

OWL MORTALITY ON FENCES AND UTILITY LINES

by

Richard E. Fitzner

Ecosystems Department

Battelle Northwest Laboratories

Richland, Washington 99352

ABSTRACT. McCarthy (Wilson Bull. 85:477-478) and Edeburn (Wilson Bull. 85:478) discuss unusual deaths of Great Horned Owls due to collisions with barbed-wire fences. This report describes the wire-caused deaths of three Short-eared Owls (*Asio flammeus*) and one Great Horned Owl (*Bubo virginianus*) in southeastern Washington and adjacent Idaho during the winter of 1973-74.

Observations of Owl Mortality

On 30 December 1973 a Short-eared Owl was found dead, hanging by its right wing from the top strand of a 4-barb barbed-wire fence, 3½ miles southwest of Pullman, Washington. A wire barb had pierced the skin and muscle halfway between the ends of the radius and ulna, both of which were fractured.

On 10 January 1974 a dead Short-eared Owl was seen hanging by its left wing from a powerline at the southern city limit boundary of Moscow, Idaho. It was approximately twenty feet above the ground, making difficult the determination of the exact means of entanglement.

On 1 February 1974 three miles southwest of Pullman, Washington, a dead Great Horned Owl was found entangled in the top wire of a two-barb barbed-wire fence (Fig. 1). The bird was carefully untangled to obtain some clue as to how the accident occurred. A single barb had pierced the skin and muscle within one inch of the distal end of the radius and ulna. The momentum of flying apparently flipped the bird over the top strand, further entangling the wing on both barbs. No bones were broken.

On 2 February 1974 a dead Short-eared Owl was found hanging by its neck from a powerline 200 yards east of the Pullman airport (Fig. 2). The wire was over forty feet above the ground. Photographs revealed the wire to be of a twisted multi-strand type with no protective outer coating. Its coarse texture apparently caught the fine soft feathers of the bird's neck. I suspect that the bird flew into the line at a very slow speed; the momentum of rapid flight would certainly have pulled loose any entangled feathers.

On 28 December 1973 a live Short-eared Owl was found entangled by its neck in a four-foot-diameter, four-foot-high roll of two-by-four-inch woven fencing wire. The wire and a variety of old, rusty farm machinery were located on the edge of a large plowed field 3½ miles southwest of Pullman. The bird apparently had tried to capture a small rodent living within the confines of the wire. In its pursuit, it managed to wedge its neck between two strands of wire and was unable to escape. The owl was in an extreme state of exhaustion but recovered within 24 hours after rescue.

The discovery of three deaths and one near-death of Short-eared Owls reflects their abundance during the winter of 1973-74 in the farmlands about Pullman, Washington, and Moscow, Idaho.

Discussion

The Great Horned and Short-eared Owls found impaled on barbed wire fences are interesting cases. These birds were hunting in bare plowed fields. The only habitat available to their prey (small rodents) was narrow weedy corridors along fence rows or areas too steep or too rocky for cultivation. In such situations the owls were constantly confronted with barbed-wire fences. If they had no prior experience with such fences (i.e., birds of the year or ones raised in areas lacking fences), they might simply have perceived the fences as movable vegetation which would have caused insignificant disruption to their flight.

The owls that collided with powerlines must have done so under different circumstances. The powerlines were higher in the air, and a hunting owl would probably have been flying closer to the ground, thus avoiding them. The owls may have been flying to a hunting post, possibly the powerline itself or its supporting pole, and somehow collided with the line. They possibly were forced into the line by a gust of wind. I have viewed several Short-eared Owls being blown off course by the strong gusts of wind characteristic of winter weather in the study area.

Collisions like these will probably continue to occur in the farmlands near Pullman and in other areas of the country where fences traverse the hunting habitats of owls. The problem may be compounded where owls are particularly abundant. Owls with nomadic tendencies, like the Short-eared Owl, probably suffer the greatest losses from collisions, since they lack familiarity with their surroundings. Age may also be a factor in that young birds with relatively little hunting experience may be more subject to such collisions. Age was impossible to determine in any of the birds reported in this study.

The frequency of wire-collisions by owls remains an open question. However, it may be worthwhile to identify trouble spots where one or more mishaps have occurred and to work out some plan to reduce or eliminate future accidents. For example, old, unused barbed-wire fences could be removed. Fences in use could be marked with strips of ribbon or foil to increase their visibility.



Fig. 1. Great Horned Owl impaled on a two-barb barbed-wire fence

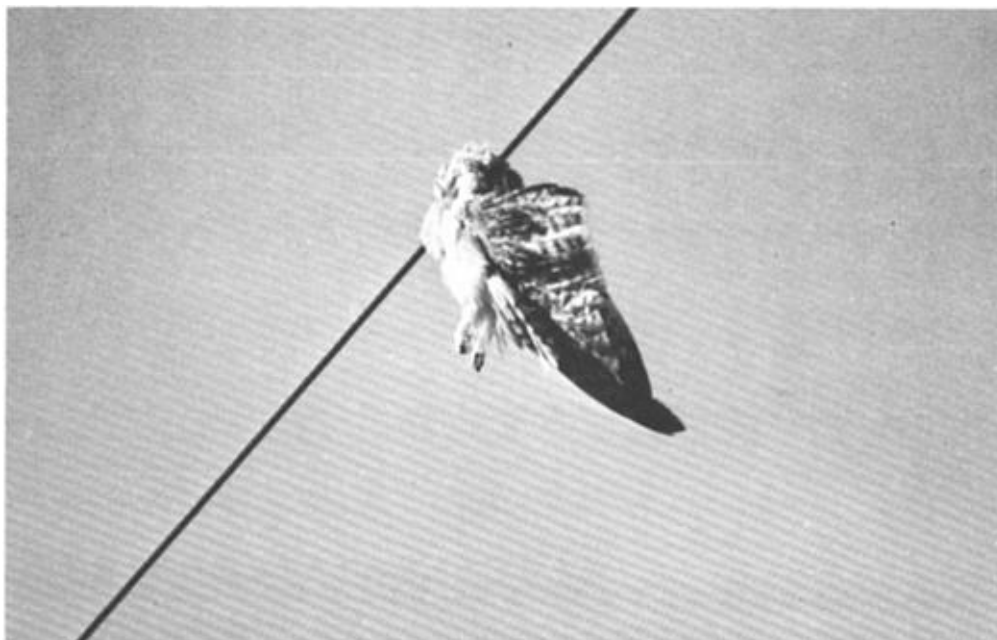


Fig. 2. Short-eared Owl hanging from a power line