SUSTAINABILITY OF BLACK-TAILED PRAIRIE DOGS AT SMALL CULTURE PARKS OF THE WESTERN GREAT PLAINS

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Abstract: The Black-tailed Prairie Dog (*Cynomys ludovicianus*) is widely distributed across the western Great Plains. Although the species is considered by some to be an agricultural pest, the species is also recognized as an important contributor to grassland biodiversity. The management conflicts that arise because of its simultaneous status as a keystone species and as an agricultural pest makes prairie dog management difficult and controversial and pose the greatest threat to the species in areas outside the range of plague. The situation is further complicated in parks and other protected sites where unchecked growth of prairie dog populations and activities of individual prairie dogs may threaten natural and cultural resources. Without accurate information on the status and trends of the prairie dog populations at individual parks, it is extremely difficult for managers to justify any management activity to a divided public. Our research will assess the status of prairie dog populations (growing, stable, or declining) at four small culture parks, Fort Larned National Historic Site, Kansas, Scott's Bluff National Monument, Nebraska, Bent's Old Fort National Historic Site, Colorado, and Sand Creek Massacre National Historic Site, Colorado. We will also assess methods for determining prairie dog populations size at the parks, and we will attempt to develop an estimate of rates of dispersal of prairie dogs away from the parks. This information will enable managers to defend actions to enhance sustainability of this important natural resource while at the same time allowing managers to explain decisions to manipulate prairie dog populations on the parks.