic, grassland to remain vegetatively static for a couple of years. Often, it will take mechanical and chemical means to blitz the unwanted trees before the fuels can build for fires that will make a difference.

Consider the life habits of your opponent (unwanted trees). Trees and shrubs are perennial, vascular plants – meaning, they have internal structures that move nutrients and water through the plant when they need it most. Having these highly developed systems and life cycles make them very good competitors in the natural world, but it doesn't come cheap. It costs a lot of stored energy to make leaves and new growth in the spring. These plants are maximizing gained energy from the sun through their leaves, converting it to usable sugar, making seed, and expending a lot of carbohydrates to do so. This is when a tree is strongest and has all of its resources to heal itself. During the summer and fall months, these perennial plants slow the game down, have low energy reserves and are sending any surplus material down below to stockpile for next year. If you want to hurt a plant, do it when it is on the low end of its carbohydrate cycle – this is when they are most susceptible to injury.

Both keeping trees at bay and enhancing shrubby cover are intense, costly endeavors, so clearly defining your objectives and persistence looms as the answer (a big wad of cash wouldn't hurt either). Blindly charging at their foes from a villa, fanning their pistols, didn't end well for Butch & Sundance. Charging into 40 acres of honeylocust with a quart of herbicide and tuned up saw is as equally macho, but I have found that woody cover control is more of a siege than a skirmish.

Denevan, William 1992. "*The Pristine Myth: The landscape of the Americas in 1492*" Annals of the Assoc. of American Geographers. 82: 369

Stewart, Omer; Eds. Lewis, H.T. & Anderson, M. K. 2002. "*Native Americans and the Transient Wilderness*" University of Oklahoma Press, Norman

Did You Know???

Many folks point to the abundance of raptors as the quail limiting factor. However, the locally most common hawk, the red-tailed hawk, is too slow to catch many bobwhites. Studies of the rarer raptor species that are quick enough to catch quail reveal that quail are minor prey in their diets. The myth that red-tails are responsible for a decrease in quail is a paradox; they kill many predators that eat quail (snakes, skunks, house cats, etc.) and actually benefit bobwhite numbers.

Conduct breeding bird surveys in June –

To get an index of quail that survived the winter and are available for breeding, listen for whistling bobwhite males for 1-2 hours after sunrise during June. Nesting by females is normally at its peak this month, so males are actively calling. Establish permanent listening stations throughout your farm. Establish the stations along ridges or in areas where you can hear a good distance. Whistling quail can be heard about 500 yards away, so listening stations should be spaced 1000 yards apart, or be separated by major chunks of woods or hills. Listen at each station for 3 minutes. Count and record the number of *individuals* you hear in that time span at each station. Be careful not to count the same individuals twice. If you listen every year within the same time frame, you can track how well your birds are surviving winter in relation to your quail management efforts. Along with quail, be sure to listen for Henslow's sparrow, grasshopper sparrow, field sparrow, dickcissel, bobolink, pheasant, and meadowlark as these species respond positively to quail management. Visit the following website to hear audio call examples of several bird species - www.mbr-pwrc.usgs.gov/bbs/ident.html



Summer Covey Headquarters Calendar

June

Quail nesting peaks in June
Seed milo, millet, and forage sorghum food plots by June 30
Mow firebreaks around grassland you intend to burn this fall
Contact MDC or NRCS for burn plan assistance
Begin spraying actively growing Johnson grass
Mow newly planted native grass stands to a height of 6-8 inches for weed control

July

Excessive June and July rains can shift peak hatching to August
Quail continue to nest and broods are foraging - resist the temptation to mow this month
Spray sericea lespedeza now through September
Mow newly planted native grass stands a second time to a height of 6-8 inches for weed control
Improve wildflower diversity by burning warm-season grass CRP starting July 16

August

Mow or burn fescue to prepare for fall herbicide treatment
Till firebreaks now for fall, winter, and spring prescribed burns
Burn native warm season grasses between August 15th and March 15th to stimulate wildflowers
Re-nests and second quail broods hatching – do not mow idle areas
Continue to treat sericea lespedeza through September

Mark Your Calendars

Warm-season Grass Workshop on June 28th in Linn, MO. The focus of this workshop will be to illustrate the proper methods and techniques for grazing warm season grass on smaller acreages. Topics include grazing systems, proper grazing of warm-season grasses for highest yields, wildlife benefits, and warm-season grass establishment methods. Farm tour and a meal provided. Registration required, contact the Osage County USDA office at 573-897-3797 X3.

Missouri Bobwhite Quail Summit



When: Thursday, June 16, 2011
1pm—4pm

Where: MU Bradford Research and Extension Center, Columbia, Missouri
<http://aes.missouri.edu/bradford>

Quail Field Tours and additional quail seminars will begin after the Summit at 4pm

Who Should Attend: private landowners interested in bobwhite quail conservation and habitat management, wildlife enthusiasts, natural resource professionals and interested citizens.

1pm Introduction to the Afternoon Session

Assessing your land's potential for bobwhites using the new Bobwhite Quail Wildlife Habitat Appraisal Guide (WHAG) DVD

Management tools, methodologies and strategies to conserve and restore habitats for bobwhites—advanced topics

How is Weather Affecting our Quail Numbers?

Pen-reared quail release systems: Do they really work?

How to find funding for your quail management plan

Landowner Success Stories: We did it, so can you!

- Several Missouri Landowners from across the state will provide background on their successes with quail management on their property in this interactive panel discussion. Bring your questions for this landowner panel.



Wrap Up with Question and Answer Period

4pm—Summit Concludes and field tours of the area begin

To Register - complete form and mail or email to: MU BREC, 4968 Rangeline Rd.
Columbia, MO 65201-8973 email: ChismT@missouri.edu; Phone: 573-884-7945

Registration Form

Name: _____

Address: _____

City: _____ Zip: _____ Phone: _____

Email Address: _____

For more information contact Bob Pierce at piercer@missouri.edu or Elsa Gallagher at: Egallagher@quailforever.org



Bobwhite Quail Summit
Bobwhite Quail and Native Plant Field Day
1:00 PM to 4:00 PM and 4:00 PM to 8:00 PM - June 16th 2011
MU Bradford Research and Extension Center, Columbia, Missouri

Designed for landowners, students, quail & native plant enthusiasts; Meet the experts and see Exhibits; No fee and No Reservations Required for Field Day. Drinks and Hamburgers.

Bobwhite Quail Summit (Registration Required-see previous page for registration form): 1:00 - 4:00 PM

Surrogator Research, Managing for Brood Habitat , Weather Patterns
And Quail, Private Land Quail Restoration Successes, Developing a Quail
Management Plan, Quail Hunting Tips

Field Day and Tour (No Registration): 4:00 - 8:00PM

Workshops: 4:00 – 7:00 PM

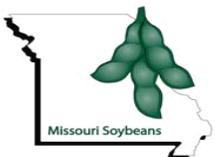
Six All New One Hour Wagon Tours Include:

- ✓ Landscaping and Enhancing Wildlife on Small Acreage with Native Plants
- ✓ Plant Diversity and Pollinators for Birds and Insects
- ✓ Better Habitat by Managing Native Grasses and Tall Fescue Renovation
- ✓ Giving Quail the Edge-Ideas for Field and Waterway Management
- ✓ Managing a Field Border For Wildlife and Profit
- ✓ Implementing Wildlife Practices and Pond Management on Your Farm



Sponsored by:

**University of Missouri College of Food, Agriculture and Natural
Resources, MU Extension, Lincoln University
Missouri Department of Conservation,
Missouri Soybean Association, USDA NRCS**



Directions: From the junction of U. S. 63 and Hwy AC on the south edge of Columbia, go 5.5 miles east on New Haven Rd, turn right (south) on Rangeline Rd. and go just over a mile to the Bradford Farm entrance on the right.

<http://aes.missouri.edu/Bradford>

For More Information Contact:

Tim Reinbott: 573-884-7945, reinbottt@missouri.edu

Bob Pierce: 573-882-4337; piercer@missouri.edu



Quail Focus Areas-Fall Covey Monitoring Update

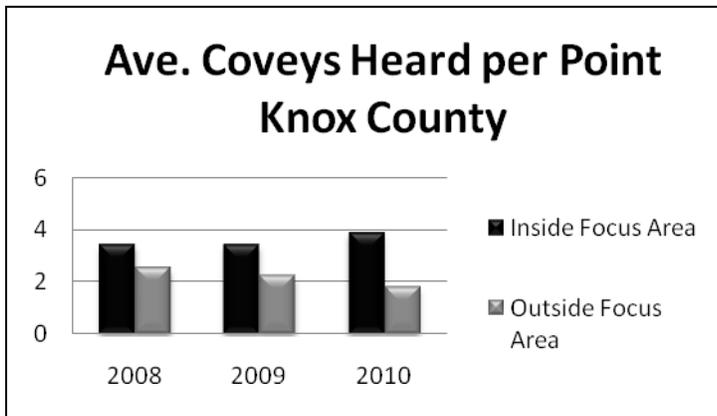
Beth Emmerich, Agricultural Wildlife Ecologist

The Missouri Department of Conservation (MDC) began establishing Quail Focus Areas (QFAs) on private lands in 2004. The idea behind QFAs is to increase and expand quail management efforts at a larger scale. Since the majority of Missouri's landscape is in private ownership (93%), habitat improvement programs on private lands have greater potential to impact statewide quail populations than on public lands alone. Staff identified areas where landowners were already managing for quail or had expressed interest managing their land for quail. We also considered land located near conservation areas that were managed for quail. MDC staff work with landowners to improve quail habitat by providing technical and financial assistance in the focus areas. Some of the practices landowners are implementing include adding or improving woody cover (edge feathering, downed tree structures, shrub plantings), warm and cool-season grass renovation (prescribed fire, disking, herbicide treatment), adding food plots, and installing native warm-season grass field borders around crop fields. Currently, there are 34 QFAs located throughout the state.

Many QFAs have accomplished significant habitat improvement goals, with much more in planning stages. Landowners have told us many success stories about how they are seeing more birds since habitat improvement projects have been put in place. In order to determine if the focus areas are in fact having an effect on quail numbers, MDC proposed a project to monitor fall coveys on two quail focus areas. We chose the Knox County Focus Area and the Sweet Springs Focus Area (located in Saline County) based on the habitat work already in place, and the willingness of the Private Lands Conservationists and local landowners to cooperate with us in our monitoring efforts.

We selected an equal number of listening points inside and outside of each focus area. The outside points are greater than 1 km, but less than 3 km away from the focus area to ensure that the habitat types and weather conditions are similar to those within the focus area. Some points were adjusted to minimize noise interference from roadways or moved to a higher area to increase the observer's ability to hear covey calls. The points were sampled in October, which has been found to be the peak calling time for coveys in Missouri.

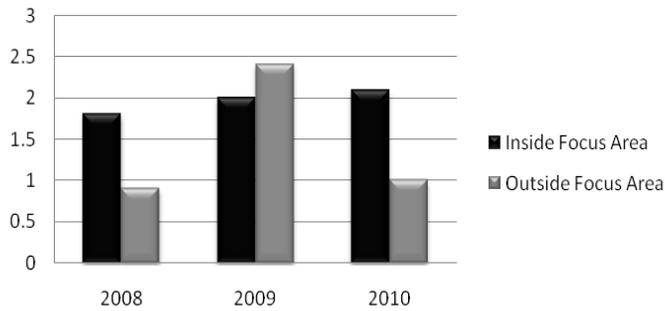
The Knox County Focus area is approximately 11,400 acres and has about 875 acres of quail friendly habitat management practices in place so far (not including some whole-field Conservation Reserve Program acres). We sampled 20 points both inside and outside the Knox County Focus Area in 2008, 2009, and 2010. So far, we averaged 3.4, 3.4, and 3.9 coveys per point inside the focus area and 2.5, 2.2, and 1.8 coveys per point outside the focus area.



It was interesting to note that the number of coveys heard per point was the same inside the focus area in 2008, and 2009, and even increased moderately in 2010, during our periods of heavy spring rainfalls, while the number of coveys outside the focus area has decreased each year. We plan to continue the study, and hope to have a drier spring to see if we get a bump up in bird numbers with better nesting conditions.

The Sweet Springs Focus Area expanded and is now approximately 39,122 acres. We used the original focus area (23,460 acres) to select sampling points. About 960 acres have had habitat management work done (again, not including whole-field Conservation Reserve Program acres). We sampled 33 points inside and outside the Sweet Springs Focus Area in 2008, 2009, and 2010. Inside the focus area, we averaged 1.8, 2.0, and 2.1 coveys per point. Outside the focus area, we averaged 0.9, 2.4, and 1.0 coveys per point.

Ave. Coveys Heard per Point Saline County



The average number of coveys heard per point in Saline County has been less predictable than in Knox County, but that's why we need to collect data over a period of several years before we make solid conclusions. In 2008, and 2010, we heard about twice as many coveys inside the focus area compared to outside the focus area, but not in 2009. The Saline County focus area is much larger than the Knox County focus area, and habitat management efforts are more scattered throughout the landscape. Another factor to consider is that landowners may well be doing habitat work outside the focus area that is not monitored in this particular study.

The success of Quail Focus Areas depends largely on the interest and motivations of the landowners in a given area. Landowners that have observed changes in habitat and seen more birds on their neighbor's property are often interested in learning how to create more favorable habitat on their own farms. We hope to continue the monitoring next year as focus areas gain more participation and additional habitat work is completed. Contact your nearest MDC office at the following website to find out live in or near a Quail Focus Area and how to improve quail habitat on your property- <http://mdc.mo.gov/regions>

UNIVERSITY OF MISSOURI
Extension

NRCS Natural Resources
Conservation Service

The Covey Headquarters Newsletter
3915 Oakland Ave
St. Joseph, MO 64506

RETURN SERVICE REQUESTED

