

PRONGHORN MIGRATION AND RESOURCE SELECTION IN SOUTHWESTERN NORTH DAKOTA

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ABSTRACT

Wildlife managers need pronghorn (*Antilocapra americana*) movement data in North Dakota because harvest quotas are based on a summer survey, which might not represent the distribution of pronghorn during the fall hunting season. Using data from 121 radio-collared pronghorn, we quantified migration dates, distance, direction and site fidelity for pronghorn in North Dakota, 2004-2008. Nearly half (45%) of the pronghorn were migratory, moving > 15 km between winter and summer ranges. Of the migratory pronghorn, 89% moved northeast in the spring, and 97% moved southwest in the fall. Pronghorn showed higher fidelity to summer ranges than winter ranges. Few fall migrations occurred between the survey and the hunting season; therefore, during our years of study, the survey accurately reflected unit occupancy of pronghorn for the hunting season. It is also important to identify pronghorn seasonal habitat use to guide land management decisions, inform mitigation processes and identify limited resources. We modeled summer and winter resource selection for 50 GPS-collared, female adult pronghorn in North Dakota, 2005–2008. We used vegetation type, ruggedness and distance to nearest roads as predictors. During both seasons, pronghorn selected open vegetation types in non-rugged habitat. Primary roads were avoided in the summer and secondary roads were avoided during both seasons. Reduction of open vegetation, or increased road developments, in non-rugged areas where habitat is limited, might decrease the suitability of available pronghorn habitat.