

Bird mortality on high-speed railways: Lessons from two large contrasting species.

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Supplementary material

Table S1. Environmental factors (habitat and topographical variables) used to model habitat suitability for the avifauna.

Type	Environmental factor	Type	Variable descriptions
Habitat variables	Land use	Categoric (21 classes)	Vegetation cover, crop types and other land use types according to Spanish Cadastre—Land Registry Coordination System
	Distance to nearest scrub or natural plant formation	Continuous (m)	Distance to margin of scrub or natural vegetation patches according to the Spanish Cadastre
	Gradient	Continuous (degrees)	Terrain gradient calculated from a 5x5 m pixel elevation model
	Position on slope	Categoric 6 classes)	Defined by gradient at the point and a topographical index of position within a 200m buffer
Antropic influence variables	Distance to roads and railways	Continuous (m)	Distance to transport infrastructure margin (from National Cartography Database 1:25:000 updated by orthophotography).
	Distance to built-up areas	Continuous (m)	Distance to margins of urban or suburban areas according to CORINE Land Cover cartography

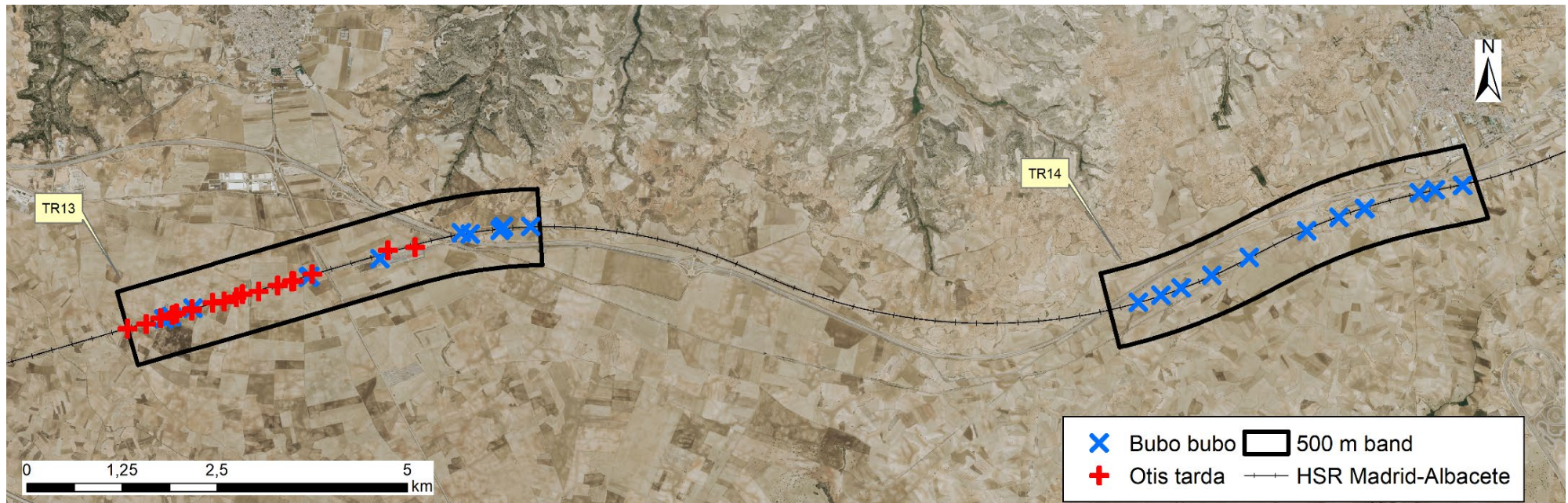


Figure S1. Bird collision distribution. The blue X's indicate the Eurasian Great Owl (*Bubo bubo*) carcasses found on the survey and red crosses show the Great Bustard (*Otis tarda*) carcasses found at both stretches controlled in the survey (TR13 and TR14) in High Speed Railway Madrid-Albacete (Spain).



Figure S2. Bird collision monitoring: a Great Bustard (*Otis tarda*; left) and Eurasian Great Owl (*Bubo bubo*; right) carcasses found in the railway (Photos: TEG-UAM).



Figure S3. Survey of bird collisions. The picture shows survey team (three researchers and one safety inspector) conducting a carcass search monitoring on foot on a railway verge (Photo: TEG-UAM).

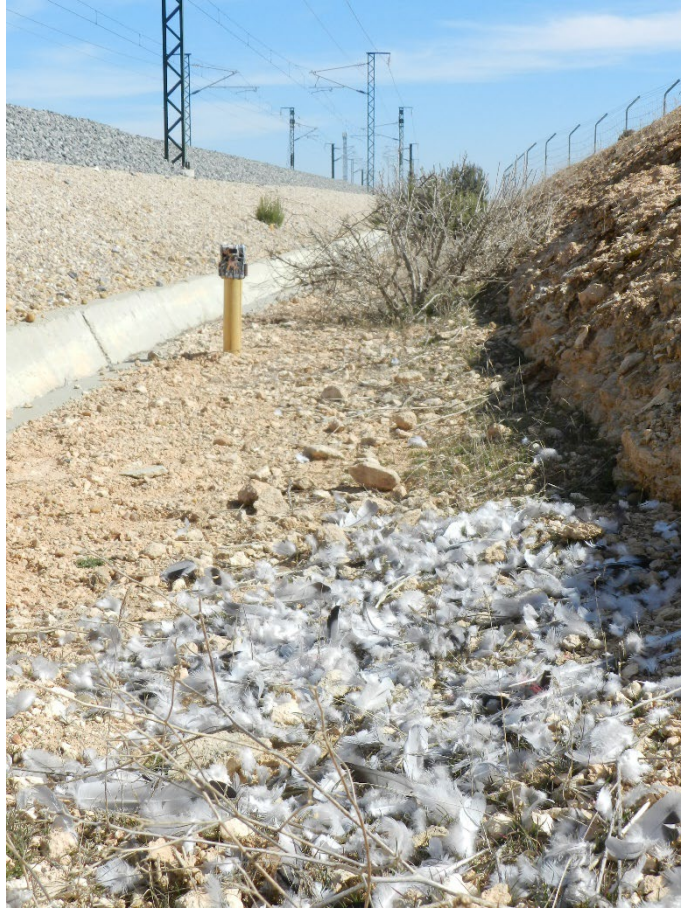


Figure S4. Survey to correct mortality estimates using trail cameras to determine the persistence and detectability of bird carcasses on the railway. This picture shows the remains of feathers after removal of a carcass by a scavenger species