

**Dispersal patterns of the North American mountain goat (*Oreamnos americanus*)**

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**Abstract:** The mountain goat (*Oreamnos americanus*) is an alpine specialist endemic to the mountains of western North America. We examined the spatial genetic structure and dispersal patterns of mountain goats spanning their entire native range using microsatellite and DNA sequence data. We identified 30 cross-assigned individuals, which are defined as individuals with the genetic signature of one subpopulation that were physically found in another. This suggests long-distance contemporary dispersal is important for colonization and maintenance of genetic diversity in mountain goats. In addition, there was no sex-bias in dispersers. Closer examination of dispersers across the range and at Caw Ridge, Alberta, revealed they had significantly less genetic diversity than residents. This finding may have important evolutionary and ecological consequences which will be discussed.

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