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## WINTER DISTRIBUTION, HABITAT USE, AND BROWSE UTILIZATION PATTERNS OF THE SHIRAS MOOSE ON THE MOUNT HAGGIN WILDLIFE MANAGEMENT AREA

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Moose (*Alces alces shirasi*) populations across Montana have expanded in the last century, both in geographic range and in population size. This expansion has had a negative impact on moose winter range in some locations where moose have overutilized key browse species such as aspen and willow. Excessive and unsustainable browsing has the potential to reduce local biodiversity and carrying capacity of moose and other ungulates. The browse species of interest in this study are willow (*Salix* spp.), a highly palatable and abundant browse source for moose on many winter ranges, including our study area in southwestern Montana. Knowledge of spatial and temporal patterns of moose willow community use and willow utilization patterns is limited in Montana and would be helpful in moose population

management. The objectives of this study were to determine patterns of willow community use by selected female moose during winter and to quantify willow utilization across the study area to examine population scale habitat use through browse patterns. To accomplish these objectives we deployed GPS collars on 12 cow moose in the winters of 2007 and 2008 and completed large scale, systematic browse surveys in the spring of 2008. Preliminary results indicated that cow moose spend the majority of the winter in or adjacent to willow communities, but overall willow utilization across the study area was low. Our data suggested that while moose have the potential to significantly impact willow communities, this did not appear to be the case on the Mount Haggin WMA at current moose densities.