

Lehman, R.N. and Justin S. Barrett. 2000. Raptor Electrocutions and Associated Fire Hazards in the Snake River Birds of Prey National Conservation Area. Report submitted to U.S. Bureau of Land Management and Idaho Power Company, Boise, ID.

Abstract: In 1999, we began an assessment of raptor electrocutions on power lines in and near the Snake River Birds of Prey National Conservation Area (NCA) in southwestern Idaho. The study will allow us to estimate electrocution rates, identify electrocution hazards, and ultimately develop a program to reduce power line-related mortality and fire hazards in the NCA. This year, we produced a distribution line map of the study area, selected study segments, and began searching for dead raptors along 19 segments totaling 61.2 linear km. Study segments are located in the relatively undeveloped interior of the NCA, and along the borders and private inholdings of the NCA where agriculture and associated power line developments are common. From September-November, we visited all study segments to remove remains of birds killed prior to this study. We found partially intact skeletons, scattered bones, and feathers of at least 19 birds during these searches. In December, we began sampling for recent kills and found five dead birds. Of the 24 birds found during both surveys, we were able to identify 6 common ravens (*Corvus corax*), 2 red-tailed hawks (*Buteo jamaicensis*), 2 American kestrels (*Falco sparverius*), 1 northern harrier (*Circus cyaneus*), 1 golden eagle (*Aquila chrysaetos*), and 1 barn owl (*Tyto alba*). Only the golden eagle showed clear signs of electrocution, but most remains were too old to establish cause of death. All 24 sets of remains were found under 21 poles. We found dead birds under 18 tangent poles and 3 poles in deadend and corner positions. Pole-top configurations included simple crossarm, underbuilt, compact, and H-frame designs. Additional hardware items on many poles included exposed jumper wires, transformers, capacitors, and electrical switches of several kinds. In 2000, we will continue sampling study segments each month until a full year of sampling has been completed. This will allow detection of seasonal differences in electrocution rates during three raptor concentration periods--nesting, postfledging, and wintering.