

# Supplementary Materials: Identification and Density Estimation of American Martens (*Martes americana*) Using a Novel Camera-Trap Method

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**Table S1.** GLMM describing identification probability of American martens at camera traps from 14 February–2 April 2011 and 3–19 January 2012 in northern New Hampshire, USA. Models were evaluated using AICc, ranked using  $\Delta AICc$  and model weight ( $w_i$ ).

Model	k	AICc	$\Delta AICc$	$w_i$
min × elapse	5	274.8	0	1
min	3	289.2	14.44	0
elapse	3	299.3	24.5	0
martens × elapse	5	300.2	25.46	0
year:elapse	4	301.0	26.19	0
null	2	324.3	49.56	0
file type	4	325.0	50.26	0
week	3	326.0	51.24	0
martens	3	326.2	51.38	0
year	3	326.3	51.57	0
time of day	4	326.5	51.69	0
camera type	6	326.9	52.16	0

**Table S2.** Parameter estimates and associated standard errors (SE), Wald’s z-values, and probability statistics that influenced identification probability of American martens at camera traps. Note: parameters in boldface type are significant.

Parameter	Estimate	SE	z-value	$Pr(> z )$
(Intercept)	2.197	0.483	4.548	0.000
<b>elapse</b>	<b>-0.344</b>	<b>0.124</b>	<b>-2.767</b>	<b>0.006</b>
<b>min</b>	<b>0.143</b>	<b>0.055</b>	<b>2.585</b>	<b>0.010</b>
elapse × min	-0.018	0.014	-1.294	0.196