
WILDLIFE HEALTH SURVEILLANCE ON THE NATIONAL BISON RANGE – MONITORING FOR *M. PARATUBERCULOSIS* IN BISON

Amy K. Lisk*, USFWS-National Bison Range, Moiese, MT

Lee C. Jones, USFWS-Wildlife Health Office, Bozeman, MT

The wildlife health surveillance program on the National Bison Range was designed to assess the presence and prevalence of diseases in wildlife populations. Annual sampling and disease testing has been conducted at the range for decades. Starting in 2000, a statistically derived disease detection model for bison was designed and implemented to enhance detection of several diseases, including *M. paratuberculosis*. This disease, commonly known as Johne's disease, is a bacterial intestinal disease that causes diarrhea, severe weight loss, and eventual death in bison and cattle. Targeting analysis of both populations as a whole and the status of individual animals, the program includes; (1) year-round direct observations aimed at detecting acute injuries, chronic conditions, mortalities, and emerging disease, and (2) regular diagnostic laboratory testing for a suite of diseases of particular concern and to evaluate exposure to several viral, parasitic and bacterial diseases common in the cattle industry. Information from direct observation is documented and shared with staff experienced in dealing with injuries, mortalities, and necropsies. Diagnostic analysis depends on routine

coordination with our wildlife health office in Bozeman, Montana, by providing guidance concerning disease or other life-threatening conditions, and annual summary analysis of data. This is a long term adaptive process that includes periodically assessing local and regional wildlife threats, updating protocols according to sample results and providing management with necessary information to maintain healthy wildlife populations within a fenced boundary.