Spatial and temporal wolf distribution in the Beaver Hills

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Poster Presentation Abstract:

Wolves have recently recolonized the Beaver Hills region. The return of an apex predator may present interesting trophic consequences as well as being of management concern for agricultural activity in this landscape. Over approximately the past year wolf presence and movements have been monitored in Elk Island National Park (EINP) and the Cooking-Lake Blackfoot Provincial Recreation Area (BPRA) using remote camera traps. During this time, we have processed approximately 190,000 images and recorded 79 unique wolf observations. Using these remote images, we describe the spatial distribution of wildlife at camera sites. Similarly using GIS, we compare the diversity of wildlife observed at a particular camera location to the diversity of habitat types associated with the camera's location. Secondly, we describe the temporal distribution of wildlife activity in EINP and BPRA as indicated by the distribution of when remote images were captured. Thirdly, we have observed a relationship between the proportions of wolves at cameras compared to coyotes. As the wolves recolonize EINP and BPRA, we hypothesize that we should observe spatial partitioning between them and the resident coyote population. However, we found that the number of wolf and coyote images was correlated across sites suggesting that the wolf population is currently not high enough to limit coyote activity through competitive exclusion. The results of these analyses can be used to better understand the relative abundance and distribution of wildlife on this landscape and in particular provide information for management to promote predator co-existence in this recently recolonized, multi-use agriculture landscape.

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