

## Appendix 2

**Table A2:** Posterior summaries, including the mean, standard deviation, 95% credibility interval (highest density interval),  $\hat{R}$ , and effective sample size. Descriptions of parameters can be found in Table 1.

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parameter	mean	sd	95 CI	Rhat	ESS
$\log(\mu_y^A)$	3.87	0.03	(3.81, 3.92)	1.00	675
$\sigma_y^A$	0.2	0.01	(0.17, 0.22)	1.00	761
$\mu_y^R$	9.14	1.95	(5.24, 12.92)	1.01	798
$\sigma_y^R$	4.86	0.94	(3.05, 6.47)	1.01	1679
$y_\infty$	83.75	1.03	(81.84, 85.9)	1.04	297
$k$	1.07	0.05	(0.98, 1.16)	1.02	394
$C$	1.08	0.08	(0.92, 1.24)	1.00	1539
$t_s$	-0.71	0.02	(-0.74, -0.67)	1.00	726
$\sigma^G$	2.38	0.18	(2.03, 2.73)	1.02	445
$\beta_1$	0.00589	0.01048	(0, 0.02626)	1.08	1261
$\beta_2$	0.00051	0.00096	(0, 0.00234)	1.06	1193
$\beta_3$	0.00055	0.00096	(0, 0.00247)	1.01	1540
$\beta_4$	0.00281	0.00474	(0, 0.01297)	1.05	998
$\beta_5$	0.0015	0.00263	(0, 0.00688)	1.00	2717
$\alpha$	4.16	4.13	(0, 12.39)	1.01	2468
$\beta_\alpha$	0.35	0.22	(0.05, 0.79)	1.01	1607
$\beta_\theta$	95.3	37.4	(26.77, 149.98)	1.00	7540
$\alpha_1^o$	4.14	0.39	(3.38, 4.9)	1.00	1093
$\alpha_2^o$	3.32	0.81	(1.7, 4.92)	1.00	6294
$\alpha_3^o$	4.21	0.57	(3.07, 5.29)	1.01	682
$\alpha_\alpha^o$	32.87	12.21	(9.65, 50)	1.00	12430

(continued)

parameter	mean	sd	95 CI	Rhat	ESS
$\alpha_\theta^o$	8.58	3.34	(1.55, 14.18)	1.00	6319
$h_F^{max}$	0.00029	2e-05	(0.00026, 0.00032)	1.00	3568
$h_M^{max}$	0.00044	8e-05	(3e-04, 0.00059)	1.01	792
$h_S^{max}$	0.00448	0.00038	(0.00375, 0.00522)	1.00	6017
$h_F^k$	0.36	0.14	(0.17, 0.65)	1.00	1427
$h_S^k$	0.33	0.06	(0.23, 0.44)	1.00	3776
$h_F^0$	38.71	2.83	(33.34, 44.03)	1.01	739
$h_S^0$	46.48	1.71	(43.29, 49.86)	1.01	1219
$h_M^A$	45.01	0.66	(43.74, 46.32)	1.00	1215
$h_M^\sigma$	6.47	0.37	(5.78, 7.21)	1.00	17322
$\lambda^A$	331	29	(279, 387)	1.02	2445
$\lambda_1^R$	558	200	(242, 955)	1.01	751
$\lambda_2^R$	44	8	(28, 59)	1.00	4067
$\lambda_3^R$	1115	274	(664, 1667)	1.02	893
$\lambda_4^R$	56	23	(20, 100)	1.01	1682
$\mu_\lambda^R$	426.75	460.6	(1, 1210.8)	1.00	8206
$\mu_\sigma^R$	1101.69	966.55	(190.55, 2829.46)	1.01	6182

**Figure A2:** Trace plots of posterior samples. Colors refer to separate chains. Descriptions of parameters can be found in Table 1.

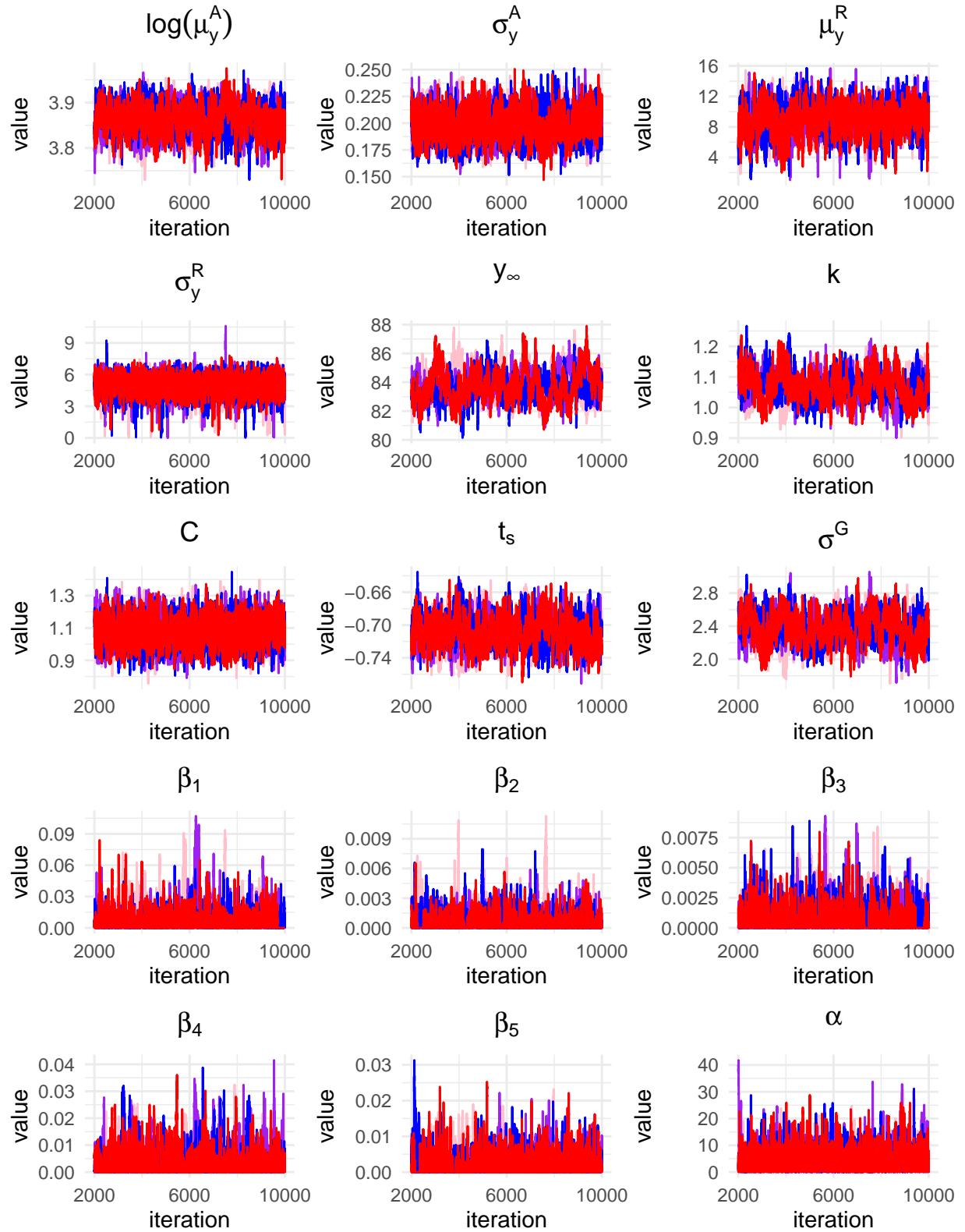


Figure A2 continued.

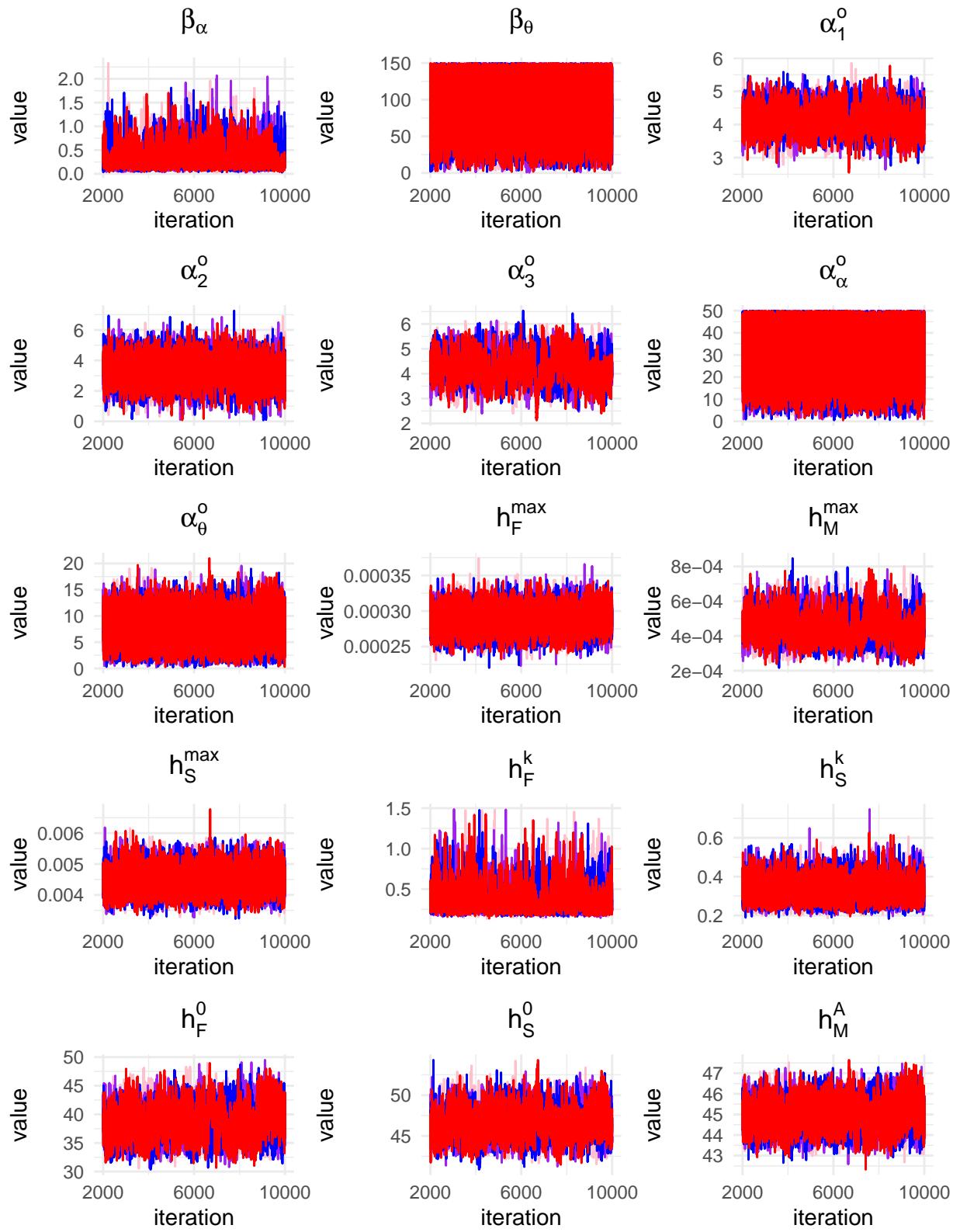


Figure A2 continued.

