

NEW RECORDS OF BIRD MORTALITY AS A RESULT OF COLLISION WITH WIRE FENCING

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Reports of birds killed by becoming snagged on barbed-wire fences, trapped between wires of chain-link fencing, and colliding with wires on electric fences, are infrequent. This infrequency is likely a result of the difficulty in finding birds that have hit fences, and the potentially high scavenging rates that may occur shortly after mortality. In British Columbia and elsewhere, barbed-wire, chain-link, and electric fences are extensive, and while they may be less than an inch wide, they extend for thousands of kilometers across the landscape, bordering farms, schools, industrial buildings, ranches, private residences, grazing and pasturelands, and numerous other land units. The kinds of species, frequency of occurrence, and potential for serious impacts on local populations is poorly known. Of the scant information that is available, a review of birds killed on barbed-wire fences worldwide totaled only 40 species (Allen 1990), and most incidences were of only one individual. The purpose of this note is to

describe, and put on record, the occurrence of three species not previously known to have died as a result of collision with a barbed-wire, chain-link, or electric fence anywhere in the world. This note also documents the first Canadian occurrence of a Great Horned Owl (*Bubo virginianus*) that died as a result of collision with a barbed-wire fence in Alberta.

Vesper Sparrow

On 7 August 2004, Joanna Preston and I located a recently fledged juvenile Vesper Sparrow (*Pooecetes gramineus*) hanging from the upper strand of a barbed-wire fence (Figure 1) along Douglas Lake Road, 400 m west of Pennask Lake Road near Minnie Lake, BC. It appeared that the bird became ensnared by catching the skin under its neck on one of the barbs, perhaps during preening or beak-cleaning, or perhaps by chance as it attempted to fly through or over the fence. Upon observation the bird was in



Figure 1. A recently fledged juvenile Vesper Sparrow found dead as a result of becoming snagged on a barbed-wire fence in southern British Columbia. Near Douglas Lake, BC. 7 August 2004 (Michael I. Preston). BC Photo 3545.

reasonably fresh condition, with the appearance of having died within only a few hours as evidenced by lack of dust on the feathers, absence of ants, maggots, or flies, and no apparent scavenging. For Vesper Sparrow, this incident appears to be the first published record of mortality involving a fence.

Golden-crowned Sparrow

On 30 September 2006, I observed a dead Golden-crowned Sparrow (*Zonotrichia atricapilla*) stuck in the diamond-shaped hole of a chain-link fence located along Metchosin Road, 300 m north of Latoria Road, in the community of Metchosin in Greater Victoria (Figure 2). The bird was an immature, and probably a recent arrival from its more northerly breeding grounds. The bird was found at 1135 hrs and possibly collided with the fence earlier that morning, or during the previous night. There was no evidence that the bird had been trapped for a long time and



Figure 2. Along Metchosin Road, this immature Golden-crowned Sparrow died as a result of collision and entrapment by a chain-link fence adjacent to the road. Greater Victoria, BC. 30 September 2006 (Michael I. Preston). BC Photo 3546.

overall body condition was good. Upon inspection it appeared that the bird caught its neck on one of the upper wires, and through momentum, got part of its body and one wing wedged in the chain-link hole. One foot was clearly grasping a lower wire, while the other was not. Assuming the bird did not die from direct head or neck injuries, any attempts to free itself were clearly ineffective. For Golden-crowned Sparrow, this incident appears to be the first published record of mortality involving a fence.

Horned Lark

On 21 April 2002, Joanna Preston and I found a Horned Lark (*Eremophila alpestris*) that had apparently died from collision with a single-wire electric cattle fence (Figure 3). The bird was fresh and had no evidence of decomposition (*e.g.*, no insects present). Furthermore, the bird probably died from impact rather than electrocution, as grounding, a requirement for current to be deadly, was unlikely. The upslope side of the fence was heavily grazed by cattle, while the other side, where the bird was found, had taller grasses that partially obscured the wire.

Great Horned Owl

In southwestern Alberta, at the border of Kananaskis Country near Erie Gap, Joanna Preston and I found a dead Great Horned Owl extensively tangled on a barbed-wire fence on 11 November 2001 (Figure 4). The fence was located nearly 500 m from the road and was not visible from the vehicle. The bird had evidently died several days, if not weeks, earlier, as the body was mostly scavenged and severely dehydrated. Only the right wing and tail were mostly intact, while the back, breast, and face were largely picked apart. Terrestrial scavengers such as Coyotes (*Canis latrans*) were likely involved in the scavenging process, as detaching the wing of such a large bird would be difficult for a Common Raven (*Corvus corax*) or Black-billed Magpie (*Pica pica*), the resident corvids at that time of year. Because the carcass was highly picked-over it was difficult to determine exactly how the bird became snagged. From our assessment, it seemed that the left wing may have caught the upper wire at the shoulder during flight, subsequently causing the bird to flip over the fence and entangle itself. When we found



Figure 3. A Horned Lark (lower left) that died from collision with a single-wire electric cattle fence. Douglas Lake Road, near Quilchena, BC. 21 April 2002 (Michael I. Preston). BC Photo 3566.



Figure 4. A highly deteriorated Great Horned Owl that died as a result of entanglement on a barbed-wire fence. Near Erie Gap, AB. 11 November 2001 (Michael I. Preston).

the bird the left foot was grasping the upper wire, but the leg had detached from the body at the metatarsus. While this incident for Great Horned Owl appears to be the first on record for Canada, it is the 11th published occurrence for North America (Murphy et al. 1982, Allen 1990).

The extent of bird mortality as a result of collision with fences of any type is poorly known for British Columbia and elsewhere. Most fences are usually < 2.5 m (8 ft) tall, and probably obvious enough that most birds can see them. However, wires may not be visible when they are concealed by vegetation, when birds are distracted such as during predation attacks or active chases during courtship, or during night or low light conditions. Along roads, where birds frequently cross and collide with cars (Preston and Powers 2006, Preston and Preston 2006), fences undoubtedly increase mortality potential. It is intended by the publication of these records that awareness be raised on the fact that fences can have direct, negative, effects on wildlife.

Literature Cited

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About the Author

Michael is a wildlife biologist with diverse interests, including research, conservation, education, and photography.