

**Evaluating Dietary Shifts of Bighorn Sheep (*Ovis Canadensis*) Before and After Use of the Sheep Lakes Mineral Lick, Rocky Mountain National Park, Colorado**

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**Abstract:** Recent efforts at Rocky Mountain National Park (ROMO), Colorado, focus on the Mummy Range subpopulation of Rocky Mountain bighorn sheep (*Ovis canadensis canadensis*) because of increased human activity in the region of the Sheep Lakes mineral site. There is concern because the sheep have to cross a heavily traveled road to get to the Sheep Lakes mineral lick. Previous studies indicate bighorn sheep use the mineral lick, but the importance and use of the Sheep Lakes mineral lick is not thoroughly understood.

The proposed study aims to supplement available dietary information with ongoing field and laboratory studies to provide a thorough analysis of dietary status and limitations of lactating bighorn sheep in the Mummy Range of ROMO. Specifically, the potential role of the Sheep Lakes mineral lick for lactating ewes will be addressed. Fecal samples and vegetation samples before and after use of the lick will be collected in two field seasons, and laboratory analyses of the samples will determine concentrations of minerals. The proposed study will aid in management of visitors and bighorn sheep around Horseshoe Park at ROMO.

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