
Selection of Landscape Habitat Attributes by Woodland Caribou in West Central Alberta—A Necessary Step Towards Species Recovery

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Abstract: We analyzed selection of habitat patches of varying size and shape by woodland caribou (*Rangifer tarandus caribou*) in west central Alberta. The woodland caribou, which is designated as Threatened in Alberta, is often considered to be an interior species that requires large tracts of undisturbed habitat. As human activities proliferate within caribou ranges, it is increasingly important to plan developments so that the spatial requirements of this species are met. Although much is known about the general habitat requirements of woodland caribou, there is little information on their spatial habitat needs. We analyzed selection for patch size, core area, and distance from edge at a fine spatial scale (daily caribou locations within home ranges) and a coarse spatial scale (home range characteristics in relation to the entire study area). At the coarse scale, we found that caribou selected larger patches and larger core areas, particularly over 1000 ha. Although results were more variable at the fine scale, there was also evidence of selection for larger patches and core areas. We found that caribou selected the interior of patches over patch edges. These results will help managers plan timber harvesting and other human activities within woodland caribou ranges so that the spatial habitat requirements of this species are met over the long term.