

## **BROWSE CONDITION AND TREND ON MONTANA UNGULATE RANGES<sup>TWS</sup>**

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Ungulate impacts on woody vegetation have been a concern in Montana for a half-century. Exclosures were built on many areas of concern to determine if ungulates were affecting browse species. Most exclosures were built many decades ago, thus allowing impacts of long-term browsing to be realized. Our objective was to determine condition and trend of a variety of browse species. We achieved this by comparing browse species growing inside exclosures with browse species on environmentally similar areas outside. Thirty-two exclosures restricting the access of all ungulates were evaluated across many different environmental types. We used methods that evaluated short shrub species (< 2 m), tall shrub species (> 2 m), and trees and found browsing to have impacted browse species at 22 sites. In addition, five sites were considered areas of caution and were likely coming out of a period of intense browsing or entering a period of intense browsing. No browsing impacts were found at two sites. At the remaining three sites, we attributed differences in browse species inside and outside exclosures to factors other than browsing such as natural successional changes. Sites with no browsing effects were not related geographically within Montana. Impacts were found at both the oldest exclosure (57 yrs) and most recent exclosure (10 yrs). These findings imply browsing levels have been and remain a deterrent to development of browse communities throughout Montana.