

Northern Bobwhite Habitat Response to the East Amarillo Complex Wildfires

*Thomas Warren, Brad Dabbert,
Sandra Rideout-Hanzak, David B. Wester,
and Heather Whitlaw*

On March 12, 2006 two large-scale wind-driven wildfires ignited the Borger and Interstate 40 Fires. Together these fires comprised the East Amarillo Complex and burned approximately 900,000 acres of primarily private ranch land. These fires were extremely fast-moving with flame lengths exceeding 11 feet. These intense fires moved rapidly and resulted in extensive damage to structures and livestock and loss of human life. Destruction of woody and herbaceous vegetation was extensive, leaving livestock without forage and wildlife with little food or cover. This fire damage holds potentially severe consequences for wildlife populations in the area including northern bobwhite, a bird of significant ecological and economic importance within the region.

Ironically, fire can be used as a positive influence for northern bobwhite populations. Low intensity, cool season prescribed fires are often used for northern bobwhite management because of the beneficial changes for quail the fires may bring about in the plant community. Because of their January to February timing, these fires tend to increase the number of forb species, which increases supplies of seeds and insects for northern bobwhite. The effects of the more homogenous and intense wild fires on northern bobwhite populations are unknown. A late March or April burn favors grass species over forbs and can be sufficiently intense to severely set back shrubs, which form the base for quail habitat. We hypothesize that loss of shrub cover and reduced forb availability will have a negative influence on northern bobwhite populations within the burned areas. The time period sufficient for these areas to recover is not known. We have initiated a radiotelemetry study to examine the influence of the East Amarillo Complex wild fires on northern bobwhite habitat use and reproductive success.