

Table S1. The correlation matrix for nineteen bioclimatic (BIO) variables. Highly correlated layers ($r > 0.80$) are in bold.

Variable	BIO 1	BIO 2	BIO 3	BIO 4	BIO 5	BIO 6	BIO 7	BIO 8	BIO 9	BIO 10	BIO 11	BIO 12	BIO 13	BIO 14	BIO 15	BIO 16	BIO 17	BIO 18	BIO 19
BIO 1	1.00	0.02	0.84	-0.85	0.81	0.97	-0.80	0.23	0.86	0.94	0.98	0.72	0.76	0.47	-0.04	0.76	0.50	0.51	0.64
BIO 2	0.02	1.00	0.31	0.33	0.47	-0.16	0.47	-0.09	0.00	0.22	-0.11	-0.08	-0.13	-0.12	0.07	-0.12	-0.12	-0.30	0.02
BIO 3	0.84	0.31	1.00	-0.78	0.67	0.82	-0.68	0.13	0.73	0.73	0.85	0.66	0.69	0.39	0.00	0.69	0.42	0.47	0.58
BIO 4	-0.85	0.33	-0.78	1.00	-0.40	-0.94	0.99	-0.17	-0.78	-0.62	-0.94	-0.75	-0.76	-0.56	0.16	-0.75	-0.59	-0.61	-0.64
BIO 5	0.81	0.47	0.67	-0.40	1.00	0.67	-0.30	0.21	0.64	0.95	0.69	0.43	0.47	0.24	0.05	0.47	0.26	0.18	0.41
BIO 6	0.97	-0.16	0.82	-0.94	0.67	1.00	-0.91	0.22	0.85	0.84	1.00	0.75	0.76	0.53	-0.11	0.76	0.56	0.55	0.66
BIO 7	-0.80	0.47	-0.68	0.99	-0.30	-0.91	1.00	-0.16	-0.74	-0.55	-0.89	-0.72	-0.72	-0.55	0.17	-0.72	-0.57	-0.61	-0.62
BIO 8	0.23	-0.09	0.13	-0.17	0.21	0.22	-0.16	1.00	-0.06	0.22	0.22	-0.13	0.11	-0.22	0.30	0.12	-0.22	0.46	-0.31
BIO 9	0.86	0.00	0.73	-0.78	0.64	0.85	-0.74	-0.06	1.00	0.78	0.86	0.78	0.67	-0.22	0.30	0.67	0.65	0.29	0.80
BIO 10	0.94	0.22	0.73	-0.62	0.95	0.84	-0.55	0.22	0.78	1.00	0.86	0.58	0.62	0.36	0.01	0.62	0.38	0.33	0.54
BIO 11	0.98	-0.11	0.85	-0.94	0.69	1.00	-0.89	0.22	0.86	0.86	1.00	0.75	0.78	0.52	-0.09	0.77	0.56	0.56	0.66
BIO 12	0.72	-0.08	0.66	-0.75	0.43	0.75	-0.72	-0.13	0.78	0.58	0.75	1.00	0.82	0.82	-0.34	0.82	0.85	0.50	0.89
BIO 13	0.76	-0.13	0.69	-0.76	0.47	0.76	-0.72	0.11	0.67	0.62	0.78	0.82	1.00	0.40	0.21	0.99	0.44	0.78	0.57
BIO 14	0.47	-0.12	0.39	-0.56	0.24	0.53	-0.55	-0.22	0.62	0.36	0.52	0.82	0.40	1.00	-0.77	0.41	0.99	0.16	0.86
BIO 15	-0.04	0.07	0.00	0.16	0.05	-0.11	0.17	0.30	-0.24	0.01	-0.09	-0.34	0.21	-0.77	1.00	0.21	-0.76	0.35	-0.56
BIO 16	0.76	-0.12	0.69	-0.75	0.47	0.76	-0.72	0.12	0.67	0.62	0.77	0.82	0.99	0.41	0.21	1.00	0.44	0.78	0.57
BIO 17	0.50	-0.12	0.42	-0.59	0.26	0.56	-0.57	-0.22	0.65	0.38	0.56	0.85	0.44	0.99	-0.76	0.44	1.00	0.18	0.88
BIO 18	0.51	-0.30	0.47	-0.61	0.18	0.55	-0.61	0.46	0.29	0.33	0.56	0.50	0.78	0.16	0.35	0.78	0.18	1.00	0.18
BIO 19	0.64	0.02	0.58	-0.64	0.41	0.66	-0.62	-0.31	0.80	0.54	0.66	0.89	0.57	0.86	-0.56	0.57	0.88	0.18	1.00

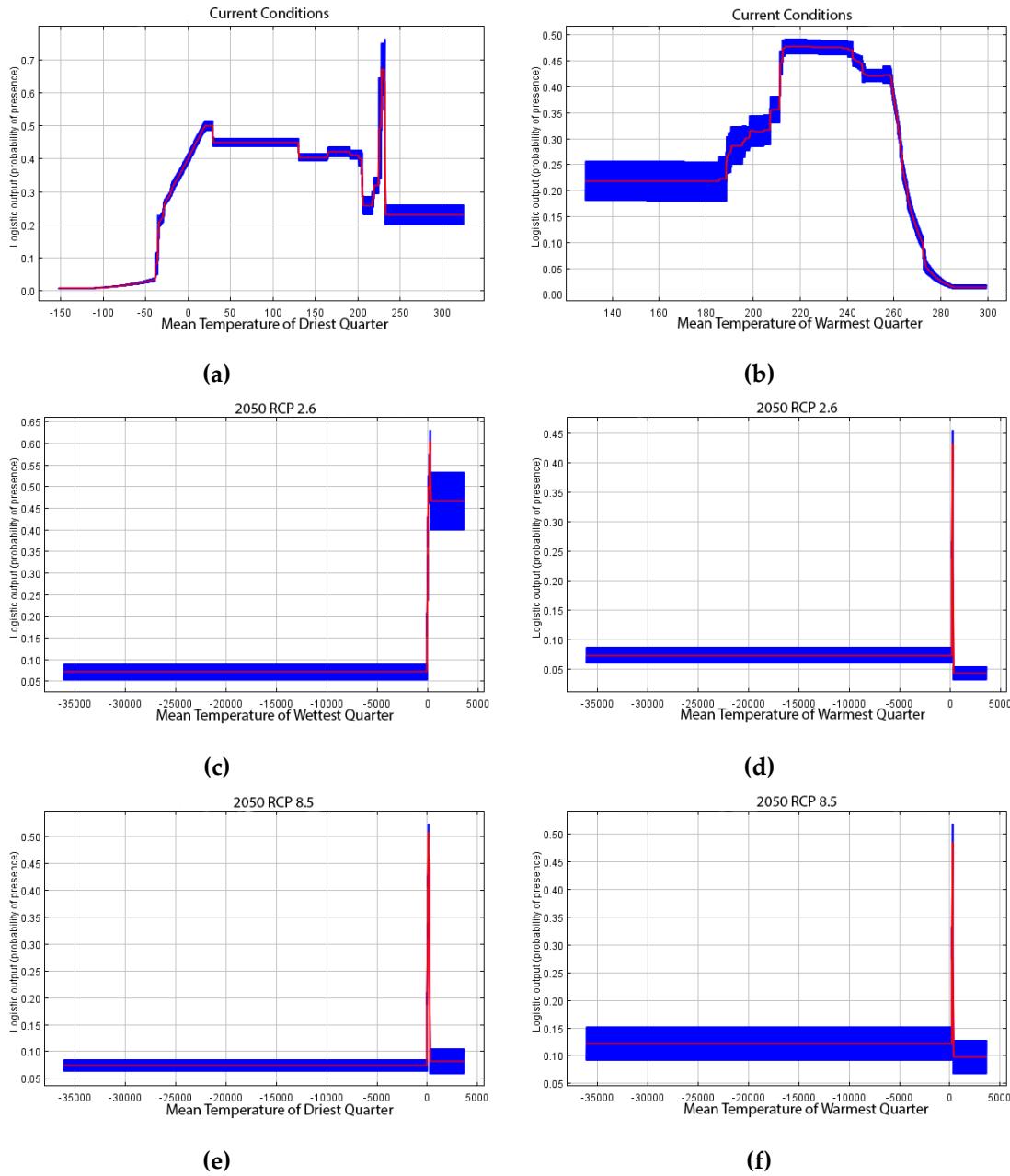


Figure S1. Response curves of the top two bioclimatic predictors for (a) current conditions; (b) 2050 Representative Concentration Pathway (RCP) 2.6; (c) 2050 RCP 8.5. The values shown are averaged from ten replicate runs with ± 1 standard deviation (blue margins). Note that x-axis should be divided by 10 to showcase in $^{\circ}\text{C}$ for mean temperature.

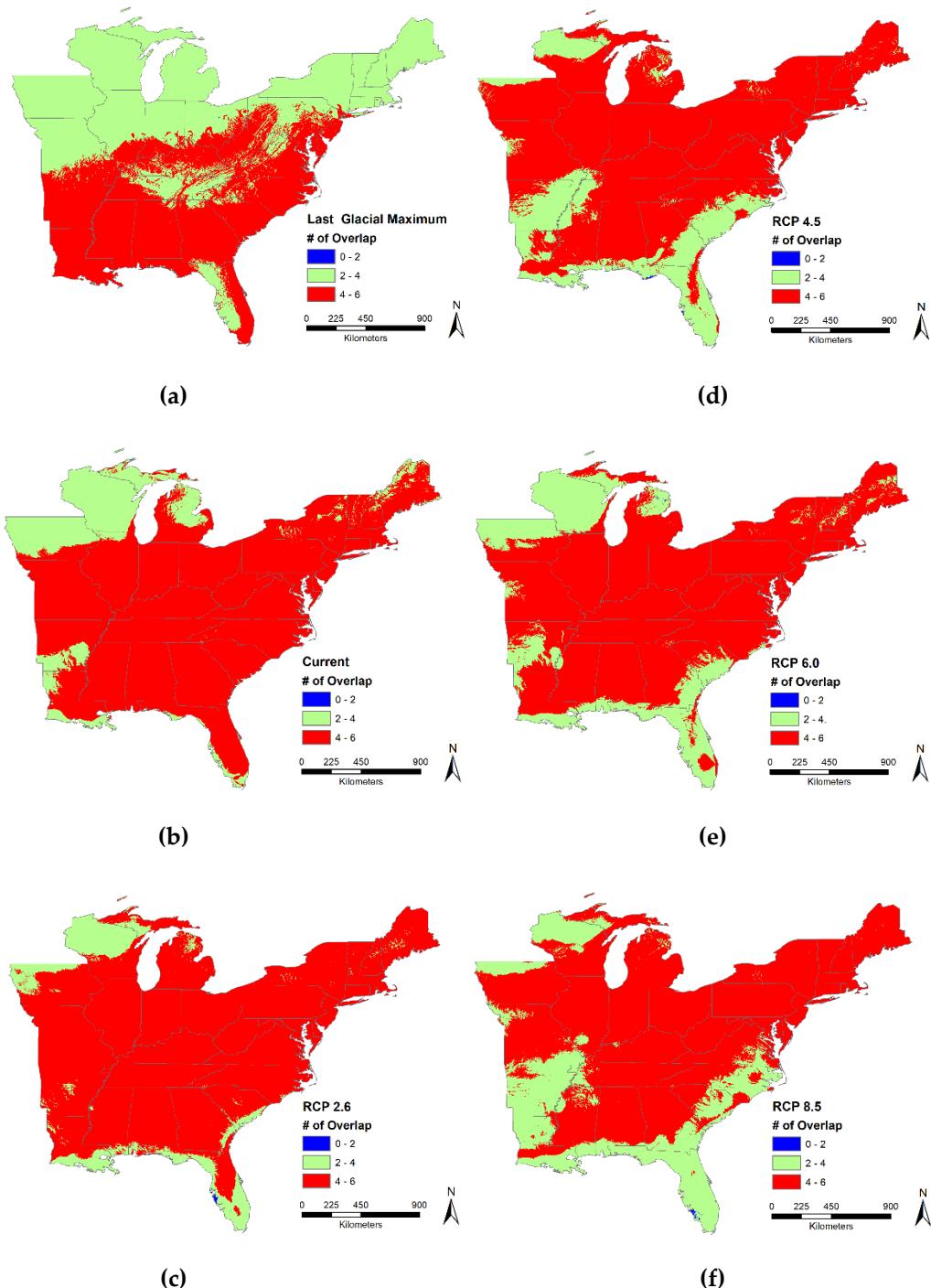


Figure S2. Alternative climatic suitability maps for *T. c. carolina* for four different time periods: (a) Last Glacial Maximum; (b) Current; (c) 2050 Representative Concentration Pathway (RCP) 2.6; (d) 2050 RCP 4.5; (e) 2050 RCP 6.0; (f) 2050 RCP 8.5. The colors represent climatically suitable habitat based on the bioclimatic profile of current conditions and the overlap between the six bioclimatic variables for each scenario with high overlap or most suitable habitat (in red) and low overlap least suitable habitat (in blue).

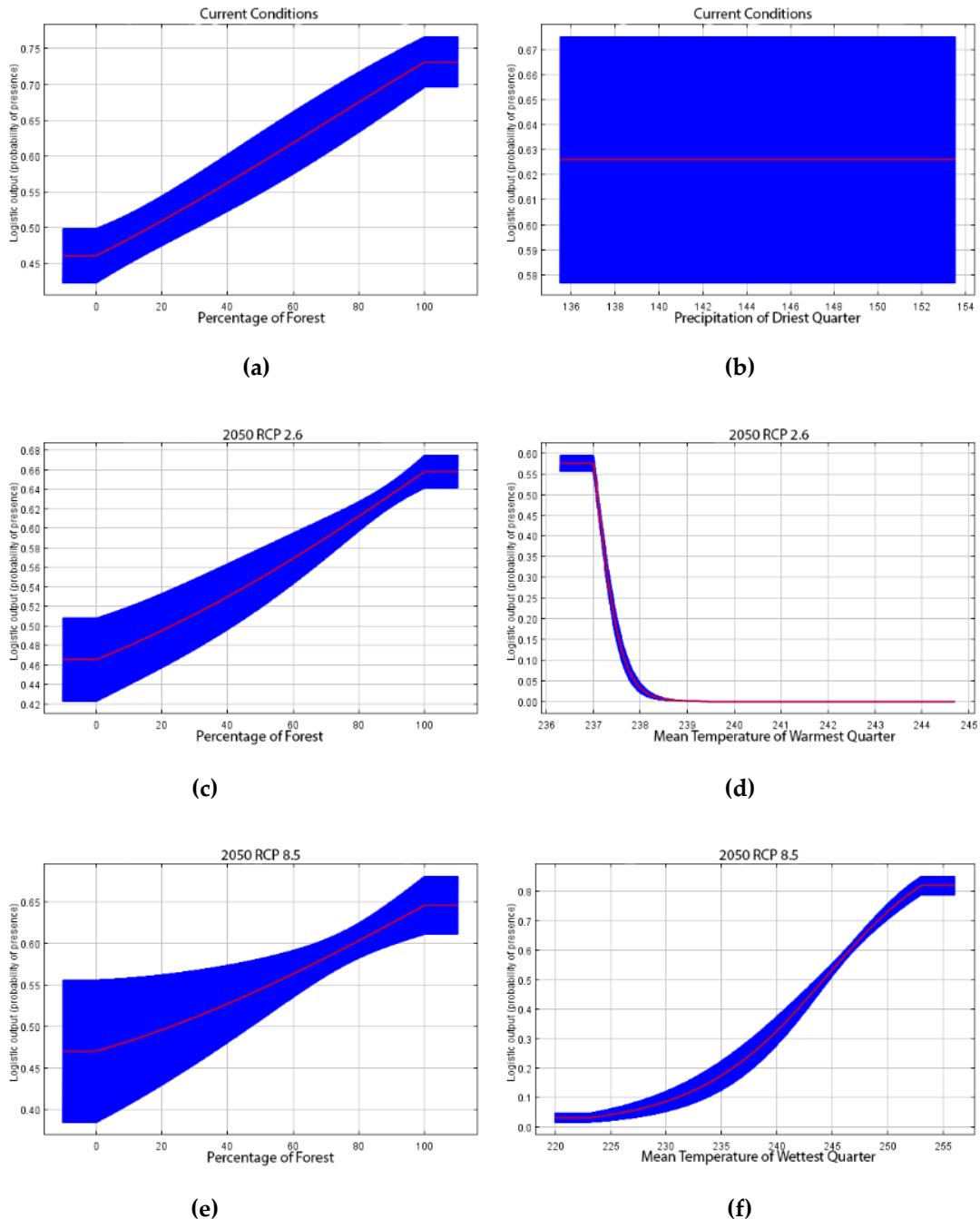


Figure S3. Response curves of the top two bioclimatic predictors for (a-b) current conditions; (c-d) 2050 Representative Concentration Pathway (RCP) 2.6; (e-f) 2050 RCP 8.5. The values shown are averaged from ten replicate runs with ± 1 standard deviation (blue margins). Note that x-axis should be divided by 10 to showcase in $^{\circ}\text{C}$ for mean temperature.