

MODELLING BIRD ABUNDANCE ACROSS A RANGE OF LAND USE TYPES FOR USE IN A BIRD AVOIDANCE MODEL

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Abstract

A Bird Avoidance Model (BAM) for the protection of low-flying military aircraft is dependant upon the availability of good quality bird observation data and models of bird populations and movements for locations where collected data does not exist.

Information on habitat preference is available for many species in the literature, but the habitat descriptors must be generically applicable before they can be used to develop models of bird abundance and hence birdstrike risk. This paper discusses a series of field studies by the Central Science Laboratory to determine levels of hazardous bird species across a range of land use types which are readily compatible with nationally available land use datasets.

Daily commuting movements of birds are a particular risk to low-flying aircraft and can also be modelled for certain species such as gulls and corvids which roost and feed communally. This paper also discusses another field study by the Central Science Laboratory which examined the daily commuting movements of gulls between roosts and landfill sites for the prediction of flightline probability and strength between any two such sites.

Key words: Bird Avoidance Model, local movements, landfills (rubbish tips), gulls, corvids