Investigating the Effect of the Environment on Prey Detection Ability in Humans.

Supplementary Information

Peter J Allen*[1], Jan M Wiener[2], Christos Gatzidis[1], Chris B Stringer[3], John R Stewart[4]

[1] Department of Creative Technology, Bournemouth University, Talbot Campus, Fern Barrow Poole, Dorset BH12 5BB, UK.

[2] Department of Psychology, Ageing and Dementia Research Centre, Bournemouth University, Talbot Campus, Fern Barrow Poole, Dorset BH12 5BB, UK.

[3] Department of Earth Sciences, Natural History Museum, London SW7 5BD, UK.

[4] Department of Life and Environmental Science, Faculty of Science and Technology, Bournemouth University, Talbot Campus, Fern Barrow Poole, Dorset BH12 5BB, UK.

Corresponding author: Peter Allen: allenp@bournemouth.ac.uk

Supplementary Information

Table S1 - Experiment 1 response type breakdown

Density (veg. objects per km^2)	Environment	Correct Response (%)	Incorrect Response (%)	Non-Response (%)
2000	Wooded	88.64	11.36	0
	Grassland	97.72	2.27	0
	All	93.18	6.81	0
5000	Wooded	84.10	13.64	2.27
	Grassland	90.91	9.09	0
	All	87.50	11.36	1.14
8000	Wooded	81.82	13.64	4.55
	Grassland	88.64	6.82	4.55
	All	85.22	10.23	4.55
11000	Wooded	84.09	9.09	6.82
	Grassland	84.09	13.64	2.27
	All	84.09	11.36	4.55

Table S2 - The results of the Experiment 1 LME analysis when performed only on the half of the correct response data from which utilised the max distance deer placement strategy are presented below. The overall trends displayed in this data is the same as when the whole dataset is analysed.

Predictor of Mean Prey Detection Distance (m)	***Coefficient***	***SE***	***t statistic***
(Intercept)	165.56	7.52	22.00
Environment Type: Grassland	58.70	5.89	9.98
Density	-32.48	5.65	-5.75
Environment Type: Grassland x Density	-18.75	7.88	-2.38

Table S3 - Similar analysis as presented in Table S2, but performed on the other half of the Experiment 1 data (non-max distance trials), again displaying the same trends as the overall dataset.

Predictor of Mean Prey Detection Distance (m)	***Coefficient***	***SE***	***t statistic***
(Intercept)	154.09	6.27	24.57
Environment Type: Grassland	49.73	5.24	9.50
Density	-47.93	4.98	-9.63
Environment Type: Grassland x Density	-11.14	7.13	-1.56

Table S4 - Experiment 2 Response type breakdown.

Environment Wooded %	Correct %	Incorrect %	Non-response %
10	95.24	3.17	1.59
30	93.65	0	6.34
50	85.71	3.17	11.11
70	80.95	3.17	15.87
90	85.71	4.76	9.52

Table S5 - Experiment 2 Pairwise t-tests. Comparisons of mean prey detection distances between the least wooded and all other environments. There were no statistically significant comparisons between the four 30%+ wooded environments and each other.

Environment Closed (%)	10
30	$t(106) = -3.22, p < 0.01, d = 0.60$
50	$t(99) = -3.83, p < 0.01, d = 0.72$
70	$t(103) = -4.90, p < 0.001, d = 0.92$
90	$t(109) = -3.29, p < 0.001, d = 0.62$