Cavity Nesting Birds in Salvage Logged And Unlogged Post-fire Forests[TWS]

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Practices of wildfire suppression and salvage logging of burned forests have prompted concern among biologists for fire-associated bird species in the northern Rocky Mountains. Therefore, in May 1997, we initiated a five-year study to examine the responses of cavity birds to salvage logging of recently burned forests. Here, we present an overview of the study and some highlights from the first field season. Three of our four study areas burned in 1994 and portions of each were subsequently salvage logged. The fourth area, which was not logged, burned in 1996. We systematically searched all study areas for nests and then monitored nests to determine reproductive success. We also measured habitat characteristics of nest sites and random sites. Nest searching efforts in all areas identified 140 occupied nests of 13 cavity nesting species. Of all cavity-nesting species in our study, Black-backed and Three-toed woodpeckers and brown creepers had the strongest affinity for nesting in unlogged forests; >80% of nests were found in unlogged portions of burned forests. The nests of hairy woodpeckers, Northern flickers, and mountain bluebirds were found in equal numbers in logged and unlogged areas of burned forests. Small numbers of Lewis' woodpecker, Williamson's sapsucker, and American kestrel nests primarily were found in the logged areas. Preliminary data suggest that post-fire forests, which are salvage-logged, provide nesting habitat for some cavity-nesting species. However, the suitability of nesting habitat may be markedly decreased for the two fire-associated species, the black-backed and three-toed woodpecker.