

**All Birds Are Not Created Equal:
Risk Assessment and Prioritization of Wildlife Hazards at Airfields**

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Abstract

In order to most effectively control wildlife at an airfield, airport managers must first identify and prioritize the hazards posed by the different species present in their environment. A formula including ten primary risk factors is presented in order to determine the relative threat posed by individual species or groups of similar species. The ten primary risk factors are:

- 1) The overall population of the wildlife species (in total number of individuals)
- 2) The size (mass and surface area) of an individual animal within the species
- 3) The average number of animals encountered (i.e. average group size)
- 4) The amount of time spent in the airfield environment (migration, hibernation, etc.)
- 5) The time of day when the species is most active
- 6) The location of the species with respect to flight operations (AGL, distance from runways, etc.)
- 7) The time spent by the species in the air or actively moving
- 8) The number of reported strikes involving the species
- 9) The ability of the species to actively avoid aircraft collisions
- 10) The ability to actually influence the species through wildlife control

This assessment can be utilized to provide a list of wildlife species at an airfield that pose the greatest risk to aviation and the order in which they should be addressed in a wildlife control program. This list can then be used to prioritize wildlife control activities and serve as an index to help determine the overall effort and money that should be spent on assuaging the strike hazard of any particular species. While only a guideline, this formula can serve as an effective method of setting wildlife control priorities at an airfield.

KEYWORDS: Risk Assessment, Priorities, Hazard Analysis, Wildlife Control, Birdstrike Factors, Species, Relative Threat