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# ELK HABITAT USE ON DEGRADED RANGELAND

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We monitored winter range use of elk (*Cervus elaphus*) in the Northern Sapphire Mountains of the Bitterroot Valley, Montana over the winters of 2011-2012 and 2012-2013. The goal of the project was to acquire baseline data on elk habitat use and grazing preference on a 3845 ha former cattle ranch. The property includes 2130 ha of rangeland with altered plant communities due to intensive grazing, exotic forage grass seeding, and herbicide applications. Of these 2130 ha, cheatgrass (*Bromus tectorum*) dominates 32 percent, seeded exotic forage grasses dominate 20 percent, and perennial invaders dominate 6.8 percent. Pristine or less-degraded plant communities dominated by native grasses cover 681 ha and irrigated agricultural crops cover 71 ha. An average of around 300 elk spend most of the winter on or near the study site, and the highest number was 426, recorded in November 2011. We collected data through observation, scat density surveys, diet analysis, and forage availability estimates through biomass collection. Areas with high elk use are grouped by the dominant vegetation, slope, and aspect. Elk spent the most time feeding in lower elevation benchland and native bunchgrass communities, loafing on ridges and open areas typically with degraded to severely degraded vegetative communities, and traveling across exotic forage grasses and through draws with variable vegetation. Elk pellet cluster density was highest in lower elevation grassland and foothills and irrigated agricultural fields. This baseline data will allow us to assess elk response to restoration efforts that seek to replace many weed-dominated communities with diverse native vegetation.