Distribution Of Pygmy Rabbit On Public Lands In Southwest Montana[tws]

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Pygmy rabbit (*Brachylagis idahoensis*) records in southwest Montana date back to 1918 with the majority of the historical range occurring in Beaverhead County. Current distribution in Montana does not vary from hi storical distribution, but rabbits occupy different sagebrush habitat types than previously documented. Past studies focused on basin big sagebrush (*Artemisia tridentata tridentata*) habitat in drainages and swales that provide taller sagebrush structure and on deeper, friable soils at elevations of 4500 to 6700 ft. Recent survey efforts in Dillon Field Office (DFO) have documented pygmy rabbits ≤ 8000 ft in mixed agebrush habitat types of mountain big sagebrush (*A. t. vaseyana*), three tip sagebrush (*A. tripartita tripartite*), and Wyoming big sagebrush (*A. t. wyomingensis*) across the landscape in a variety of soils suitable for burrowing. Pygmy rabbit. We noted burrows and pellets while doing sage grouse habitat surveys during summers 2003 and 2004. In 2004 we began inventorying

this challenge of managing elk, we performed spatial analysis of populations at the landscape level using the metapopulation concept and a genetic analysis approach. We collected tissue samples of individual elk from across the northern Rocky Mountains and genotyped each individual using microsatellites at multiple loci. We examined genetic population structure with 5 approaches. Individuals were assigned to local populations based on their relative similarity or dissimilarity to each local population using genotypes and geographical location. Our results indicated little genetic differentiation between specific regions. Understanding the genetic population structure of elk from a metapopulation perspective provides both theoretical and practical benefits for managing and sustaining this species.