
PRELIMINARY FINDINGS OF AN ELK BRUCELLOSIS SURVEILLANCE AND EPIDEMIOLOGY PROJECT IN SOUTHWESTERN MONTANA

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Brucellosis is a bacterial disease that causes abortions in cattle, bison (*Bison bison*) and elk (*Cervus elaphus*). Transmission of the disease from wildlife to cattle has serious financial implications to producers and the livestock industry in Montana. Brucellosis in elk populations of southwestern Montana results in reduced tolerance for elk on private property and can influence management of elk populations. In the winter of 2010/2011, Montana Fish, Wildlife and Parks initiated a five-year project with the goals of delineating the geographical distribution of brucellosis in elk populations, enhancing our understanding of how brucellosis functions in elk populations, and evaluating factors that may influence the spread and prevalence of brucellosis in elk. One-hundred adult female elk were captured in hunting districts (HD) 324 and 326 in the winter of 2010/2011 with eight testing positive on blood tests (seropositive) in the field for exposure to *Brucella*. Ninety-three adult female elk were captured in HD 325 in the winter of 2011/2012, five of which were seropositive. Elk testing positive in the field were fitted with a GPS collar and, if pregnant, implanted with a vaginal implant transmitter (VIT). Seropositive pregnant elk were tracked from the ground and air 2-3 times/week in order to locate birth or abortion sites. *B. abortus* was not cultured from VITs or samples collected at birth sites in the first year of the project. *B. abortus* was cultured from tissues or VITs associated with two aborted calves in 2012. The known distribution of brucellosis in elk has expanded based on information obtained in this study.