
ESTIMATION OF BLACK-TAILED PRAIRIE DOG COLONY ACREAGE IN MONTANA

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The first statewide inventory of black-tailed prairie dog (*Cynomys ludovicianus*) colonies in Montana was conducted in the mid 1980s and produced an estimate of 120,000 – 130,000 ac. A cooperative statewide inventory effort (1996 -1998) yielded a minimum estimate of 66,000 ac of occupied habitat. However, this inventory did not include areas where access was denied and results of alternate survey efforts. The minimum management objective for black-tailed prairie dog abundance in Montana is 90,000–104,000 occupied ac, according to the statewide management plan. A current, comprehensive, and rigorous statewide estimate of prairie dog acreage was needed to determine the area of Montana occupied by black-tailed prairie dog colonies. We surveyed known black-tailed prairie dog distribution in Montana using an aerial line-intercept survey stratified by county from June to August, 2008. We recorded the length of prairie dog colony intercepts on approximately 35,000 linear mi on 771 transects in 32 counties in central and eastern Montana. Transects were flown in fixed-wing aircraft in an east-west direction at ~ 110 mph at < 300 ft above ground level. Prairie dog

colonies were detected in 21 counties. We recorded roughly 750 prairie dog colony intercepts. We attempted to ground truth 10 percent of detected prairie dog colonies along transects, and at least one black-tailed prairie dog colony intercept in each county. Data analysis is ongoing at this time. However, preliminary results indicate black-tailed prairie dog occupancy exceeds Montana abundance objectives. A comprehensive analysis is expected to be complete in April, 2009.