

Brucellosis

- Elk, not bison, have been linked to be the most likely source of transmission from wildlife in the most recent livestock cases of brucellosis within the greater Yellowstone area (GYA).
- Brucellosis has only been detected in elk populations of southwestern Montana. However, the increase in brucellosis exposure rates (seroprevalence) in these areas has not appeared to affect the elk population growth rates.
- The greatest risk of brucellosis transmission occurs during the third trimester of pregnancy, which extends from mid January through parturition in mid June when elk are on winter range or calving grounds.
- Montana Fish, Wildlife & Parks, initiated an enhanced brucellosis surveillance effort in 30 hunting districts (HD) within and adjacent to the GYA in 2008. This was initially done by collecting blood from hunter harvested elk, but did not provide researchers with an evenly distributed sample rate throughout the targeted areas.
- MFWP determined that they needed a 5 year period to increase the efforts of their study, with the goal to better understand the geographical distribution of brucellosis in elk populations of southwestern Montana and to improve estimates of seroprevalence where the disease was detected.
- During the winter of 2011-2012, approximately 100 cow elk were captured within hunting districts 324, 325, 326 and 329. They were tested for brucellosis in the field, 30 elk that tested positive and seropositive elk were fitted with a GPS radio collar and a vaginal implant transmitter (VIT), if they were pregnant.
- With help from the signals given from the VIT, samples were collected from birthing sites or sites where elk cows had still born or aborted fetus. A small percentage tested positive for *Brucella abortus* biovar 1.
- This is a multiyear study project, where MFWP is dedicated to using the best tools available to determine the presence of brucellosis on the landscape in the GYA.