

## **Supplementary material**

### **The importance of calibrating climate change projections to local conditions at aquaculture sites**

#### **Contents:**

Table S1: Characteristics of each site and the farm measurements and climate model location used.

Figure S1: Model output (red line) and farm measurements (black line) for each site assessed in the 13 aquaculture production regions. The coloured background denotes relevant temperature ranges and thresholds for salmon aquaculture as outlined in Table 1. The time periods are shown above each panel beside the site identifier, the years vary due to the availability of the farm measurements. The thin red and black lines show individual years and the thick red and black line show the averages.

Figure S2: Comparison of farm measurements (black line), uncorrected modelled temperatures (red), BC1 (green) and BC2 (blue) for individual years within the reference periods data was available for (Table S1).

Table S1: Characteristics of each site and the farm measurements and climate model location

Region	Site	Characteristics	Time Period	Climate location	model
1	1	Sheltered	2011-2017	R1_L3	
1	2	Exposed	2011-2017	R1_L4	
2	3	Exposed	2010-2016	R2_L2	
2	4	Sheltered	2010-2016	R2_L3	
2	5	Sheltered	2010-2016	R2_L4	
3	6	Sheltered	2010-2016	R3_L3	
3	7	Exposed	2010-2016	R3_L4	
3	8	Sheltered	2010-2016	R3_L4	
3	9	Sheltered	2010-2016	R3_L2	
4	10	Exposed	2010-2016	R4_L1	
4	11	Exposed	2011-2016	R4_L1	
4	12	Sheltered	2010-2016	R4_L2	
4	13	Sheltered	2012-2016	R4_L2	
5	14	Exposed	2011-2017	R5_L2	
5	15	Sheltered	2011-2015	R5_L3	
6	16	Sheltered	2011-2017	R6_L4	
6	17	Sheltered	2011-2017	R6_L4	
6	18	Exposed	2011-2017	R6_L3	
6	19	Exposed	2010-2017	R6_L1	
7	20	Exposed	2011-2017	R7_L1	
7	21	Exposed	2012-2016	R7_L2	
8	22	Exposed	2011-2017	R8_L1	
8	23	Exposed	2008-2015	R8_L2	
8	24	Sheltered	2010-2017	R8_L3	
8	25	Exposed	2008-2017	R8_L4	
9	26	Exposed	2007-2017	R9_L1	
9	27	Sheltered	2009-2017	R9_L1	
9	28	Sheltered	2009-2017	R9_L2	
9	29	Sheltered	2008-2016	R9_L4	
10	30	Exposed	2012-2017	R10_L2	
10	31	Sheltered	2014-2017	R10_L2	
10	32	Exposed	2013-2017	R10_L4	
10	33	Sheltered	2010-2017	R10_L2	
11	34	Exposed	2010-2016	R11_L1	
11	35	Exposed	2010-2016	R11_L1	
11	36	Sheltered	2010-2016	R11_L2	
11	37	Exposed	2011-2017	R11_L1	
12	38	Exposed	2009-2016	R12_L1	
12	39	Sheltered	2010-2016	R12_L1	
12	40	Exposed	2011-2016	R12_L4	
12	41	Exposed	2012-2017	R12_L4	
13	42	Sheltered	2011-2016	R13_L3	
13	43	Exposed	2010-2014	R13_L4	

# Region 1

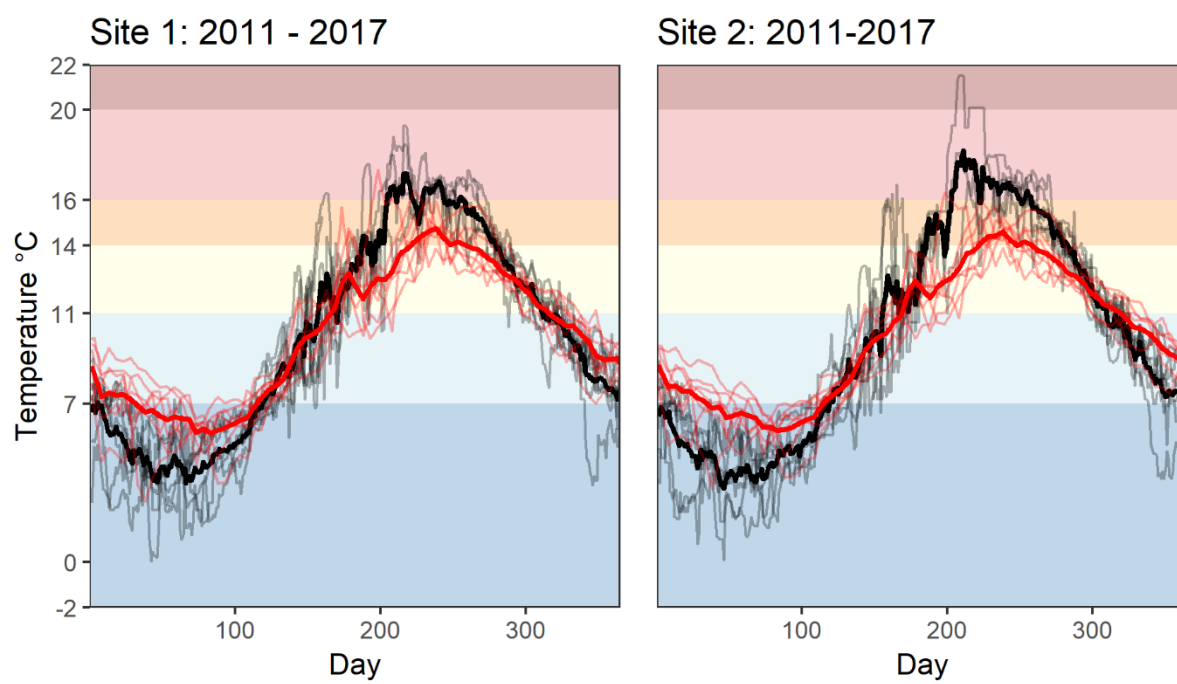


Figure S1A

## Region 2

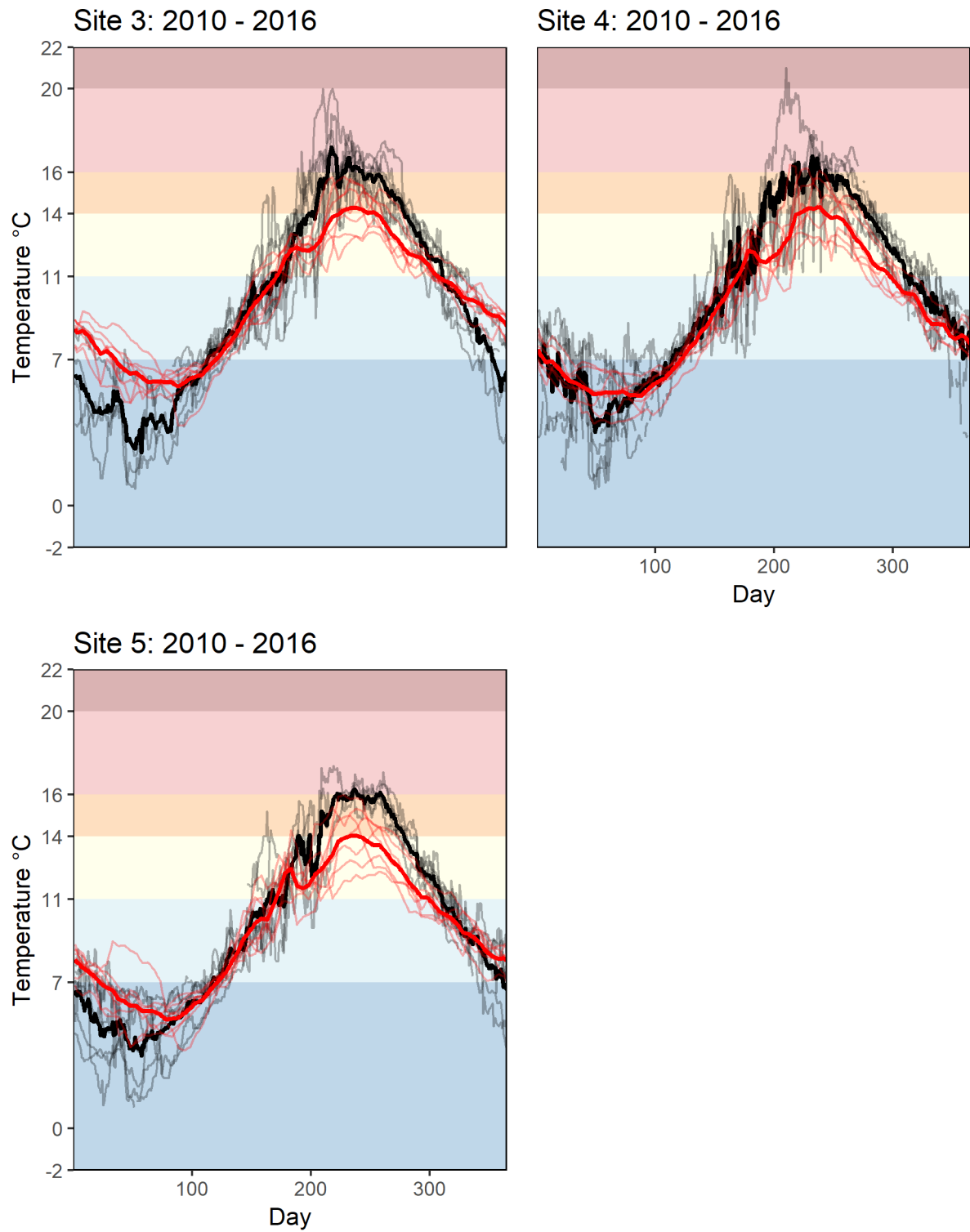


Figure S1B



## Region 3

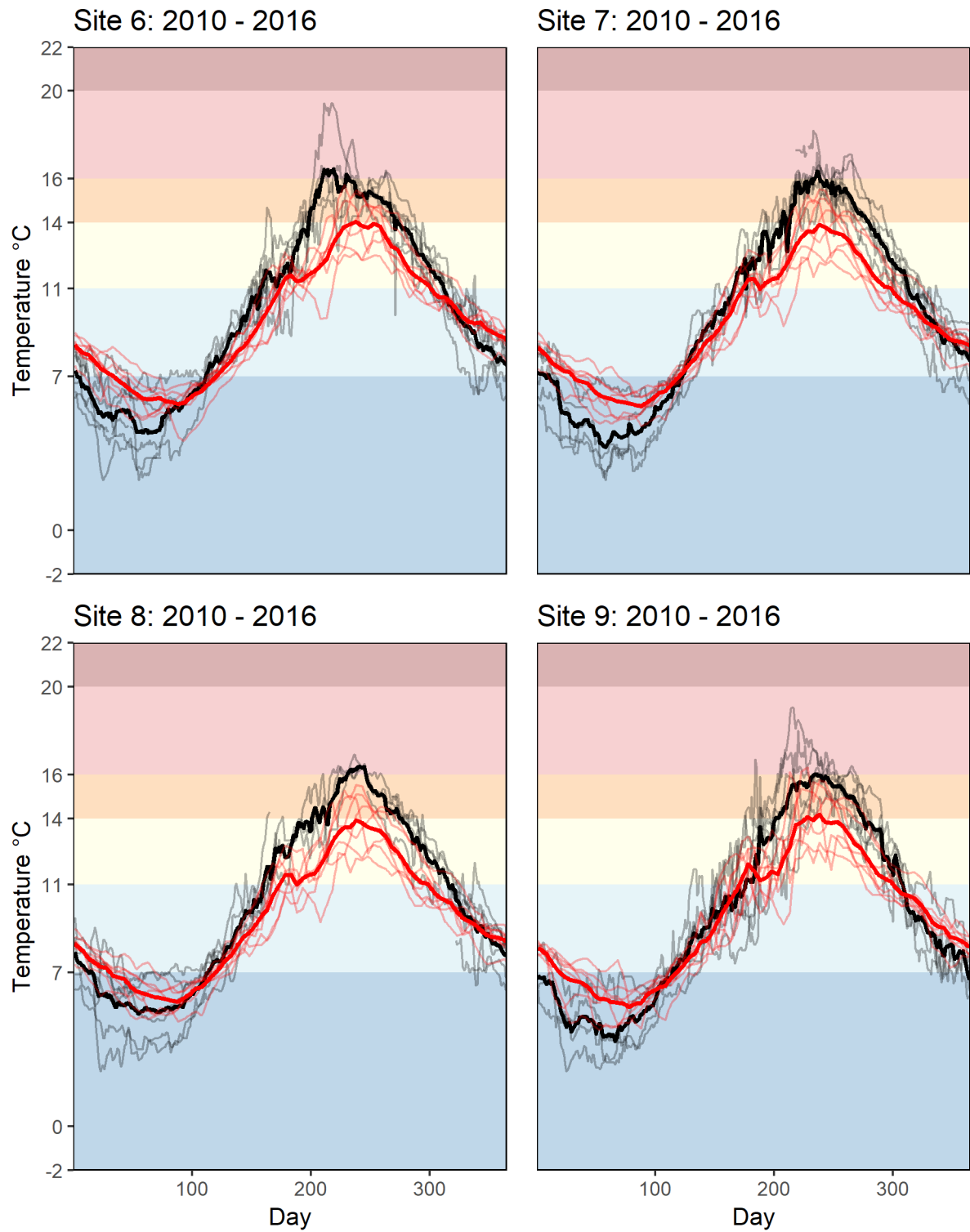


Figure S1C

## Region 4

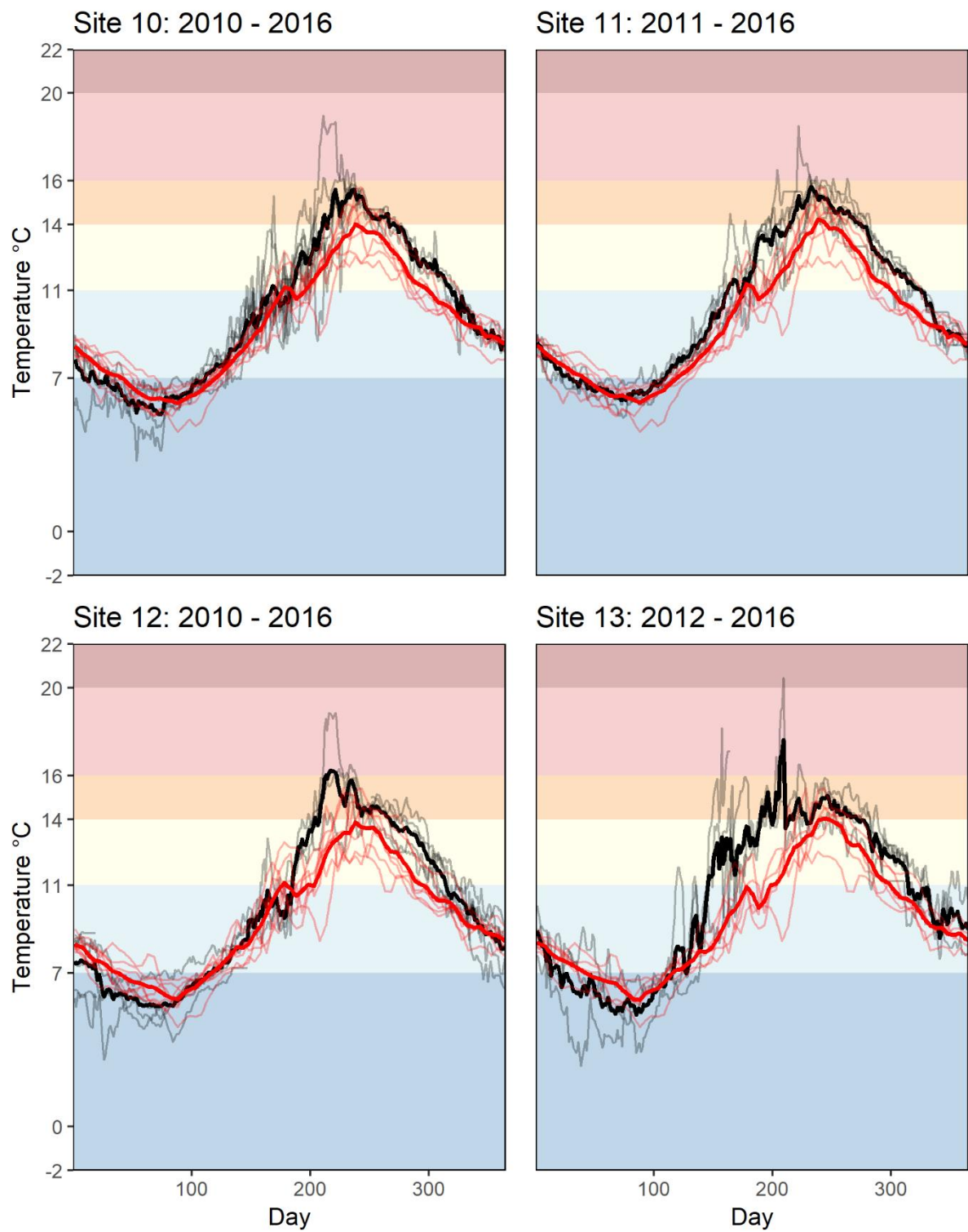


Figure S1D

## Region 5

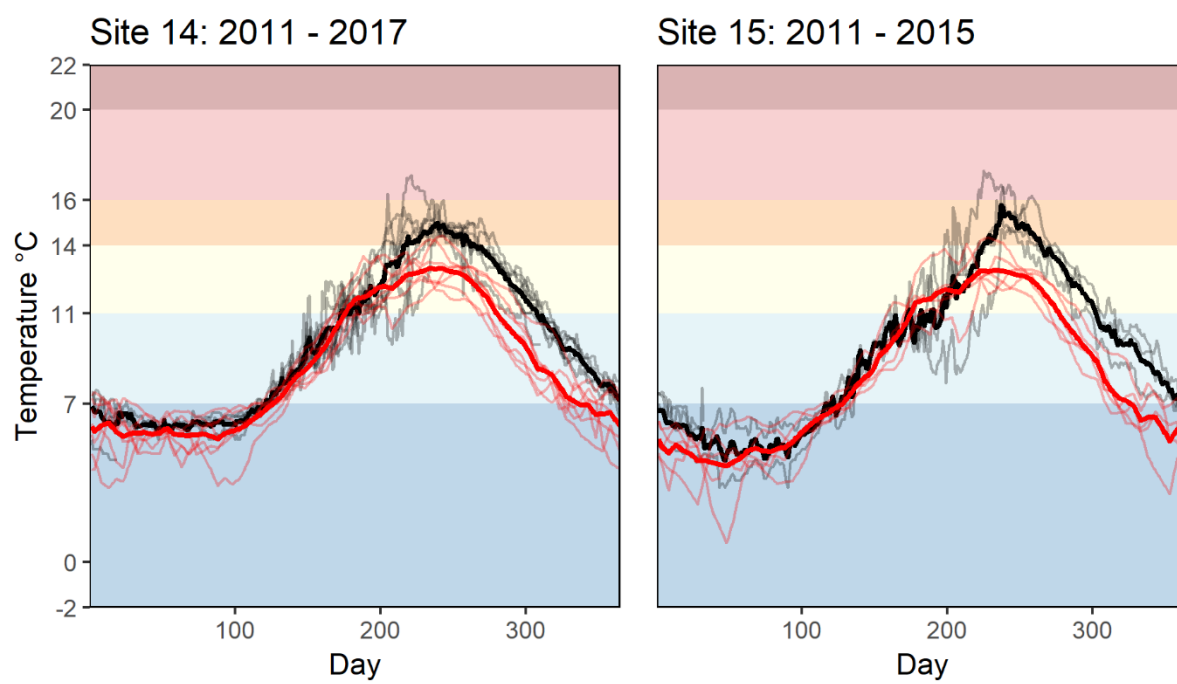


Figure S1E

## Region 6

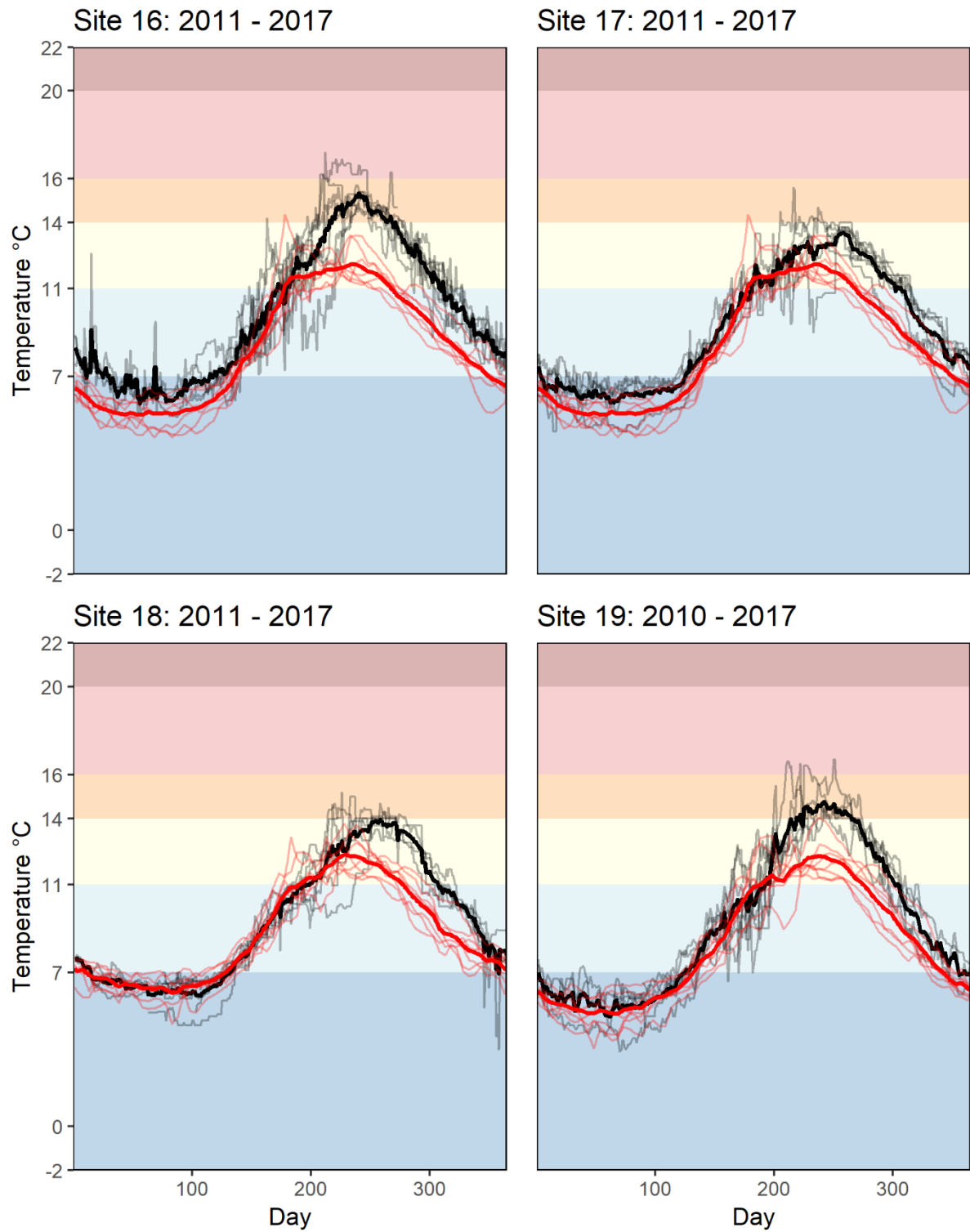


Figure S1F

## Region 7

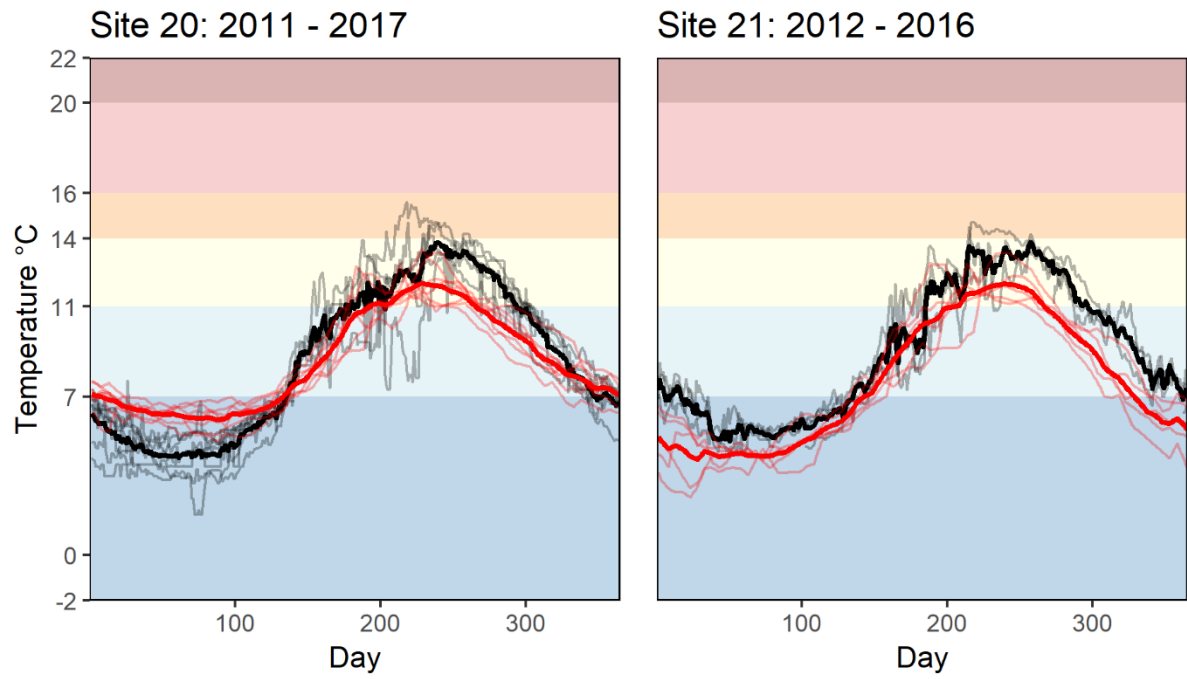


Figure S1G

## Region 8

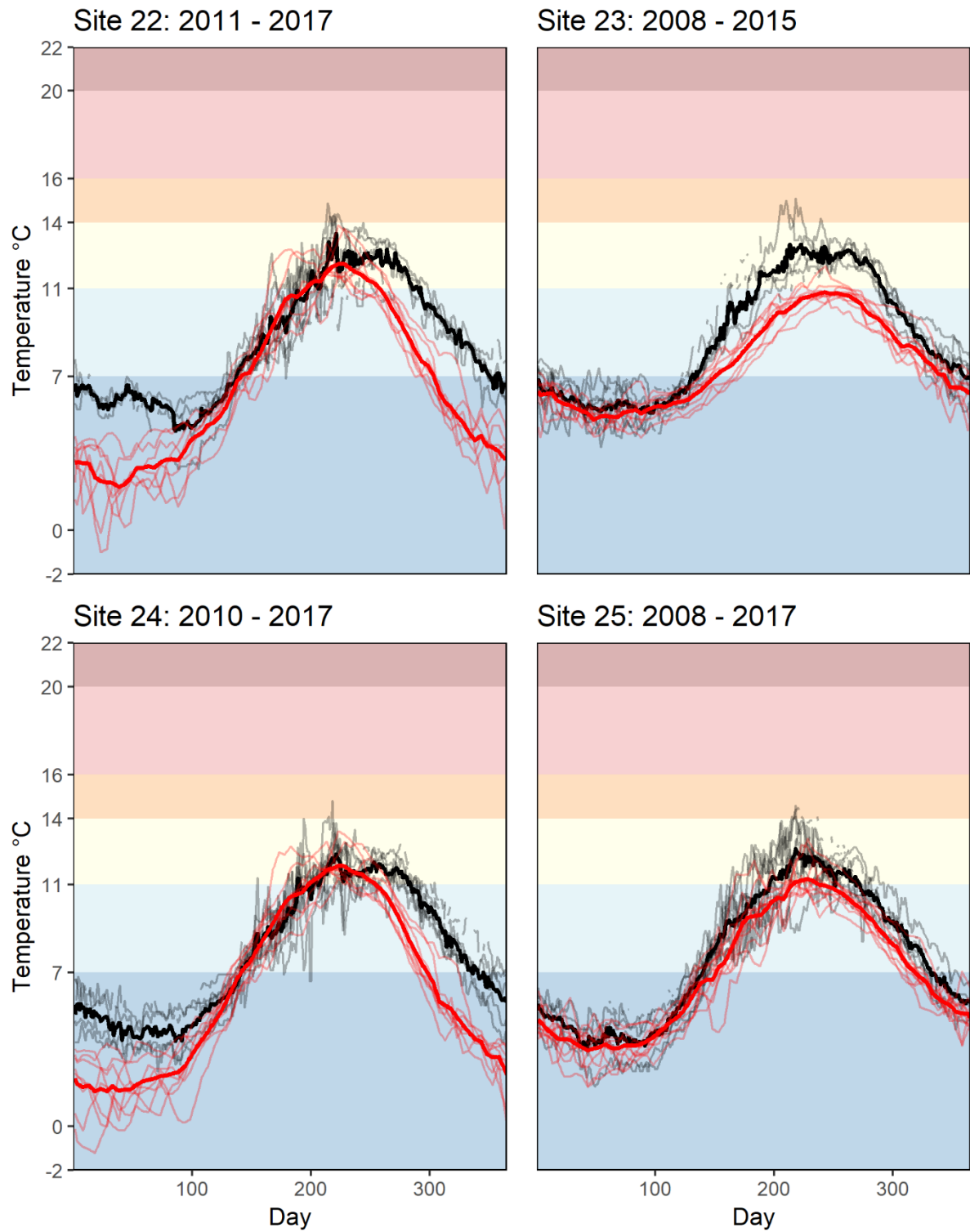


Figure S1H

## Region 9

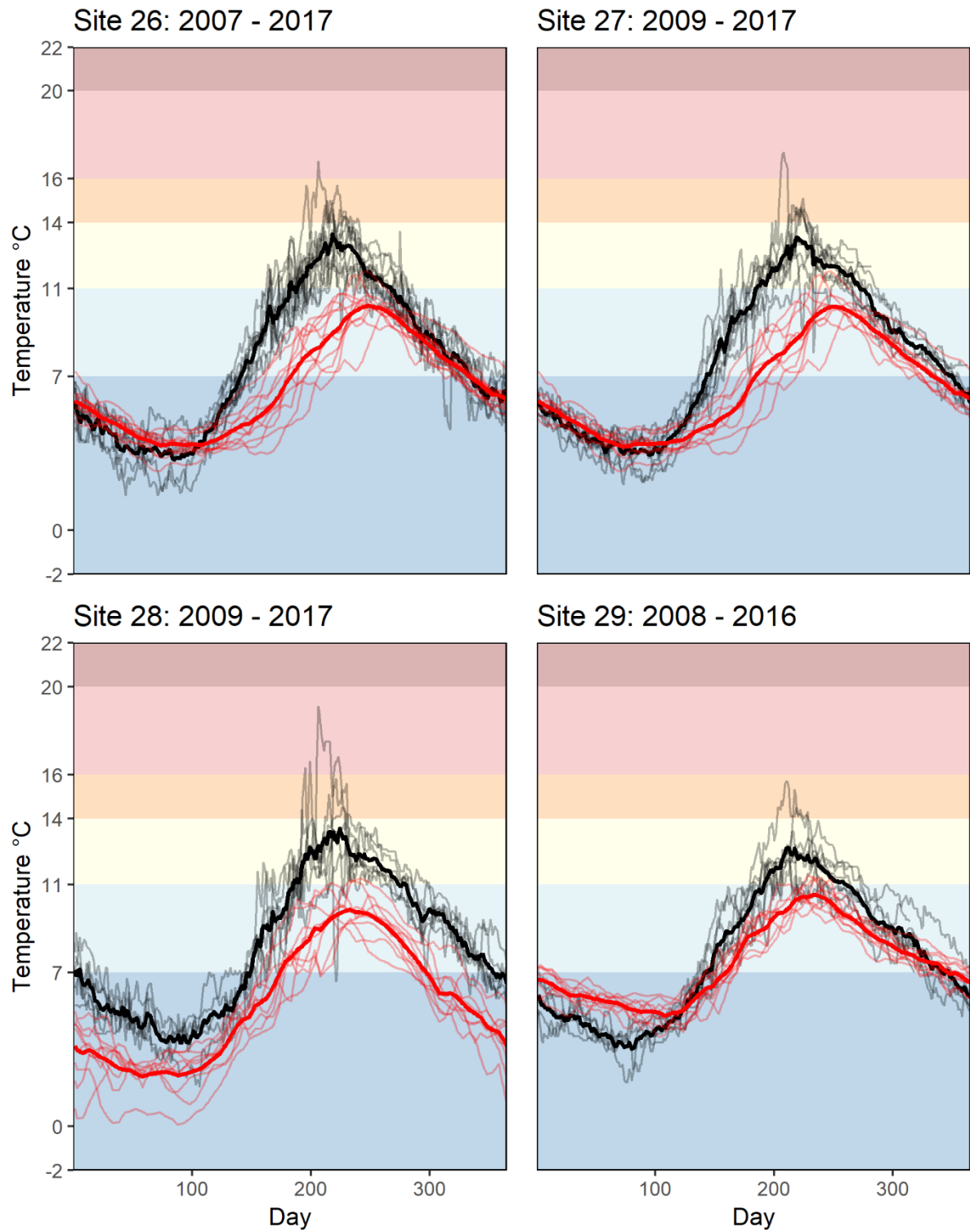


Figure S1I

## Region 10

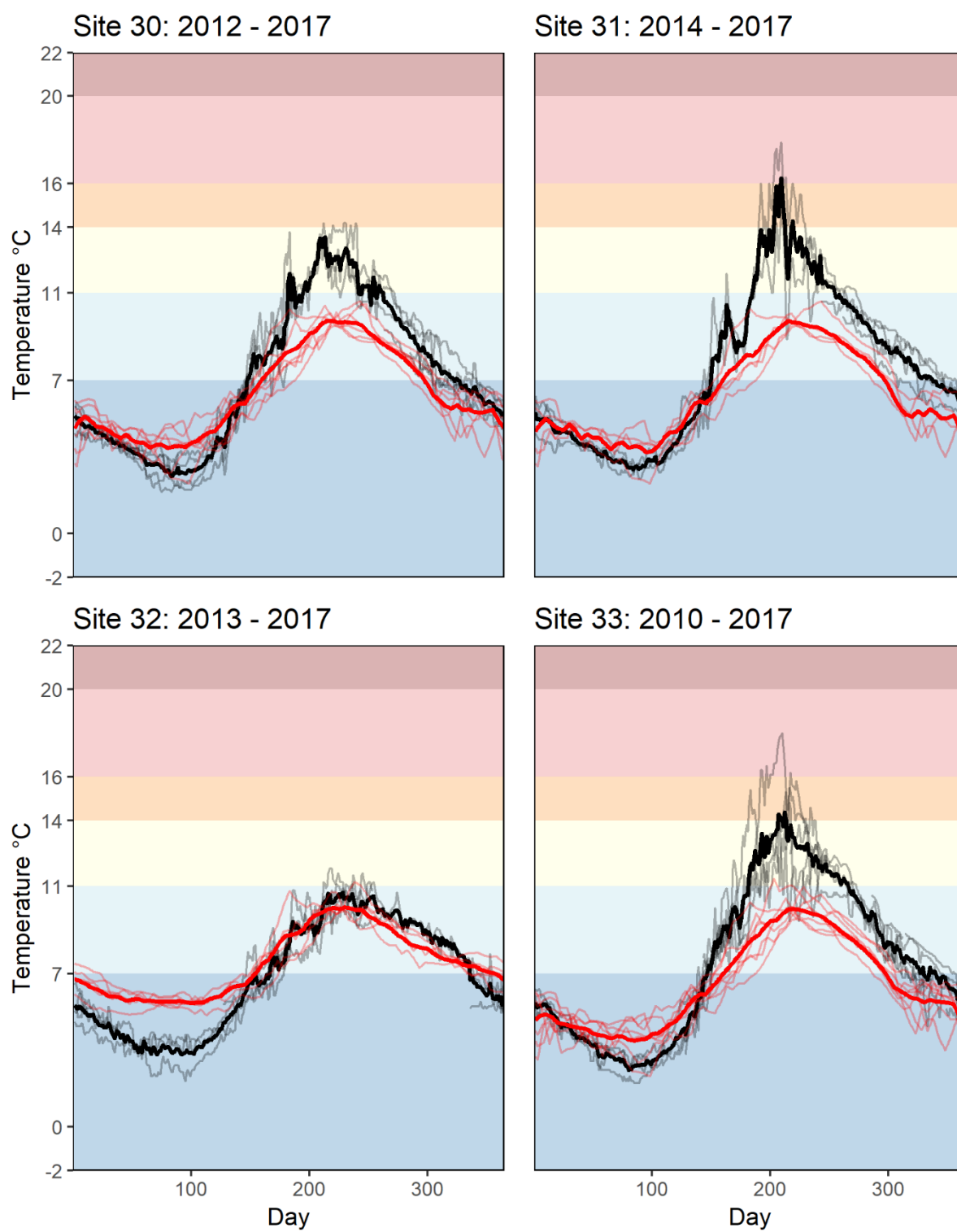


Figure S1J



# Region 11

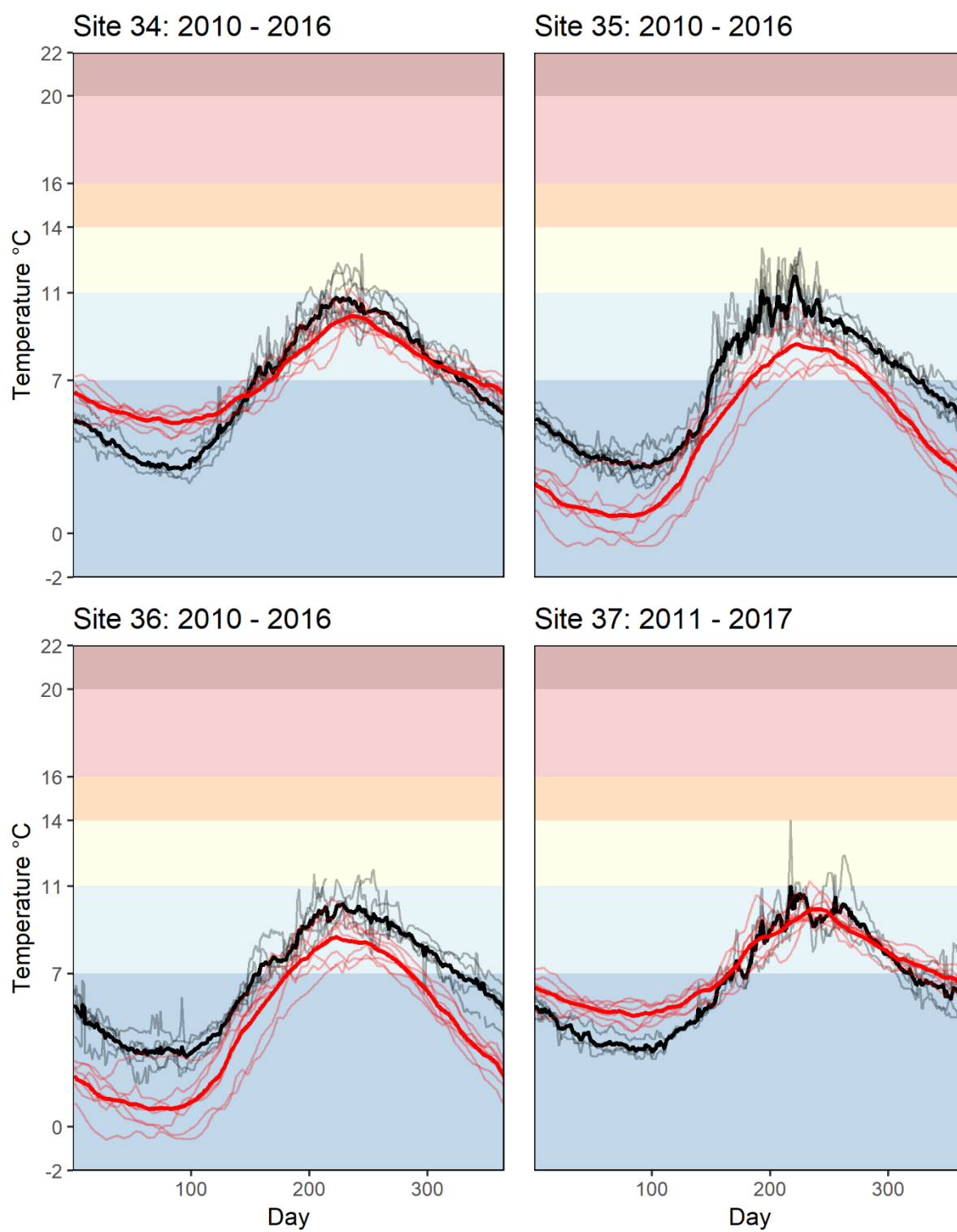


Figure S1K

## Region 12

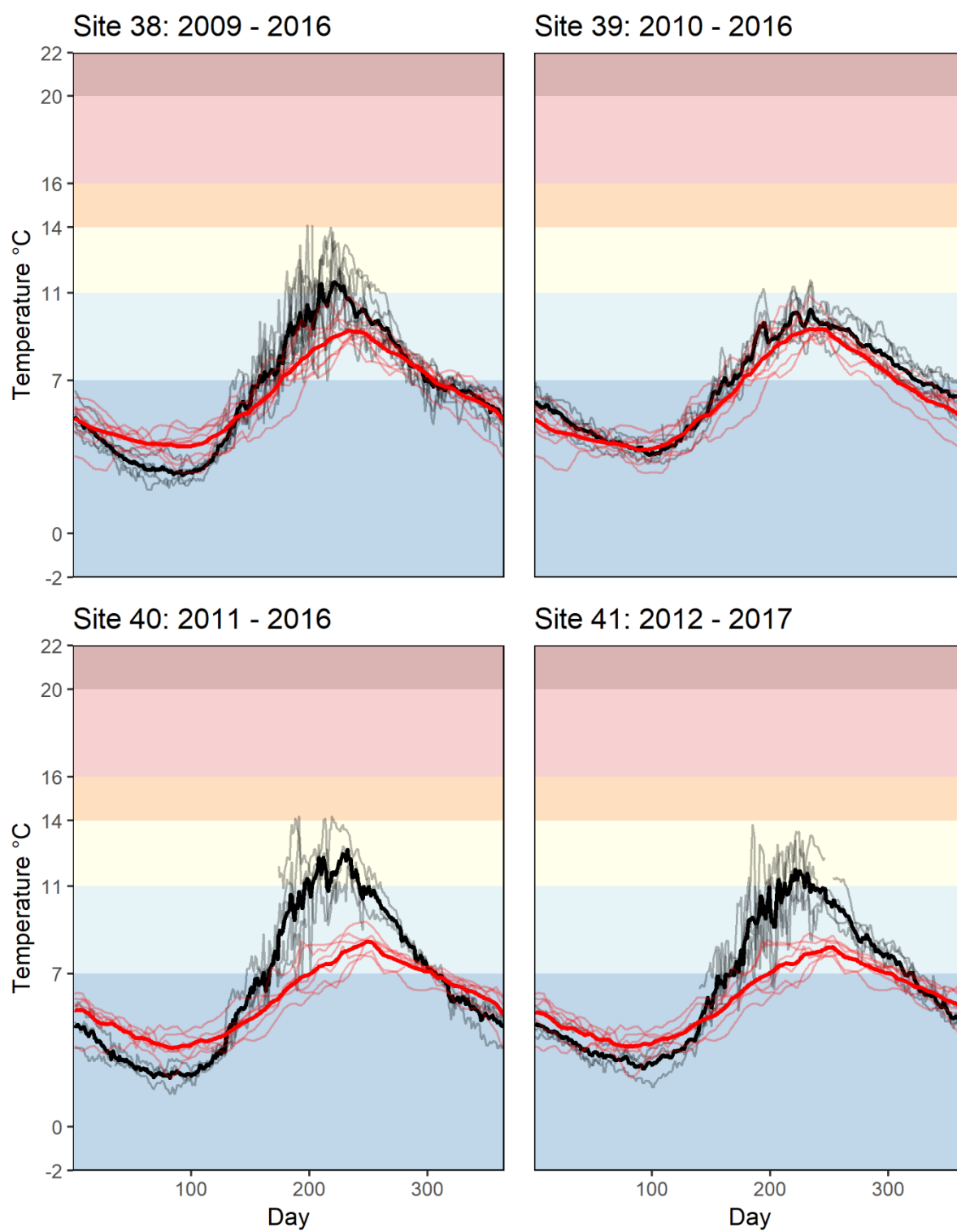


Figure S1L

## Region 13

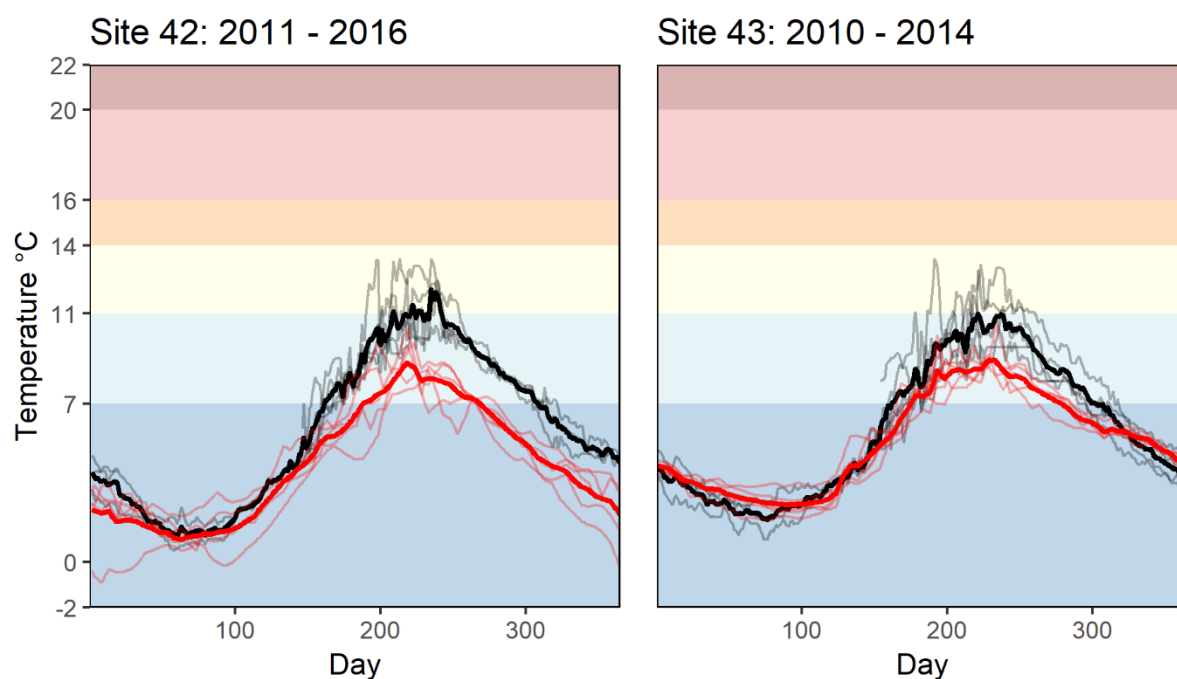


Figure S1M

Figure S1: Model output (red line) and farm measurements (black line) for each site assessed in the 13 aquaculture production regions. The coloured background denotes relevant temperature ranges and thresholds for salmon aquaculture as outlined in Table 1. The time periods are shown above each panel beside the site identifier, the years vary due to the availability of the farm measurements. The thin red and black lines show individual years and the thick red and black line show the averages.

## Region 1

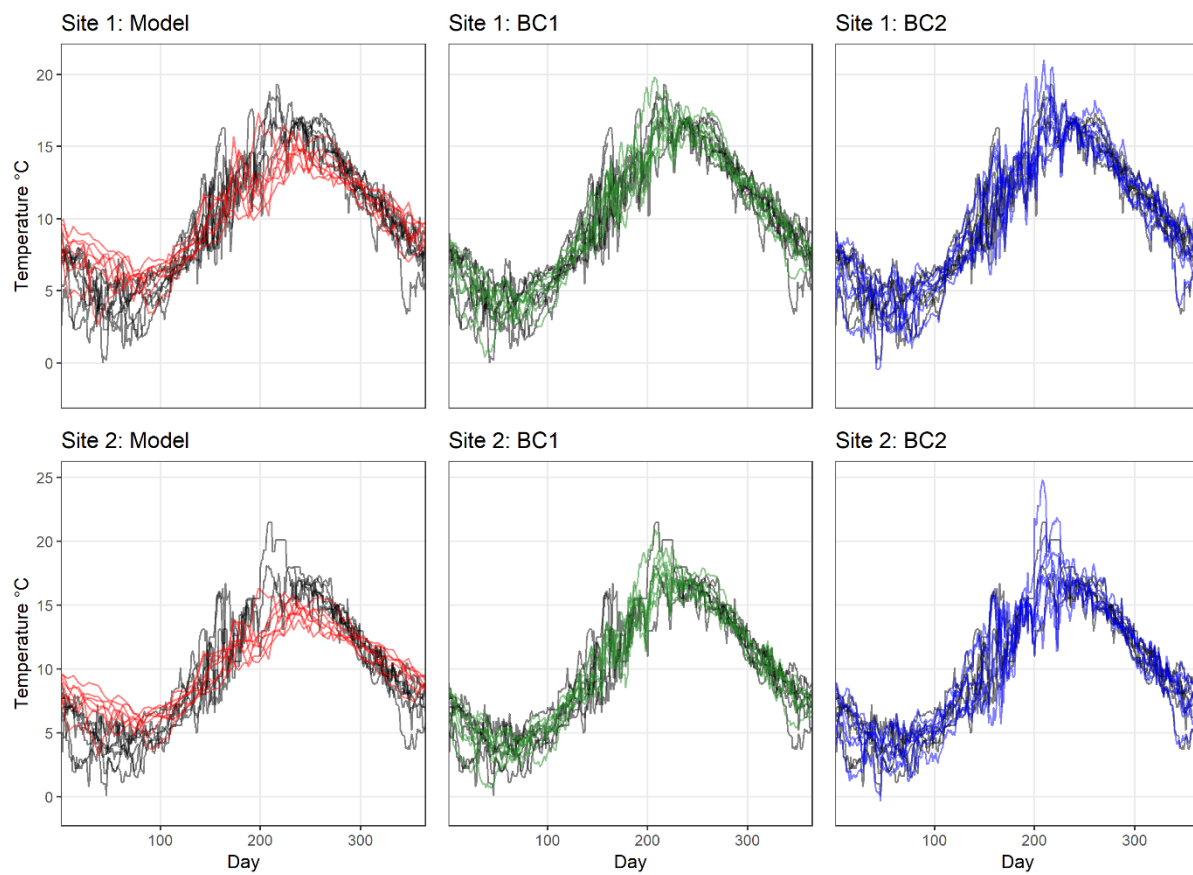


Figure S2A

## Region 2

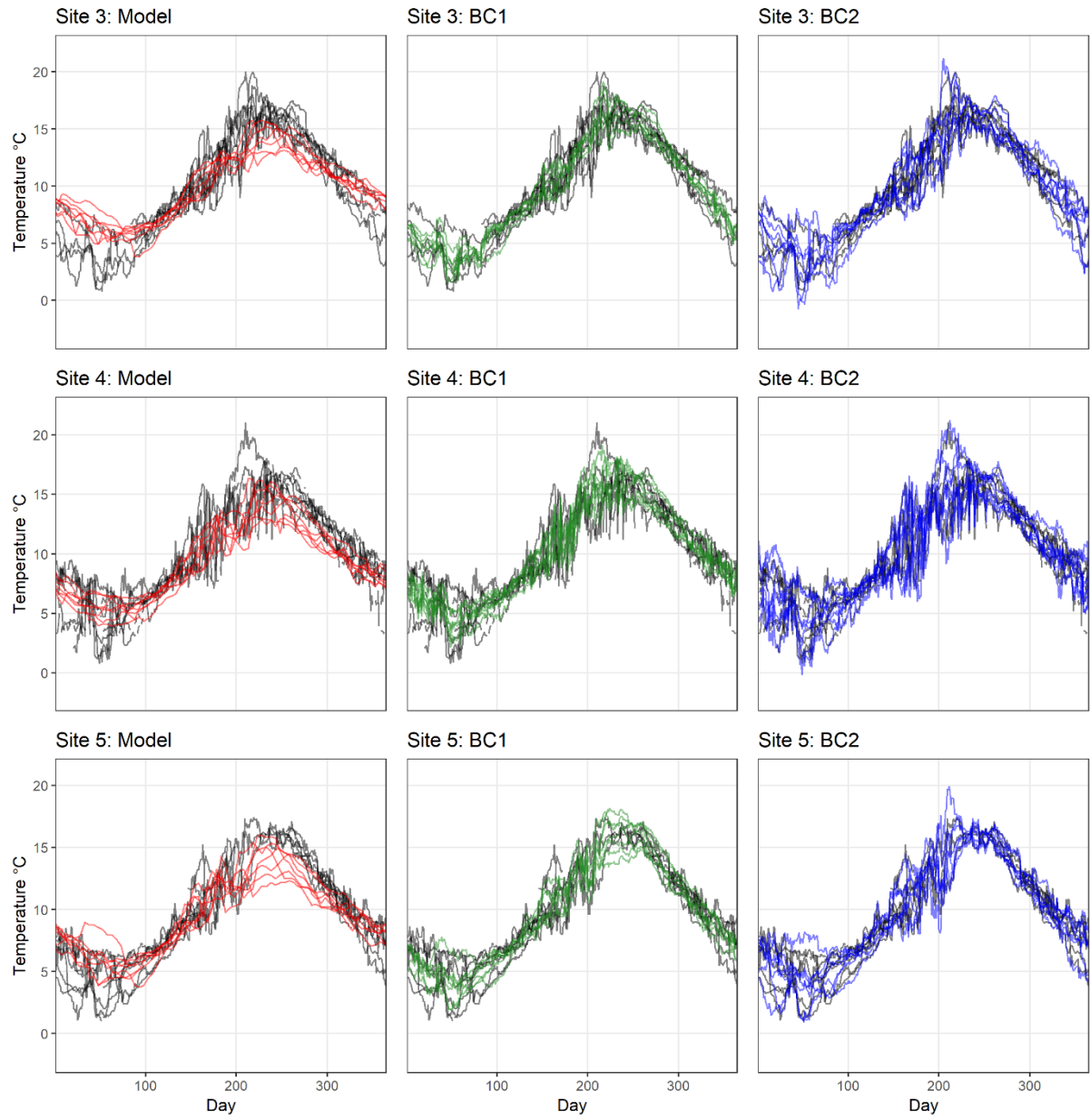


Figure S2B

## Region 3

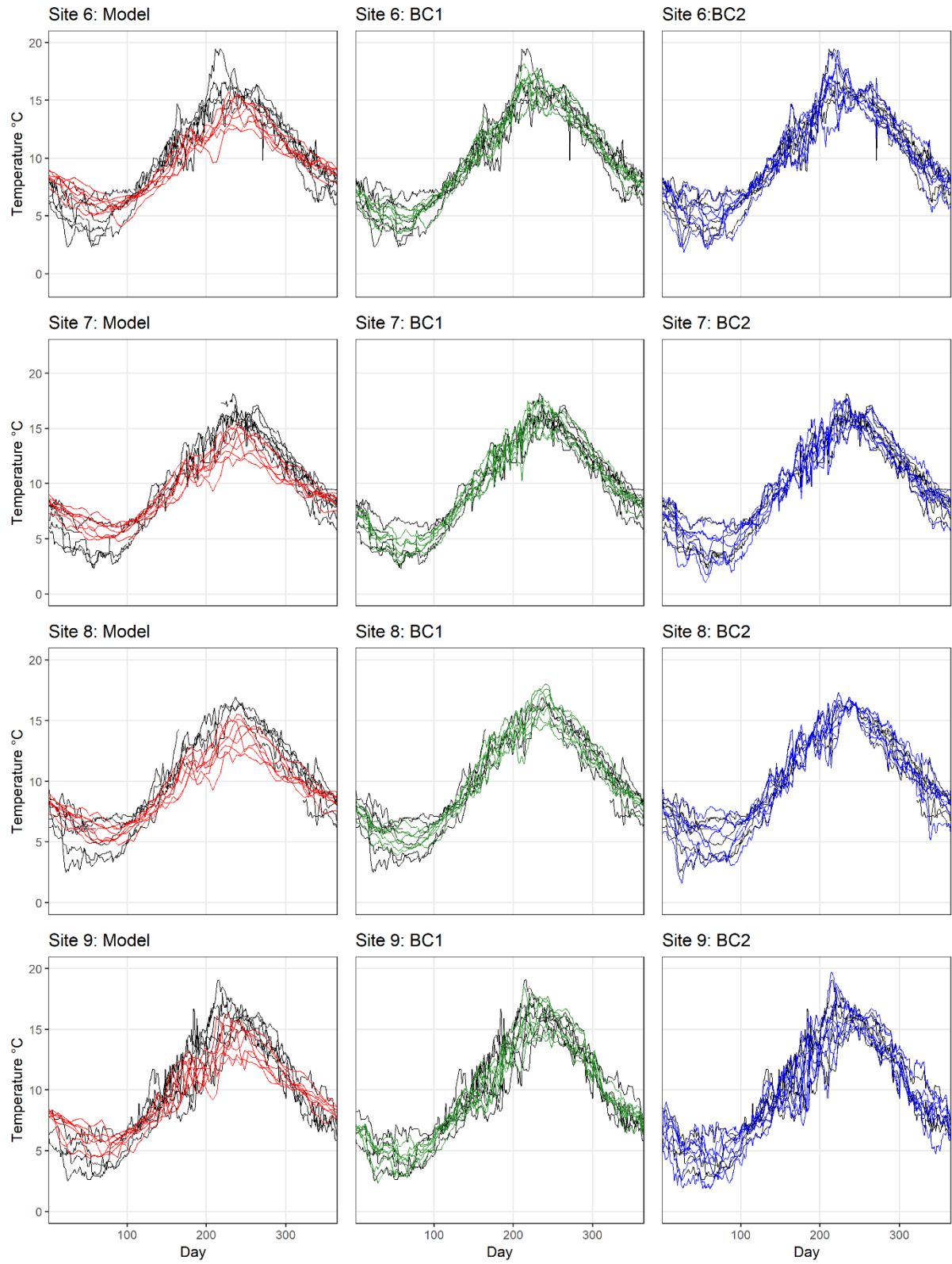


Figure S2C

## Region 4

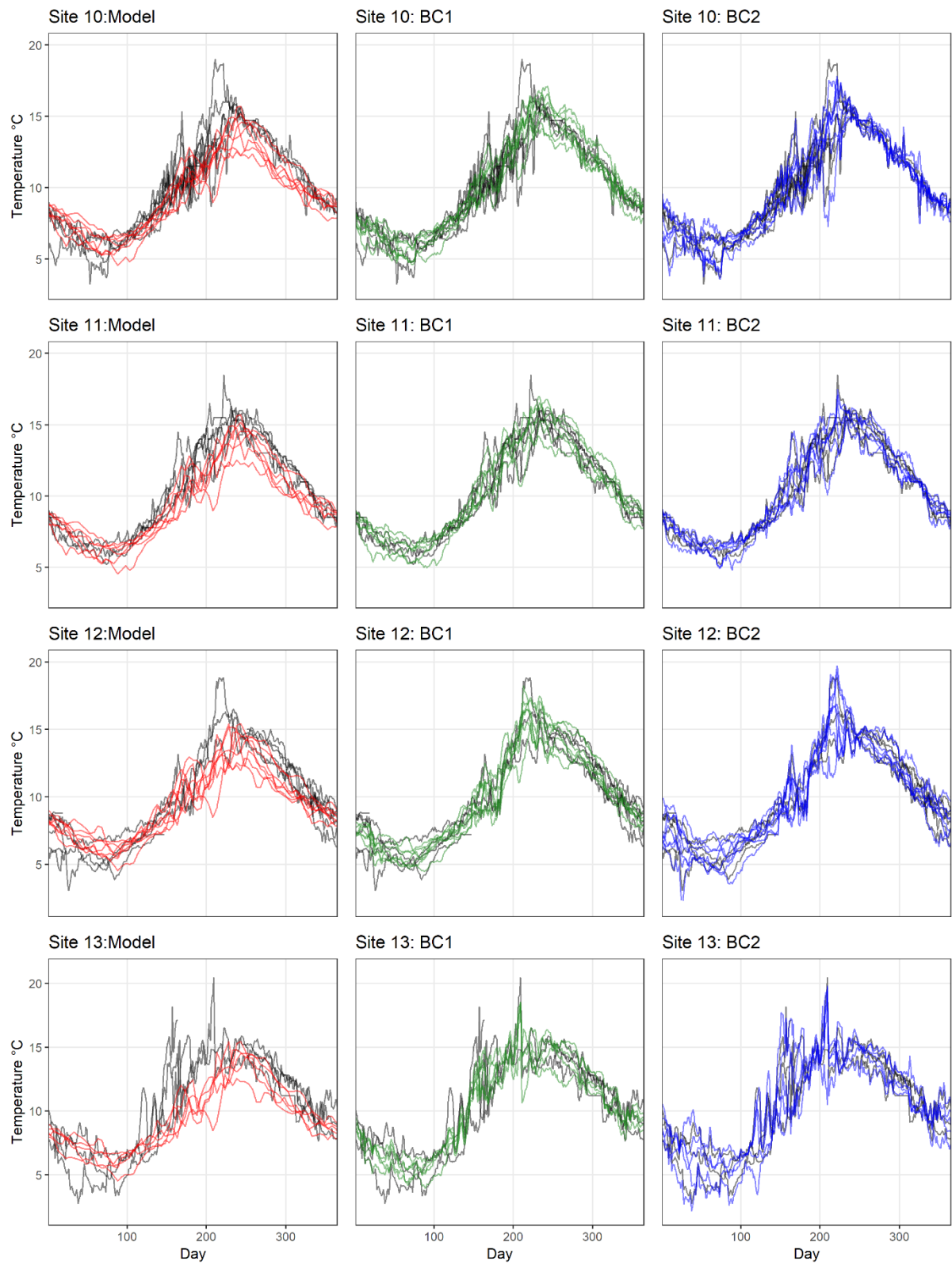


Figure S2D

## Region 5

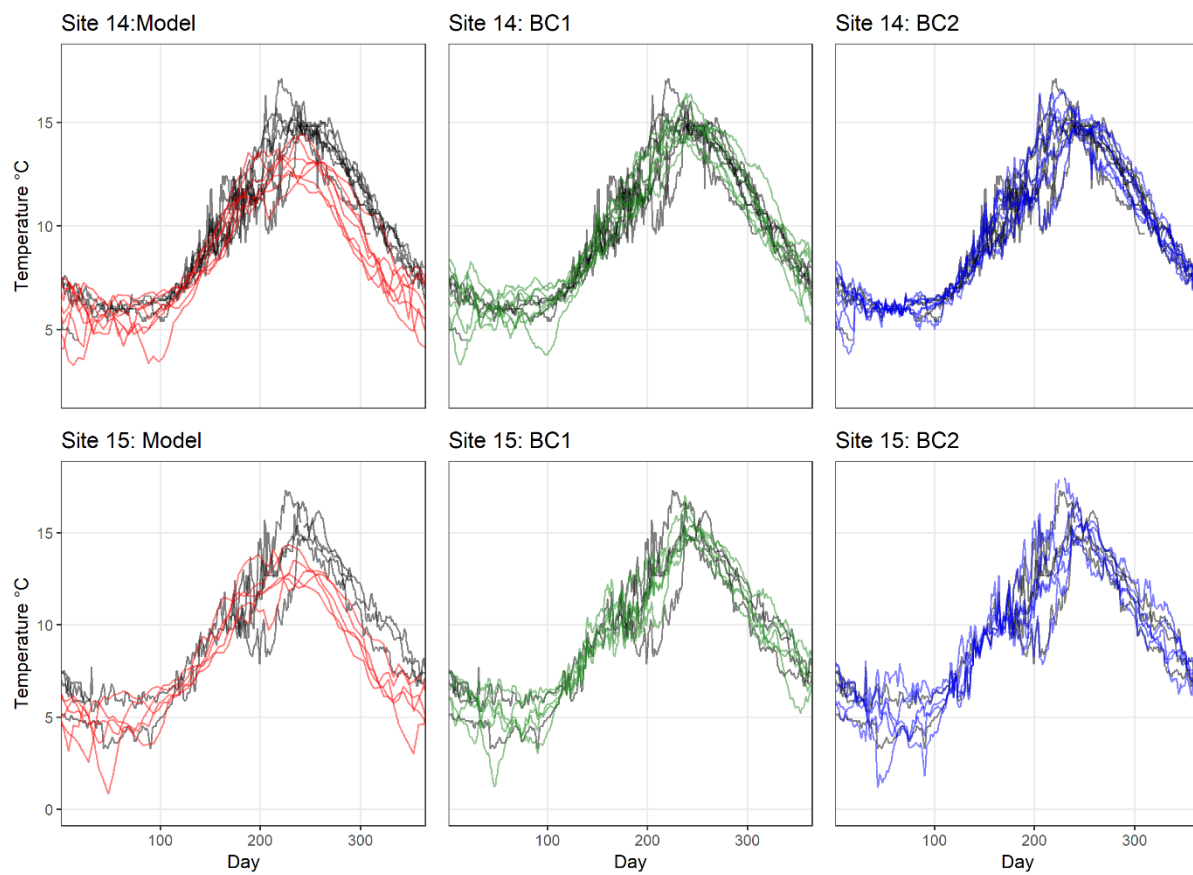


Figure S2E



## Region 6

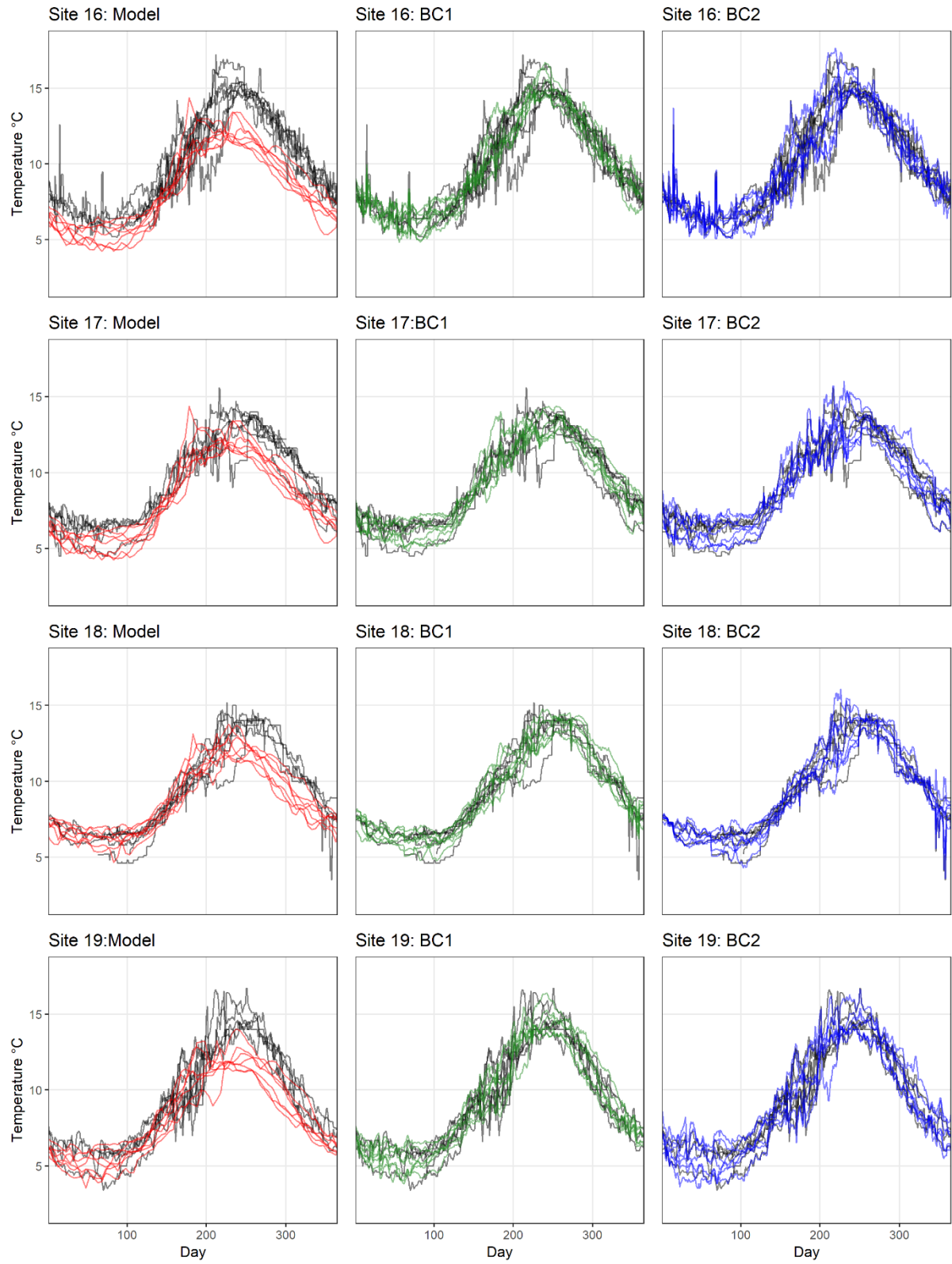


Figure S2F

## Region 7

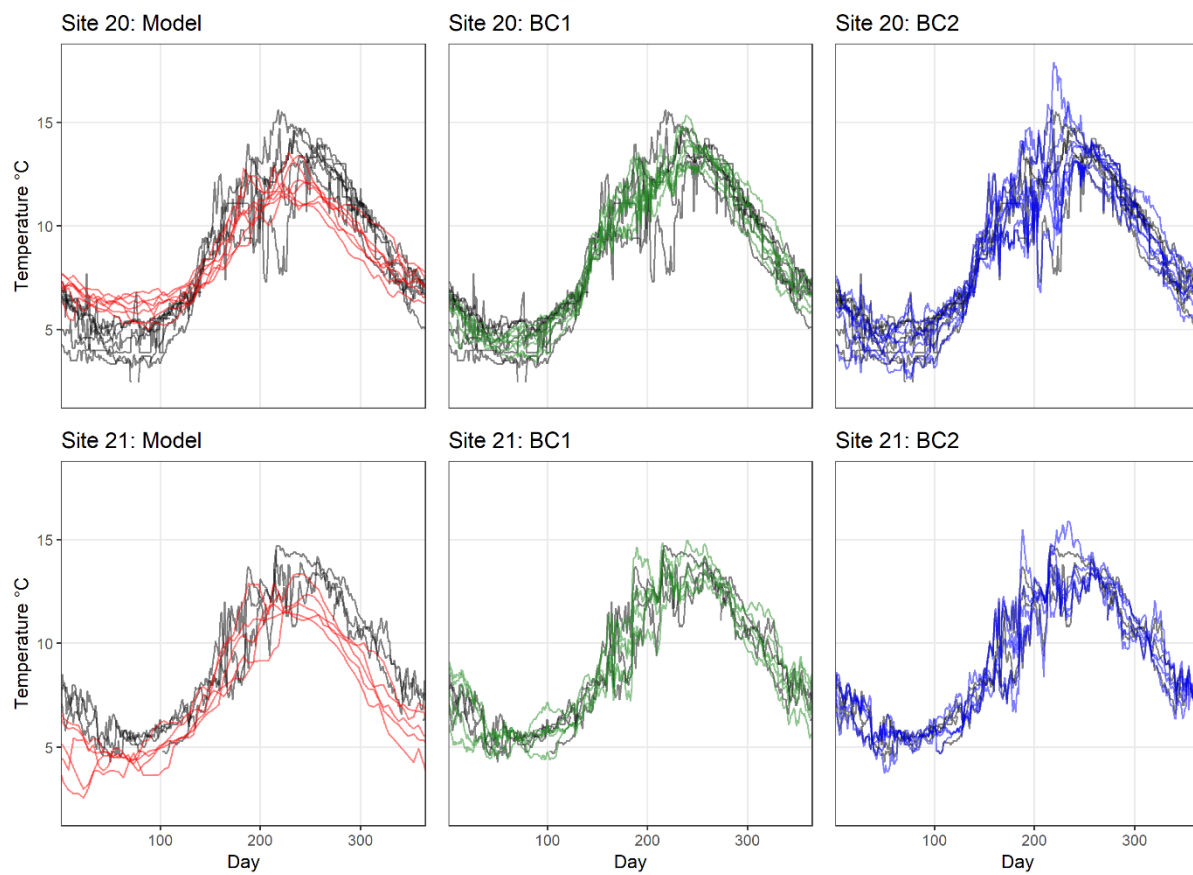


Figure S2G

## Region 8

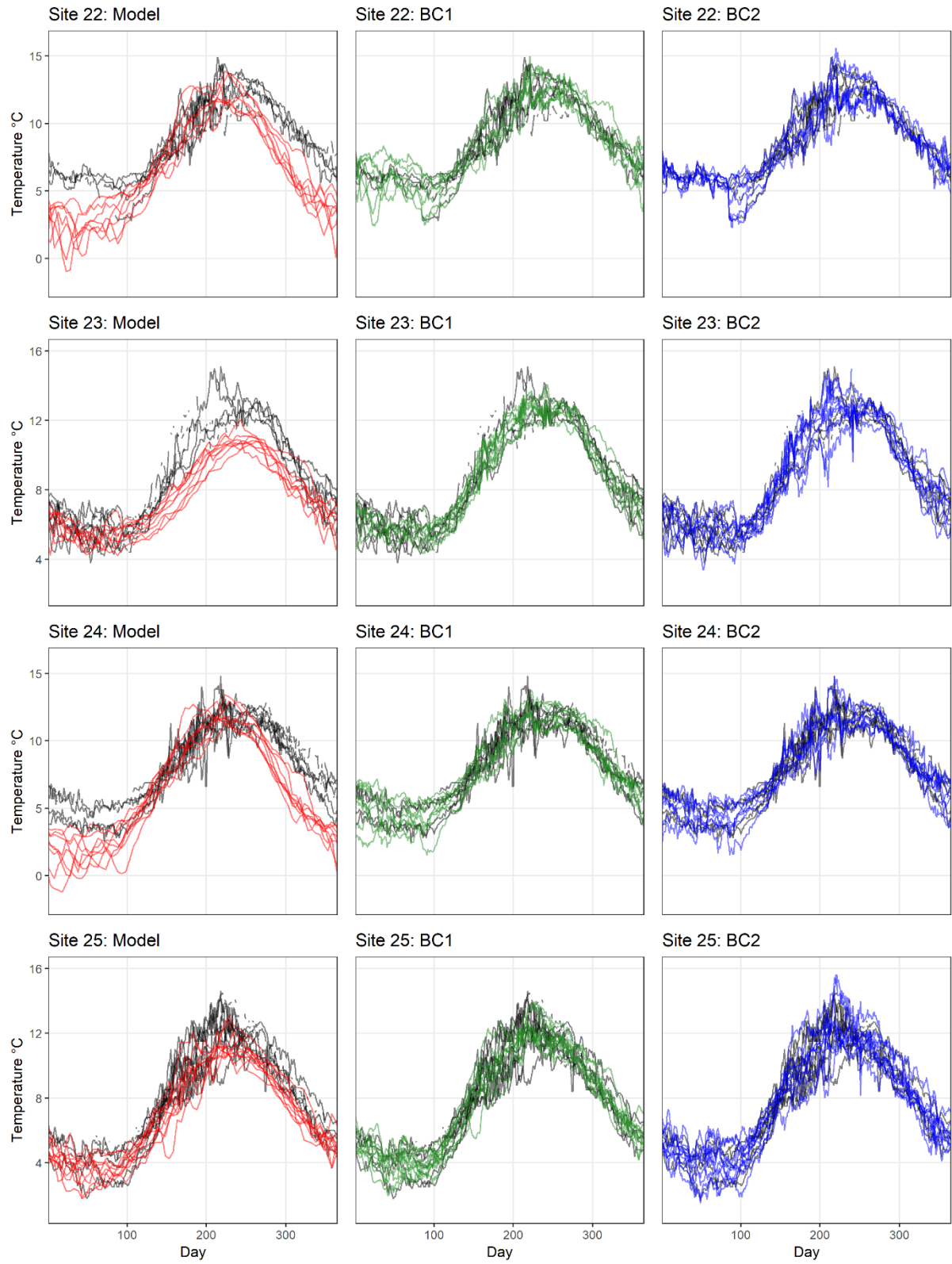


Figure S2H

## Region 9

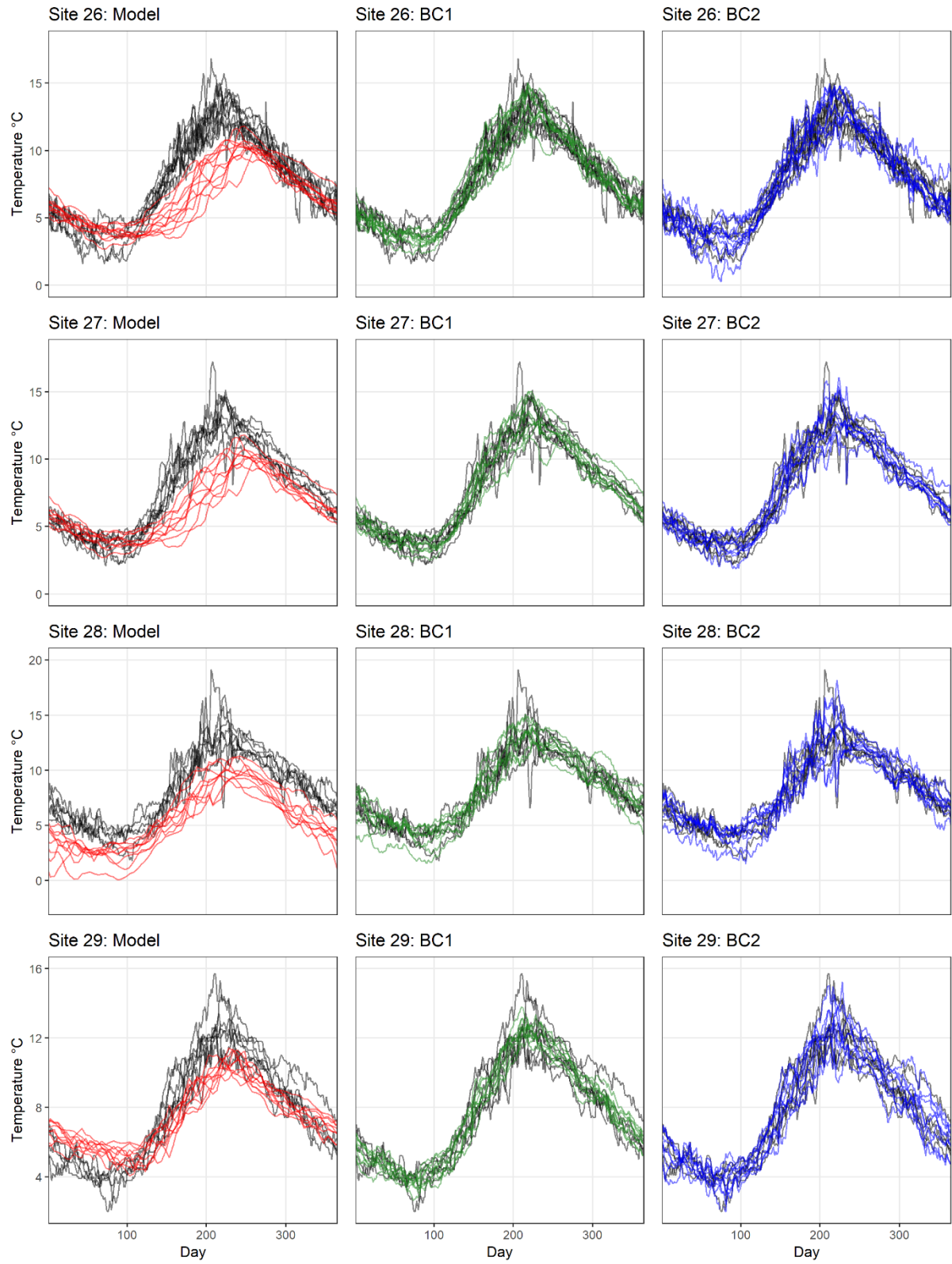


Figure S2I

## Region 10

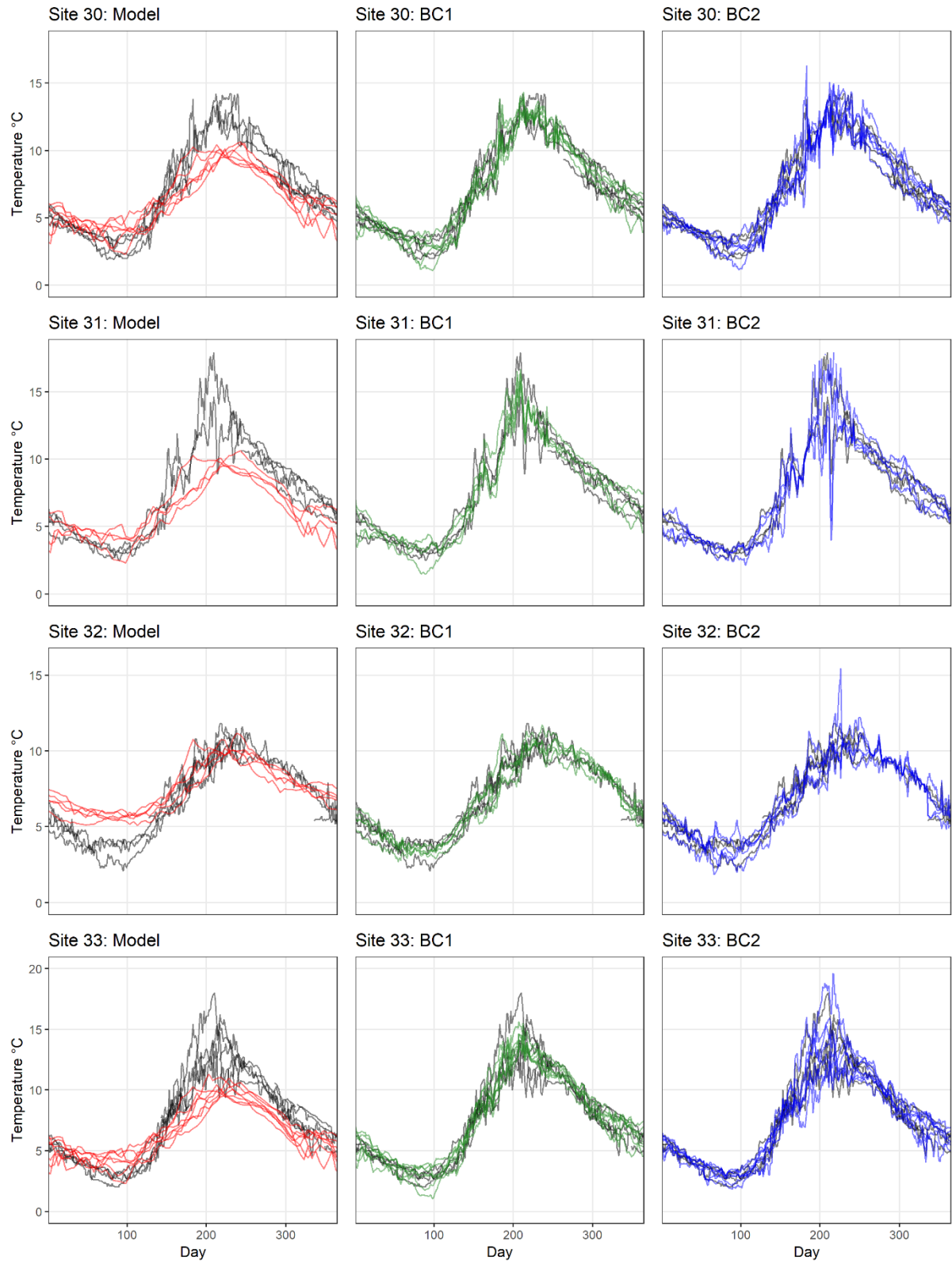


Figure S2J

## Region 11

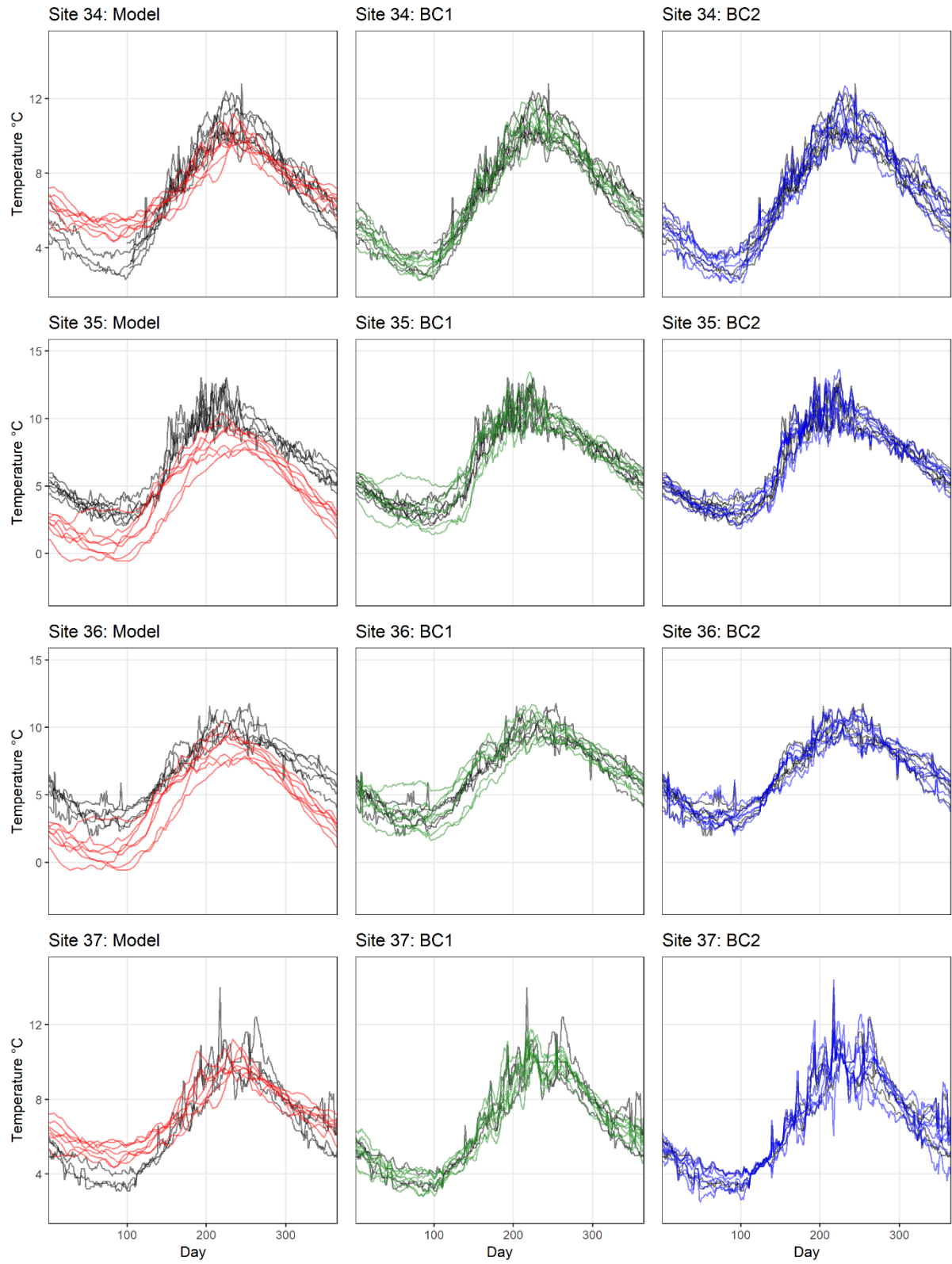


Figure S2K



## Region 12

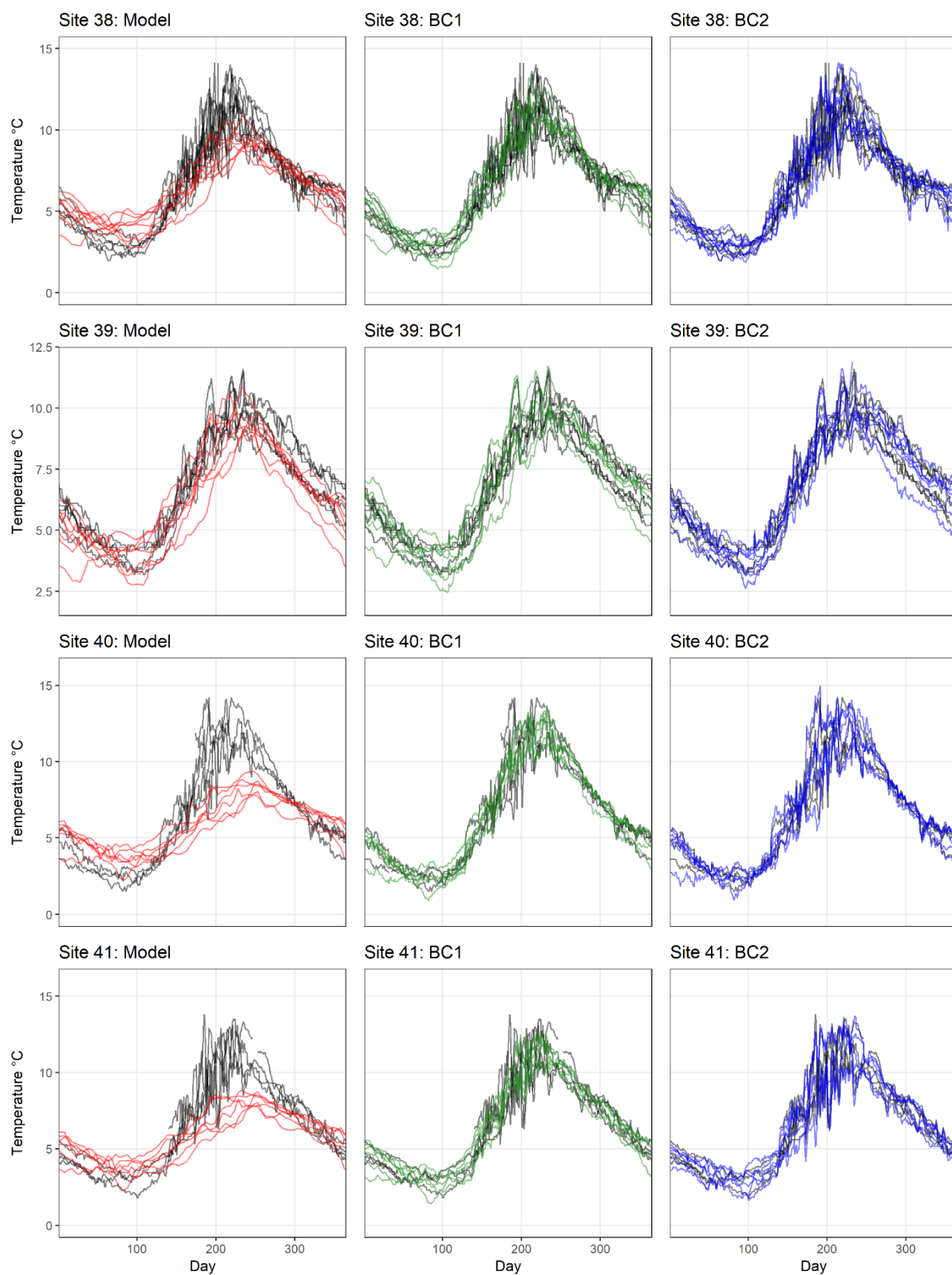


Figure S2L

## Region 13

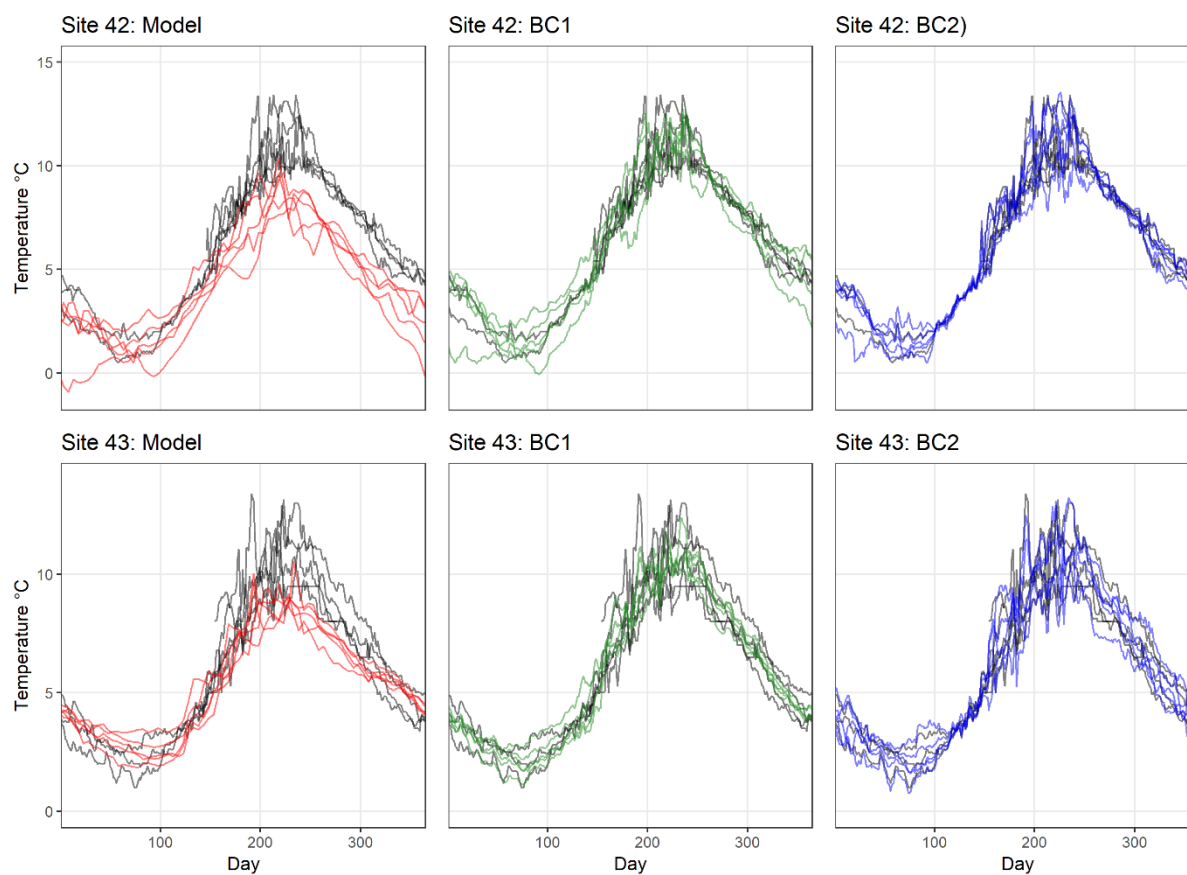


Figure S2M

Figure S2: Comparison of farm measurements (black line), uncorrected modelled temperatures (red), BC1 (green) and BC2 (blue) for individual years within the reference periods data was available for (Table S1).