

Appendix 6: Posterior summaries and trace plots

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Table A6: 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. More information about parameter ρ can be found in Appendix 2.1. \

parameter	mean	sd	95 CI	Rhat	ESS
$\log(\mu_y^A)$	3.87	0.03	(3.81, 3.92)	1.01	755
σ_y^A	0.2	0.01	(0.17, 0.22)	1.01	893
μ_y^R	9.35	1.98	(5.44, 13.23)	1.00	737
σ_y^R	4.84	0.91	(3.09, 6.46)	1.01	1796
y_∞	83.87	1.1	(81.82, 86.06)	1.06	258
k	1.06	0.05	(0.97, 1.16)	1.03	378
C	1.08	0.08	(0.93, 1.23)	1.00	2085
t_s	-0.71	0.02	(-0.74, -0.67)	1.00	766
σ^G	2.35	0.19	(2, 2.72)	1.03	432
β_1	0.00583	0.00968	(0, 0.02634)	1.02	1201
β_2	0.00051	0.00085	(0, 0.00231)	1.01	1601
β_3	0.00054	0.00092	(0, 0.00247)	1.04	2209
β_4	0.00305	0.00516	(0, 0.01385)	1.02	1107
β_5	0.0016	0.0028	(0, 0.00728)	1.04	1805
α	4.26	4.22	(0, 12.64)	1.01	2429
β_α	0.36	0.24	(0.05, 0.83)	1.02	1492
β_θ	95.55	37.19	(27.3, 149.99)	1.00	8159

(continued)

parameter	mean	sd	95 CI	Rhat	ESS
α_1^o	4.13	0.37	(3.39, 4.86)	1.00	1153
α_2^o	3.32	0.78	(1.76, 4.86)	1.00	7667
α_3^o	4.15	0.55	(3.04, 5.17)	1.01	726
α_α^o	33.19	12	(10.42, 50)	1.00	14745
α_θ^o	8.7	3.29	(1.8, 14.27)	1.00	5916
h_F^{max}	0.00029	2e-05	(0.00026, 0.00032)	1.00	4099
h_M^{max}	0.00043	8e-05	(3e-04, 0.00059)	1.01	994
h_S^{max}	0.00445	0.00038	(0.00373, 0.00522)	1.00	5933
h_F^k	0.36	0.14	(0.18, 0.63)	1.01	1908
h_S^k	0.33	0.06	(0.23, 0.45)	1.00	4281
h_F^0	38.49	2.69	(33.31, 43.56)	1.01	733
h_S^0	46.8	1.73	(43.48, 50.17)	1.00	1643
h_M^A	44.8	0.65	(43.53, 46.09)	1.00	1522
h_M^o	6.39	0.37	(5.68, 7.13)	1.00	15698
ρ	0.04	0.01	(0.03, 0.05)	1.00	31041
λ^A	331	28	(281, 387)	1.00	2902
λ_1^R	551	186	(250, 919)	1.02	834
λ_2^R	44	9	(28, 61)	1.01	3900
λ_3^R	1147	262	(683, 1661)	1.01	936
λ_4^R	57	23	(20, 101)	1.01	2015
μ_λ^R	427.83	453.9	(1, 1201.5)	1.01	7971
μ_σ^R	1103.82	933.56	(206.95, 2797.77)	1.01	5915

Figure A6: Trace plots of posterior samples. Colors refer to separate chains. Descriptions of parameters can be found in Table 1.

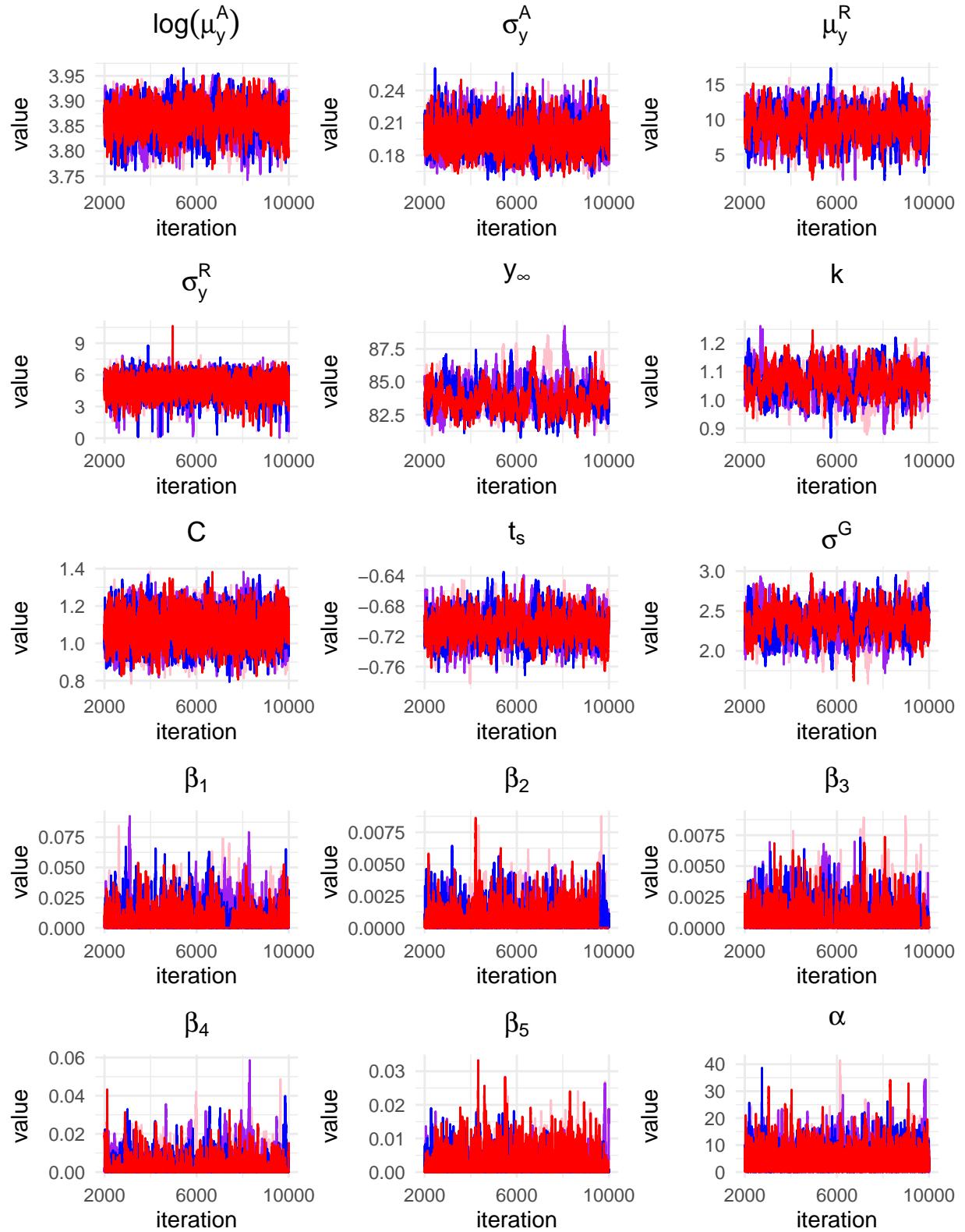


Figure A6 continued.

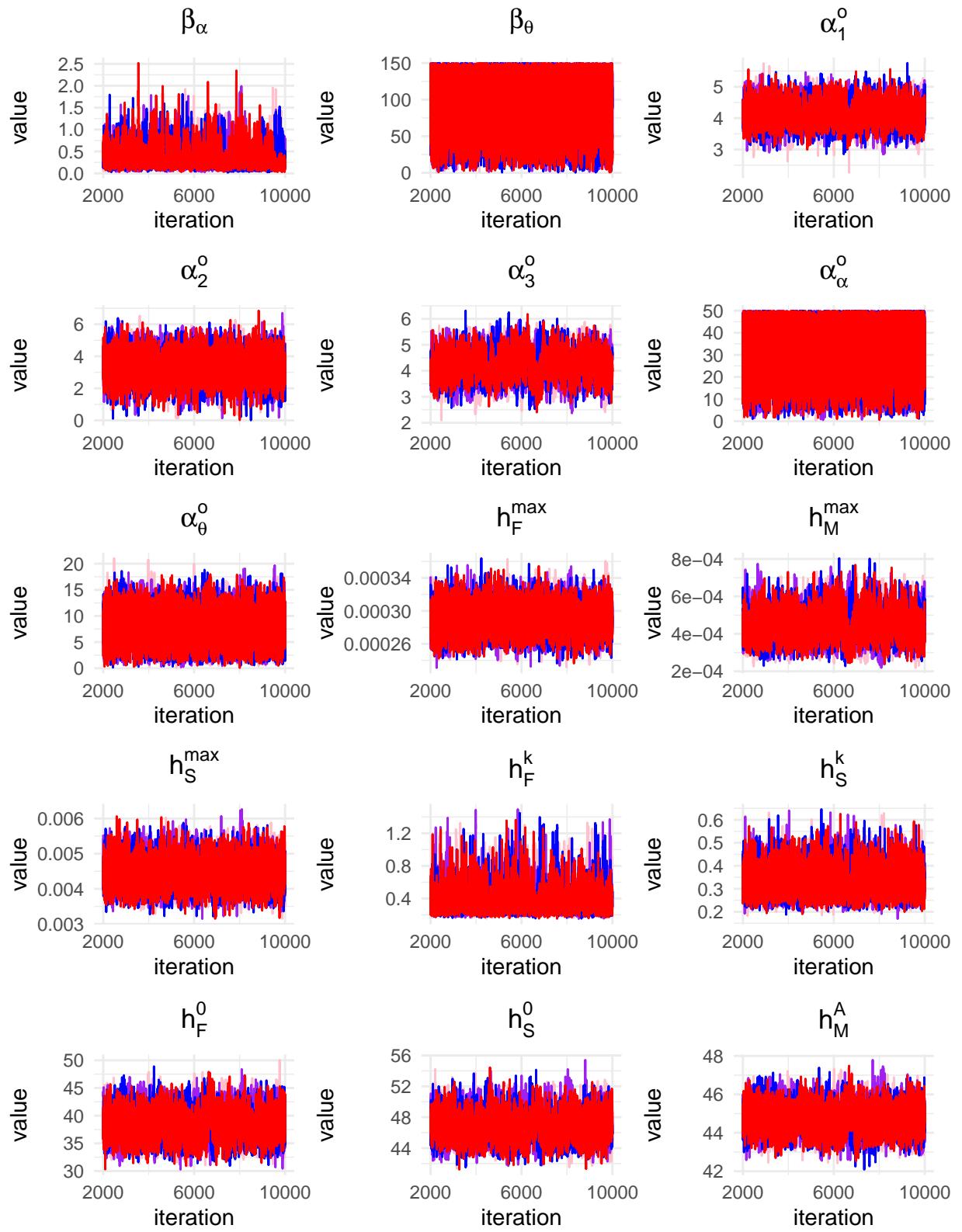


Figure A6 continued.

