
****EFFECTS OF ELECTRIC FENCE PERMEABILITY ON GRIZZLY AND BLACK BEARS IN THE BLACKFOOT VALLEY OF MONTANA (POSTER)**

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Increasing agriculture-bear conflicts on private lands require innovative approaches to conserve wildlife while also conserving the economic viability of Montana farmers and ranchers. Electric fencing has been an effective tool for deterring bears from calving areas and bee yards. Recent advances in electric fencing materials, as well as automated deployment devices, have reduced costs and increased interest in using electric fencing to deter bears from larger areas, like crop fields. Scientific evaluations of the efficacy of temporary electric fencing at deterring grizzly (*Ursus arctos*) and black bears (*Ursus americanus*) are lacking. Additionally, large-scale installations of electric fencing may impact bear movements and habitat use. In 2015, we began a multi-faceted study in the Blackfoot Valley to evaluate A) the efficacy of various rapid-deployment electric fencing designs in deterring bears from agricultural lands, and B) landscape level space use and permeability of agricultural lands relative to electric fences. Baited enclosures of 2-3 fencing configurations were established in the valley during the spring of 2015. Each enclosure is systematically energized and unenergized for 3-day periods throughout the spring and summer; passage into the enclosure is monitored with motion-activated trail cameras to provide information on configuration effectiveness and permeability. In addition, we established 60 randomly selected camera trap stations throughout the valley to evaluate landscape-level habitat use relative to landscape metrics and electric fences. Daily movement locations provided by 5 grizzly bears fitted with GPS collars will provide individual-level information on seasonal movements and habitat selection relative to habitat conditions and electric fences.