

## COMPENSATORY REPRODUCTION AND DISPERSAL IN AN INTRODUCED MOUNTAIN GOAT POPULATION IN CENTRAL MONTANA

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*Abstract:* Data on reproduction, population trends, harvest, and dispersal of mountain goats (*Oreamnos americanus*) on Square Butte, an isolated volcanic formation in the prairies of central Montana, were analyzed for the period from 1971 to 1996. Kid: older goat ratios were correlated with density of older goats ( $P < 0.01$ ). Population trend was correlated with harvest rate ( $P < 0.01$ ), but was also correlated with goat density ( $P < 0.01$ ). This study suggests a compensatory response in reproduction to changes in population size in mountain goats. The results suggest that wildlife managers can expect maximum reproductive response to harvest from introduced mountain goat populations that are still an initial increase phase. Dispersal of mountain goats was documented to two new topographic complexes separated by 4 kilometers of prairie habitat. Mountain goat dispersal was related to density dependent factors in the source population.

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