

****Effects of Wildfire and Logging on Forage Availability and Mule Deer Habitat Selection**

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In many western forests, anthropogenic disturbance has increasingly replaced wildfire as the predominant source of landscape alteration. Recent declines in mule deer (*Odocoileus hemionus*) population estimates and hunter harvests have been linked to changes in the availability and distribution of nutritional resources in northwest Montana. However, the relationship between the spatial configuration of disturbances and resource selection is not fully understood, particularly for lesser-studied mule deer populations in Montana's northern forests. We conducted a 3-year study to quantify selection of mule deer for forest disturbances from wildfire and logging in the southern Rocky Mountain Front, Cabinet-Salish Mountains, and Whitefish Mountains. We predicted that forage availability would vary with disturbance age and configuration at individual and population scales. We evaluated movements of 131 GPS radio-collared adult female mule deer and documented forage composition and quantity in disturbed and undisturbed forests in all three study areas. Abundance and configuration of wildfire and harvest varied between study areas, and deer resource selection was influenced by the age and type of disturbance and associated forage response. Determining the factors driving mule deer use of disturbances can help managers identify potential strategies for land management and to identify treatment sizes and configurations that are accessible and beneficial for mule deer.