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### THREE ADDITIONAL CASES OF PREDATION BY MAGPIES ON SMALL MAMMALS

Kerry P. Reese<sup>1</sup>

**ABSTRACT.**— Three acts of predation by Black-billed Magpies (*Pica pica hudsonia*) on small mammals indicate that magpies will not only attack prey opportunistically encountered at close range, as suggested by recent literature, but will also pursue prey detected at long distances.

The brief accounts by predation by the two North American magpies, Black-billed (*Pica pica hudsonia*) and Yellow-billed (*Pica nuttalli*), appear to occur when the birds opportunistically discover mammals at close distances while actively foraging (Blackburn 1968, Goulden 1975, Boxall 1982). Goulden (1975) and Boxall (1982) described interactions between the birds and their mammalian prey (one observed kill each). In this note I describe three observations of Black-billed Magpies attacking and killing small mammals and the defensive movements of the prey.

On 25 February 1979 I was observing magpies at a feeding station baited with meat and located approximately 80 m from my vehicle. The station was at the edge of a small stand of trees adjacent to a large plowed field west of Richmond, Utah. Over 30 cm of snow covered the field.

At 0955 h a vole (*Microtus* sp.) appeared on the snow approximately 20 m from my vehicle and was highly conspicuous as it moved about. A magpie flew from a tree near the feeding station 80 m away and landed 2 m in front of the vole. The vole ran toward the field's edge while the magpie followed by hopping along and flying 1–2 m at a time. When the magpie was within 6–7 m of the vehicle, the bird noticed me and departed. As it was leaving, a second magpie flew from the direction of the trees and was about to land behind the vole, but saw me and left. The vole ran back across the snow away from the truck and, when it was 15–20 m away from me, a magpie, perhaps the first, landed 0.3 m behind it. The vole turned,

stood on its hind legs, and lunged at the bird. The vole charged three times in this manner, and on each charge the bird leapt into the air with wings flapping. After the third charge, the magpie jumped to the vole's side and pecked once at its head and neck. The vole was still and the bird struck 3–4 swift, hard pecks at its head. The magpie picked up the vole, flew back toward the trees, and landed on a fence post. The bird proceeded to peck the vole several times and then carried the carcass into the trees out of sight. The entire incident lasted about two minutes.

At 1045 h the same day, another vole appeared 35–40 m from me in the same field. I had observed the vole on the snow for no more than 15 seconds when a color-banded first-year male magpie, which had been resting in a tree near the feeding station, flew 40 m to the vole and landed directly in front of it. The vole quickly turned and the magpie pecked at its head. When the vole was still, the bird carried it into the trees. No more than 30 seconds elapsed from the time the magpie landed until it departed with the vole.

On 17 March much of the snow had melted, particularly along the edges of the road, where there was a mosaic of snow, tufts of dead, standing grass, and exposed, plowed soil. At 1538 h, a magpie was chased from the feeding station by a more dominant bird and landed on a fence post along the road 30 m in front of the vehicle. At 1541 h, the magpie left the post, flew 15 m across the road, landed and almost simultaneously struck with its beak at a vole exposed on a patch of snow. I had not seen the vole and was unaware of

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how long it had been visible. The vole appeared unhurt and ran into a clump of dead grass. Circling the grass twice, the magpie pecked into it several times, but I was unable to see if the vole was struck. The vole suddenly charged the bird, which jumped into the air as described previously. The vole ran toward an exposed plow furrow 2-3 m away, but was intercepted halfway there by the bird landing in front of it. Pecking the vole's head approximately 15 times, the magpie killed it, picked it up, and dropped it. I left the vehicle to flush the bird away in order to identify the species of vole, but the magpie picked it up again and flew into the trees 70-80 m away.

These observations and those in the literature suggest that Black-billed Magpies respond opportunistically to the presence of small mammals. My observations indicate that magpies will also attempt to kill small mammals when detecting them from up to 80 m away, not just when encountering prey in close proximity. These birds made kills in the immediate vicinity of an ample food source, the feeding station. Perhaps magpies prefer prey over carrion when possible.

All three voles took escape and defensive measures, but to no avail. Voles were highly conspicuous on the snow and, once above the

surface, had limited access to refuge from predators. In all three cases the birds (at least two different ones) carried the voles to shelter, presumably to eat them as Boxall (1982) reported. None ate the voles in the open as Goulden (1975) described, even though both days were sunny with no wind.

Boxall (1982) comments on the scarcity of reports of predation by magpies on small mammals in North America. I believe that such events are rare and primarily fortuitous for the birds. The events that I observed may have been due to the presence of voles in a conspicuous and vulnerable setting, not a normal predator-prey situation. In over 500 h of observing magpies over two winters, these were the only acts of predation I witnessed.

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