

Table S1 1 Sampling details and parameters estimates of annual tiger density from camera trap based spatial capture-recapture analysis in Ranthambhore Tiger Reserve.

Year	Model	No. of Parameters	AICc	dAICc	AICc weight	$\hat{D}$ (SE) /100 km ²	g0 (SE)		σ (SE) Km	
							Female	Male	Female	Male
2006	g0(sex) σ (sex)	6	758.748	0	0.8699	4.61 (1.19)	0.06 (0.008)	0.03 (0.008)	2005.2 (122.0)	4221.9 (414.7)
2006	g0(.) σ (sex)	5	762.549	3.801	0.1301	4.63 (1.16)	0.04 (0.005)		2145.8 (128.9)	3786.7 (322.3)
2006	g0(.) σ (.)	4	797.383	38.635	0	4.16 (1.06)	0.04 (0.004)		3005.6 (165.0)	
2006	g0(sex) σ (.)	5	801.337	42.589	0	4.18 (1.06)	0.04 (0.005)	0.04 (0.007)	2981.1 (165.8)	
2009	g0(.) σ (.)	4	481.486	0	0.635	8.75 (1.79)	0.05 (0.008)		1558.1 (99.0)	
2009	g0(sex) σ (.)	5	484.08	2.594	0.1736	8.77 (1.79)	0.05 (0.010)	0.06 (0.010)	1553.1 (98.7)	
2009	g0(.) σ (sex)	5	484.233	2.747	0.1608	8.77 (1.79)	0.05 (0.008)		1494.8 (132.0)	1594.0 (119.3)
2009	g0(sex) σ (sex)	6	487.545	6.059	0.0307	8.77 (1.79)	0.05 (0.012)	0.06 (0.011)	1526.3 (155.9)	1569.7 (128.1)
2012	g0(.) σ (sex)	5	917.948	0	0.7944	5.68 (1.22)	0.08 (0.006)		1518.9 (75.9)	2147.1 (94.1)
2012	g0(sex) σ (sex)	6	920.651	2.703	0.2056	5.7 (1.23)	0.07 (0.010)	0.08 (0.009)	1568.6 (91.8)	2097.9 (98.8)
2012	g0(sex) σ (.)	5	931.354	13.406	0	5.56 (1.2)	0.05 (0.006)	0.10 (0.009)	1914.1 (69.9)	
2012	g0(.) σ (.)	4	948.038	30.09	0	5.48 (1.18)	0.07 (0.006)		1945.6 (72.5)	
2013	g0(.) σ (sex)	5	1015.82	0	0.8057	7.55 (1.25)	0.05 (0.005)		1478.7 (82.6)	1950.4 (81.9)
2013	g0(sex) σ (sex)	6	1018.66	2.845	0.1943	7.58 (1.25)	0.05 (0.008)	0.05 (0.006)	1489.1 (96.2)	1941.7 (88.7)
2013	g0(sex) σ (.)	5	1026.66	10.845	0	7.43 (1.23)	0.04 (0.005)	0.06 (0.006)	1802.6 (66.5)	
2013	g0(.) σ (.)	4	1031.71	15.898	0	7.38 (1.22)	0.05 (0.004)		1823.9 (67.8)	
2014	g0(sex) σ (sex)	6	2082.18	0	0.722	7.22 (1.16)	0.05 (0.005)	0.04 (0.003)	1477.6 (67.3)	2176.7 (76.8)
2014	g0(.) σ (sex)	5	2084.09	1.909	0.278	7.22 (1.16)	0.04 (0.002)		1546.9 (63.9)	2123.1 (68.9)
2014	g0(sex) σ (.)	5	2121.88	39.697	0	7.17 (1.15)	0.3 (0.003)	0.04 (0.003)	1911.6 (53.0)	
2014	g0(.) σ (.)	4	2122.41	40.235	0	6.3 (1.01)	0.04 (0.002)		1909.0 (50.8)	