

Bevanger, K. and H. Brøseth. 2001. Bird collisions with power lines — an experiment with ptarmigan (*Lagopus* spp.). *Biological Conservation* 99:341-346

Abstract: The number of ptarmigan (*Lagopus lagopus* and *L. mutus*) killed along three power-line sections through colliding with the overhead wires was recorded over a 6-year period in a subalpine habitat in southern Norway. The effect of an experimental removal of the power-line earth wire (common neutral) was evaluated on one of the power-line sections, by comparing the number of mortalities found before removal with the number found afterwards. The two other power-line sections in the same area were used as control sections. The number of collisions was approximately halved after the lower earth wire was removed, thus confirming the expectation that there is a connection between the number of overhead wire levels (vertically) and the collision rate. The results from this and earlier studies indicate that a reduction in overhead wire levels has a general positive effect by reducing the collision rate. The power companies should develop alternative engineering designs and critically assess constructing power lines with continuous earth wires.