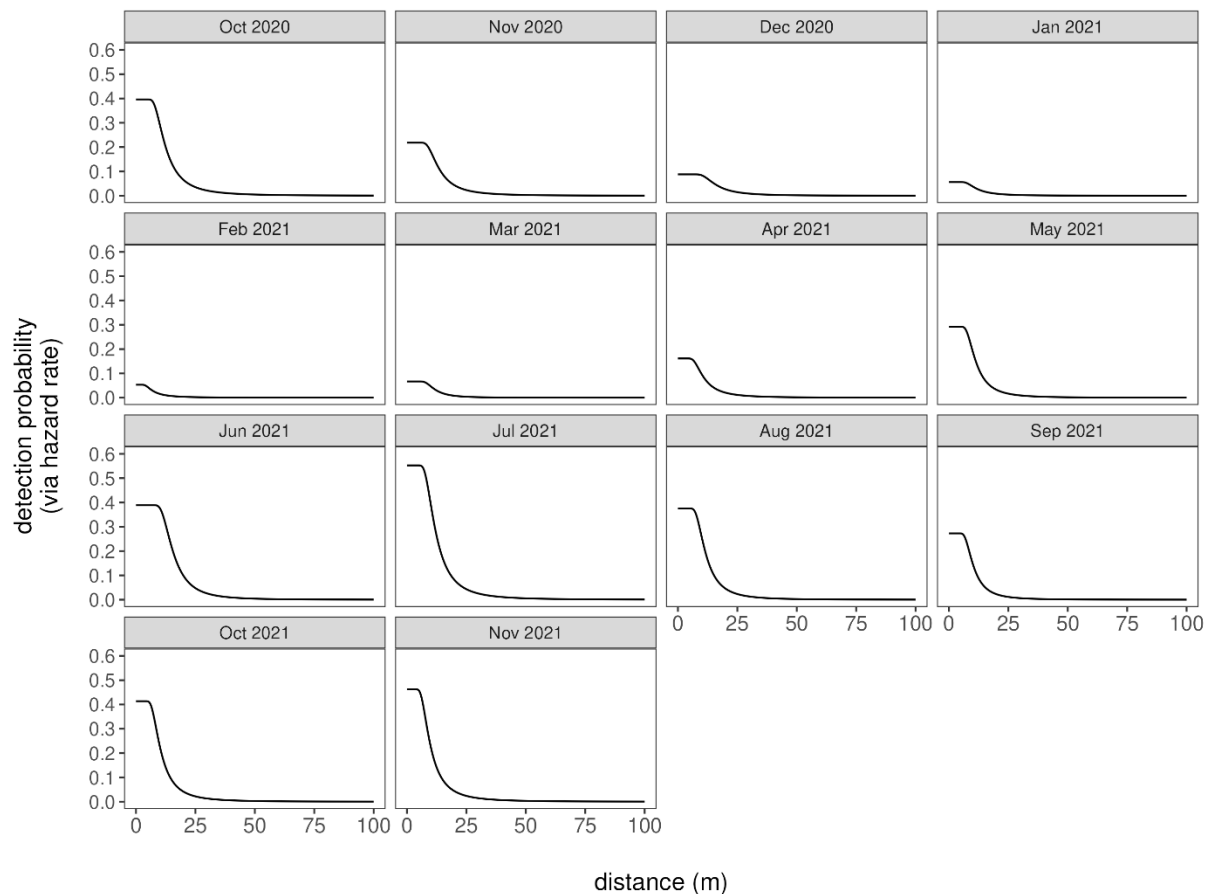


**Appendix S1:** Vegetation zones on Ōtamahua | Quail Island used for the production of the vegetation covariates (buffered 50 m from trap sites).



**Appendix S2.** Monitoring occasion detection probabilities visualised in terms of the attenuating distance from the centre of a mean home-range diameter.

**Appendix S3.** Incidence of trap happiness and trap shyness in the top-ranked model if an additional four models are included that model detection probability with behavioural effects. These models were not included in the main analysis due to convergence issues and production of estimates that were clearly spurious.

Session	Top model	Behavioural effect	Trap
Oct-20	treatment	Yes	Happy
Nov-20	null	Yes	Happy
Dec-20	treatment + vegetation	No	-
Jan-21	vegetation	Yes	Shy
Feb-21	treatment + vegetation	Yes	Shy
Mar-21	treatment + vegetation	No	-
Apr-21	treatment + vegetation	Yes	Happy
May-21	treatment + vegetation	Yes	Happy

Jun-21	treatment + vegetation	<b>Yes</b>	<b>Happy</b>
Jul-21	treatment	<b>Yes</b>	<b>Happy</b>
Aug-21	treatment	No	-
Sep-21	spurious result	NA	-
Oct-21	treatment + vegetation	<b>Yes</b>	<b>Happy</b>
Nov-21	treatment	No	-