Small mammals in burned and unburned habitats on the Beartooth Wildlife Management Area [TWS]

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Small mammal trapping was conducted on the Beartooth Wildlife Management Area near Wolf Creek, Lewis and Clark County, Montana, to determine species occurrence by habitat type, and to survey for special interest or concern species. Seven traplines using Sherman live traps, snap traps, and pitfall traps were run during August and September, 1996. Three traplines were located in areas that were partially or severely burned during the 1990 fire. A total of 414 mammals were captured with eleven species represented. Captures/100 trap-nights ranged from 3.1 in burned ponderosa pine forest to 46.3 in willow-riparian habitat. Species richness was highest in unburned cottonwood riparian (n=6) and burned aspen habitats (n=7), lowest in intermountain grassland habitat (n=3), and intermediate in unburned Douglas-fir-ponderosa pine forest (n=5) burned ponderosa pine (n=4) and unburned willow-riparian habitats (n=4). Trapping results compared favorably with those from studies conducted by the Montana Nongame Program in similar unburned ponderosa pine habitats. Results suggest that small mammal productivity and diversity in burned habitats is variable, but generally comparable with similar unburned habitats in Montana. However, forest obligates such as the Red-backed Vole (*Clethrionomys gapperi*) were absent from 6-year post-burned areas. Riparian and aspen habitats supported the highest diversity and density of small mammals, further emphasizing the importance of properly managing these habitats to maintain their high species diversity and productivity.