

Montana's New State-wide Bighorn Sheep Research Initiative

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ABSTRACT Bighorn sheep (*Ovis canadensis*) conservation in Montana is challenging. A majority of Montana's populations are patchily distributed and relatively small, with many populations static or periodically experiencing dramatic declines despite the abundance of seemingly adequate habitat. Managers are routinely making decisions on bighorn sheep population augmentation and restoration, harvest, habitat management, disease prevention and response, and other conservation actions without adequate knowledge of the drivers of demographic processes that inform management of many of Montana's more successfully restored ungulate species. A research program has been designed and funded on the premise that broadly applicable insights for management and conservation are best obtained by addressing the same questions in multiple populations representing the range of ecological settings realized by the species of interest. The research program will involve field studies of 7 bighorn sheep herds in Montana, with data on each herd collected over a 5-year period. Herds were selected to capture a wide range of variability in disease outbreak history, habitat types, and herd attributes in an effort to maximize our ability to partition and quantify the potential relative effects of these factors on lamb and adult survival, recruitment, and population dynamics.

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