

Janss, G.F.E. 2000. Avian mortality from power lines: a morphologic approach of a species-specific mortality. *Biological Conservation* 95:353-359.

Abstract: Avian mortality from power lines is a species-specific mortality which affects several vulnerable and endangered species. Identifying the characteristics of species at risk of power line mortality can help solve this conservation problem. The relative abundance of bird species near power lines was compared with records of electrocution and collision casualties from these power lines to identify species-specific death risk as determined by wing morphology. Generally, collision victims were “poor” fliers, while electrocution victims were birds of prey, ravens and thermal soarers. Bird species were categorised by wing morphology and risk of either collision or electrocution. Three categories were identified: species with a high risk of collision, species with a high risk of electrocution and a third mixed group, susceptible to both these causes of death. The variables, weight, wing length, total length and tail length classified 88.6% of the species correctly in these three categories when used in a discriminant analysis. The classification can be used in a predictive model to identify species susceptible to power line mortality. The third mixed group warrants special attention from a conservation point of view because risk is not easily identified and depends on specific behaviour and local circumstances.