

# Using camera trap data to assess the impact of bushmeat hunting on forest mammals in Tanzania

CARLA HEGERL, NEIL D. BURGESS, MARTIN R. NIELSEN, EMANUEL MARTIN  
MARCO CIOLLI and FRANCESCO ROVERO

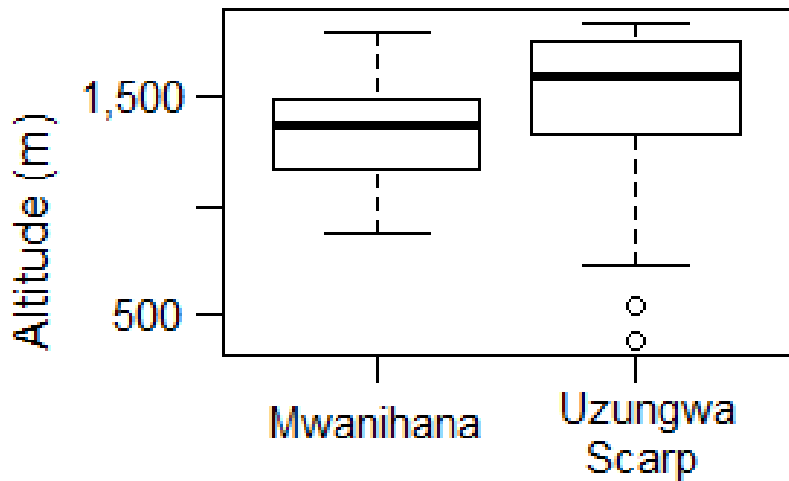


FIG. S1 Boxplots of the altitudinal range of the 30 camera sites in Mwanihana Forest and Uzungwa Scarp Forest Reserve in the Udzungwa Mountains of Tanzania (Fig. 1)

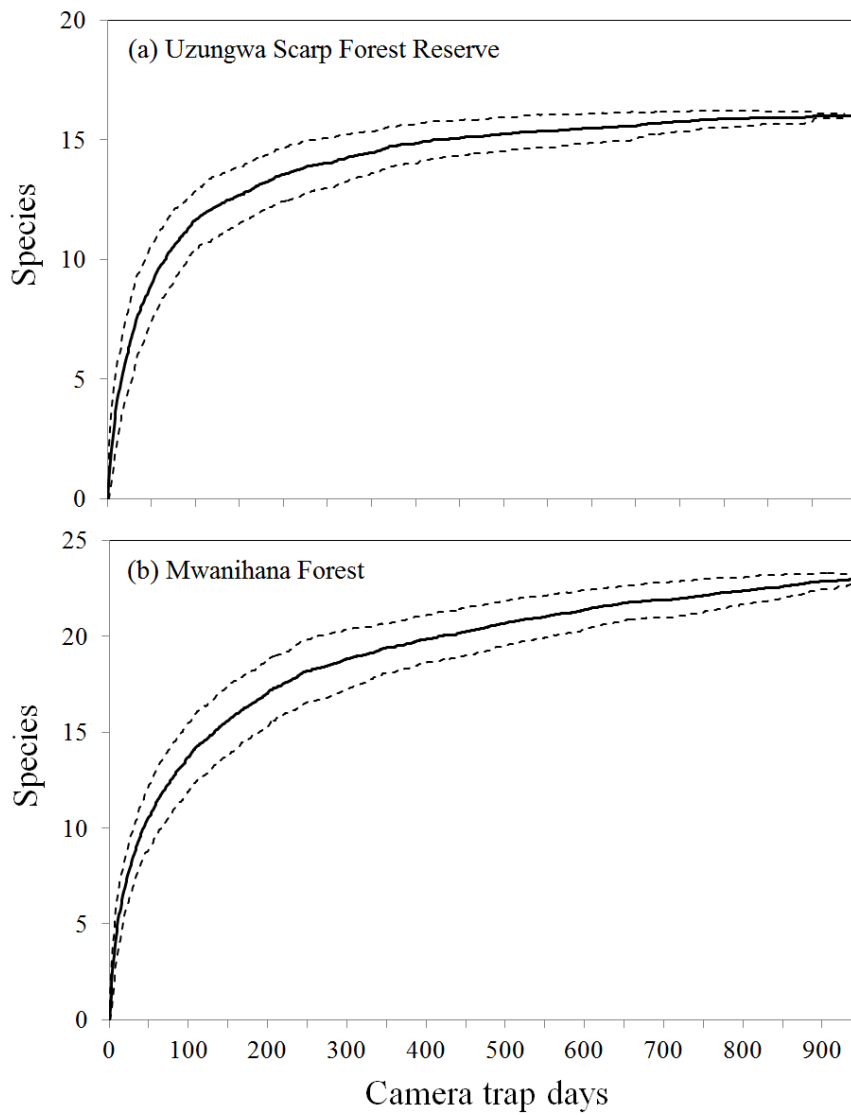


Fig. S2 Species accumulation curves indicating the cumulative number of species detected with increasing camera trapping days in (a) Uzungwa Scarp Forest Reserve and (b) Mwanihana Forest, in the Udzungwa Mountains of Tanzania (Fig. 1). Dashed lines indicate 95% confidence intervals.

Table S1 The top-ranked models and the model mean for all species detected in > 10 capture events in Uzungwa Scarp Forest Reserve (Fig. 1), with Akaike information criterion (AIC), the difference in AIC values between each model and the highest-ranked model ( $\Delta$ AIC), the number of parameters included in the model ( $n$ Pars), the model weight ( $w_i$ ), estimated occupancy ( $\Psi$ ), and detection probability ( $p$ ).

Model	AIC	$\Delta$ AIC	$n$ Pars	$w_i$	$\Psi \pm SE$	$p \pm SE$
<b>Harvey's duiker</b>						
$\psi(\text{canopy})$ $p(\text{edge})$	130.24	0.00	4	0.30	$0.81 \pm 0.21$	$0.14 \pm 0.04$
$\psi(\cdot) p(\text{edge})$	131.21	0.97	3	0.19	$0.81 \pm 0.21$	$0.14 \pm 0.04$
Model mean					$0.90 \pm 0.14$	$0.11 \pm 0.04$
<b>Suni</b>						
$\psi(\cdot) p(\text{edge})$	78.07	0.00	3	0.16	$0.25 \pm 0.10$	$0.22 \pm 0.08$
$\psi(\cdot) p(\text{trail})$	78.09	0.017	4	0.16	$0.25 \pm 0.10$	$0.67 \pm 0.20$
$\psi(\text{edge}) p(\text{edge})$	79.10	1.03	4	0.10	$0.28 \pm 0.13$	$0.20 \pm 0.01$
$\psi(\cdot)$ $p(\text{edge+trail})$	79.25	1.18	5	0.09	$0.24 \pm 0.09$	$0.59 \pm 0.24$
$\psi(\cdot) p(\cdot)$	79.53	1.46	2	0.08	$0.25 \pm 0.10$	$0.22 \pm 0.08$
$\psi(\text{edge}) p(\text{trail})$	79.84	1.77	5	0.07	$0.25 \pm 0.10$	$0.67 \pm 0.20$
$\psi(\text{canopy})$ $p(\text{edge})$	80.03	2.00	4	0.06	$0.27 \pm 0.12$	$0.45 \pm 0.25$
$\psi(\text{canopy})$ $p(\text{trail})$	80.09	2.01	5	0.06	$0.26 \pm 0.12$	$0.67 \pm 0.20$
Model mean					$0.26 \pm 0.12$	$0.27 \pm 0.16$
<b>Giant pouched rat</b>						
$\psi(\cdot)$ $p(\text{edge+trail})$	227.36	0.00	5	0.33	$0.86 \pm 0.07$	$0.70 \pm 0.06$
$\psi(\text{canopy})$ $p(\text{edge+trail})$	228.81	1.45	6	0.16	$0.90 \pm 0.07$	$0.70 \pm 0.06$
$\psi(\cdot) p(\text{edge})$	229.02	1.66	3	0.15	$0.85 \pm 0.07$	$0.60 \pm 0.04$
$\psi(\text{edge})$ $p(\text{edge+trail})$	229.33	1.97	6	0.12	$0.86 \pm 0.07$	$0.70 \pm 0.06$
Model mean					$0.86 \pm 0.08$	$0.58 \pm 0.08$
<b>Tanganyika mountain squirrel</b>						
$\psi(\text{edge}) p(\text{edge})$	127.03	0.00	4	0.27	$0.32 \pm 0.11$	$0.35 \pm 0.09$
$\psi(\text{edge}) p(\cdot)$	128.65	1.62	3	0.12	$0.30 \pm 0.10$	$0.45 \pm 0.06$
$\psi(\cdot) p(\text{edge})$	128.84	1.80	3	0.11	$0.44 \pm 0.14$	$0.26 \pm 0.09$

$\psi(\text{canopy+edge})$	129.02	1.98	5	0.10	$0.33 \pm 0.13$	$0.35 \pm 0.06$
$p(\text{edge})$						
Model mean					$0.37 \pm 0.16$	$0.37 \pm 0.11$
<b>Sanje mangabey</b>						
$\psi(\text{canopy})$	81.19	0.00	4	0.30	$0.30 \pm 0.15$	$0.06 \pm 0.04$
$p(\text{edge})$						
$\psi(\cdot) p(\text{edge})$	81.21	0.01	3	0.30	$0.42 \pm 0.14$	$0.07 \pm 0.04$
$\psi(\text{canopy})$	82.23	1.03	6	0.18	$0.32 \pm 0.16$	$0.06 \pm 0.05$
$p(\text{edge+trail})$						
$\psi(\cdot)$	82.38	1.19	5	0.17	$0.46 \pm 0.15$	$0.06 \pm 0.05$
$p(\text{edge+trail})$						
Model mean					$0.45 \pm 0.19$	$0.19 \pm 0.06$
<b>Bushy-tailed mongoose</b>						
$\psi(\cdot)$	135.09	0.00	5	0.21	$0.75 \pm 0.17$	$0.16 \pm 0.06$
$p(\text{edge+trail})$						
$\psi(\cdot) p(\text{edge})$	135.29	0.20	3	0.19	$0.66 \pm 0.16$	$0.14 \pm 0.04$
$\psi(\text{canopy})$	135.29	1.19	6	0.12	$0.68 \pm 0.20$	$0.17 \pm 0.06$
$p(\text{edge+trail})$						
$\psi(\text{edge}) p(\text{edge})$	136.85	1.76	4	0.09	$0.50 \pm 0.20$	$0.34 \pm 0.12$
$\psi(\text{edge})$	137.06	1.97	6	0.08	$0.65 \pm 0.38$	$0.18 \pm 0.12$
$p(\text{edge+trail})$						
Model mean					$0.66 \pm 0.23$	$0.18 \pm 0.07$
<b>African palm civet</b>						
$\psi(\cdot) p(\cdot)$	100.49	0.00	2	0.16	$0.30 \pm 0.10$	$0.28 \pm 0.07$
$\psi(\cdot) p(\text{trail})$	101.00	0.51	4	0.13	$0.30 \pm 0.09$	$0.16 \pm 0.08$
$\psi(\cdot) p(\text{edge})$	101.17	0.68	3	0.12	$0.31 \pm 0.10$	$0.28 \pm 0.07$
$\psi(\text{canopy}) p(\cdot)$	101.69	1.20	3	0.09	$0.24 \pm 0.11$	$0.28 \pm 0.07$
$\psi(\text{canopy})$	102.20	1.71	5	0.07	$0.24 \pm 0.11$	$0.16 \pm 0.08$
$p(\text{trail})$						
Model mean					$0.30 \pm 0.11$	$0.29 \pm 0.12$
<b>Lowe's servaline genet</b>						
$\psi(\text{edge}) p(\text{trail})$	158.85	0.00	5	0.19	$0.92 \pm 0.16$	$0.22 \pm 0.06$
$\psi(\cdot)$	159.11	0.26	5	0.16	$0.90 \pm 0.16$	$0.20 \pm 0.07$
$p(\text{edge+trail})$						
$\psi(\cdot) p(\text{trail})$	159.44	0.59	4	0.14	$0.87 \pm 0.19$	$0.21 \pm 0.08$
$\psi(\text{edge})$	160.60	1.75	6	0.08	$0.95 \pm 0.18$	$0.11 \pm 0.24$
$p(\text{edge+trail})$						
$\psi(\text{canopy+edge})$	160.75	1.90	6	0.07	$0.903 \pm 0.18$	$0.22 \pm 0.07$
$p(\text{trail})$						

Model mean					$0.85 \pm 0.21$	$0.16 \pm 0.06$
<b>Chequered sengi</b>						
$\psi(\text{edge})$ $p(\text{trail})$	187.69	0.00	5	0.61	$0.78 \pm 0.20$	$0.22 \pm 0.06$
$\psi(\text{edge})$	189.53	1.84	6	0.24	$0.86 \pm 0.14$	$0.22 \pm 0.07$
$p(\text{edge+trail})$						
Model mean					$0.73 \pm 0.12$	$0.31 \pm 0.06$

---