

Table 3. Relative summed variable importance weights ( $\sum w$ ) for predictors of occurrence ( $\psi$ ) of four focal carnivore species based on spoor data collected from 2014 – 2015 in the Tarangire-Simanjiro ecosystem.

<b>Hyena</b>			<b>Cheetah</b>			<b>Lion</b>			<b>Leopard</b>		
<b>Covariate</b>	$\sum w$	$\beta$ (SE)	<b>Covariate</b>	$\sum w$	$\beta$ (SE)	<b>Covariate</b>	$\sum w$	$\beta$ (SE)	<b>Covariate</b>	$\sum w$	$\beta$ (SE)
Bushland	0.68	-11.10(4.96)	Grassland	0.37	17.75(11.18)	Distance to park boundary	0.69	-3.16 (1.66)	Grassland	0.30	3.40 (3.50)
Human population density	0.65	2.03(0.81)	Human population density	0.22	0.43(0.27)	Distance to permanent water	0.45	1.35 (0.97)	Bushland	0.17	0.46 (1.28)
Grass land	0.36	7.74(2.30)	Agriculture	0.14	4.86(5.79)	Agriculture	0.15	-12.53(8.72)	Woodland	0.13	-131.46 (255.01).
Bareland	0.04	13.73(5.02)	Bushland	0.10	16.08(11.07)	Woodland	0.06	7.71(7.94)	Human population density	0.13	0.21(0.39)
Woodland	0.03	15.90(6.20)	Woodland	0.11	16.29(12.10)				Bareland	0.07	3.47(4.83)
			Distance to village	0.08	0.28(0.72)				Slope	0.06	0.28(0.60)
			Slope	0.08	0.53(0.45)				Distance to village	0.05	0.23(0.53)
									Distance to permanent water	0.05	-0.33(0.50)

Note: Untransformed  $\beta$  coefficients and associated standard errors (SE) are reported for the top site occupancy models according to AICc. +/- sign indicates direction of influence.