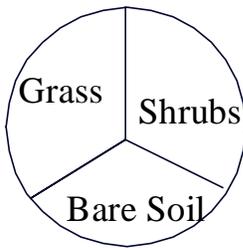




THE COVEY HEADQUARTERS

Volume 16 Issue 4 Winter 2017

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 x5772 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.

Public Land Quail: David Hoover, MDC Small Game Coordinator

As an avid bird hunter I hunt both public and private lands and have had many quality hunts on both. However, as many of you have likely experienced, hunting quail on public lands is often more challenging. So much so that hunters are often left with the impression there are no quail to be found; even on areas where proven survey techniques have documented good quail populations. Why is this?



One of the obvious reasons relates to the fact that public lands generally receive more hunting pressure, which can cause quail to engage in evasive maneuvers not often deployed by their private land brethren. One of the most often cited responses of quail to hunting pressure is to seek refuge in hard-to-get-to patches of habitat or

to simply move off the area. This has been documented in studies involving banded and radio-collared quail. So what is the public lands quail hunter to do?

Quail researchers in Kentucky recently investigated quail biology, habitat use, and daily movements on a large wildlife management area managed primarily for quail. The results of the study yielded little in the way of new information on basic quail biology and habitat use; however, what they found regarding quail behavior in relation to hunting pressure may be surprising to many.

Some of the more interesting findings included:

- ✎ Bird dogs were 8.6 times more likely to find pen-raised quail than wild birds.
- ✎ Skilled dogs and hunters found only 29% of wild coveys on the management area.
- ✎ Wild quail ran from hunters in herbaceous cover and held in shrubby cover, letting hunters pass by.
- ✎ Most of the year, quail were found in open herbaceous vegetation within 40 yards of shrubby cover.
- ✎ During winter, distance to shrubby cover was generally less than 25 yards.
- ✎ Quail spent very little time in food plots.

Simple tips for improving success when hunting public land quail include:

- ✎ Trusting your dog – when dogs get birdy but don't find anything, slow down and circle back through the area. Birds are likely there, but have moved in response to the dogs.
- ✎ Maintaining close spacing between hunters to minimize birds slipping through.
- ✎ Hunting no more than 50 yards from shrubby cover.
- ✎ When you flush fewer than 4 birds, don't give up, the rest of the covey is likely close by.
- ✎ More dogs equals greater success.
- ✎ Slow down and hunt cover thoroughly.

Public land quail hunting is challenging; however, it can be rewarding with the right attitude and approach. For more information on hunting quail on public lands in Missouri, visit the Department's quail page - <https://huntfish.mdc.mo.gov/hunting-trapping/species/quail>

Think Big Picture Before Food Plots

Do you have all quail habitat requirements in place before you plant food plots? Sure, food plots provide a great source of energy in the winter months, but quail must have good shrubby cover and wildlife friendly grasses before they even think about eating from a food plot that you create. According to numerous studies of fall and winter food habits, the most frequently consumed foods are seeds from native plants like ragweed, desmodium, and partridge pea. In fact, Missouri researchers found that quail living in weedy CRP fields have more fat than quail that inhabit corn and soybean fields. Any extra fat on a quail's body is a good thing. During extreme weather, such as an ice storm or heavy snowfall, a quail with a little extra fat will be able to live a few days without food. Less fat birds will die more quickly of hypothermia or may be forced to venture out in the cold to search for food. By creating shrubby cover and establishing quail-friendly plants (grass, wildflowers, legumes), you will be promoting many of the weedy plants quail need to survive. Weedy plants can also be created by burning, disking, and spraying brome/fescue in fencelines and woody draws. Remember the basis of this newsletter – quail generally stay within 70 feet of shrubby cover. Make sure you are providing good shrubby cover and quail-friendly plants adjacent to each other. Then you can plant your food plots for an additional energy source.

Ongoing Quail Research

The Department is in its fourth year of a five-year project in southwest Missouri to better understand bobwhite responses to different management techniques. Preliminary results suggest that covey break up and nest initiation occur earlier on large diverse grassland landscapes managed with prescribed fire and moderate grazing than on more traditionally managed areas consisting of block plantings of crops and nesting cover. Radio collars attached to male and female bobwhites have allowed researchers to locate nests and broods throughout the summer. Adult quail and their associated broods are consistently using moderately grazed habitat patches, and have almost totally avoided unburned and/or ungrazed portions of the study areas. In addition, nest success has been greater on large diverse grasslands managed with fire and grazing. Hunters who harvest a quail with an aluminum leg band or radio transmitter are asked to report it to the nearest Department office.

Bee Ridge Focus Area is Missouri's 2nd National Bobwhite Conservation Initiative Coordinated Implementation Program Area

Beth Emmerich (Resource Scientist) and John Pinkowski (Private Lands Conservationist)

We have been conducting fall covey counts on the Bee Ridge Quail Focus Area (QFA) in Knox County since 2008. The monitoring effort began when the landowners that have been leading the effort in creating and improving quail habitat in the area wanted to know if all of their hard work was paying off. We have often reported the results of our fall covey counts in the Covey Headquarters newsletter and other media outlets to get the word out that habitat is key for improving quail numbers. The landowners have also been excited to see the results of their management efforts.

After discussion with the Science Coordinator of the National Bobwhite Conservation Initiative (and former Missouri Department of Conservation quail biologist) Tom Dailey, and local staff and partner organizations, we have decided to add the Bee Ridge QFA to the growing list of focal areas that are participating in the first ever coordinated effort to monitor the effects of habitat management on improving quail numbers. The 2C Quail Focus Area in Carroll County was the first of our areas to be included in this national monitoring effort. Other states that are participating include Nebraska, Iowa, Texas, Oklahoma, Louisiana, Kentucky, Ohio, Virginia, New Jersey, and Delaware, with 6 other states with areas in development for this monitoring effort. The main goal of the Coordinated Implementation Program is to demonstrate that within 5-10 years, habitat management can achieve a bobwhite population level that meets the state's goals for that part of the state, and is sustainable. This program has a standard protocol for measuring bobwhite and grassland bird responses to management efforts. Part of the protocol includes conducting breeding bird population counts as well as fall covey counts, and habitat measurements as well.

While we have been monitoring the Bee Ridge QFA since 2008, we had to modify our sampling efforts to fit within the protocols for the Coordinated Implementation Program. We had to drop 6 of our original control points and add 6 new ones in a nearby area. We will still continue to monitor our original 20 points inside the focal area and 20 points outside the focal area, but 6 of the outside points are new. This fall, we heard an average of 3.1 coveys on points inside the focus area and 1.2 coveys per point outside the focus area (Figure 1). This was a slight decrease from 2016 (6%) and outside the focus area we had a 20% increase of average coveys heard per point (1.2 vs. 1.0). We have had mild winters the past two years, and spring weather has been favorable for nesting. We will begin our breeding season monitoring in the Bee Ridge QFA this spring. Here's to another mild winter and good nesting conditions in the spring. We will continue to present the results from all of our monitoring efforts in the Covey Headquarters newsletter.

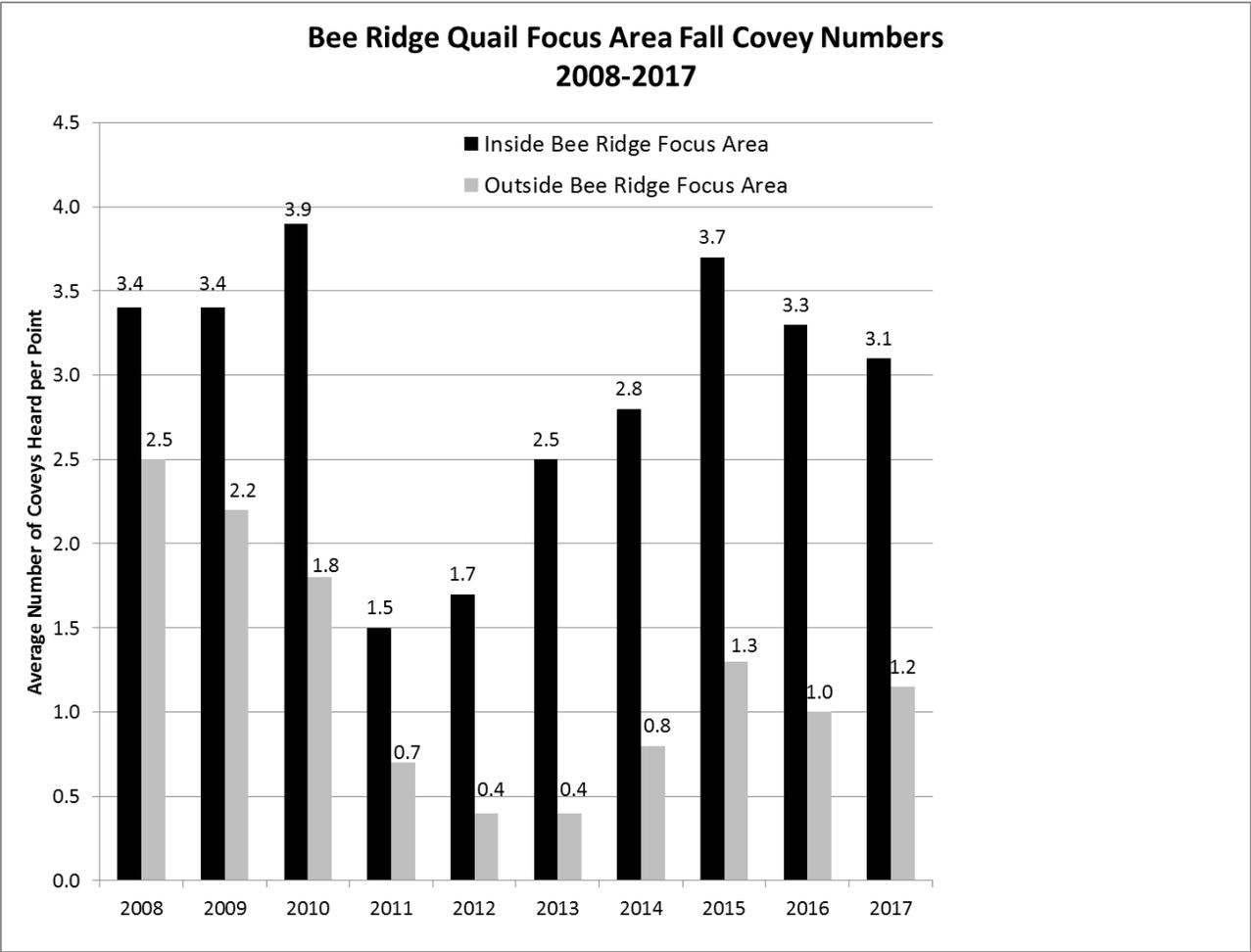


Figure 1. Average number of coveys heard per point inside and outside the Bee Ridge Quail Focus Area from 2008-2017.

Make your farm quail friendly year-round!

Sign up for an e-copy of The Covey Headquarter Newsletter

Stay in touch with MDC news and events online. Go to the following website -

http://mdc.mo.gov/user_mailman_register to subscribe to the Covey Headquarters Newsletter via e-mail.

The e-mail version will come to you about 4-5 weeks earlier than the printed version. There are several news releases, newsletters and periodicals listed on this website. Enter your email address, then click the quail box under the hunting and fishing tab to start receiving your issue by e-mail. If you would like to be taken off the print version, please send an e-mail to the address listed at the top of this newsletter.

Disking for Wildlife

Weedy bare ground is one of the most neglected components of upland bird habitat, however it is arguably the most important. Bobwhite chicks need protected open areas for bugging and roosting. Food plots provide this cover, but can be expensive. Newly burned fields provide bare ground, but are rapidly filled in as the season progresses. Disking is another great way to provide weedy bare ground and enhance the plant diversity of a field.

Use a disk heavy enough to cut the sod across a field. This will break up the grass stand and stimulate annuals to germinate. Disked strips should be separated by a strip of undisturbed

vegetation and kept on the contour. Disk from mid-October through February to promote weedy broadleaf plants. Go ahead and disk your firebreaks at this time instead of waiting for the spring when the soil could be too wet.

Disked strips basically act as a poor man's food plot because they provide excellent brood rearing areas in the summer and foraging habitat in the fall and winter. Disked strips will often grow up into great quail plants like ragweed, foxtail, croton, and partridge pea. Disked strips can be installed in cool season grasses like fescue and brome or in native grass stands like switchgrass and big bluestem. In either situation, the grasses will cover up the disked lines in 1-2 growing seasons and the strips will need to be reapplied. A strip disking rotation is a great way to "convert" a sod-bound grass field into a more diverse habitat. Legumes like annual lespedeza, partridge pea or other plants can be overseeded onto disked strips to further diversify a field. Remember, more plant diversity means more food plants for wildlife. This winter get out your disk and diversify your grasslands for wildlife.



Field edge disked with ragweed response.

Did You Know???

The 2016 Partners in Flight (PIF) Landbird Conservation Plan (see address below) lists bobwhite quail as a “Common bird in steep decline” along with species such as the Grasshopper sparrow, Loggerhead shrike, Short-eared owl and Eastern meadowlark to name a few. In general, the northern bobwhite has experienced a population decline of 83% across the species range. The plan’s authors calculated a “half-life” for all the species listed and, on average, the bobwhite’s half-life was 10 years (ranging from 6-21, depending upon the Joint Venture).

- <http://www.partnersinflight.org/plans/landbird-conservation-plan/>

Half-life is defined as the number of years before the species loses another 50% of its population (assuming the population trend of the previous 10-yr period).

Obviously, bobwhite quail are not on the brink of extinction, but they are listed in many of the Joint Ventures in the plan and share habitats common to many other species (many of which are even more imperiled). While bobwhites are just one of the many species we are charged with protecting, they can serve as a unifying force (a species that many publics, i.e., hunters, bird watchers, landowners, industry, etc. – can identify with) to bring greater attention to the underlying cause – loss of managed native grassland, savanna and woodland habitats.

Mark Your Calendar

Prescribed Burn Workshop January 20, 2018, from 8:30AM – Noon, Barton County at the Shawnee Trail Conservation Area Shop, Southeast 50th Road, approximately three miles west of Highway M. This workshop is for landowners interested in learning how to conduct prescribed burns on their property with the goal of restoring native vegetation and improving wildlife habitat. Seating is limited so advanced registration is required. Register by January 18, by calling 417-682-3571 or email Meagan.Duffee-Yates@mdc.mo.gov

Prescribed Burn Workshop February 13, 2018, Two sessions, 1PM - 4:30PM OR 6PM - 9:30PM at the Southeast Regional MDC office, 2302 County Park Drive, Cape Girardeau. This workshop will include how to conduct a safe and effective burn to control sprouts, encourage beneficial plants and create better quality pollinator, butterfly, small game, quail, deer and turkey habitat. Participation will qualify landowners to have a prescribed burn plan prepared for their property and use available loan equipment. Attendees will also be invited to optional demonstration burns which will be conducted at a later date around the region to demonstrate the use of tools and techniques. To register for one of the workshops please contact the Missouri Department of Conservation at 573/290-5730

Prescribed Burn Workshop February 17, 2018 from 8AM to 4PM at the Lincoln University Carver Farm, 3804 Bald Hill Road, Jefferson City. Topics include: creating burn lines, weather effects, safety consideration, burn equipment use, developing and following burn plans. Weather permitting, a demonstration burn will be conducted in the afternoon. Boxed lunch and drinks provided. You must register for the workshop by February 13th. To register and for more information, contact Dean Stucker at 573-796-0286 or Adrain Andrei 573-681-5451

Quail Food

Bobwhites are primarily seed-eaters, with over 1,000 different plants having been documented in their diet. As much as 75% of the annual adult diet may be composed of food from annual plants (ragweed, foxtail). Various legumes, including lespedezas (not sericea) and beggarweeds make an especially attractive food. It is critical that seeds are available on exposed soil with upright overhead cover offering protection while the birds forage. In the case of waste grains (soybeans, corn, wheat), thick brushy or woody cover needs to be nearby. During the late winter/early spring period, green vegetation becomes a

key food and may improve the overall physical condition of the birds, thereby resulting in improved nesting success. Insects are eaten in small quantities by adult bobwhites, but are essential for chicks. MU Extension has made available, for free download, *Quail-Friendly Plants of the Midwest*. This guide is designed to help landowners identify quail-friendly plants. It includes over 50 grass, wildflower, and woody species that quail use for food and cover. The guide is located at the following web address - <http://extension.missouri.edu/p/MP903>

Diverse Grassland Habitat



Missouri grassland acres must be managed to maintain diversity. Options for management include prescribed burning, disking, herbicide suppression, grazing, and interseeding. Use one or a combination of practices to get the desired plant response. Grassland management is not a one-time event. Each acre of grassland should be managed every 3-5 years. Ideally, you should be treating a portion of your fields every year to maintain diversity.

A prescribed burn was conducted on the field pictured above in August. This picture was taken in July of the following year. This diverse grassland provides good roosting, nesting, and brooding habitat. Keep grassland acres in this stage with some type of grassland management practice (prescribed burning, disking, grazing, herbicide application) on a one to three year rotation and treat only 1/3 of each field per year. The Conservation Reserve Program has specific dates for management. Contact the Farm Service Agency before treating any CRP acres.

Winter Covey Headquarter Calendar

December

Burn native warm-season grass fields to set back the grass and encourage annual weeds.

Disk grassland acres through February to promote ragweed.

Order your covey headquarter shrubs from MDC's State Nursery - mdc.mo.gov/node/4011

Drop honeylocust and hedge trees in fencelines for quail covey headquarters. Don't forget to spray the stumps to prevent re-sprout.

January

Burn your grassland acres to reduce grass competition and increase wildflower abundance.

Plant wildflower pollinator habitat this month.

February

Interseed wildflowers/legumes in conjunction with your grassland management practices.

Broadcast annual lespedeza over recently burned areas and firelines.

Create covey headquarters by dropping large trees along fencerows and leave them where they fall.

Complete edge feathering, downed tree structures, and forest stand improvement projects.

UNIVERSITY OF MISSOURI
 Extension



United States Department of Agriculture
Natural Resources Conservation Service

Equal Opportunity Provider and Employer

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

RETURN SERVICE REQUESTED



Serving nature and you[®]

This institution is an equal opportunity provider.