

SPATIAL PATTERN OF SMALL MAMMAL POPULATION DENSITY IN THE AREA OF LISZT FERENC AIRPORT, BUDAPEST

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Apart from their several positive and regulatory effects on ecosystems, small mammal species can cause significant damage in certain cases. For instance, they can indirectly endanger the safety of aircrafts, which is a crucial issue in the daily operation of airports. As potential food resources, they can attract and thus aggregate both bird and mammalian predators around the runways. Among these, birds of prey can cause especially dangerous situations during landings and take-offs. As a prevention, the population density of small mammal species should be kept at the lowest possible level with cost effective and environmentally conscious treatments. To achieve this, however, it is necessary to know both the spatial pattern of small mammal population density and the habitat preference of these species. The purpose of our investigation was therefore to study these mentioned parameters in the area of Liszt Ferenc Airport operated by Budapest Airport Zrt. According to our results based on small mammal hole density, the population is aggregated directly beside the runways, while the hole density of rodents shows a significant decrease further away from them. This trend is also reflected in the habitat preference analysis. Sample areas nearest to the runways were preferred, while avoidance was detected towards the stripe transects of more than 20 m away. Therefore, we suggest focusing the activities and treatments regarding flight management and habitat destruction on the immediate vicinity of runways, and also including the necessary measures in the integrated Wildlife Hazard Management Plan.