Foraging by Hairy, Black-backed, and Three-toed Woodpeckers in Post-fire Forests of the Northern Rocky Mountains[TWS]

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Woodpecker species occur in differing abundances across the landscape, but populations of several species typically are more dense in early post-fire forests than in green forests. We studied foraging behavior of 3 woodpecker species during year one of a five-year study on cavity-nesting birds in salvage-logged and unlogged post-fire forests in western Montana and eastern Idaho. Three of our four sites burned in 1994 and subsequently were partially salvage-logged; the fourth site burned in 1996 and was not logged. Here we summarize 202 observations of foraging hairy, three-toed, and black-backed woodpeckers from the 1997 breeding season. We observed single instances of foraging birds and recorded pertinent data including bird species, foraging, maneuver, foraging height, and tree species and dbh. We compared foraging variables among, species and to measures of available vegetation taken systematically across the sites. The three species used Douglas fir in 48%, ponderosa pine in 23%, and lodgepole pine in 20% of the foraging instances, with the remaining 9% of observations occurring, in subalpine fir, western larch, and Engelmann spruce. Black-backed woodpeckers used Douglas fir more often than either hairy or three-toed woodpeckers, while three-toed woodpeckers foraged on lodgepole pines to a greater extent than did the other two species. Also, average dbh of trees used for foraging was greater than average dbh of both nest trees and available trees. In subsequent years we expect to expand our analyses to detect differences in foraging between logged and unlogged treatments, and to examine woodpecker diets and prey densities.