FOUR ADDITIONAL CASES OF BIRD MORTALITY ON BARBED-WIRE FENCES

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Avery et al. (U.S. Fish and Wildl. Serv. rep. FWS/OBS-78/58, 1978) recently summarized known avian mortality at man-made structures. In addition, Fitzner (Raptor Research 9:55-57, 1975) reported collisions of one Short-eared Owl (*Asio flammeus*) and one Great Horned Owl (*Bubo virginianus*) with barbed-wire fences. This note describes four additional cases of barbed-wire caused mortality.

On 22 September 1973 in Whatcom County, Washington, Skriletz found a dead Barn Owl (*Tyto alba*) hanging by its right wing from the top strand of a 3 strand barbed-wire fence. The fence was located in an area characterized by marshes and wet meadows.

On 27 September 1977 in Kittitas County, Washington, Knight and Ryan found a dead Short-eared Owl hanging by its right wing from the top strand of a 3 strand barbed-wire fence. The surrounding habitat was shrub-steppe.

On 7 September 1977 in Mason County, Washington, Skriletz found a dead Great Blue Heron (Ardea herodias) impaled by the thigh on the top strand of a 2 strand barbed-wire fence. The fence crossed an estuarine creek approximately 7 m wide at low tide with intertidal marsh on both sides. We surmised the heron died by drowning as the top strand of the fence is covered by water at high tide.

During September 1978 Skriletz found a dead Sora (*Porzana carolina*) hanging by its left wing from the top strand of a 5 strand barbed-wire fence. The fence separated a Christmas tree farm of approximately $1 \, \text{m}$ high trees from a county road. The closest water was the Deschutes River more than $1 \, \text{km}$ away.

In all instances the birds appeared to have hit the fences forcefully, indicating that they did not see it or perceive it as a hazard. Anderson (Raptor Research 11:71-72, 1977) and others have reported similar circumstances. Although none of the dead birds were aged, it is of interest that all mortalities occurred in September. The birds may have been young of the year and/or migrants. In either case they would have been unfamiliar with the area they were flying through or with fences in general. Fitzner (1975) discussed the implications of fence caused mortality in raptors. He suggested that lack of familiarity with their surroundings in such a nomadic species as the Short-eared Owl, as well as inexperience with fences by young owls, could be two explanations for such accidents.

Barbed-wire fences are ubiquitous in Washington, therefore presenting a hazard to all bird species that fly close to the ground. The magnitude of this form of mortality has not been assessed. It may be worthwhile to monitor future occurrences and develop plans to reduce hazards in trouble areas.

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