

MONTANA-WIDE BURROWING OWL SURVEYS; A SYNTHESIS OF FIRST YEAR EFFORTS—1999^{TWS}

Eric C. Atkinson

Marmot's Edge Conservation, 4580 E. Baseline Rd., Belgrade, MT 59714

Dennis L. Flath

Nongame Program, Montana Fish, Wildlife & Parks, P.O. Box 173220,
Bozeman, MT 59717

Population trend information, as well as present dispersion and abundance measures, are sorely lacking for burrowing owls (*Athene cunicularia*) inhabiting Montana. To develop baseline information that can lead to assessments of population trends, we invoked a cooperative network of 28 surveyors to sample black-tailed prairie dog (*Cynomys ludovicianus*) colonies across the state. Prairie dog towns were randomly selected, stratified by quarter latilong ($0.5^\circ \times 0.5^\circ$) from the 1,302 prairie dog towns contained in the statewide database archived by the Montana Natural Heritage Program. Three hundred, seventeen towns were selected for survey based upon a proportional sampling regime. Area-based surveys were

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performed between 15 July-8 August. We surveyed 209 colonies (204 with usable data; 10,079 ac; 4081 ha) observing 474 burrowing owls and a minimum of 123 burrowing owl pairs. Seventy eight colonies were occupied by owls (38.24%) with average number of owls per town equaling 2.33 (SD = 4.23), with most supporting one pair ($X = 0.61 + 1.00$ pair, $n = 204$). Based upon these data, we estimate that Montana prairie dog colonies supported between 787 and 819 burrowing owl pairs in 1999. Plans for 2000 include defining 'bellweather' colonies for longterm trend monitoring through sampling with partial replacement and expanding the network of cooperators.