

Parameter	Prior	Median (95% HPD)	Bulk ESS	Tail ESS	$\hat{R}$
$\alpha_0$	Normal(0,2 <sup>2</sup> )	1.21 (1.14, 1.29)	1014.37	1840.94	1
$\alpha_1$ (amplicon)	$2 \times \text{stz-MVN}_1(0, 1)$	-1.21 (-1.29, -1.13)	869.84	1256.69	1
$\alpha_2$ (bait-capture)	$2 \times \text{stz-MVN}_1(0, 1)$	1.21 (1.13, 1.29)	869.84	1256.69	1
$\alpha_3$ (log <sub>10</sub> copies/mL)	Normal(0,2 <sup>2</sup> )	1.19 (1.11, 1.27)	955.33	2001.4	1
$\alpha_4$ (amplicon $\times$ log <sub>10</sub> copies/mL)	$2 \times \text{stz-MVN}_2(0, 1)$	-0.27 (-0.35, -0.2)	956.01	2054.49	1
$\alpha_5$ (bait-capture $\times$ log <sub>10</sub> copies/mL)	$2 \times \text{stz-MVN}_2(0, 1)$	0.27 (0.2, 0.35)	956.01	2054.49	1
$\sigma_{ind}$	Half-Cauchy(0,1)	1.52 (1.45, 1.58)	2717.44	4514.42	1
$\delta_0$	Normal(0,3.16 <sup>2</sup> )	-2.94 (-3.22, -2.66)	4147.97	5141.96	1
$\beta_1$ (fishing)	stz-MVN <sub>3</sub> (0, 1)	0.41 (0.14, 0.69)	5017.48	5234.63	1
$\beta_2$ (inland)	stz-MVN <sub>3</sub> (0, 1)	-0.41 (-0.69, -0.14)	5017.48	5234.63	1
$\beta_3$ (amplicon)	stz-MVN <sub>4</sub> (0, 1)	0.14 (-0.08, 0.37)	6583.04	6017.95	1
$\beta_4$ (bait-capture)	stz-MVN <sub>4</sub> (0, 1)	-0.14 (-0.37, 0.08)	6583.04	6017.95	1
logit( $\lambda$ )	Normal(0,1)[.2,2]	0.3 (0.12, 0.47)	3592.02	4732.85	1
logit( $\epsilon$ )	Normal(0,1)	-5.73 (-5.96, -5.5)	3567.6	4924.73	1