BIRD NESTS IN AN ASPEN TREE ROBBED BY BLACK BEAR

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During studies on breeding birds in a forest habitat, we found evidence that a black bear (Ursus americanus) had destroyed a Red-shafted Flicker (Colaptes cafer) nest cavity in an aspen. This tree was located 13 km N of Florissant, Teller County, Colorado, in the Pike National Forest. This woodpecker nest, located 19 June 1969, was one of many we had found which contained nestlings. To confirm the nestlings' presence, we tapped or scraped the tree trunk to stimulate their bee-like calls (Forbush, Birds of Massachusetts and other New England states Vol. 2, Mass. Agr. Dept. 1927. p. 295). On 2 July 1969, we discovered that a black bear had climbed about 4 m above the ground in the aspen (about 25 cm diameter at breast height) and enlarged the 5-8 cm entrance hole to about 13 cm wide \times 20 cm high (fig. 1). Torn chunks of green aspen wood and bark lay scattered beneath the tree, and some were flecked with blood. Opposing claw marks up and down the tree trunk and dense claw marks surrounding the hole convinced us that the bear had clung to the tree trunk as he chewed and clawed into the cavity.

We have since seen and investigated many bearopened cavities in the same area, one within 6 m of the first. Most holes appeared to have been opened 2 or more years ago, but some aspens showed recent evidence of bears' climbing and investigating. Large aspens containing nesting cavities frequently showed evidence of repeated climbing and had scars clustered on both sides of the nest entrances. Other aspens had marks only near the base, as though a bear had slapped or grasped the trunk without climbing it. Sometimes these slashes occurred as a single set of hug marks, as might be made by a bear jumping up from the ground and sliding down the trunk. With such disturbance of a nest tree, young woodpeckers in a cavity would immediately respond with their bee-like calls; this might stimulate the bear enough to climb up and, if he was able, to rip open the nest cavity. The climbing and reclimbing of aspens with nest cavities, and the opening of the cavities, occurred too frequently to be explained by chance. It appeared to us that one or more bears were intentionally searching for cavity nests as a unique method of supplementing their diet.

We found only one reference to support this idea. Dixon (Condor 29:271, 1927) described a black bear's unsuccessful attempt to rob the nest of a Blackbacked Three-toed Woodpecker (*Picoides arcticus*) in Yosemite National Yark. This green lodgepole pine



FIGURE 1. The Red-shafted Flicker nest cavity (left) reported robbed by a black bear is contrasted with an older but similarly opened cavity (right) in another aspen near by.

resisted attack, although the bear did manage to tear off several slabs of wood from around the 1.2 m high nest entrance. Dixon suggested that bear predation might explain the tendency of certain woodpeckers to nest in live trees. Our observations of aspens indicate that even cavities in live trees are vulnerable. Undoubtedly bears climb trees for other reasons. Taverner (Condor 30:157, 1928) reported that bears climbed several trees supporting owl and hawk nests in the Peace River country of Alberta, Canada. This did not satisfy Rowan (Condor 30:246, 1928), who found many bear-climbed trees which had no owl or hawk nests. However, neither author mentioned predation of cavity nests. We have seen bear-claw marks, particularly on aspens, in other localities. During the summer of 1967 in Camas County, Idaho, we found at least six aspens containing woodpecker cavity nests, including one occupied by a Sparrow Hawk (Falco sparverius), that had been climbed and investigated by black bear. In 1955, in Chaffee County, Colorado, one of us observed a pair of Goshawks (Accipiter gentilis) and young in a nest atop a large aspen. A few days later, there were fresh bear-claw marks up to the nest and all the Goshawks were gone. T. D. Ray, Fish and Wildlife Service biologist (pers. comm.), was shown an aspen in 1960 near Kremmling, Grand County, Colorado, where a black bear had climbed to a tree-top nest attended by adult Goshawks, and destroyed the young or eggs.

Black bears are omnivores known to eat an extensive variety of foods. Among them are nest contents of wild bees, carpenter ants, and other insects (Grinnell et al., Fur-bearing mammals of California. Vol. 1. Univ. California Press, Berkeley. 1937. p. 128). It is possible that the sounds of bees and other insects in their nests are used by bears to locate this type of food. Rewarded by nests they were able to exploit, bears ultimately could learn to search for cavity nests of Red-shafted Flickers.

We wish to thank Willis M. Royall, Jr., for his critical review of the manuscript.

Accepted for publication 15 July 1971.