

Appendix 5: Posterior summaries and trace plots

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Table A5: 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.

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parameter	mean	sd	95 CI	Rhat	ESS
$\log(\mu^A)$	3.86	0.03	(3.8, 3.92)	1.01	766
σ^A	0.2	0.01	(0.17, 0.22)	1.01	956
μ^R	14.9	1.63	(11.71, 18.06)	1.01	992
σ^R	5.46	0.83	(3.84, 6.91)	1.01	1676
y_∞	83.88	1.1	(81.84, 86.18)	1.05	261
k	1.07	0.05	(0.97, 1.16)	1.04	413
C	1.08	0.08	(0.92, 1.24)	1.01	1944
t_s	-0.71	0.02	(-0.74, -0.67)	1.01	730
σ^G	2.35	0.19	(1.99, 2.72)	1.04	376
β_1	0.01	0.01	(0, 0.03)	1.04	551
β_2	0	0	(0, 0)	1.01	1434
β_3	0.00049	0.00087	(0, 0.00219)	1.01	2008
β_4	0.00253	0.00424	(0, 0.01122)	1.03	932
β_5	0.00177	0.00317	(0, 0.00821)	1.01	1861
α	3.9	3.78	(0, 11.54)	1.00	4022
β_α	0.34	0.22	(0.04, 0.79)	1.02	1458

(continued)

parameter	mean	sd	95 CI	Rhat	ESS
β_θ	93.51	38.35	(23.97, 149.99)	1.00	4842
α_1^o	4.08	0.39	(3.27, 4.83)	1.01	965
α_2^o	3.27	0.78	(1.74, 4.84)	1.00	6827
α_3^o	4.07	0.57	(2.95, 5.19)	1.01	616
α_α^o	33.25	12.02	(10.38, 50)	1.00	12393
α_θ^o	8.86	3.37	(1.95, 14.73)	1.00	5200
h_F^{max}	0	0	(0, 0)	1.00	3922
h_M^{max}	0.00043	8e-05	(0.00029, 0.00058)	1.02	799
h_S^{max}	0.00444	0.00038	(0.00371, 0.0052)	1.00	5879
h_F^k	0.35	0.13	(0.17, 0.62)	1.01	1370
h_S^k	0.33	0.06	(0.23, 0.45)	1.00	4300
h_F^0	38.72	2.74	(33.59, 44.02)	1.01	678
h_S^0	46.77	1.72	(43.54, 50.24)	1.01	1118
h_M^A	44.84	0.66	(43.55, 46.15)	1.00	1320
h_M^σ	6.39	0.37	(5.67, 7.14)	1.00	17108
ρ	0.04	0.01	(0.02, 0.05)	1.00	32026
λ^A	343	43	(274, 430)	1.03	871
λ_1^R	564	202	(253, 969)	1.01	668
λ_2^R	42	8	(29, 58)	1.00	5730
λ_3^R	1142	268	(668, 1669)	1.01	687
λ_4^R	58	23	(20, 102)	1.00	1495
μ^λ	435.23	464.12	(1.03, 1228.51)	1.00	9141
μ^σ	1135.7	1022.93	(194.15, 2937.6)	1.00	5508

Figure A5: Trace plots of posterior samples. Colors refer to separate chains. Descriptions of parameters can be found in Table 1.

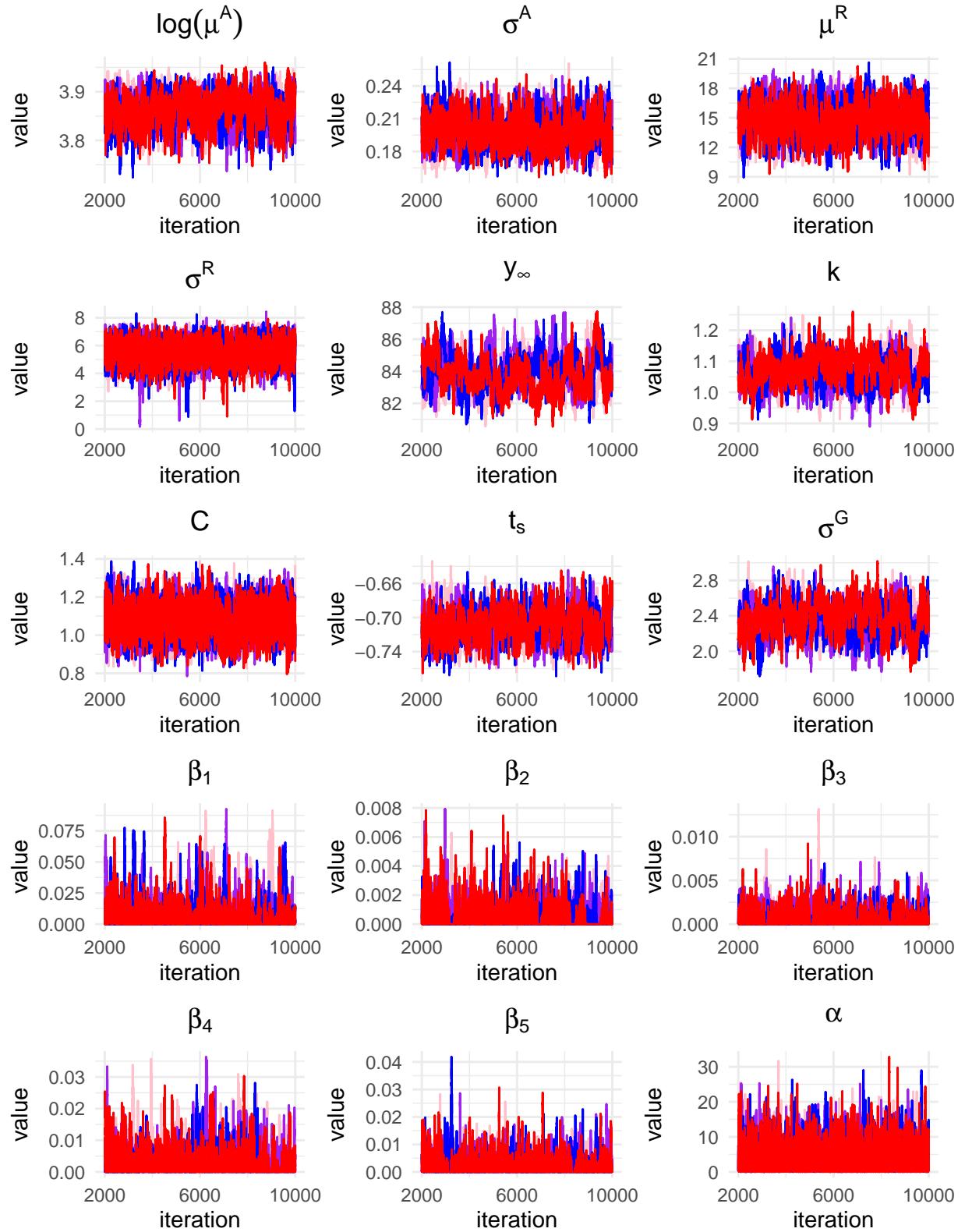


Figure A5 continued.

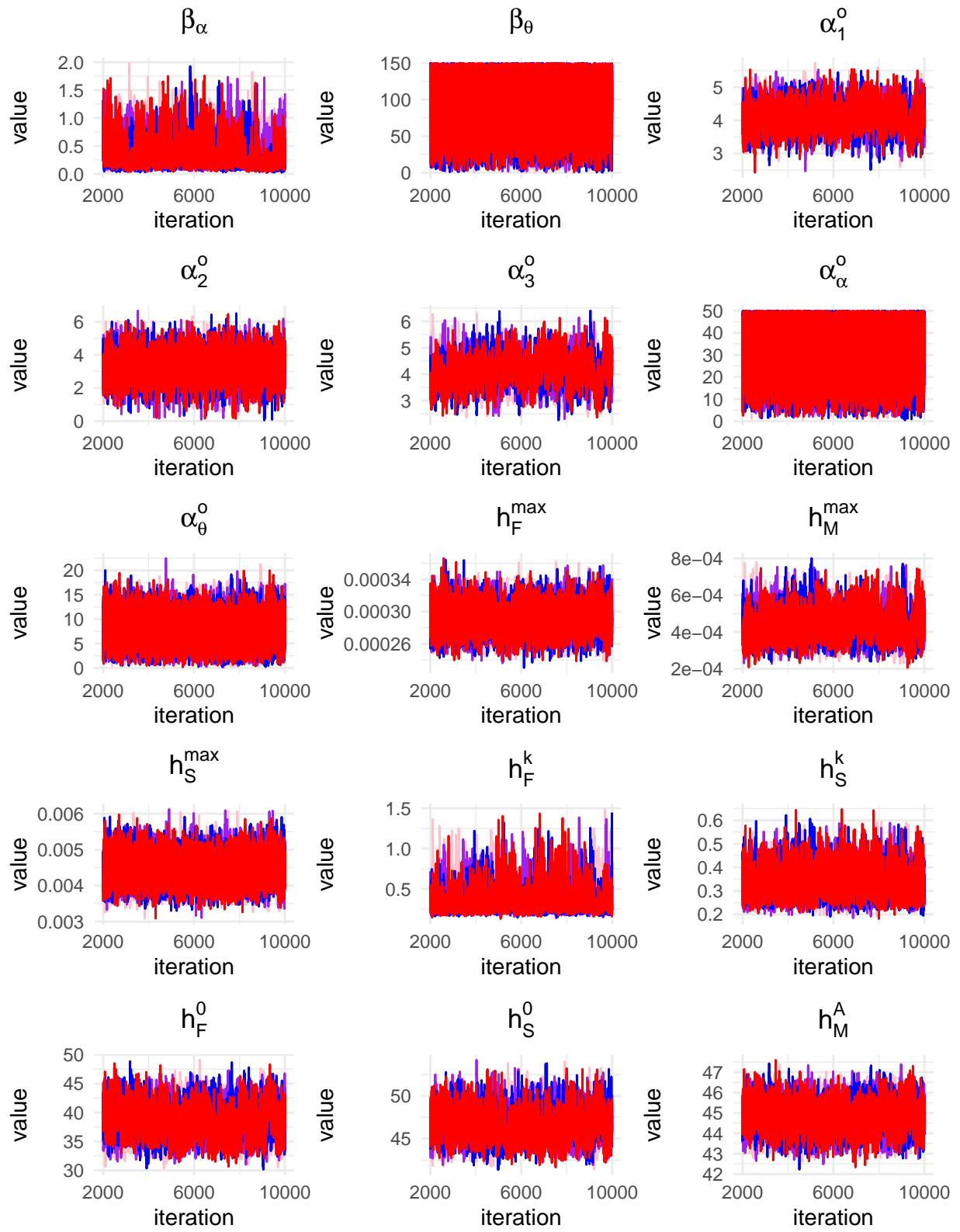


Figure A5 continued.

