

Native Warm-Season Grass News

A Landowner's Guide To Wildlife-Friendly Grasslands



PHOTOS BY KYLE HEDGES

The quail study involves trapping quail to fit them with radio collars, top. In the process, the birds are also aged by examining wings and fitted with leg band IDs. The collar of the recaptured northern bobwhite, above, is not visible under feathers; only the antennae in the back is noticeable.

Study Suggests Managed Grasslands Support More Quail than Traditional Food Plots/Shrub Strips

In the past few decades, northern bobwhite quail populations have declined sharply throughout this species' North American range, which includes the tallgrass prairie region as well as pine woodlands in the Southeast. While the level of abundance of the birds in presettlement landscapes is unknown, given the appeal of the northern bobwhite to hunters, birders, and other wildlife enthusiasts, there is significant interest in increasing and sustaining bobwhite populations.

While considerable research on bobwhite habitat needs and use has occurred in many parts of the country, little has been carried out in Missouri. To address this relative lack of information, beginning in 2014, Missouri Department of Conservation (MDC) Wildlife Management Biologists Kyle Hedges and Frank Loncarich began a five-year quail habitat use study in southwestern Missouri. Now in the third year of the study, Hedges and Loncarich are using radio telemetry to track bobwhite nesting, brooding, and habitat use throughout spring and summer months.

Hedges and Loncarich are comparing quail populations and production on three prairie sites managed primarily with prescribed fire and grazing, and two sites where traditional quail management has been applied. The grassland sites are MDC's Stony Point Conservation Area and Shelton Prairie Conservation Area, both in Dade County; and Wah'kon-Tah Prairie, owned by MDC and The Nature Conservancy, in St. Clair and Cedar Counties. The two traditionally managed sites are on portions of MDC's Talbot Conservation Area in Lawrence County and Shawnee Trail Conservation area in Barton County, where land managed specifically to benefit quail includes strips of warm-season grass, food plots, and shrubs.

Trapping and radio collaring of quail began in 2014. Radio telemetry allowed Hedges and Loncarich to track 60 quail on each site. Quail were also tracked on some neighboring private land. Predation of adults, eggs, and chicks was significant on all sites, and heavy rain caused nest failure as well. However, observations of habitat use and nesting success revealed higher nesting effort—throughout the summer season and despite early-season nesting loss—on the managed prairie sites than the traditional quail-managed sites. While the reasons for this are not entirely clear, Hedges and Loncarich believe the quail on the managed grasslands are in better overall physical condition than on the traditionally managed sites, allowing them to renest after initial nesting failure.

This study continued in 2016 and results are forthcoming. If managed grasslands are indeed more productive for quail than food plots/shrub strips, and this study can influence land management on both public and private land, quail and many other species that depend on original or reconstructed native grasslands may benefit.

—Carol Davit