ABSTRACT

TITLE:	Analysis of Predator Density in Unburned Versus Burned Forest; 9 Years Post Missionary Ridge Fire
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ABSTRACT: In the event of a fire, almost all of the wildlife tends to escape to safer habitat and return post fire to exploit the ecological benefits fire may have by promoting natural re-generation of plants. According to prior research, ungulates such as American elk (Cervus elaphus) and mule deer (Odocoileus hemionus) tend to prefer to feed upon the new aspen shoots around 1 or 2 years post fire. The return of carnivorous mammals to post-wildfire habitat, on the other hand, has not been studied extensively, as far as we can tell. In this paper we explored the Missionary Ridge area, nine years post wild fire and designed a study to detect carnivore presence on the National Forest land north of Durango, Colorado. Non-invasive track and camera surveys were set up with a scent lure to detect carnivores in the burned and unburned areas. We predicted that if the ecosystem is healthy or if it is returning to a healthy state, then we would expect to see carnivore densities evenly distributed over the two habitat types (burned vs. un-burned). The overall density of predators was higher in the unburned habitat, and correlations were drawn that showed preference of predators to areas with abundant tree coverage. This research suggests that predators occupy a variety of habitats post fire, yet tendencies to return to a previously burned area are not very strong at first. A longer period of forest succession is preferred in order for predators to return to a previously burned habitat.