

Public Abstract

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Title:Pronghorn Migration and Resource Selection in Southwestern North Dakota

Wildlife managers need pronghorn (*Antilocapra americana*) movement information in North Dakota because harvest quotas are based on a summer population survey, which might not represent the areas used by pronghorn during the fall hunting season. We tracked 121 radio-collared pronghorn to estimate migration dates, distance and direction, as well as site fidelity for pronghorn in North Dakota, 2004-2008. Nearly half of the pronghorn were migratory, moving > 10 miles (as far as 150 miles) between winter and summer ranges. Most of the movements were northeast in the spring, and southwest in the fall. Pronghorn returned to the same area each summer, but not all pronghorn returned to their past winter ranges. Few (< 10%) fall migrations occurred between the population survey and the hunting season; therefore, during our years of study, the survey accurately reflected the distribution of pronghorn for the hunting season. Along with migration information, it is also important to identify pronghorn habitat to guide land management decisions, inform mitigation processes and identify limited resources for pronghorn. We evaluated the effect of vegetation type, ruggedness, and distance to nearest roads on summer and winter resource use for 50 GPS-collared, female adult pronghorn in North Dakota, 2005-2008. During both seasons, pronghorn selected open vegetation types in non-rugged habitat. Major roads were avoided in the summer and gravel roads were avoided during both seasons. Reduction of open vegetation, or road developments, in non-rugged areas where habitat is limited, might decrease the value of available pronghorn habitat.