Montana's New State-Wide Bighorn Sheep Research Initiative

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Bighorn sheep (*Ovis canadensis*) conservation and management in Montana has been, and continues to be, a challenge. The majority of Montana's bighorn sheep populations are patchily distributed across the state and are relatively small, with many populations static or periodically experiencing dramatic declines despite the fact that adequate habitat seems to be abundant. Wildlife managers and biologists 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. Field studies of bighorn sheep in Montana have been limited primarily to short-term, master's thesis projects focused on a specific herd. A 6-yr research program has been designed and funded on the premise that research insights that are broadly applicable for management and conservation are best obtained by addressing the same questions in multiple populations representing differing demographic characteristics, ecological settings, and management histories that capture the range of variation realized by the species of interest. The research program will involve field studies of seven bighorn sheep herds in Montana, with data on each herd collected over a 5-yr 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.