

# Bird movements in the vicinity of Campo de Tiro de Alcochete, Portugal: are bird collisions an important risk at the proposed new Lisbon airport?

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Knowledge about the local bird community is key information when planning the construction of a new airport. Aircraft can cause serious impact on the local avifauna, but the birds can also pose a serious threat to aircraft.

A new international airport is currently being planned for the Lisbon metropolitan area. The location that has been selected is Campo de Tiro de Alcochete, near the internationally important Tejo estuary wetland, and in the vicinity of areas under rice cultivation known to be important for the local bird community.

We use available data on the movements of individually marked Black-tailed Godwits *Limosa limosa*, Eurasian Spoonbills *Platalea leucorodia* and one Lesser Black-backed Gull *Larus fuscus*, to examine whether these bird species are likely to cross the paths of aircraft approaching and departing from the future airport. We also use information on the phenology and abundance of these species to better understand the threat that these birds might pose to aircraft.

All three species cross the planned approach and departure routes of the runways of the new airport. Black-tailed Godwits in particular cross these routes at all planned aircraft flight altitudes and even overfly the airport site itself. The large number of birds potentially involved in these movements increases the threat to air traffic.

There are several limitations to our study, especially a lack of information on bird flight altitudes. We therefore highlight the need for further and more detailed studies on the movements of these and other bird species around the airport site. However, by overlapping known individual movements of the three species with aircraft flight routes, we present sufficient data to demonstrate that bird collisions are a real hazard if the airport is built at Campo de Tiro de Alcochete. These findings call into question the wisdom of the proposed airport location and highlight the necessity for thorough research on the impacts of the birds on aircraft safety as well as the impact of aircraft on the local avifauna.