

THE EFFECT OF FIRE ON FUNGAL AND MICROARTHROPOD POPULATIONS  
OF BLACKTAIL BUTTES

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Preburn sampling began July 28, 1974, in three areas: burn slope, control slope, and a contiguous grass/sage slope. Forty-five soil and forty-five litter samples (25 cm<sup>2</sup>) were collected from each of the three sites on a stratified random sampling scheme. The organisms were extracted using modified Tullgren funnels. Percent moisture determinations yielded an average of 46% for the control and 37% for the burn.

We are now in the process of counting all arthropods and sorting the acarina (the dominant taxa) into species. With only a fourth of the samples sorted, there are 42 species of oribatids, nine species of mesostigs and two species of prostigs. Indices of species diversity and niche breadth will be calculated for each community and species respectively. On the basis of these indices predictions will be made on probable postburn colonizers. Samples were also collected for fungal analysis but plating for species determinations will not be done until after the burn.

The state objective of the study, the effect of fire, was not completed because weather conditions prevented the scheduled fire. We anticipate continuing the study next summer.

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