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INFLUENCE OF HABITAT TYPE AND PRESCRIBED BURNING ON FERAL SWINE DEPREDATION OF ARTIFICIAL QUAIL NESTS

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ABSTRACT

Feral swine (*Sus scrofa*) have increased both spatially and numerically in the Rolling Plains of northwest Texas. Resource managers have little information on the interrelationships between feral swine and native species such as the northern bobwhite (*Colinus virginianus*). Nest predation by feral swine could adversely affect bobwhite reproduction. Honey mesquite (*Prosopis glandulosa*) and redberry juniper (*Juniperus pinchotii*) are the dominant woody plants in northwestern Texas and prescribed burning is used to manage both species. Two experiments were conducted to determine the extent of feral swine depredation on artificial quail nests. In 1992–93, we monitored nest loss in mesquite and juniper habitats for six weeks. Total depredation reached 85 and 98% after three and six weeks respectively, during 1992, compared to 60 and 92% in 1993. Feral swine depredation of artificial bobwhite nests was 33% across years and was evenly distributed between vegetation types. During three-week periods in June and July 1994, depredation was greater ($P < 0.001$) in an unburned (90%) pasture than in unburned areas within a burned (32%) pasture. Decreased predator activity in the burned pasture was probably due to temporary prey displacement and less forage. Feral swine depredation of artificial bobwhite nests was 14% in 1994. Feral swine could potentially have negative impacts for northern bobwhites in mesquite and juniper habitats of northwest Texas.

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