

Appendix 1

Table A1. Pairwise Pearson correlation coefficient of the wind turbine variables included in the analysis. Variables with a coefficient of $|r| \leq 0.5$ were included in the same models.

	Distance access road	Distance turbine	Turbine noise	Turbine shadow	No. turbines < 800 m	No. visible turbines
Distance access road	1					
Distance turbine	-0.050	1				
Turbine noise	0.125	-0.932	1			
Turbine shadow	0.093	-0.648	0.777	1		
No. turbines < 800 m	0.079	-0.554	0.708	0.713	1	
No. visible turbines	0.098	-0.412	0.440	0.357	0.235	1

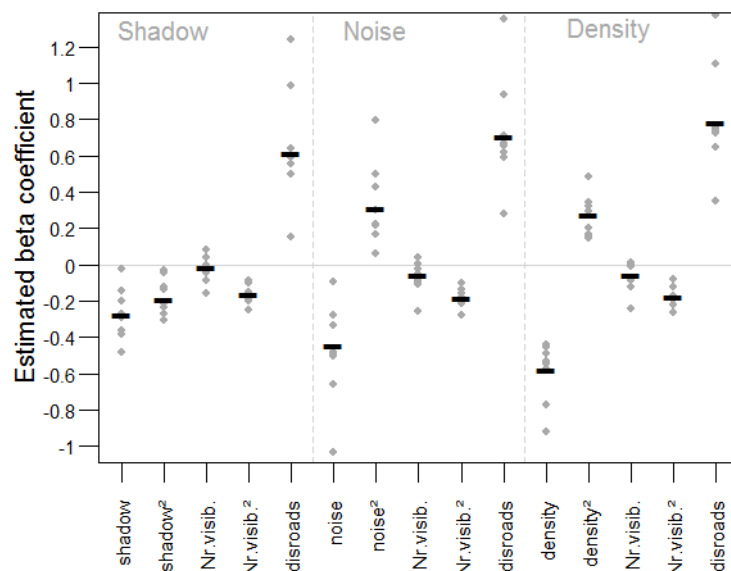


Figure A1. Variation in beta coefficient estimates of wind-turbine-related covariates in blocked cross-validation for the model containing turbine shadow (a in Table 3), turbine noise (b in Table 3) and the number of turbines within 800 m of a location (i.e. “density”; c in Table 3) during the lekking season. Folds were defined by leaving out single individuals. For variable definitions see main manuscript. Black bars denote coefficient estimates in the full models.

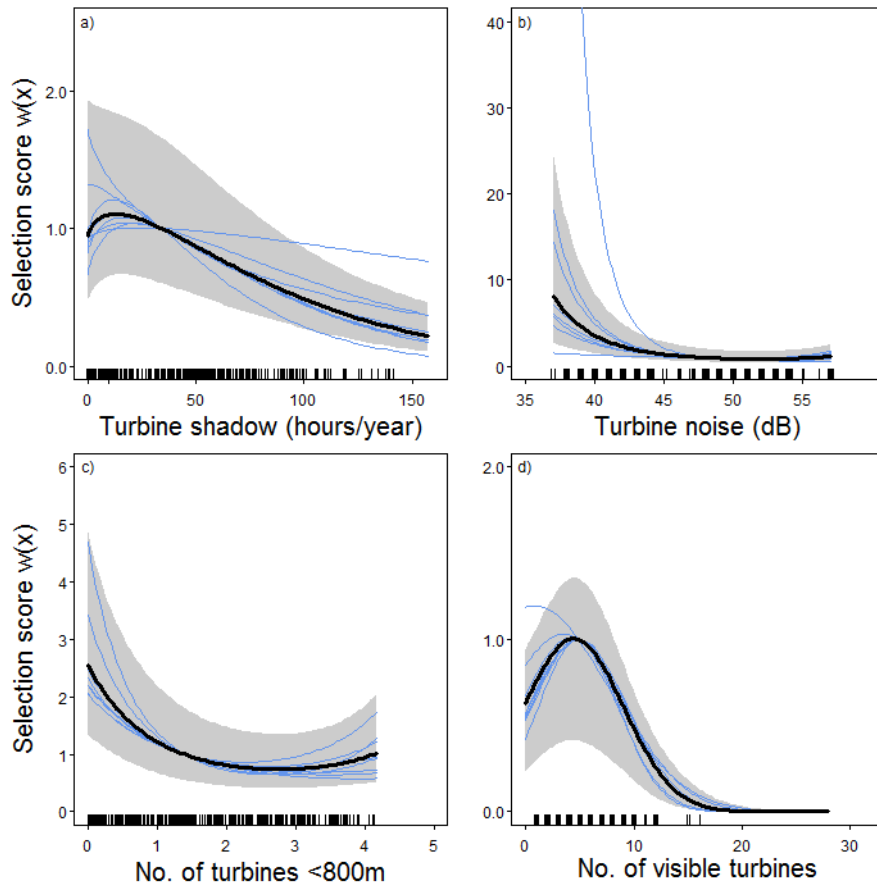


Figure A2. Conditional effect plots for wind turbine predictors during the lekking season (expressed by the RSF selection score $w(x)$) predicted using the final model (black with 95% CI) and models trained on individual cross-validation folds (blue). Predictions for the number of visible turbines were obtained using the model containing the number of turbines < 800 m (i.e. model (c) in Table 3).

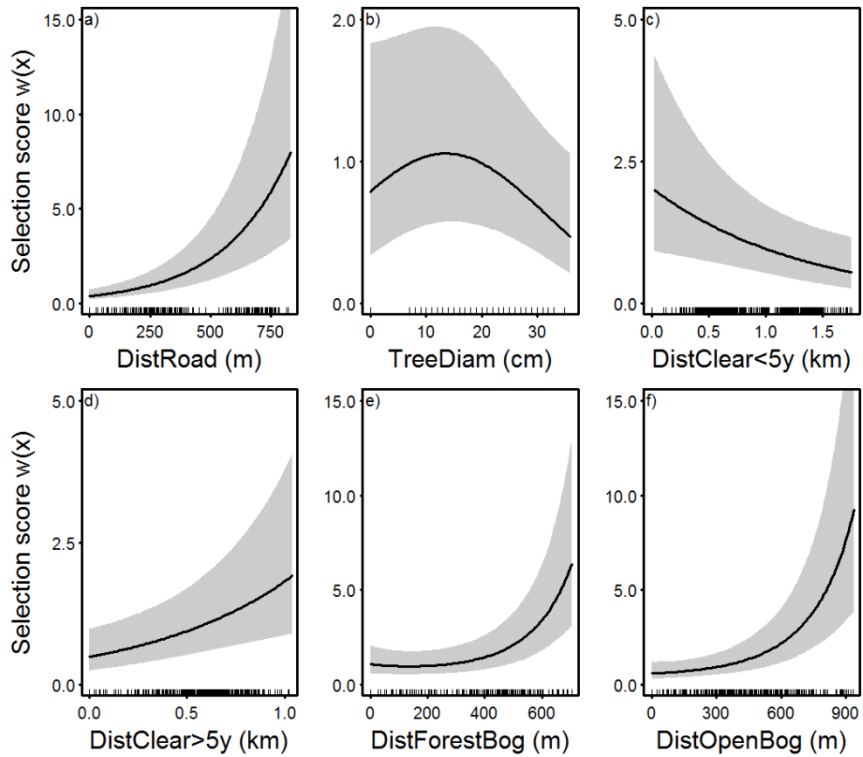


Figure A3. Conditional effect plots for capercaillie resource selection during the lekking season (expressed by the RSF selection score $w(x)$) in dependence of wind turbine predictors. Predictions of environmental covariates were obtained using the top model containing the number of turbines within 800 m (i.e. model (c) in Table 3). All other covariates were held at their mean.

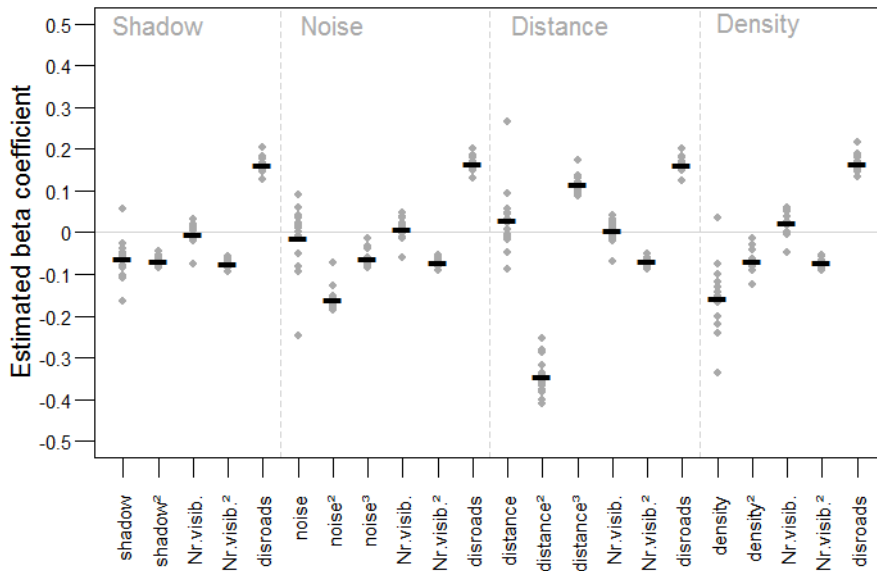


Figure A4. Variation in beta coefficient estimates of wind-turbine-related covariates in blocked cross-validation for the model containing turbine shadow (a in Table 4), turbine noise (b in Table 4), the distance to the closest turbine (d in Table 4) and the number of turbines within 800 m of a location (i.e. 'density'; c in Table 4) during the summer season. Folds were defined by leaving out single individuals. For variable definitions see main manuscript. Black bars denote coefficient estimates in the full models.

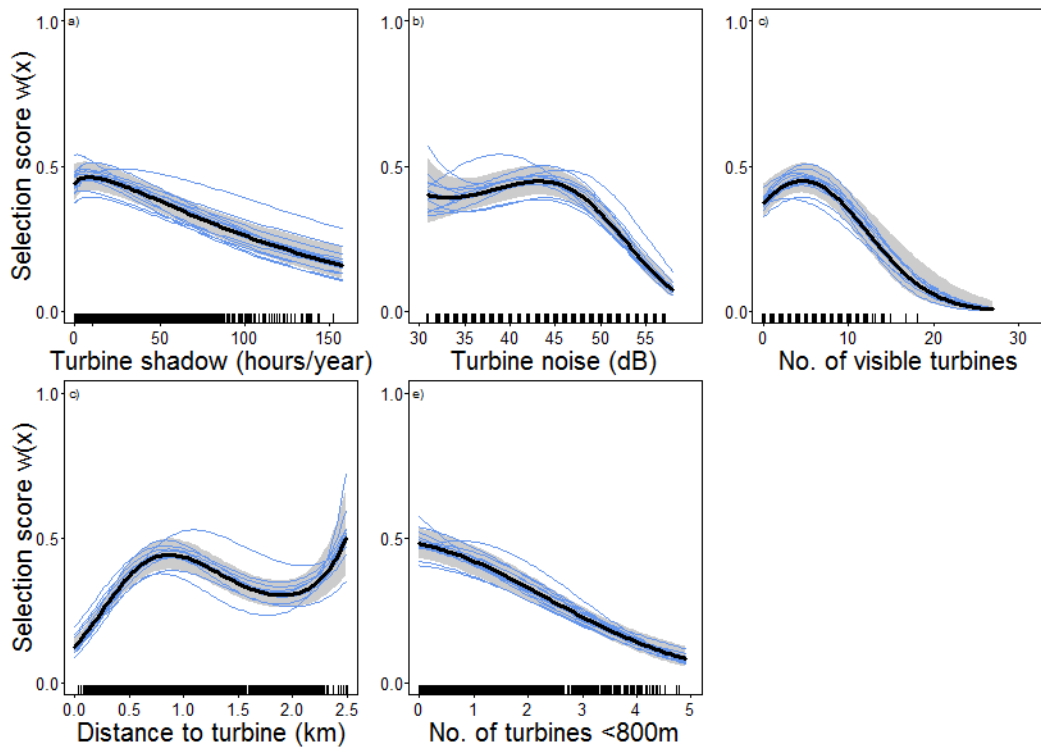


Figure A5. Conditional effect plots for wind turbine predictors during the summer season (expressed by the RSF selection score $w(x)$) predicted using the final model (black with 95% CI) and models trained on individual cross-validation folds (blue). Predictions for the number of visible turbines were obtained using the model containing the number of turbines < 800 m (i.e. model (c) in Table 4).

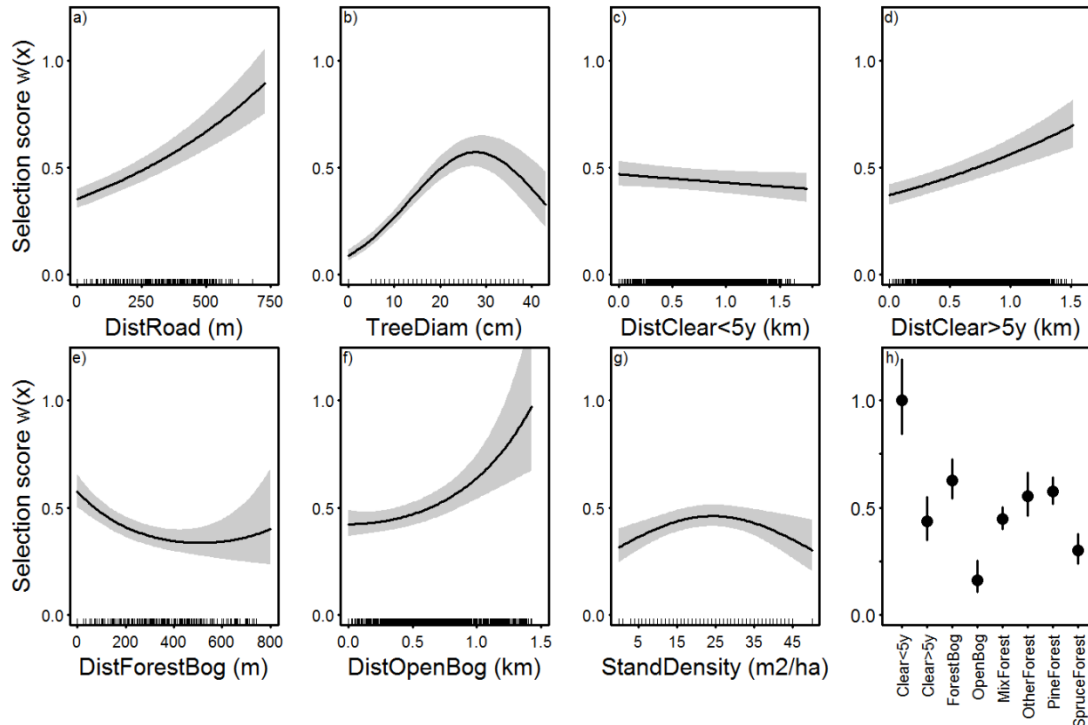


Figure A6. Conditional effect plots for capercaillie resource selection during the summer season (expressed by the RSF selection score $w(x)$) in dependence of wind turbine predictors. Predictions of environmental covariates were obtained using the top model containing the number of turbines within 800 m (i.e. model (c) in Table 4). All other covariates were held at their mean.