

Supplementary Table S2

Results of the statistics showing model performance when using only one parameter instead of the three.

Deer#	Stat	Configuration	mean(e_{ρ})	std(e_{ρ})	median(e_{ρ})	interquartile(e_{ρ})
1	Distribution of turning angles	RW	0.2910	0.0053	0.2909	0.0072
1	Distribution of turning angles	p_F	0.2912	0.0052	0.2910	0.0070
1	Distribution of turning angles	p_s	0.2914	0.0068	0.2912	0.0093
1	Distribution of turning angles	p_I	0.2910	0.0053	0.2912	0.0071
1	Distribution of turning angles	p_I, p_s, p_F	0.2896	0.0068	0.2898	0.0093
1	Home range (Kernel estimate)	RW	1.42E+08	1.67E+07	1.42E+08	2.15E+07
1	Home range (Kernel estimate)	p_F	1.43E+08	1.65E+07	1.43E+08	2.14E+07
1	Home range (Kernel estimate)	p_s	9.40E+07	9.65E+06	9.44E+07	1.30E+07
1	Home range (Kernel estimate)	p_I	1.42E+08	1.74E+07	1.41E+08	2.20E+07
1	Home range (Kernel estimate)	p_I, p_s, p_F	9.29E+07	9.85E+06	9.34E+07	1.24E+07
1	Dilation	RW	2.08E+06	1.28E+06	2.00E+06	2.08E+06
1	Dilation	p_F	2.14E+06	1.28E+06	2.14E+06	2.11E+06
1	Dilation	p_s	1.97E+06	1.21E+06	1.94E+06	1.93E+06
1	Dilation	p_I	2.09E+06	1.24E+06	2.08E+06	1.97E+06
1	Dilation	p_I, p_s, p_F	2.01E+06	1.21E+06	1.96E+06	1.92E+06
1	Immobile transects	RW	10178.0	132.8	10189.0	155.0
1	Immobile transects	p_F	10174.0	130.1	10190.0	165.5
1	Immobile transects	p_s	10023.0	142.6	10041.0	171.0
1	Immobile transects	p_I	10175.0	140.2	10190.0	152.5
1	Immobile transects	p_I, p_s, p_F	10029.0	137.3	10051.0	160.5
1	Mobile transects (linear)	RW	4916.7	424.0	4956.5	605.5
1	Mobile transects (linear)	p_F	4923.6	412.8	4957.5	555.5
1	Mobile transects (linear)	p_s	4922.4	423.8	4961.5	561.0
1	Mobile transects (linear)	p_I	4898.4	438.1	4948.5	601.0
1	Mobile transects (linear)	p_I, p_s, p_F	4876.2	432.4	4909.0	567.0
1	Mobile transects (rotating)	RW	9994.3	594.0	10169.0	737.5
1	Mobile transects (rotating)	p_F	9948.4	632.3	10138.0	757.0
1	Mobile transects (rotating)	p_s	9876.4	690.7	10063.0	833.5
1	Mobile transects (rotating)	p_I	9946.3	642.3	10128.0	735.0
1	Mobile transects (rotating)	p_I, p_s, p_F	9796.4	727.2	10009.0	939.5
2	Distribution of turning angles	RW	0.2436	0.0057	0.2437	0.0074
2	Distribution of turning angles	p_F	0.2437	0.0053	0.2436	0.0074
2	Distribution of turning angles	p_s	0.2441	0.0064	0.2441	0.0091
2	Distribution of turning angles	p_I	0.2436	0.0056	0.2437	0.0072
2	Distribution of turning angles	p_I, p_s, p_F	0.2468	0.0065	0.2467	0.0089
2	Home range (Kernel estimate)	RW	1.58E+08	2.02E+07	1.58E+08	2.37E+07
2	Home range (Kernel estimate)	p_F	1.58E+08	1.99E+07	1.57E+08	2.44E+07
2	Home range (Kernel estimate)	p_s	1.17E+08	1.33E+07	1.18E+08	1.64E+07
2	Home range (Kernel estimate)	p_I	1.58E+08	1.90E+07	1.57E+08	2.34E+07
2	Home range (Kernel estimate)	p_I, p_s, p_F	1.05E+08	1.68E+07	1.04E+08	2.19E+07
2	Dilation	RW	4.00E+06	1.45E+06	4.00E+06	2.32E+06
2	Dilation	p_F	4.02E+06	1.40E+06	4.10E+06	2.13E+06
2	Dilation	p_s	3.80E+06	1.42E+06	3.84E+06	2.20E+06
2	Dilation	p_I	3.91E+06	1.44E+06	3.94E+06	2.26E+06
2	Dilation	p_I, p_s, p_F	3.92E+06	1.18E+06	3.83E+06	1.77E+06
2	Immobile transects	RW	10783.0	135.7	10804.0	159.0
2	Immobile transects	p_F	10784.0	134.6	10804.0	158.5
2	Immobile transects	p_s	10705.0	148.7	10733.0	186.0
2	Immobile transects	p_I	10786.0	131.4	10800.0	161.0
2	Immobile transects	p_I, p_s, p_F	10617.0	219.8	10658.0	259.0
2	Mobile transects (linear)	RW	3955.0	297.3	3986.5	398.5
2	Mobile transects (linear)	p_F	3961.4	294.0	3997.0	379.5
2	Mobile transects (linear)	p_s	3973.9	280.9	3994.0	387.5
2	Mobile transects (linear)	p_I	3969.3	282.9	3988.5	367.0
2	Mobile transects (linear)	p_I, p_s, p_F	3277.0	445.7	3287.5	627.5
2	Mobile transects (rotating)	RW	5911.9	495.9	6059.5	610.5
2	Mobile transects (rotating)	p_F	5899.6	481.5	6020.5	608.5
2	Mobile transects (rotating)	p_s	5904.6	468.4	6017.0	598.0
2	Mobile transects (rotating)	p_I	5934.5	463.1	6063.0	614.5
2	Mobile transects (rotating)	p_I, p_s, p_F	4608.8	830.0	4618.0	1162.0
3	Distribution of turning angles	RW	0.2539	0.0061	0.2540	0.0083
3	Distribution of turning angles	p_F	0.2537	0.0061	0.2535	0.0077
3	Distribution of turning angles	p_s	0.2546	0.0074	0.2545	0.0098
3	Distribution of turning angles	p_I	0.2542	0.0061	0.2540	0.0086
3	Distribution of turning angles	p_I, p_s, p_F	0.2502	0.0070	0.2501	0.0095
3	Home range (Kernel estimate)	RW	1.53E+08	1.89E+07	1.52E+08	2.10E+07
3	Home range (Kernel estimate)	p_F	1.52E+08	1.88E+07	1.51E+08	2.19E+07
3	Home range (Kernel estimate)	p_s	1.05E+08	1.07E+07	1.05E+08	1.41E+07
3	Home range (Kernel estimate)	p_I	1.53E+08	1.98E+07	1.51E+08	2.12E+07
3	Home range (Kernel estimate)	p_I, p_s, p_F	1.01E+08	1.15E+07	1.02E+08	1.57E+07
3	Dilation	RW	3.29E+06	1.41E+06	3.35E+06	2.20E+06
3	Dilation	p_F	3.23E+06	1.41E+06	3.15E+06	2.19E+06
3	Dilation	p_s	3.27E+06	1.34E+06	3.39E+06	2.04E+06
3	Dilation	p_I	3.41E+06	1.41E+06	3.45E+06	2.19E+06
3	Dilation	p_I, p_s, p_F	3.31E+06	1.35E+06	3.29E+06	2.05E+06
3	Immobile transects	RW	8219.5	124.0	8238.5	142.0
3	Immobile transects	p_F	8221.1	117.0	8232.5	146.0
3	Immobile transects	p_s	8140.2	133.7	8163.5	166.0
3	Immobile transects	p_I	8223.7	113.5	8238.5	140.5
3	Immobile transects	p_I, p_s, p_F	8124.4	146.2	8148.5	165.5
3	Mobile transects (linear)	RW	3805.0	297.3	3844.0	391.0
3	Mobile transects (linear)	p_F	3791.9	295.8	3814.0	398.0
3	Mobile transects (linear)	p_s	3810.2	284.6	3839.5	377.5
3	Mobile transects (linear)	p_I	3785.0	288.0	3826.0	392.5
3	Mobile transects (linear)	p_I, p_s, p_F	3611.9	358.0	3665.5	491.0
3	Mobile transects (rotating)	RW	8521.5	559.2	8686.0	648.0
3	Mobile transects (rotating)	p_F	8538.0	511.2	8655.0	686.0
3	Mobile transects (rotating)	p_s	8511.4	540.2	8657.5	636.0
3	Mobile transects (rotating)	p_I	8518.4	553.5	8687.0	627.0
3	Mobile transects (rotating)	p_I, p_s, p_F	8095.0	815.8	8315.0	1057.5
4	Distribution of turning angles	RW	0.2440	0.0062	0.2438	0.0084
4	Distribution of turning angles	p_F	0.2442	0.0061	0.2443	0.0078
4	Distribution of turning angles	p_s	0.2444	0.0073	0.2444	0.0105
4	Distribution of turning angles	p_I	0.2438	0.0060	0.2436	0.0082
4	Distribution of turning angles	p_I, p_s, p_F	0.2406	0.0067	0.2407	0.0093
4	Home range (Kernel estimate)	RW	1.38E+08	1.99E+07	1.37E+08	2.20E+07
4	Home range (Kernel estimate)	p_F	1.39E+08	2.07E+07	1.36E+08	2.12E+07
4	Home range (Kernel estimate)	p_s	9.74E+07	1.09E+07	9.76E+07	1.48E+07
4	Home range (Kernel estimate)	p_I	1.37E+08	1.94E+07	1.35E+08	2.17E+07
4	Home range (Kernel estimate)	p_I, p_s, p_F	9.18E+07	1.25E+07	9.19E+07	1.67E+07
4	Dilation	RW	2.64E+06	1.37E+06	2.64E+06	2.17E+06
4	Dilation	p_F	2.59E+06	1.35E+06	2.59E+06	2.00E+06
4	Dilation	p_s	2.50E+06	1.31E+06	2.55E+06	2.04E+06
4	Dilation	p_I	2.70E+06	1.39E+06	2.72E+06	2.11E+06
4	Dilation	p_I, p_s, p_F	2.63E+06	1.22E+06	2.61E+06	1.86E+06
4	Immobile transects	RW	5369.7	313.3	5402.0	419.0
4	Immobile transects	p_F	5370.1	297.2	5405.0	385.0
4	Immobile transects	p_s	5523.5	313.2	5547.5	431.0
4	Immobile transects	p_I	5363.3	308.1	5396.0	394.0
4	Immobile transects	p_I, p_s, p_F	5340.8	366.2	5387.5	506.0
4	Mobile transects (linear)	RW	2999.6	326.7	3033.5	429.5
4	Mobile transects (linear)	p_F	2998.7	317.6	3033.0	419.0
4	Mobile transects (linear)	p_s	3004.7	306.8	3020.5	420.5
4	Mobile transects (linear)	p_I	2973.5	314.5	3010.0	421.5
4	Mobile transects (linear)	p_I, p_s, p_F	2720.3	393.4	2761.0	532.0
4	Mobile transects (rotating)	RW	7056.5	584.9	7234.0	683.5
4	Mobile transects (rotating)	p_F	7077.2	590.2	7257.0	689.0
4	Mobile transects (rotating)	p_s	7021.6	578.3	7176.0	728.5
4	Mobile transects (rotating)	p_I	7032.4	569.2	7199.0	710.0
4	Mobile transects (rotating)	p_I, p_s, p_F	6385.6	918.6	6543.0	1346.5
5	Distribution of turning angles	RW	0.2440	0.0067	0.2440	0.0093
5	Distribution of turning angles	p_F	0.2444	0.0065	0.2445	0.0088
5	Distribution of turning angles	p_s	0.2442	0.0077	0.2442	0.0104
5	Distribution of turning angles	p_I	0.2445	0.0064	0.2443	0.0089
5	Distribution of turning angles	p_I, p_s, p_F	0.2458	0.0075	0.2456	0.0104
5	Home range (Kernel estimate)	RW	1.43E+08	1.89E+07	1.42E+08	2.20E+07
5	Home range (Kernel estimate)	p_F	1.44E+08	1.92E+07	1.43E+08	1.97E+07
5	Home range (Kernel estimate)	p_s	9.76E+07	9.84E+06	9.79E+07	1.28E+07
5	Home range (Kernel estimate)	p_I	1.43E+08	1.77E+07	1.42E+08	2.04E+07
5	Home range (Kernel estimate)	p_I, p_s, p_F	8.35E+07	1.74E+07	8.03E+07	2.23E+07
5	Dilation	RW	4.08E+06	1.38E+06	4.17E+06	2.09E+06
5	Dilation	p_F	4.07E+06	1.40E+06	4.07E+06	2.10E+06
5	Dilation	p_s	3.85E+06	1.35E+06	3.86E+06	2.03E+06
5	Dilation	p_I	4.16E+06	1.40E+06	4.17E+06	2.15E+06
5	Dilation	p_I, p_s, p_F	3.91E+06	1.11E+06	3.90E+06	1.57E+06
5	Immobile transects	RW	7113.1	174.9	7133.0	217.5
5	Immobile transects	p_F	7118.3	172.7	7141.5	211.0
5	Immobile transects	p_s	7110.6	181.6	7141.0	229.5
5	Immobile transects	p_I	7117.0	178.7	7146.5	217.0
5	Immobile transects	p_I, p_s, p_F	6566.2	454.3	6623.5	590.0
5	Mobile transects (linear)	RW	2973.3	284.4	3005.0	381.0
5	Mobile transects (linear)	p_F	2978.3	290.1	3000.5	390.5
5	Mobile transects (linear)	p_s	2992.5	275.5	3020.0	346.5
5	Mobile transects (linear)	p_I	2988.9	281.2	3013.0	387.5
5	Mobile transects (linear)	p_I, p_s, p_F	1907.4	443.2	1905.0	634.0
5	Mobile transects (rotating)	RW	6987.0	496.1	7126.0	563.5
5	Mobile transects (rotating)	p_F	6963.1	505.5	7100.5	628.0
5	Mobile transects (rotating)	p_s	6964.0	500.3	7105.0	611.0
5	Mobile transects (rotating)	p_I	7015.8	448.2	7142.0	523.5
5	Mobile transects (rotating)	p_I, p_s, p_F	4427.2	1074.3	4417.5	1546.0