

Table 4. Summaries of the posterior distributions from each of the six robust-design SCR (RD-SCR) models (A), as well as the two non-spatial models (B) fitted to the field vole data. Values are posterior means with 95% high posterior density (HPD) intervals in parentheses. Upper values in each cell represent females and lower values represent males

Dispersal model	Sex	Mean dispersal distance (m)	90th quantile of dispersal distribution (m)	Monthly probability of dispersal >10 m	Mean conditional dispersal distance	Monthly survival probability (ϕ)	Recapture parameters			
							κ	σ	$\lambda_{morning}$	$\lambda_{evening}$
A. RD-SCR models										
Exponential	F	3.0 (2.3, 3.7)	6.9 (5.3, 8.6)			0.75 (0.68, 0.82)	0.76 (0.66, 0.87)	1.43 (0.89, 2.02)	2.98 (1.84, 4.45)	1.64 (1.01, 2.45)
	M	5.8 (3.9, 8.0)	13.4 (9.1, 18.5)			0.92 (0.84, 0.99)	1.62 (1.17, 2.20)	8.84 (6.11, 11.58)	0.49 (0.31, 0.75)	0.27 (0.17, 0.41)
Gamma	F	2.5 (1.7, 3.5)	6.7 (4.7, 8.9)			0.75 (0.68, 0.82)	0.77 (0.67, 0.87)	1.46 (0.94, 2.04)	2.93 (1.83, 4.36)	1.63 (1.02, 2.42)
	M	5.0 (2.8, 7.2)	11.3 (5.5, 16.3)			0.92 (0.83, 0.99)	1.72 (1.18, 2.42)	9.36 (6.48, 12.26)	0.45 (0.26, 0.70)	0.25 (0.15, 0.39)
Log-normal	F	2.9 (1.7, 4.8)	6.4 (3.9, 9.7)			0.76 (0.69, 0.83)	0.77 (0.68, 0.87)	1.47 (0.95, 2.04)	2.91 (1.84, 4.32)	1.61 (1.02, 2.39)
	M	6.4 (1.6, 36.0)	13.3 (4.8, 31.5)			0.94 (0.85, 1.00)	1.71 (1.17, 2.41)	9.38 (6.47, 12.35)	0.45 (0.27, 0.69)	0.25 (0.15, 0.38)
Zero-inflated exponential	F	2.0 (1.1, 3.1)	10.7 (0, 12.3)	0.15 (0.08, 0.24)	13.1 (10.5, 16.4)	0.75 (0.68, 0.82)	0.80 (0.70, 0.91)	1.63 (1.06, 2.28)	2.63 (1.59, 3.88)	1.46 (0.89, 2.17)
	M	5.8 (1.0, 16.7)	14.8 (0, 24.7)	0.16 (0.04, 0.31)	35.6 (14.8, 98.2)	0.94 (0.85, 1.00)	1.82 (1.25, 2.59)	10.17 (7.26, 13.10)	0.40 (0.25, 0.60)	0.22 (0.14, 0.33)
Zero-inflated Gamma	F	1.8 (0.9, 2.8)	11.2 (0, 13.1)	0.15 (0.07, 0.25)	11.8 (10.1, 13.8)	0.75 (0.68, 0.82)	0.80 (0.70, 0.91)	1.65 (1.10, 2.29)	2.55 (1.61, 3.74)	1.43 (0.90, 2.08)
	M	3.2 (0.8, 6.0)	14.5 (0, 29.1)	0.14 (0.02, 0.37)	24.0 (10.3, 35.4)	0.92 (0.83, 0.99)	1.88 (1.32, 2.61)	10.39 (7.72, 13.03)	0.37 (0.24, 0.55)	0.21 (0.13, 0.31)
Zero-inflated log-normal	F	" ∞ " (0.6, " ∞ ") ¹	10.9 (10, 13.1)	0.27 (0.12, 0.41)	" ∞ " (10.5, " ∞ ") ¹	0.86 (0.73, 0.98)	0.80 (0.69, 0.91)	1.61 (1.04, 2.27)	2.66 (1.63, 4.00)	1.48 (0.90, 2.22)
	M	" ∞ " (0.3, " ∞ ") ¹	13.9 (0, 22.3)	0.23 (0.07, 0.43)	" ∞ " (10.4, " ∞ ") ¹	0.95 (0.86, 1.00)	1.76 (1.21, 2.51)	9.80 (6.95, 12.81)	0.42 (0.26, 0.63)	0.23 (0.14, 0.35)
B. Non-spatial models										
CJS	F					0.72 (0.65, 0.79)	0.98 (0.95, 1.00)			
	M					0.88 (0.78, 0.95)	0.92 (0.85, 0.98)			
Robust-design with temporary emigration	F			0.05 (0.00, 0.21)	0.22 (0.00, 0.88)	0.75 (0.65, 0.91)		0.70 (0.67, 0.74)		0.48 (0.44, 0.52)
	M			0.13 (0.02, 0.24)	0.44 (0.09, 0.87)	0.92 (0.82, 1.00)		0.78 (0.73, 0.83)		0.66 (0.59, 0.72)

¹ ∞ means 'very high compared to the size of the trapping array', in all cases >600 m.