Bighorn Sheep Population Dynamics on the Beartooth Wildlife Management Area, Montana[TWS]

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The dilemma of bighorn sheep (*Ovis canadensis)* die-offs has plagued wildlife biologists and managers for decades. Many states have established augmentation programs in an effort to counteract such die-offs and maintain viable sheep populations. I studied the population dynamics of a reintroduced bighorn sheep herd on the Beartooth Wildlife Management Area in west-central Montana. After a decade rapid growth, this herd experienced a major disease-mediated die-off in 1984 and has subsequently been unable to recover to pre die-off densities. Primary study objectives included evaluation of sheep reproduction and mortality, habitat use, and disease. Particular emphasis was placed on determining the role of predation in sheep population dynamics. Additionally, transplanted individuals were monitored to evaluate the effectiveness of two augmentation projects (N=39 sheep). Re ults from this study will provide insight into the post die-off population dynamics of small sheep herds and improve our understanding of augmentations and the degree to which they actually assist in population recovery.