

The Importance of Intense Crown Fires to Some Bird Species in Rocky Mountain Coniferous Forests

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I conducted point-count breeding bird surveys during 1989 and 1990 in 38 different sites that burned in 1988 in Montana and Wyoming. Nearly 90 species were recorded within sites that varied in size from 50 ha to more than 100,000 ha. By comparing my census results with those compiled from several hundred studies conducted in unburned forest types, I found that one species (Black-backed Woodpecker) appears to be nearly restricted to

early post-fire conditions, where it forages on the numerous wood-boring beetle larvae available in the trees killed by the fire. Many other species (such as Hairy Woodpecker, Three-toed Woodpecker, Olive-sided Flycatcher, Clark's Nutcracker, Mountain Bluebird, Townsend's Solitaire, Cassin's Finch and Red Crossbill) are more abundant in early post-fire habitats than in any other forested habitat in the Northern Rockies. Most breeding birds also relied heavily on already existing snags (old-growth elements) for nesting purposes. The maintenance of viable populations of these bird species is likely to require maintenance of an intense crown-fire regime, especially because of the presence of standing dead timber. Unfortunately, the standing dead timber is routinely cut in "salvage" operations.

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