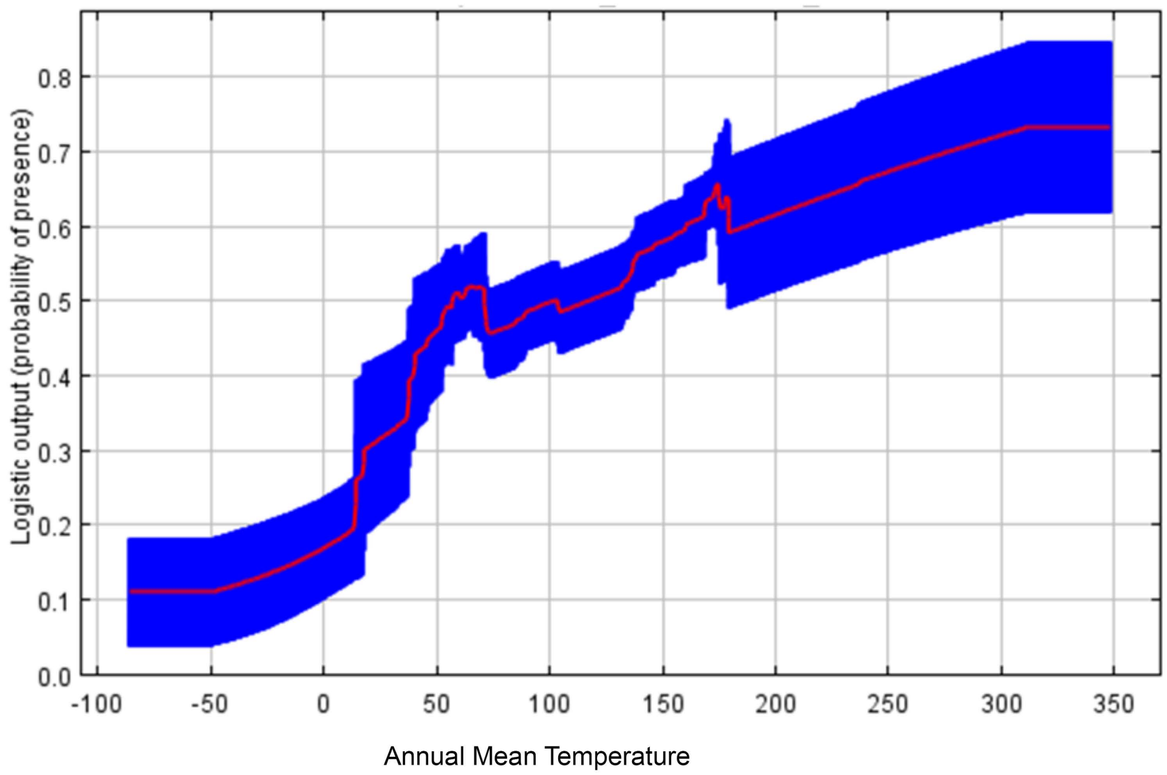
S4 File. Relative contributions of six environmental variables to the ecological niche models for *Ixodes ricinus* and its response to those variables. This supporting information shows the results regarding the relative contributions of six environmental variables to models for *I. ricinus* based on 5 random subsets of occurrences.

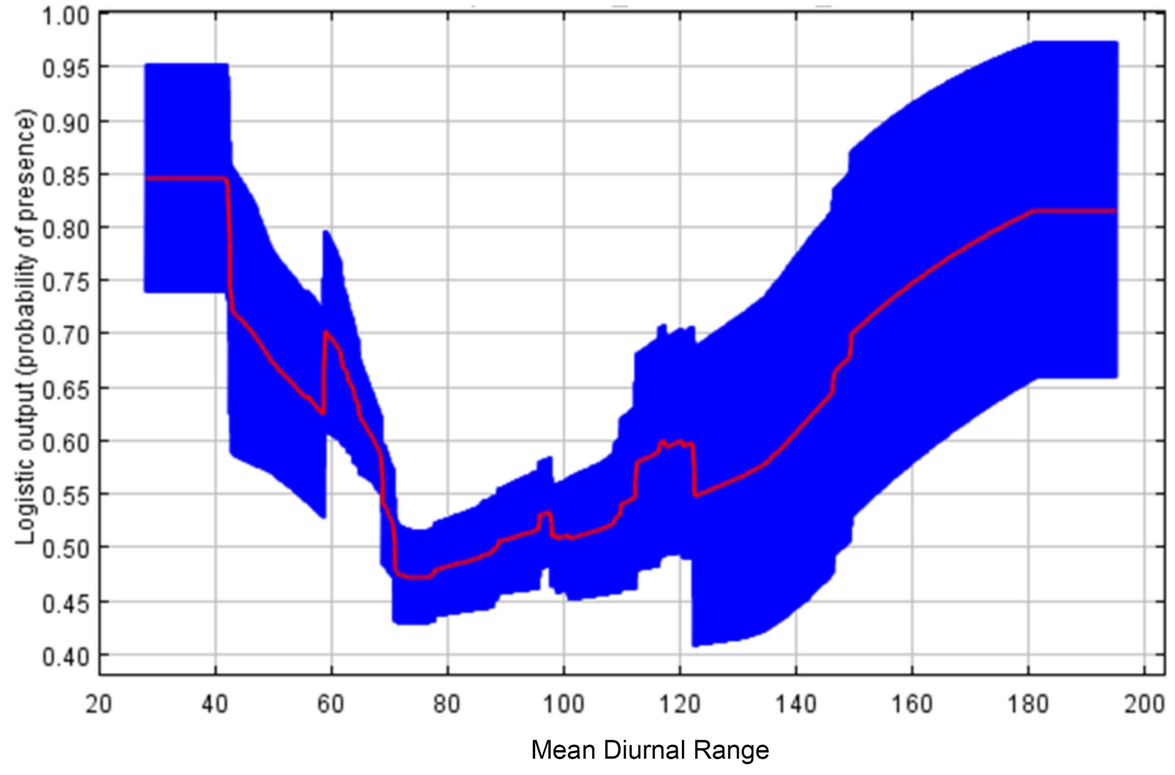
Table I. The relative contributions of the environmental variables to the ecological niche models for *Ixodes ricinus* based on five random subsets selected in the analyses.

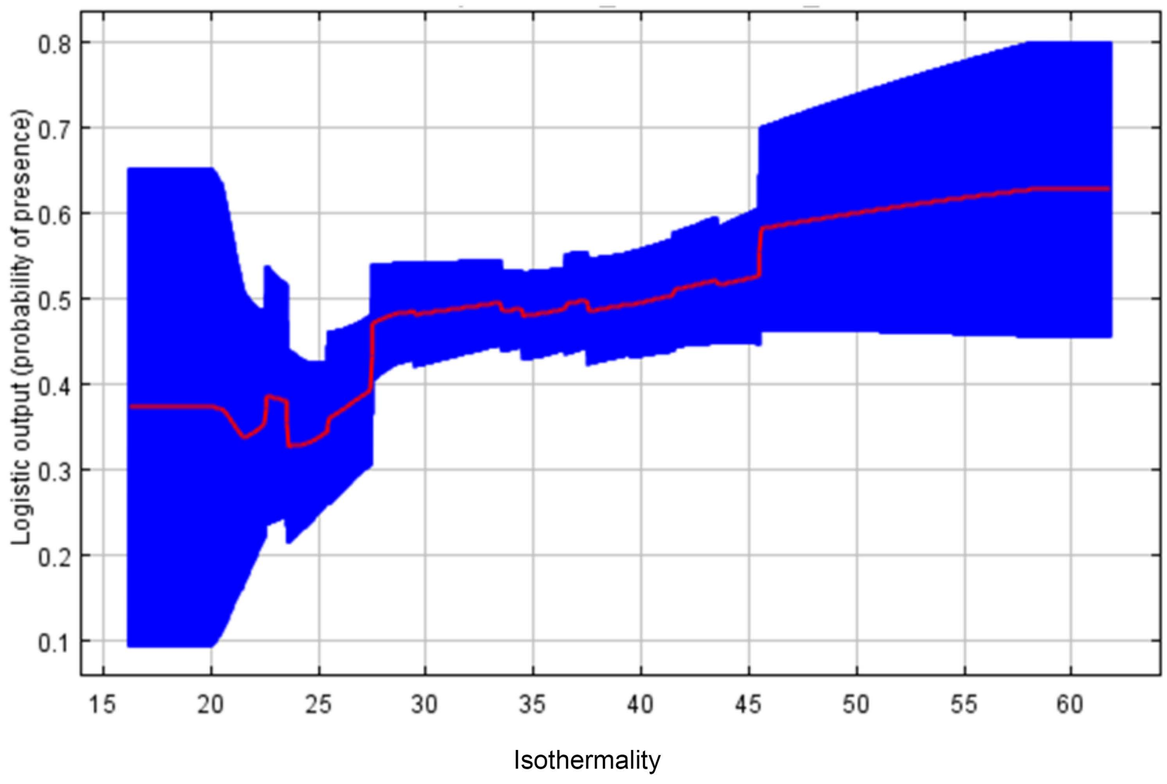
Variable	**% Contribution**				
	Subset #1	**Subset #2**	**Subset #3**	**Subset #4**	**Subset #5**
Annual Precipitation	56.5	55.1	50.3	55	57.3
Temperature Annual Range	21.5	21.8	28.1	23.8	25.1
Annual Mean Temperature	8.1	11.3	10.6	8.6	11.1
Precipitation Seasonality	5.8	2.8	5.2	7.4	1.6
Isothermality	4.6	3.6	3.3	2.9	1.5
Mean Diurnal Range	3.5	5.3	2.6	2.2	3.4

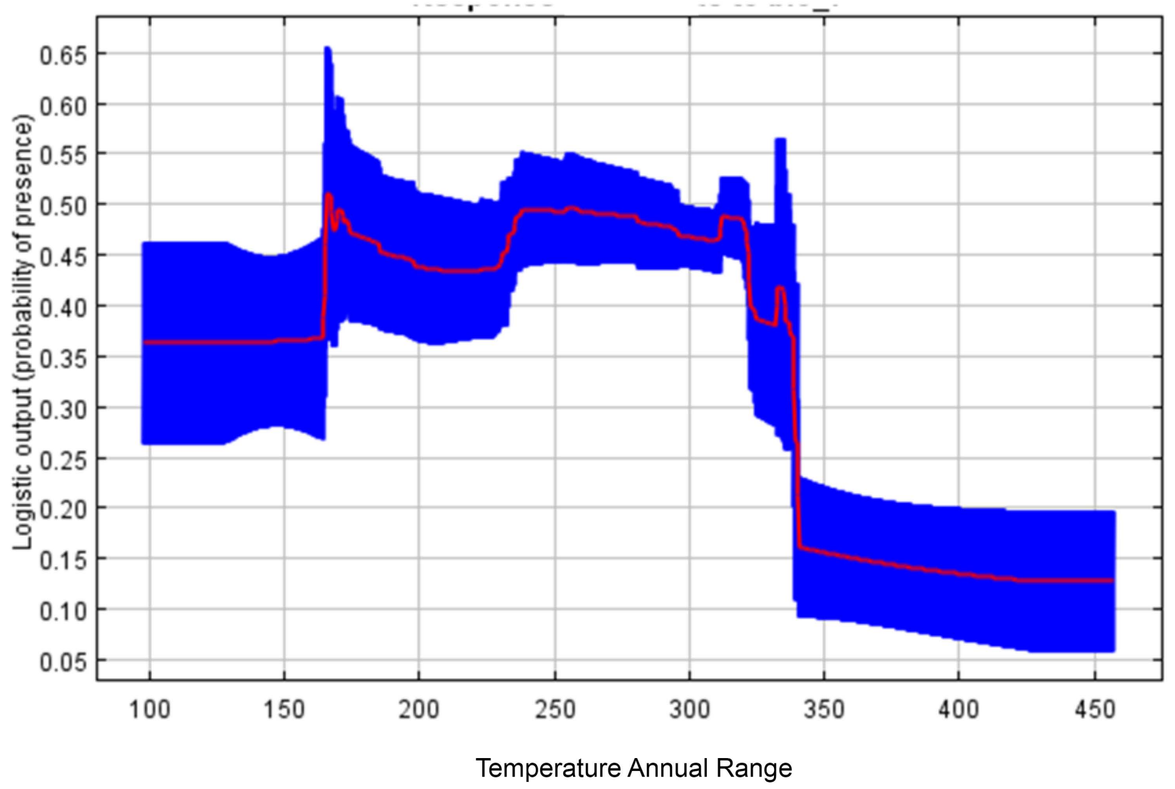
Figure I. Response curves of *Ixodes ricinus* to the six environmental variables included in the model based on five random subsets of occurrences; a) subset #1, b) subset #2, c) subset #3, d) subset #4, and e) subset #5. The graph shows how the Maxent logistic prediction (y-axis) varies across the range of values of each predictor when used in a one-variable model. Red line presents the mean response of 10 iterations of the Maxent runs and the blue area presents mean ± one standard deviation.

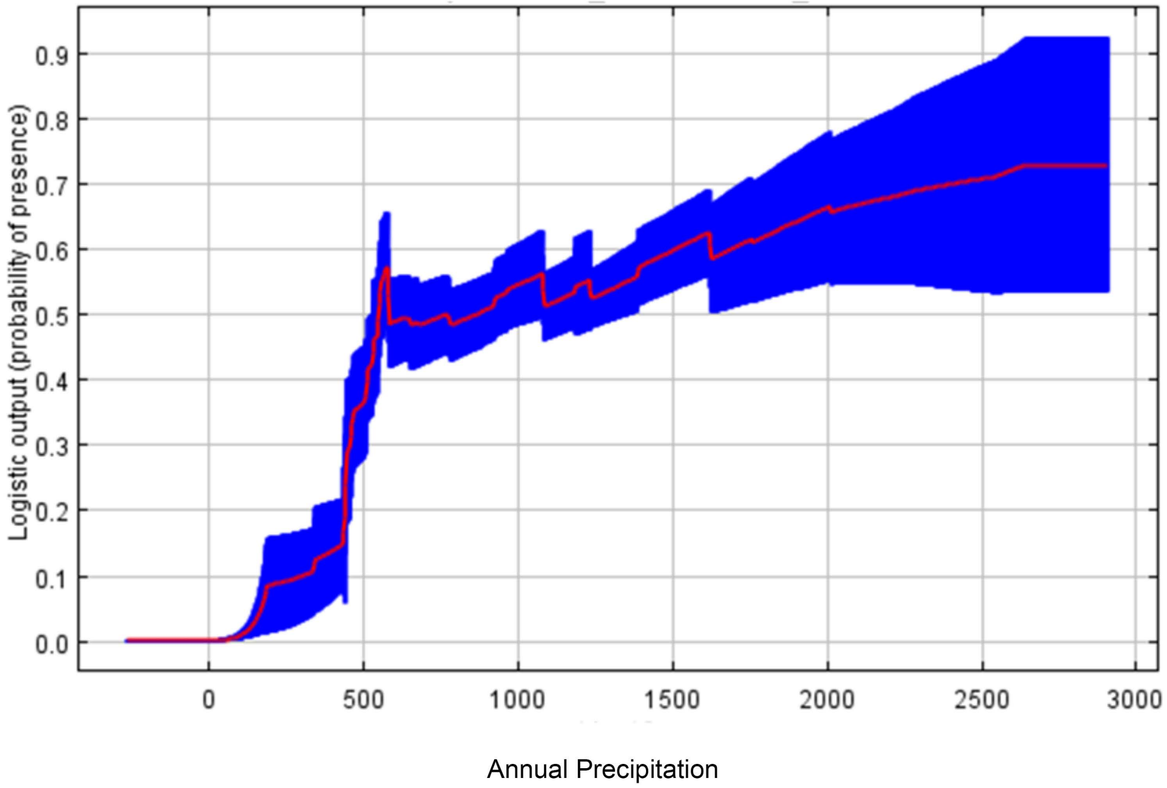
(a)

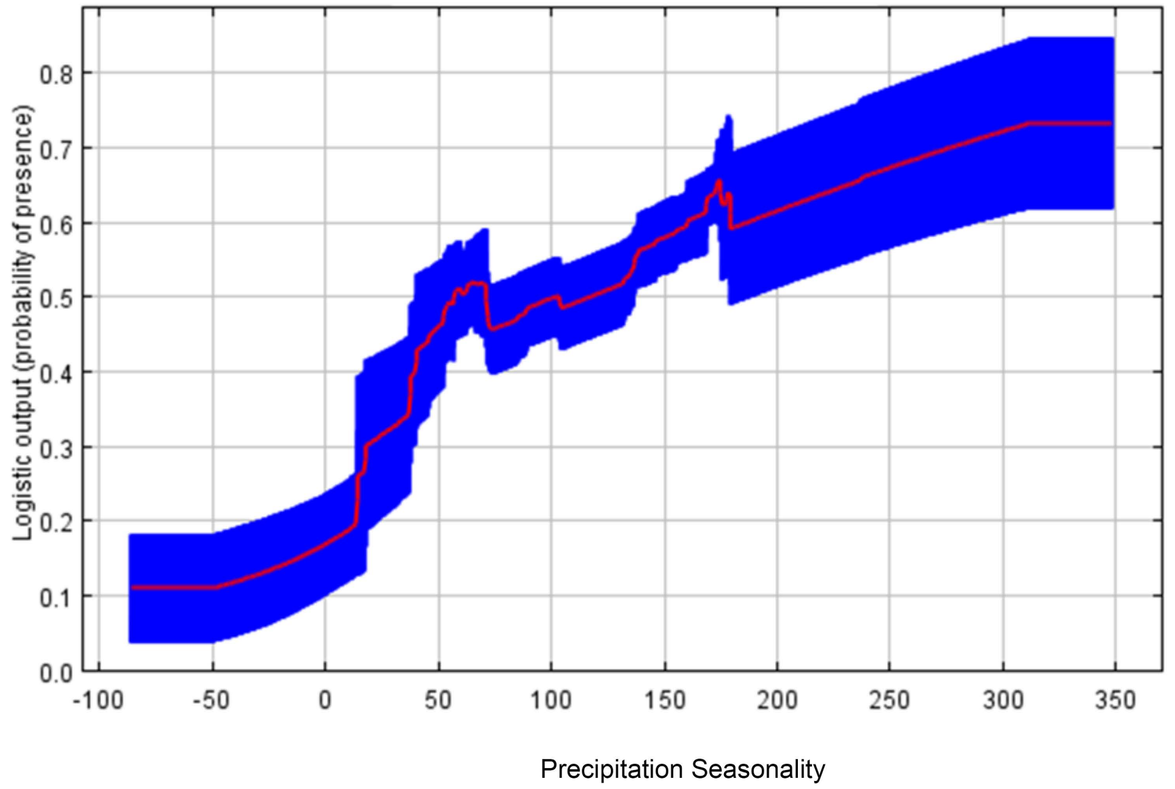

Logistic output (probability of presence)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
-100
-50
0
50
100
150
200
250
300
350
Annual Mean Temperature


Logistic output (probability of presence)
0.40
0.45
0.50
0.55
0.60
0.65
0.70
0.75
0.80
0.85
0.90
0.95
1.00
20
40
60
80
100
120
140
160
180
200
Mean Diurnal Range


Logistic output (probability of presence)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
15
20
25
30
35
40
45
50
55
60
Isothermality


Logistic output (probability of presence)
0.05
0.10
0.15
0.20
0.25
0.30
0.35
0.40
0.45
0.50
0.55
0.60
0.65
100
150
200
250
300
350
400
450
Temperature Annual Range


Logistic output (probability of presence)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
0
500
1000
1500
2000
2500
3000
Annual Precipitation


Logistic output (probability of presence)
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0.1
0.2
0.3
0.4
0.5
0.6
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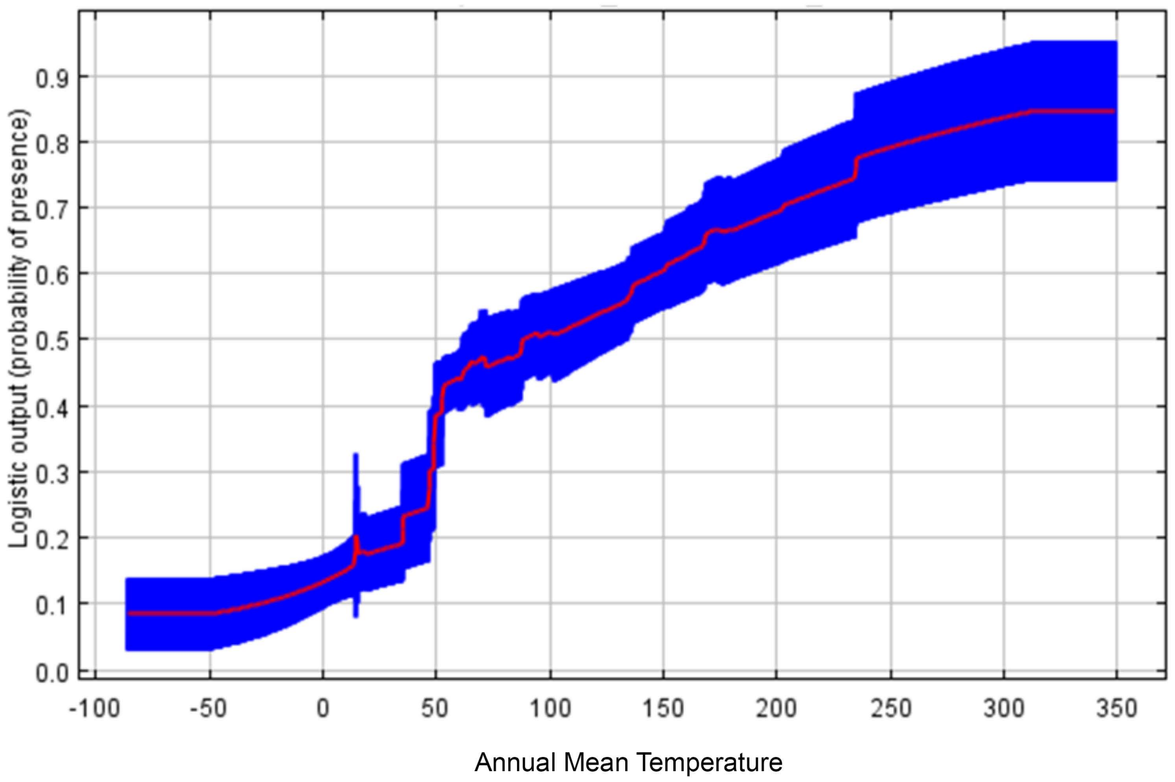
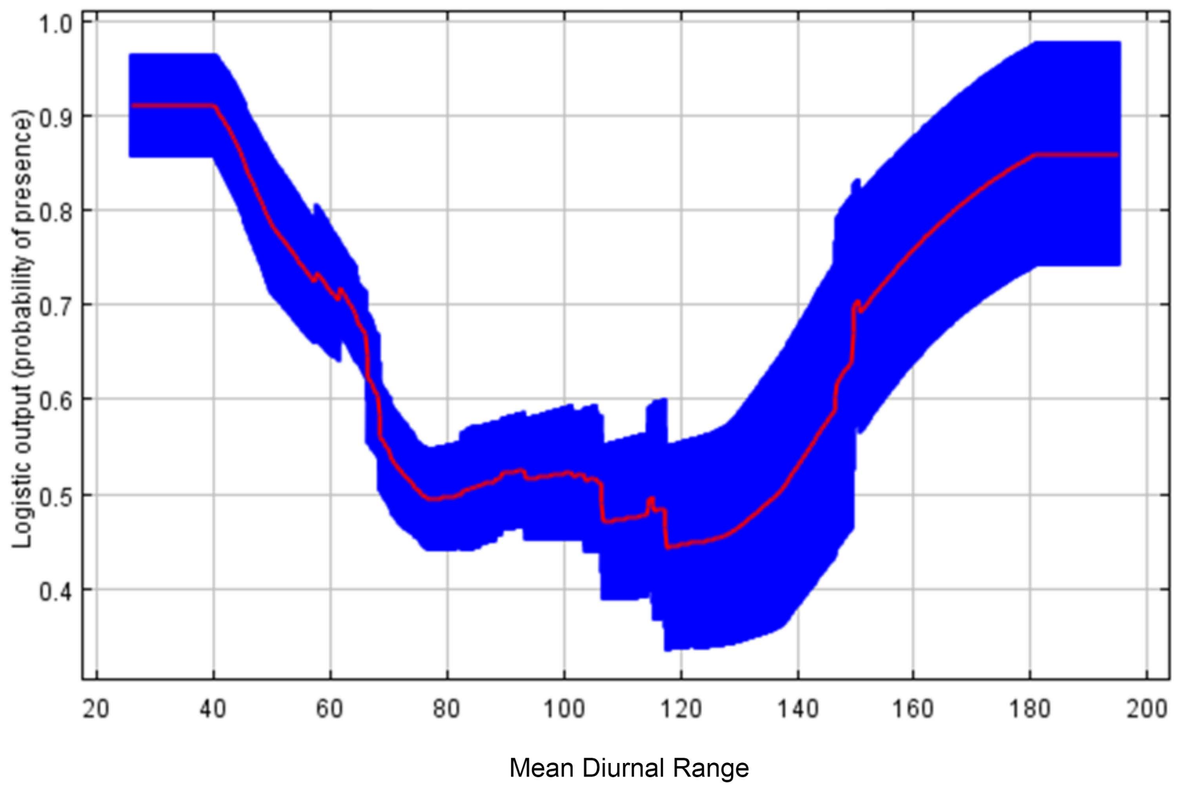
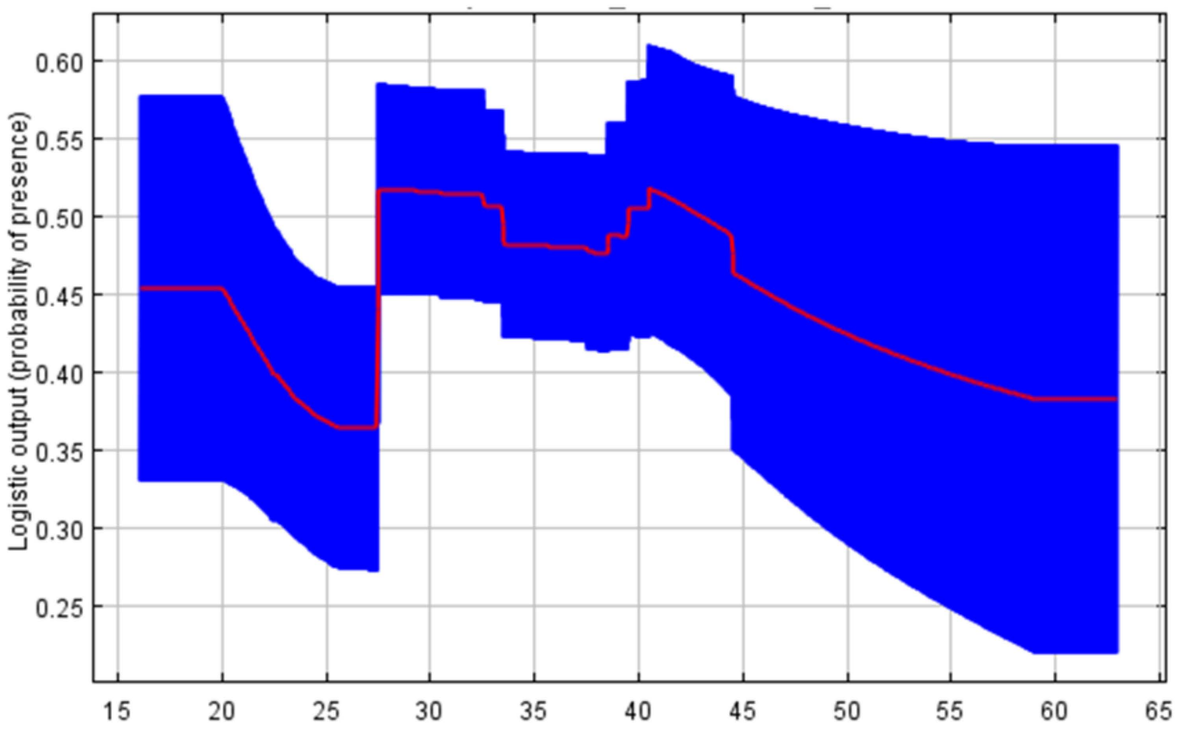
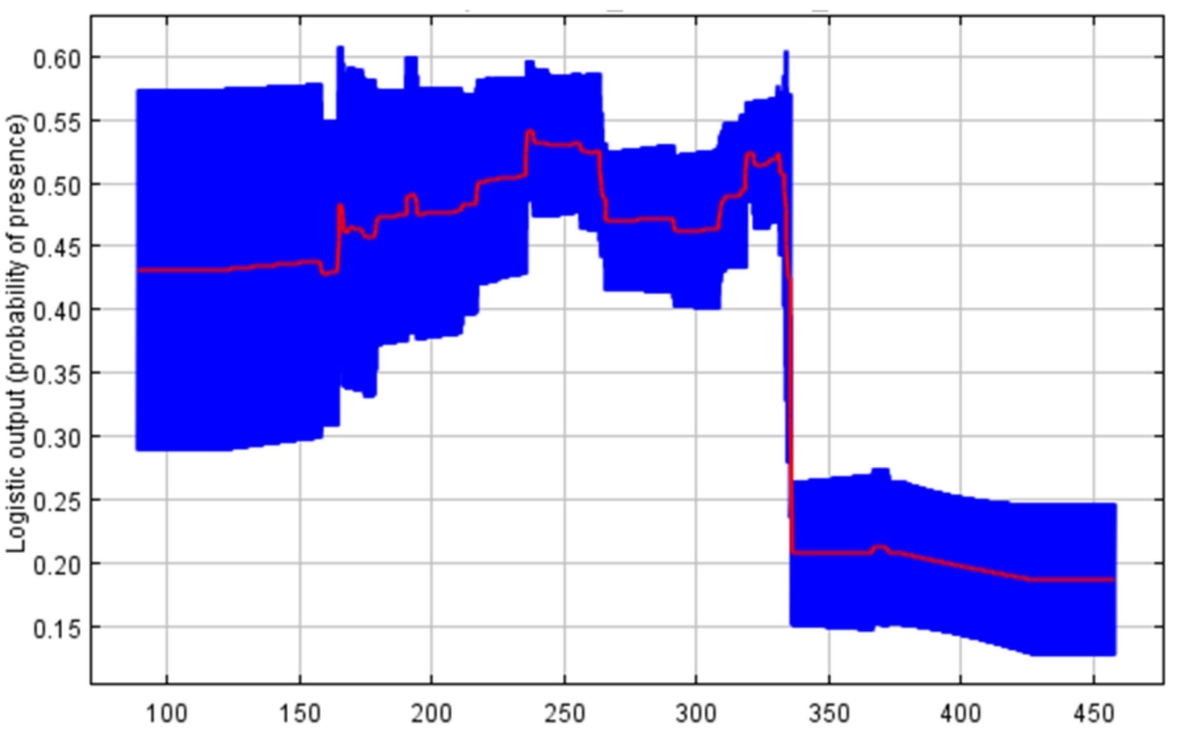
0.8
-100
-50
0
50
100
150
200
250
300
350
Precipitation Seasonality

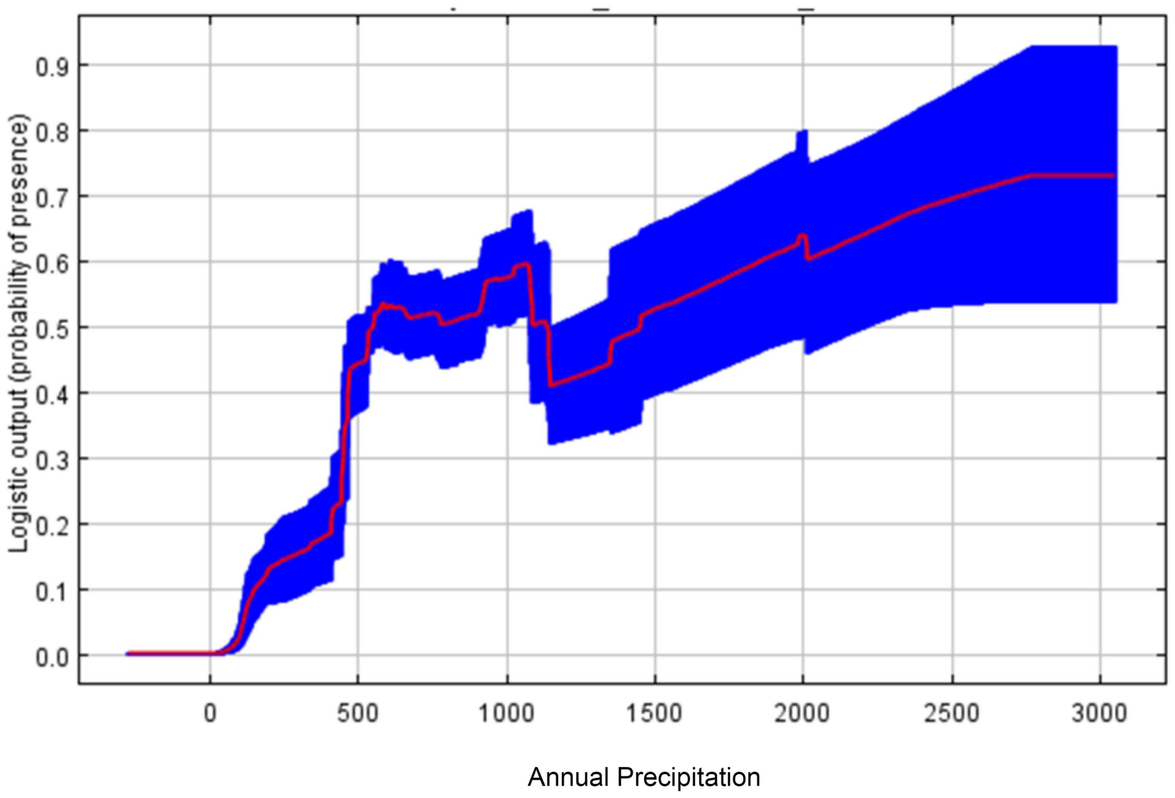
(b)

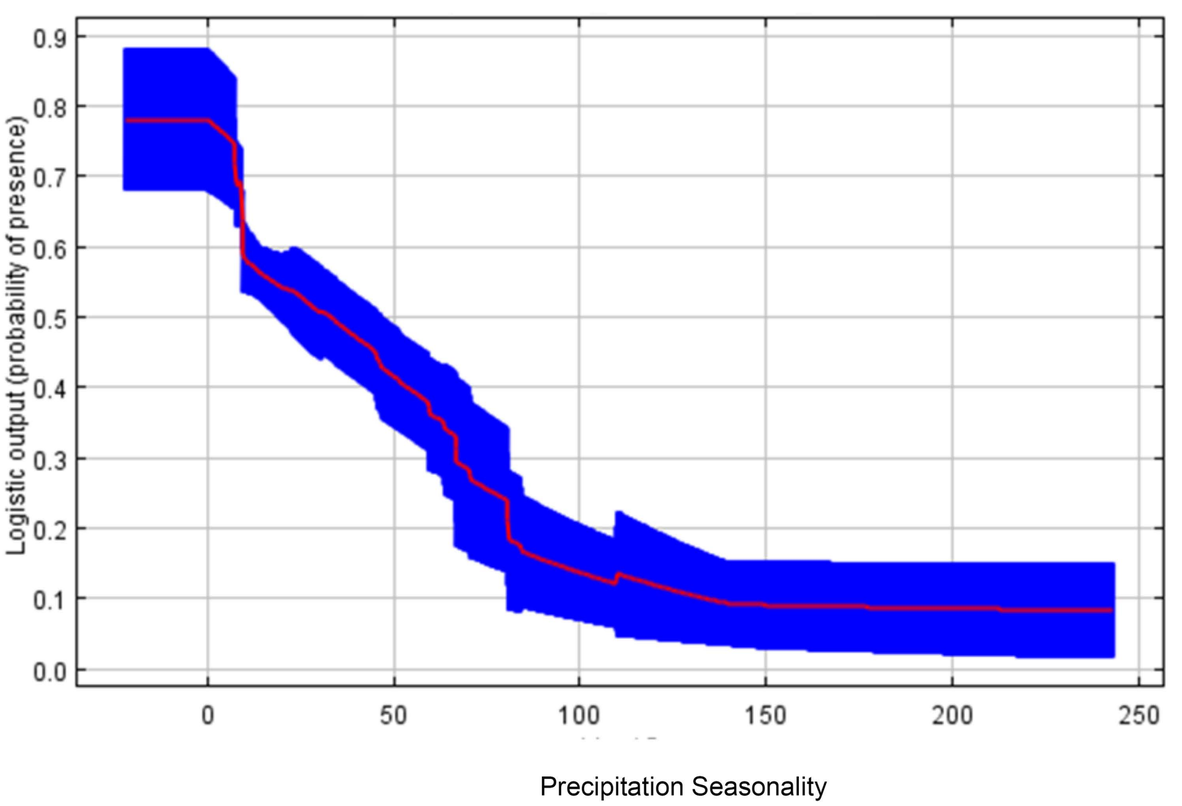

Logistic output (probability of presence)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
-100
-50
0
50
100
150
200
250
300
350
Annual Mean Temperature


Logistic output (probability of presence)
0.4
0.5
0.6
0.7
0.8
0.9
1.0
20
40
60
80
100
120
140
160
180
200
Mean Diurnal Range

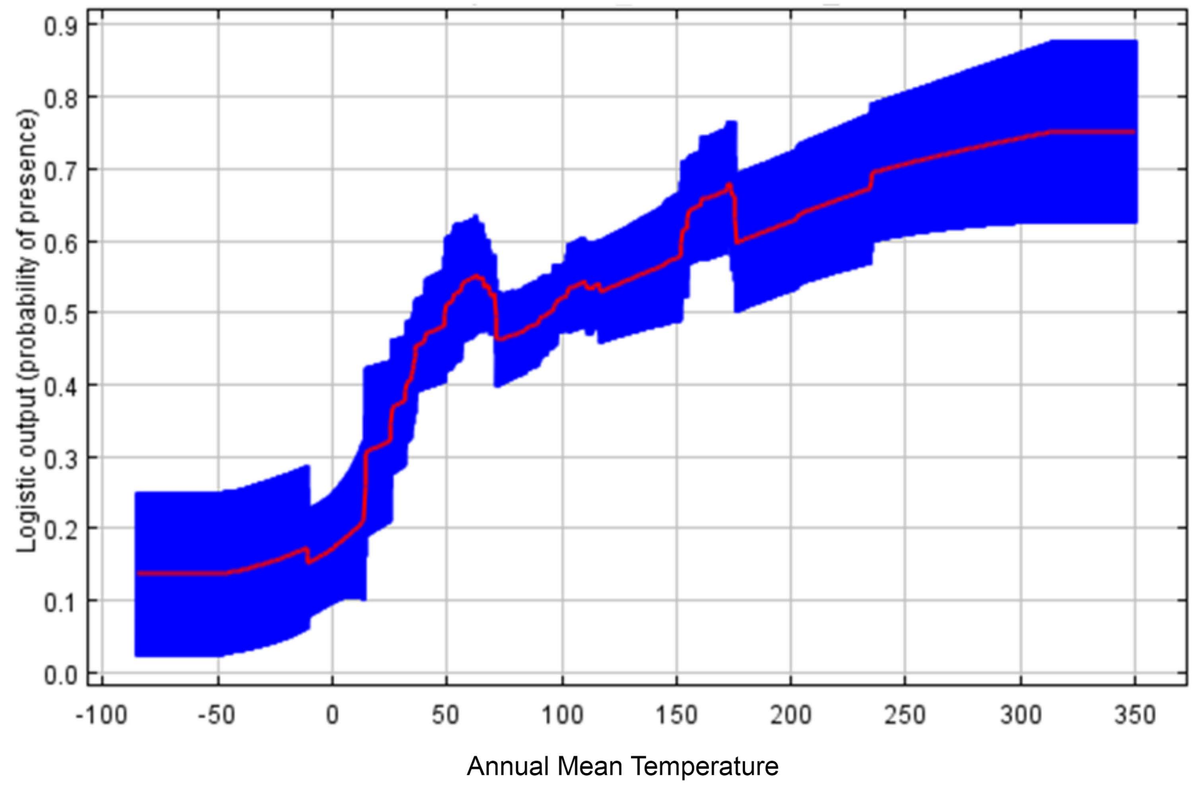

Logistic output (probability of presence)
0.25
0.30
0.35
0.40
0.45
0.50
0.55
0.60
15
20
25
30
35
40
45
50
55
60
65
Isothermality

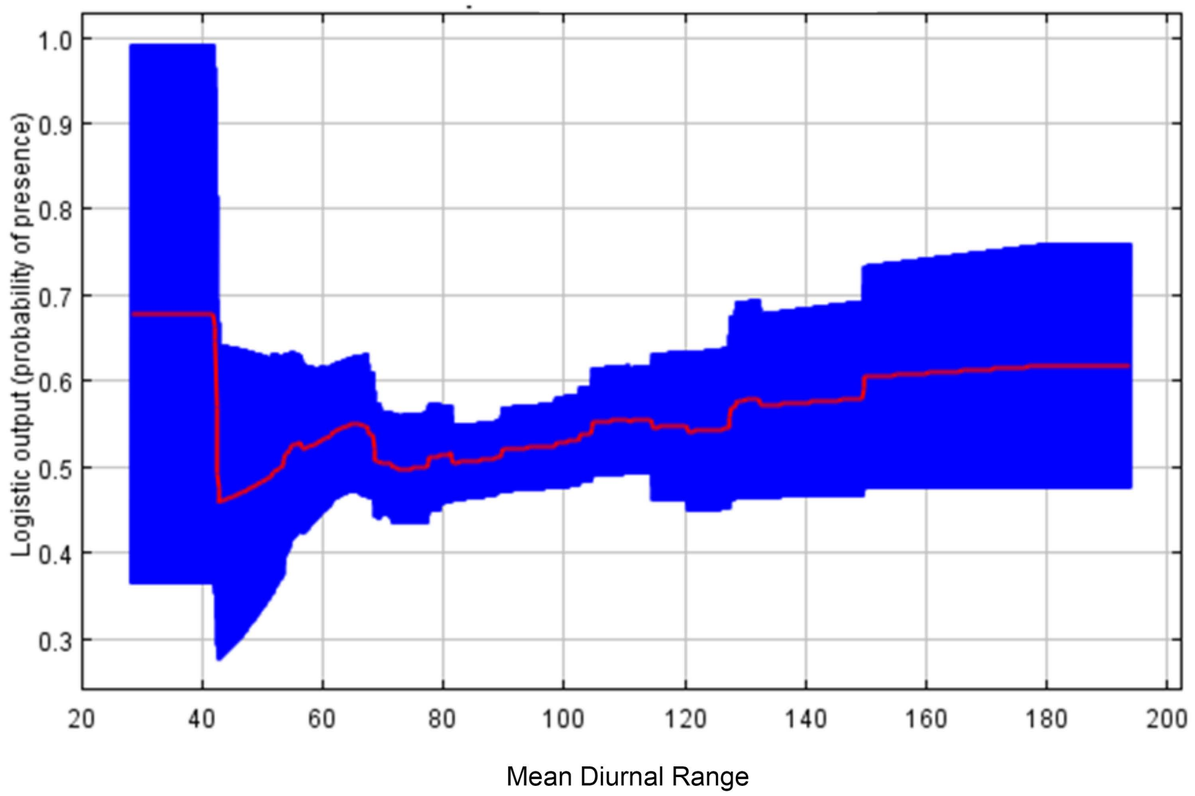

Logistic output (probability of presence)
0.15
0.20
0.25
0.30
0.35
0.40
0.45
0.50
0.55
0.60
100
150
200
250
300
350
400
450
Temperature Annual Range

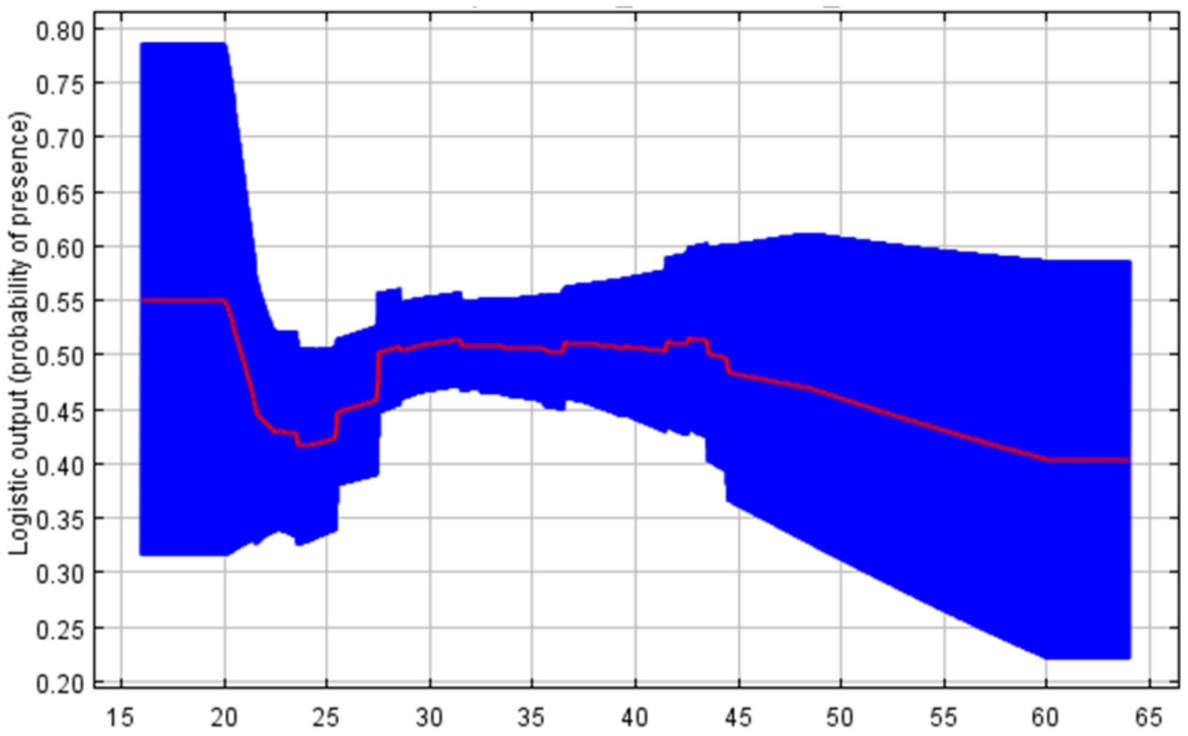

Logistic output (probability of presence)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
0
500
1000
1500
2000
2500
3000
Annual Precipitation

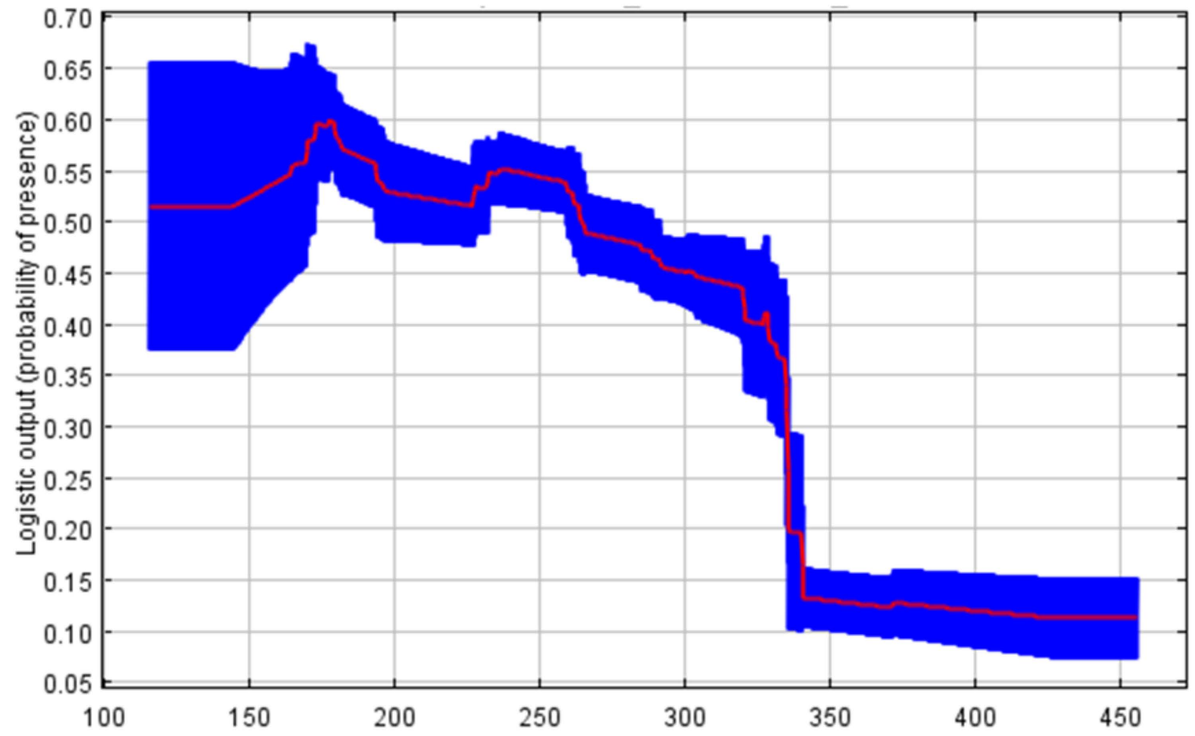

Logistic output (probability of presence)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
0
50
100
150
200
250
Precipitation Seasonality

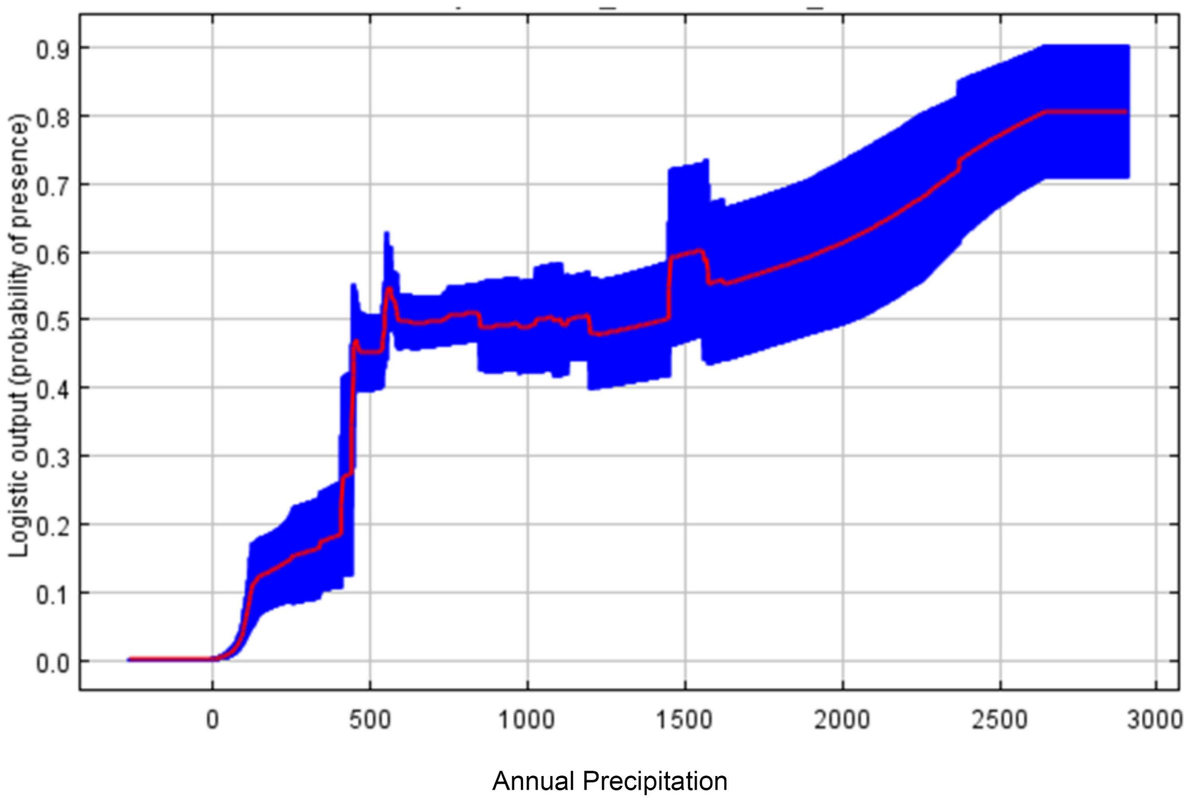
(c)

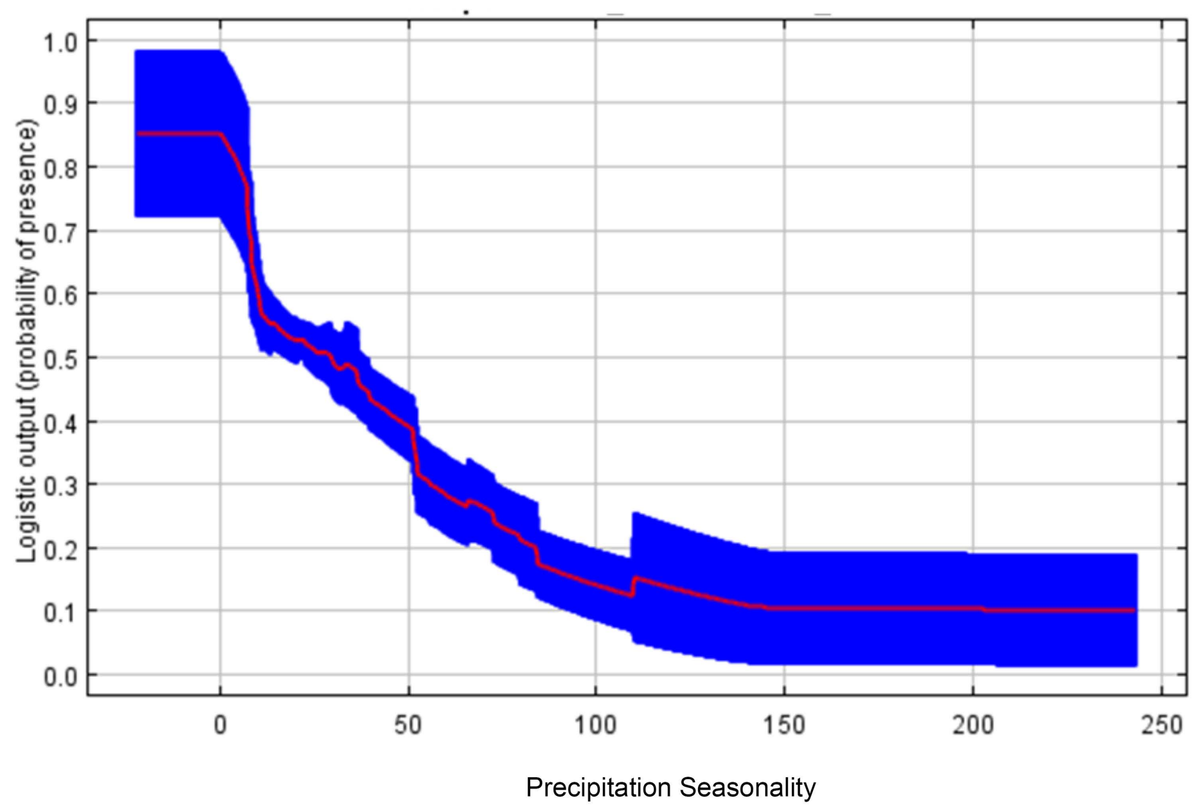

Logistic output (probability of presence)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
-100
-50
0
50
100
150
200
250
300
350
Annual Mean Temperature


Logistic output (probability of presence)
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
20
40
60
80
100
120
140
160
180
200
Mean Diurnal Range

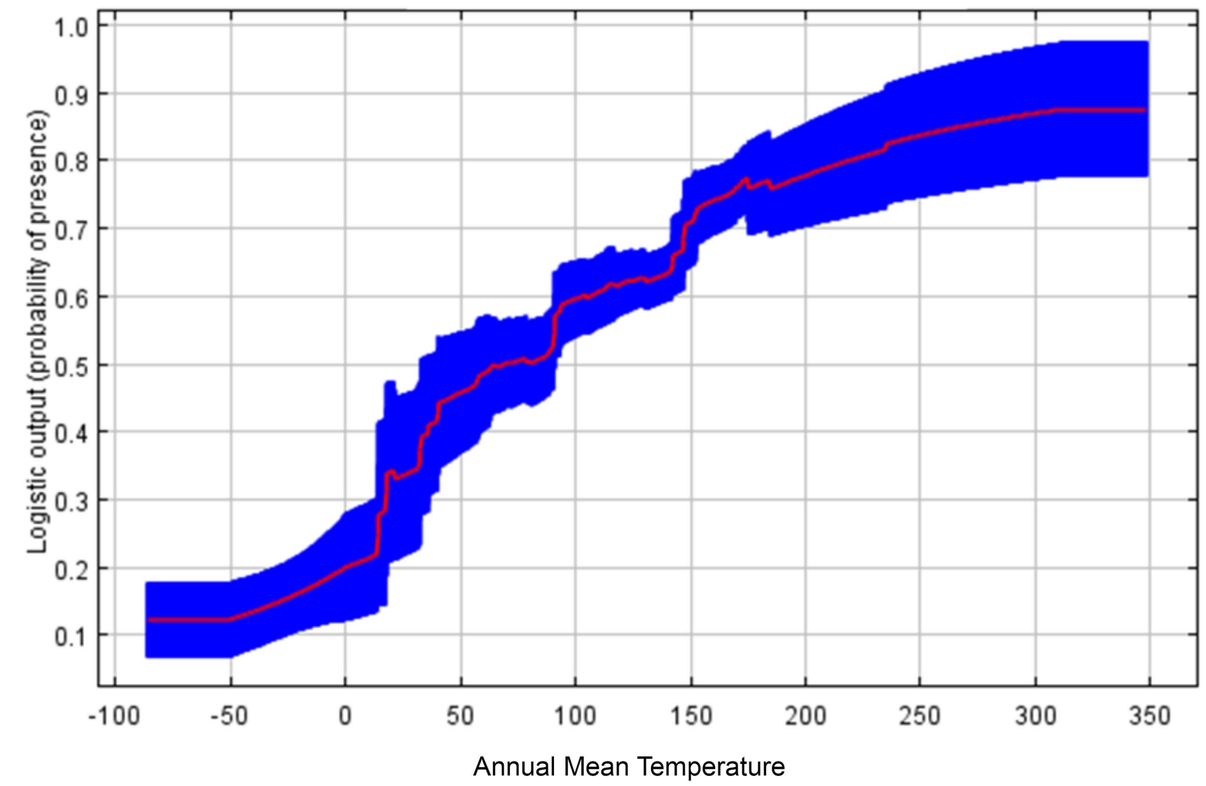

Logistic output (probability of presence)
0.20
0.25
0.30
0.35
0.40
0.45
0.50
0.55
0.60
0.65
0.70
0.75
0.80
15
20
25
30
35
40
45
50
55
60
65
Isothermality

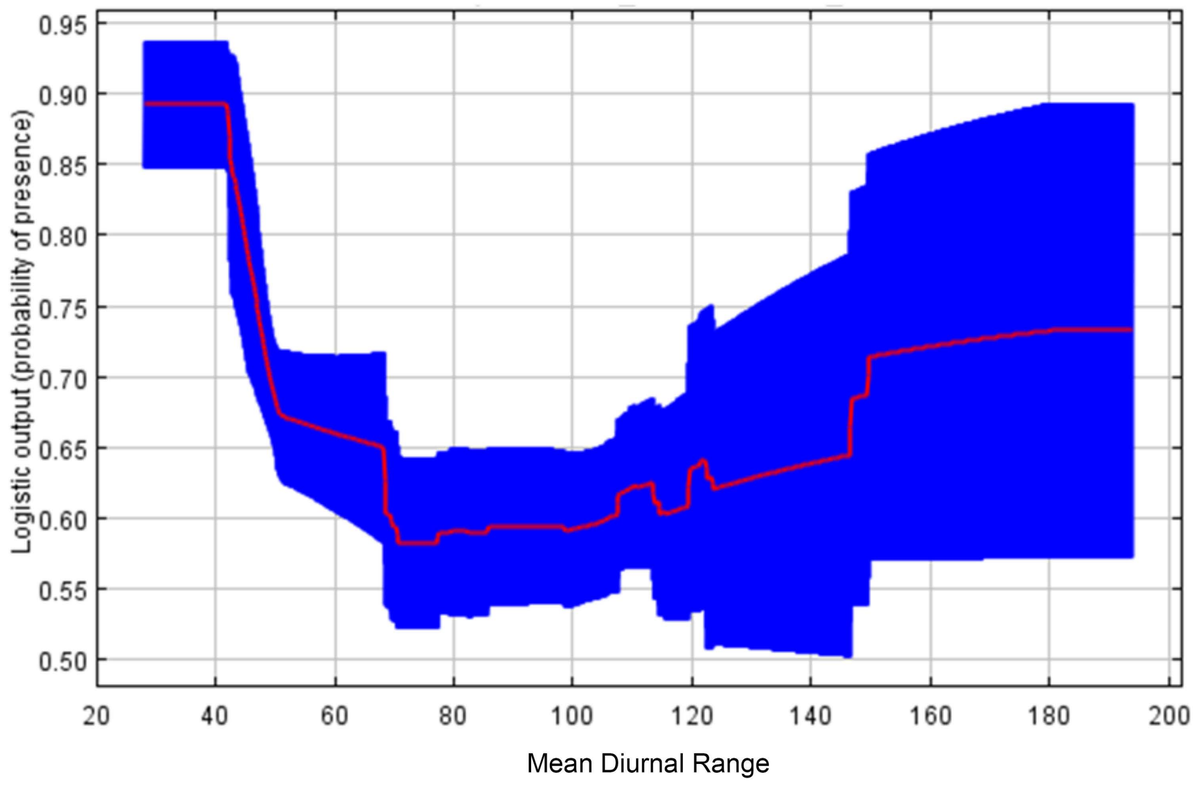

Logistic output (probability of presence)
0.05
0.10
0.15
0.20
0.25
0.30
0.35
0.40
0.45
0.50
0.55
0.60
0.65
0.70
100
150
200
250
300
350
400
450
Temperature Annual Range

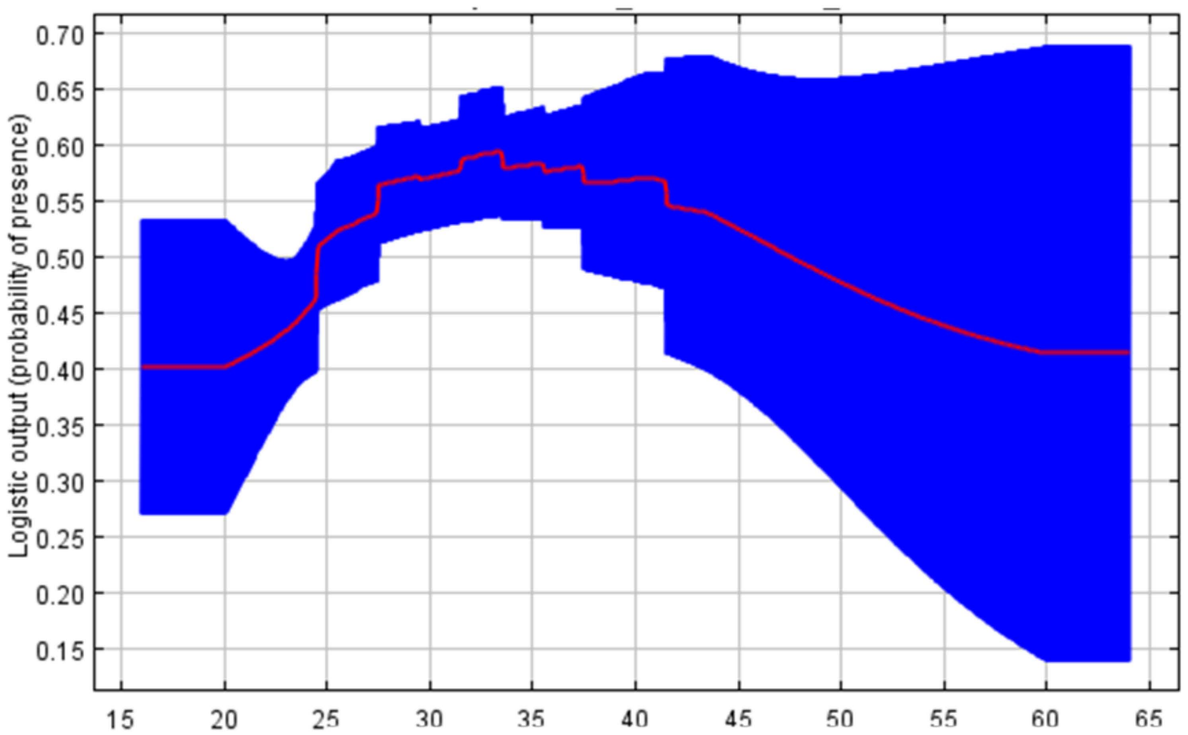

Logistic output (probability of presence)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
0
500
1000
1500
2000
2500
3000
Annual Precipitation

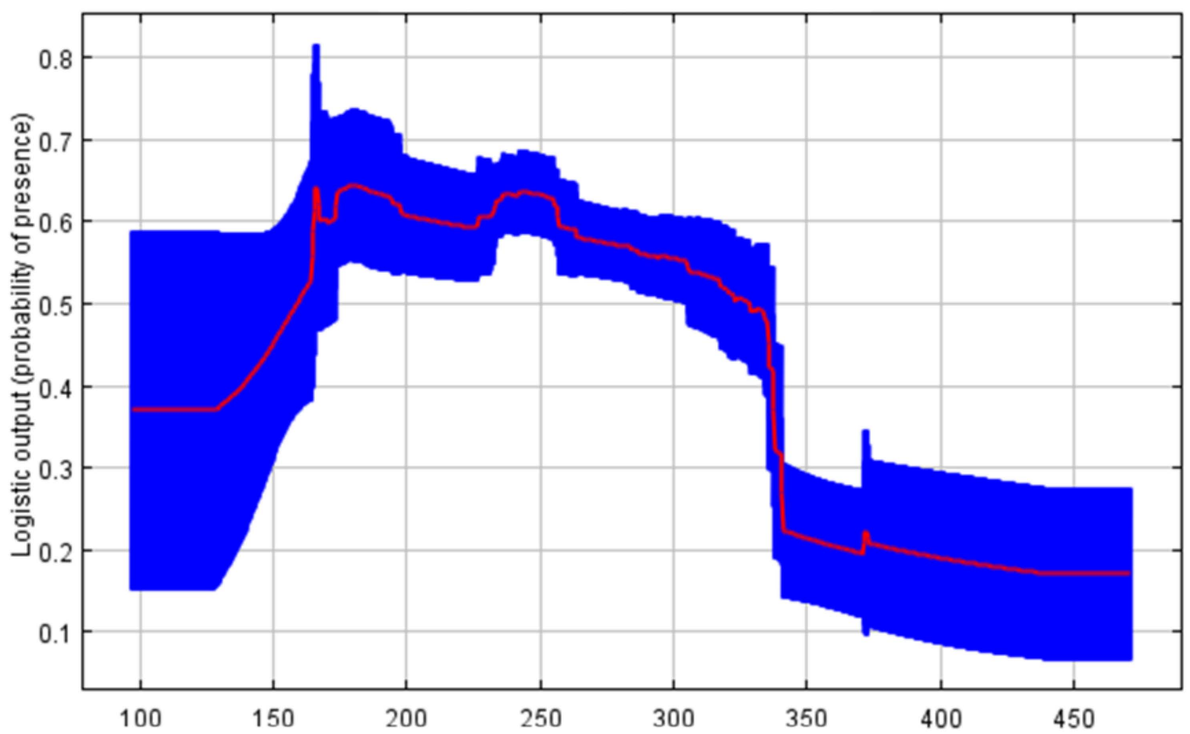

Logistic output (probability of presence)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
0
50
100
150
200
250
Precipitation Seasonality

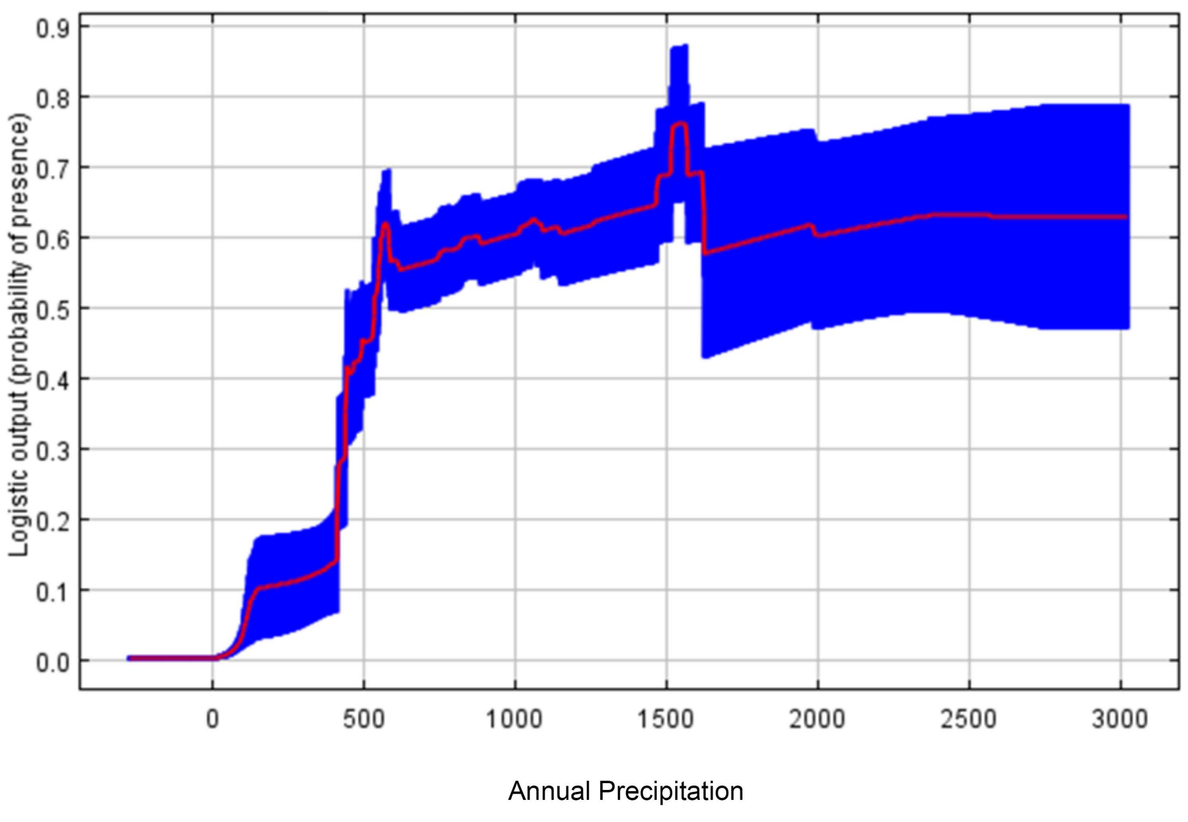
(d)

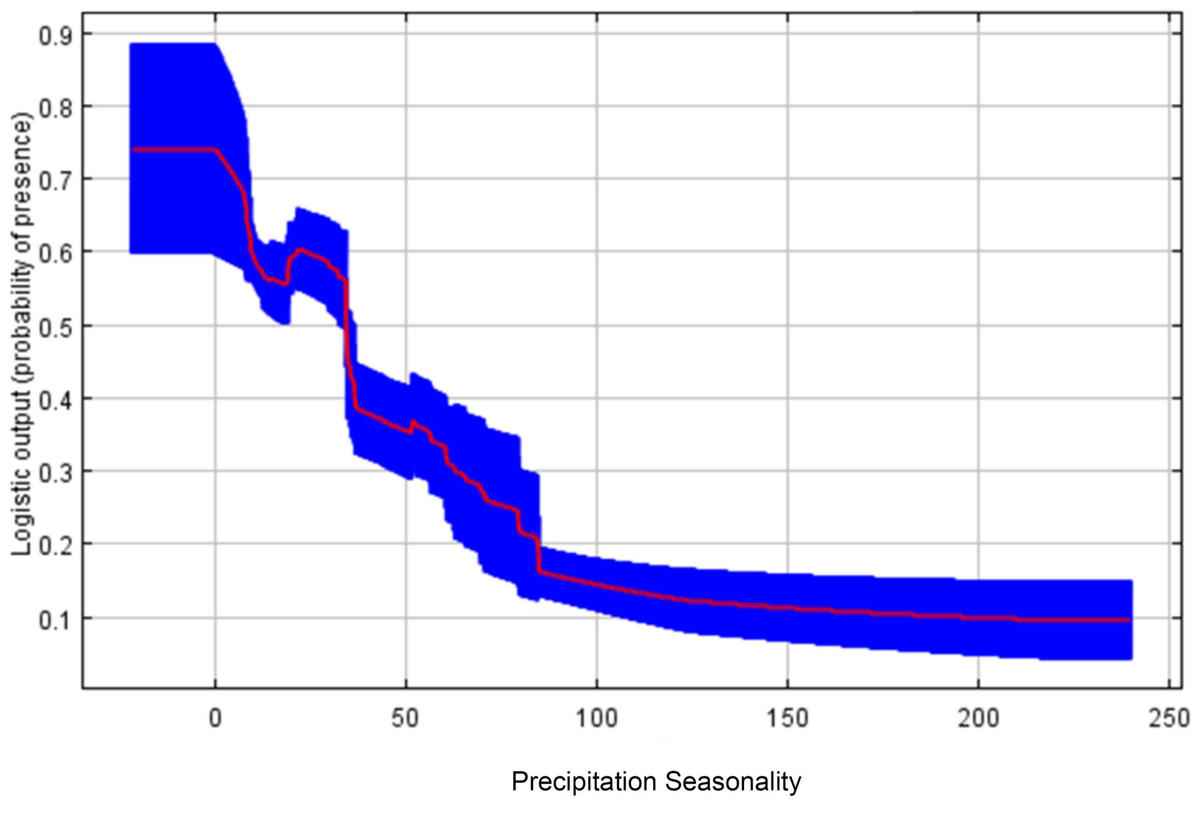

Logistic output (probability of presence)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
-100
-50
0
50
100
150
200
250
300
350
Annual Mean Temperature


Logistic output (probability of presence)
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
0.50
20
40
60
80
100
120
140
160
180
200
Mean Diurnal Range

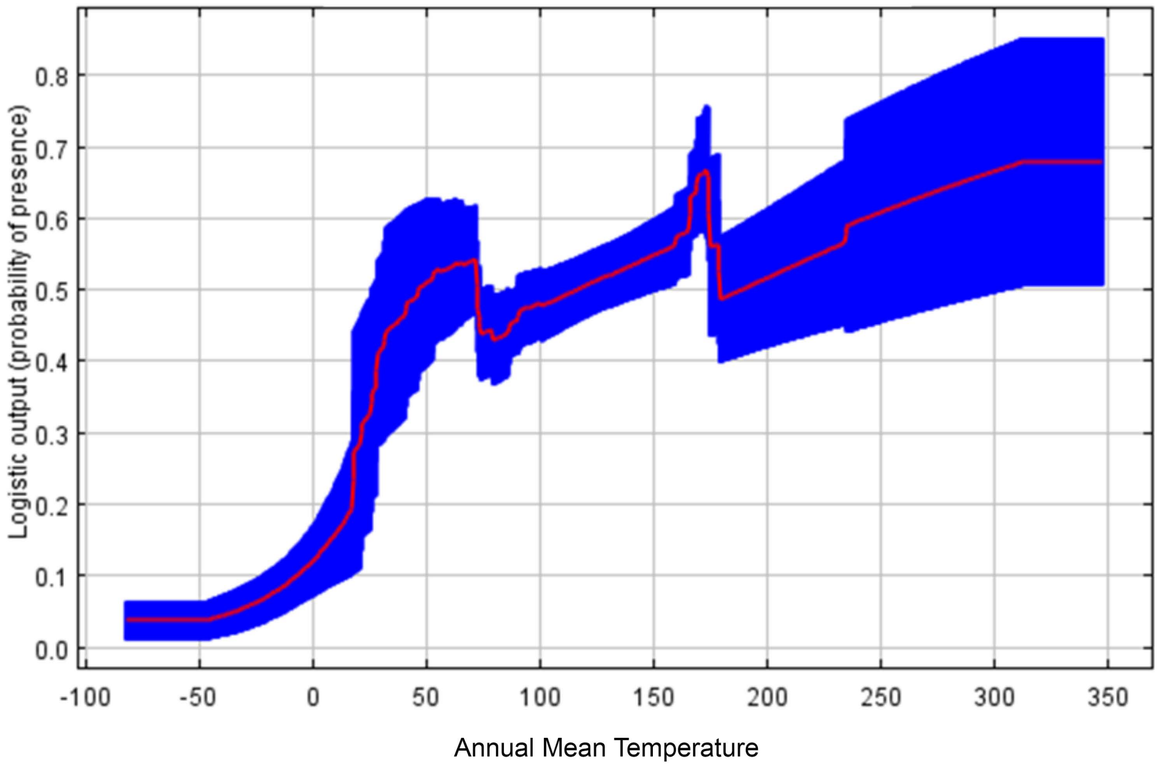

Logistic output (probability of presence)
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
15
20
25
30
35
40
45
50
55
60
65
Isothermality

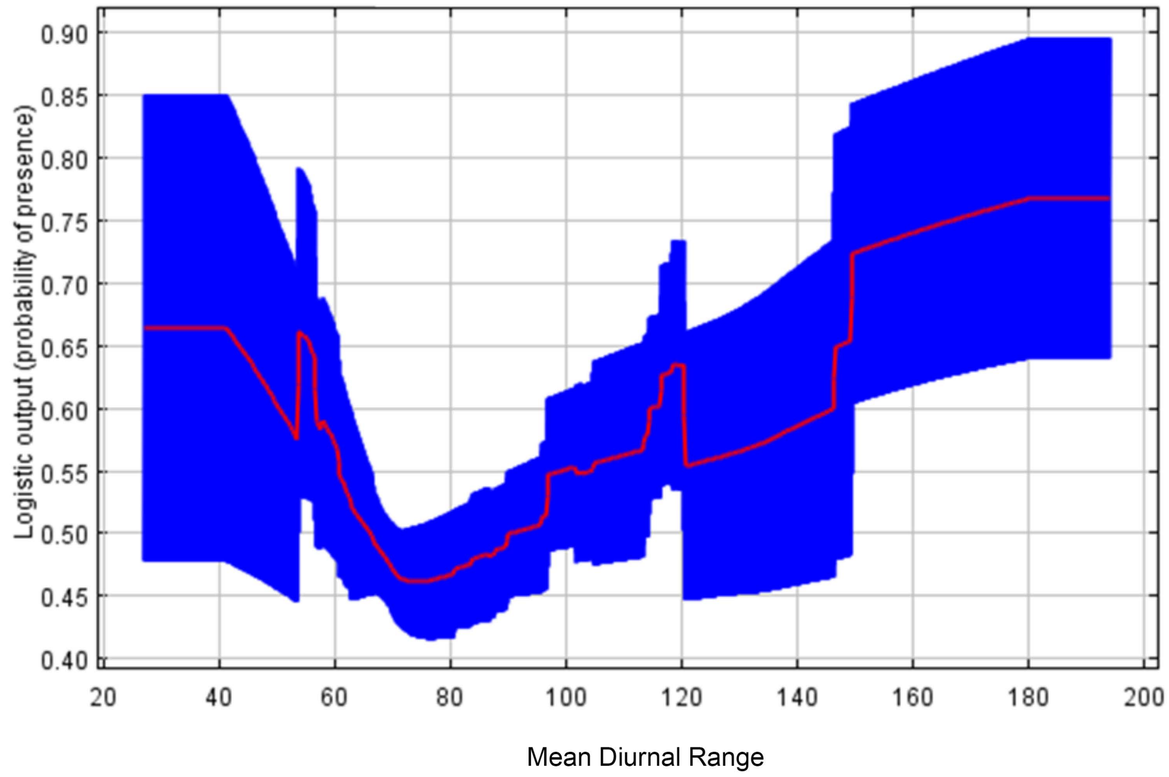

Logistic output (probability of presence)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
100
150
200
250
300
350
400
450
Temperature Annual Range

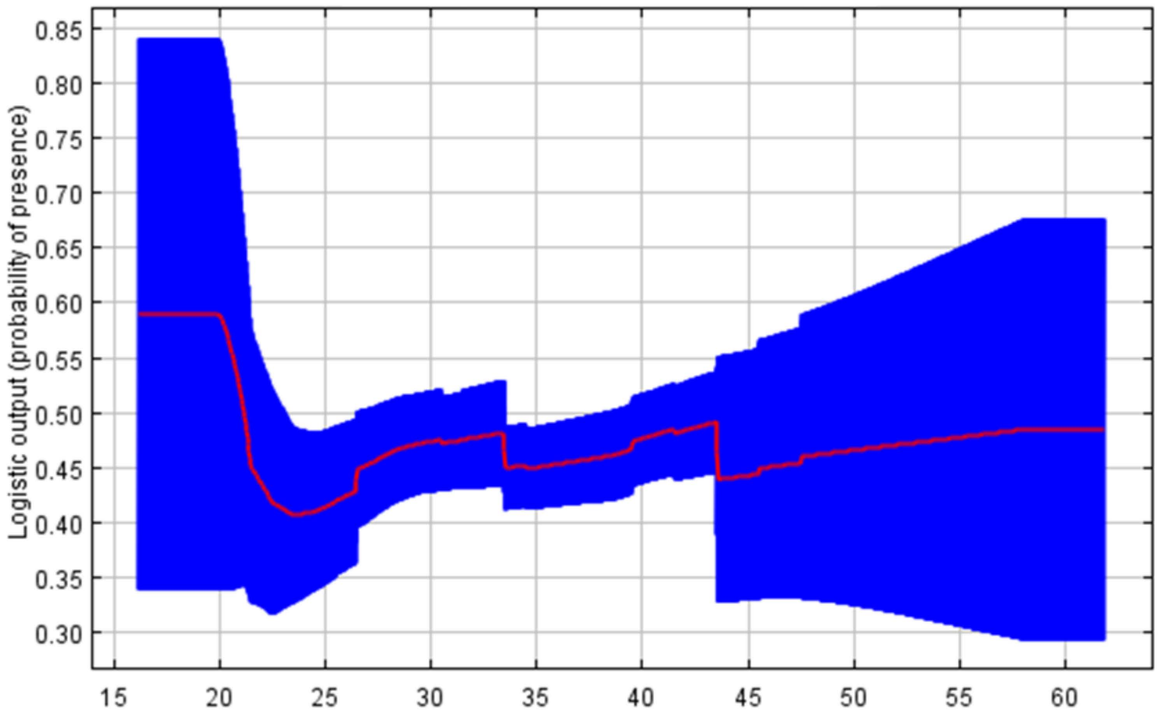

Logistic output (probability of presence)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0
500
1000
1500
2000
2500
3000
Annual Precipitation

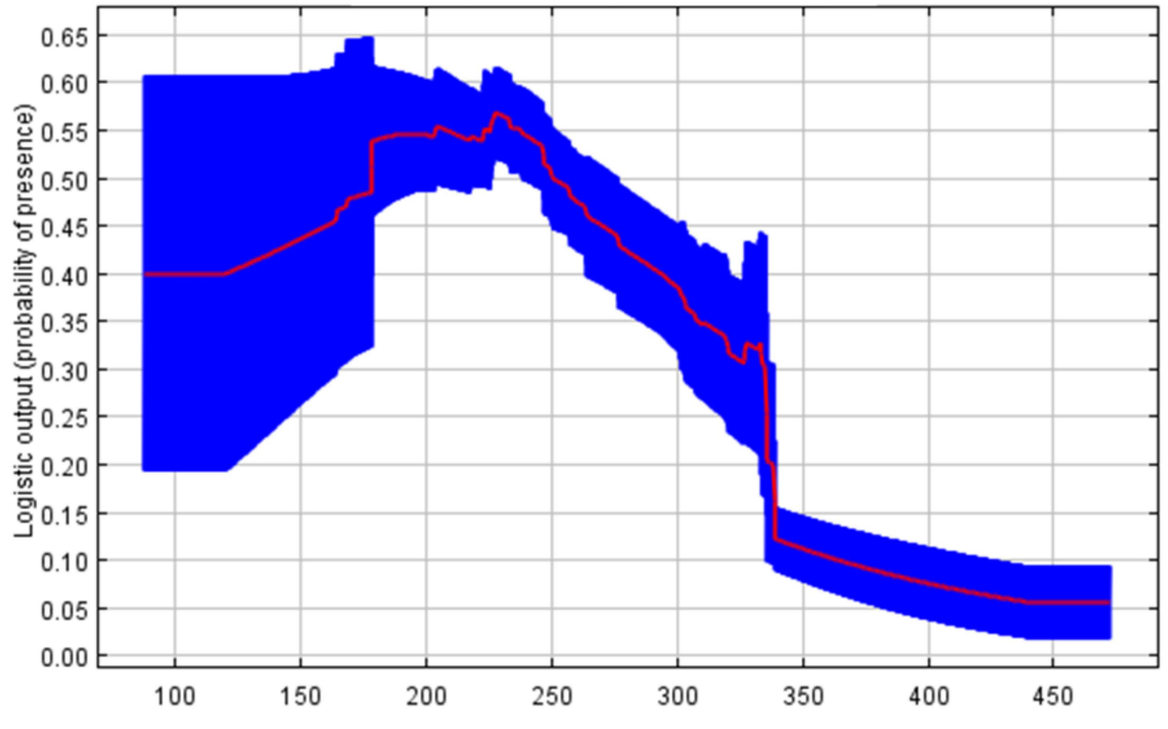

Logistic output (probability of presence)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
50
100
150
200
250
Precipitation Seasonality

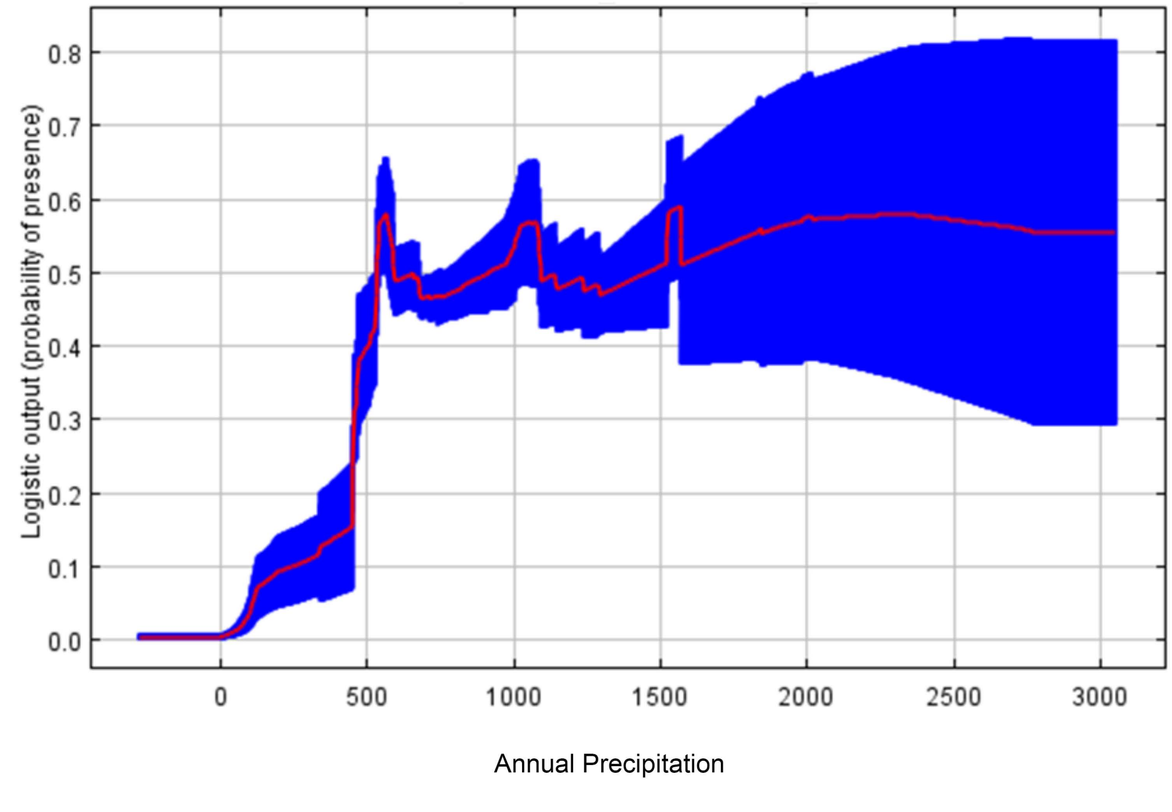
(e)

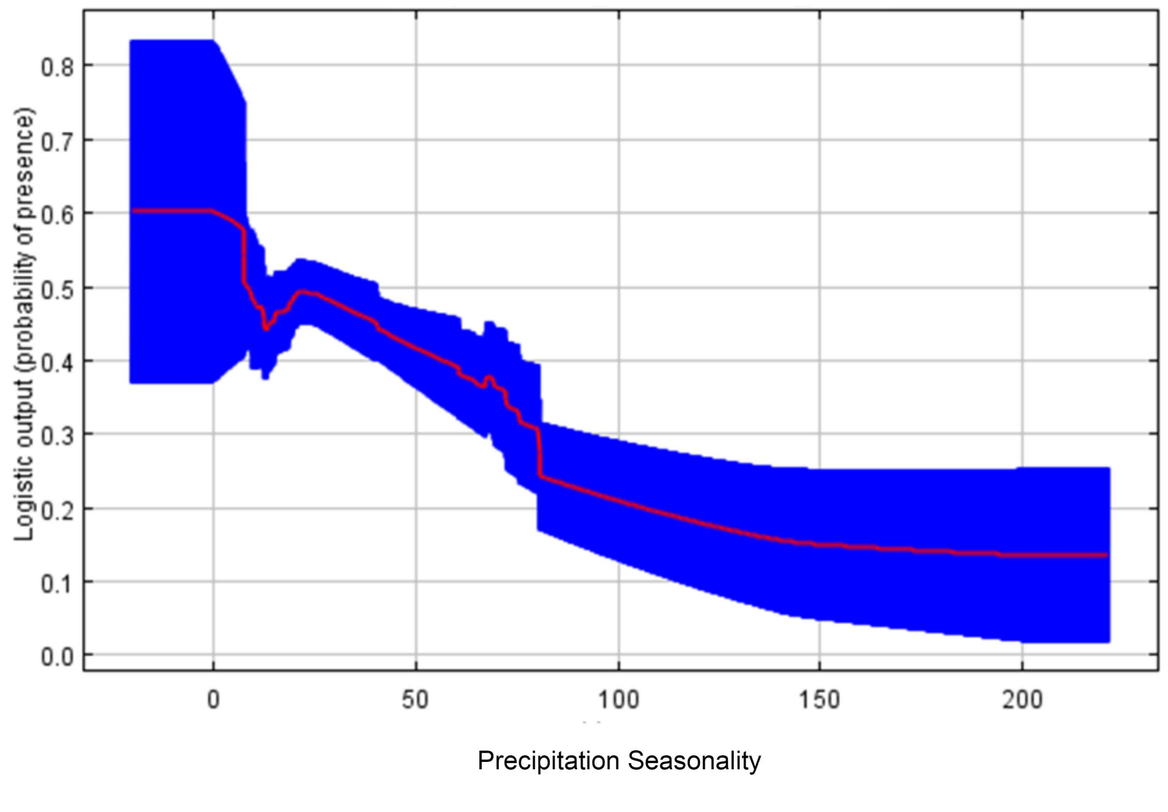

Logistic output (probability of presence)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
-100
-50
0
50
100
150
200
250
300
350
Annual Mean Temperature


Logistic output (probability of presence)
0.40
0.45
0.50
0.55
0.60
0.65
0.70
0.75
0.80
0.85
0.90
20
40
60
80
100
120
140
160
180
200
Mean Diurnal Range


Logistic output (probability of presence)
0.30
0.35
0.40
0.45
0.50
0.55
0.60
0.65
0.70
0.75
0.80
0.85
15
20
25
30
35
40
45
50
55
60
Isothermality


Logistic output (probability of presence)
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35
0.40
0.45
0.50
0.55
0.60
0.65
100
150
200
250
300
350
400
450
Temperature Annual Range


Logistic output (probability of presence)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0
500
1000
1500
2000
2500
3000
Annual Precipitation


Logistic output (probability of presence)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0
50
100
150
200
Precipitation Seasonality