AN ASSESSMENT OF THE SUITABILITY OF SALVAGED-LOGGED BURNED FORESTS FOR CAVITY-NESTING BIRDS IN WESTERN MONTANA[TWS]

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Practices of wildfire suppression and salvage logging of burned forests have prompted concern among biologist 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-nesting birds to salvage logging of recently burned forests. In 1997 and 1998, we systematically searched four study areas for nests of cavity-nesting birds and then monitored nests to determine reproductive success. We also measured habitat characteristics at nest and random plots (0.04 ha), and collected foraging information on three *Picoides* species. Nest searching efforts in all areas identified 335 active nests of 10 focal species. Black-backed and three-toed woodpeckers and brown creepers had the strongest affinity for nesting in unlogged forests; >75 percent of nests were found in unlogged portions of burned forests. The nests of hairy woodpeckers, Northern flickers, red-breasted nuthatches, and mountain bluebird<; were found in almost equal numbers in logged and unlogged areas of burned forests. Small number of Lewis' woodpecker and Williamson's sapsucker nests were found primarily in the logged areas. Nesting success was higher for hairy and three-toed woodpeckers, 94 and 87 percent respectively, in unlogged nest plots. Northern flickers and mountain bluebirds experienced lower nesting success; however, nesting success was similar between logged and unlogged plots. Preliminary data suggest that post-fire fore ts that are salvage-logged provide nesting habitat for some cavity-nesting species. However, the suitability of logged nesting habitat, in terms of occupancy and/ or nesting success, is markedly lower for black-backed, three-toed, and hairy woodpeckers, and brown creepers.