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RECENT FOREST BURNED AREAS: BEETLE BUFFET FOR THREE-TOED AND BLACK-BACKED WOODPECKERS.

Larger areas of intact burned forest should be left on the landscape to protect the feeding and nesting habitat of three-toed and black-backed woodpeckers, say Graduate Student Jeff Hoyt and SFM Network Principal Investigator Sue Hannon, in a recently published article in the *Canadian Journal of Forest Research*.

"Forest management practices in most provinces," says Hannon, "typically include aggressive fire suppression and fairly rapid salvage logging of recent burned areas. We suggest some aspects of this practice may need to be revised." Burned forest areas typically create high densities of insect and beetle larvae, a critical food source for three-toed and black-backed woodpeckers.

Three-toed and black-backed woodpeckers are closely associated. Both species are found from the Yukon to Newfoundland, but are largely confined to burned-over coniferous forest sites, where they find their main source of food - wood-boring insect larvae and bark beetle larvae. Both bird species have been known to migrate long distances to take advantage of a recently burned area. A forest fire for these birds acts much like the clang of chuckwagon triangle - their signal for an impending beetle feast!

Three-toed woodpeckers are more sensitive to the severity of the burned area than the black-backed species, because they are not strong foragers. Three-toeds need lightly burned trees so they can successfully flake and scale off the bark to get at bark beetle larvae. Conifer tree composition, the researchers learned, does not influence their occupancy in old growth or burned forests. However, because of decreasing bark moisture content, three-toeds typically can only inhabit a lightly burned area for about three years. When their food source runs out, the birds have to retreat back to nearby old growth coniferous forest, greater than 110 years. Black-backs, on the other hand, are stronger foragers and can access the deeper wood-boring insect larvae. Moderate to lightly burned Jack Pine, with its heavier bark, is more fire resistant. The layer underneath the bark retains moisture longer, providing continued habitat for wood-boring larvae. Black-backs also seem more attracted to downed trees than the three-toed species, and can inhabit newly burned areas for up to eight years.

Across Canada, damage from beetles and drying out of trees usually restricts salvage logging operations to the first two years after a forest fire. Typically, all merchantable timber is removed. "This practice," says Hoyt, "may need to be rethought, as areas protected from salvage logging should be retained for these burn specialists." With this new research information, forest managers now have more complete information toward selecting those areas most suited to the feeding and reproduction needs of these birds, in an effort to maintain the ongoing biodiversity of Canada's forests.

Citation:

Hoyt JS, Hannon SJ. 2002. **Habitat associations of black-backed and three-toed woodpeckers in the boreal forest of Alberta.** *Canadian Journal of Forest Research*, 32(10): 1881-1888.