Seasonal Habitat Use of a Re-Introduced Rocky Mountain Goat Population in Oregon

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ABSTRACT: Rocky Mountain goats (*Oreamnos americanus*) historically existed in small, isolated populations in the Central Oregon Cascades until their extirpation early in the mid-nineteenth century. The Oregon Department of Fish and Wildlife (ODFW), in partnership with the Confederated Tribes of the Warm Springs Reservation of Oregon (CTWSRO), began restoration efforts with 3 separate translocation events in 2010, 2012, and 2016. Using location data from animals radio collared during the release, we developed seasonal (summer and winter) resource selection function (RSF) models of this newly translocated population. We used mixed effects logistic regression models in a use-availability framework to estimate relative probability of use based on a variety of topographic, vegetative, environmental, and anthropogenic covariates. This analysis marks the first of its kind to explore Rocky Mountain goat habitat selection in central Oregon. Results will be used to identify basic habitat characteristics important to Rocky Mountain goats in this region, will inform climate change implications for this high-altitude species, and will help identify potential areas for future translocation projects.

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