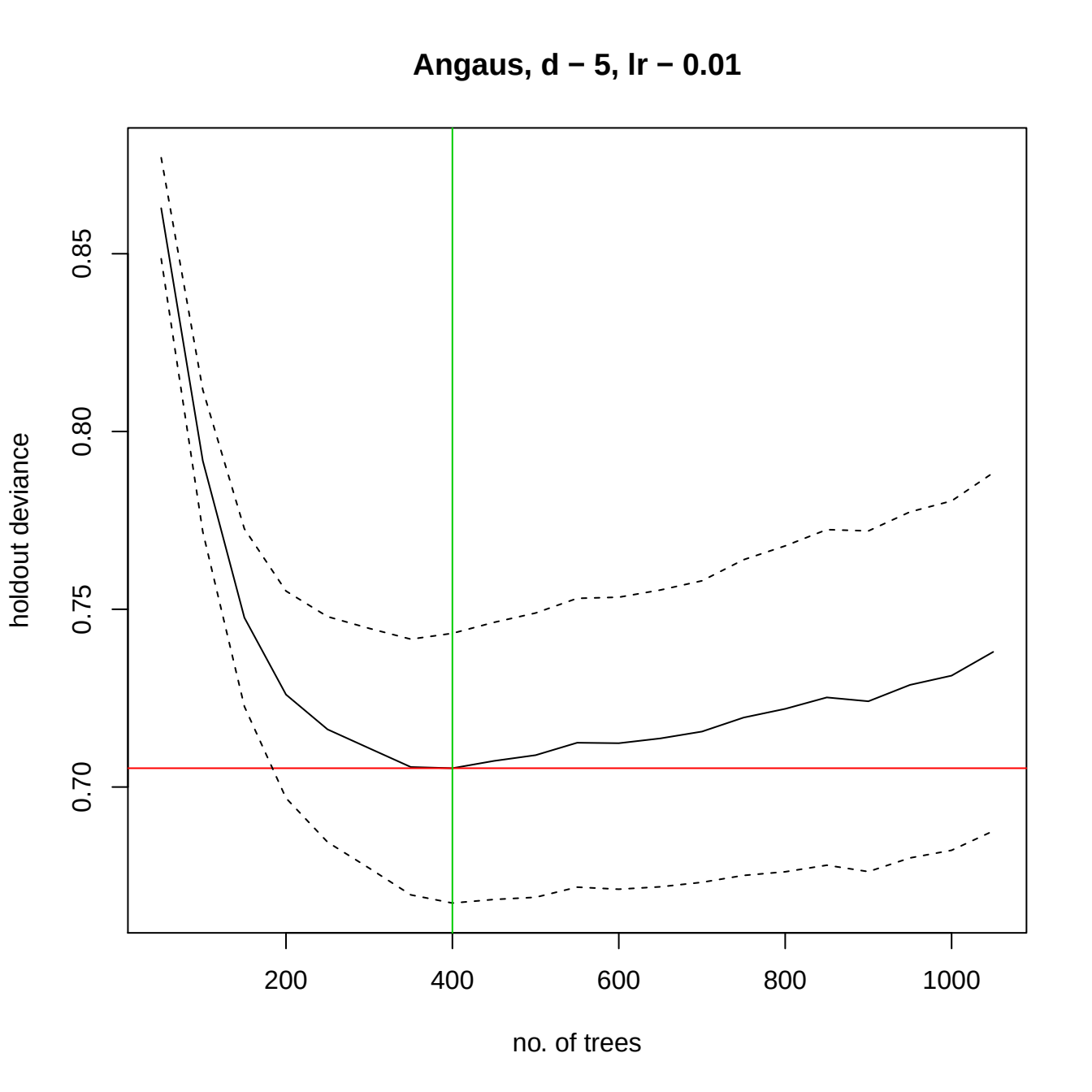
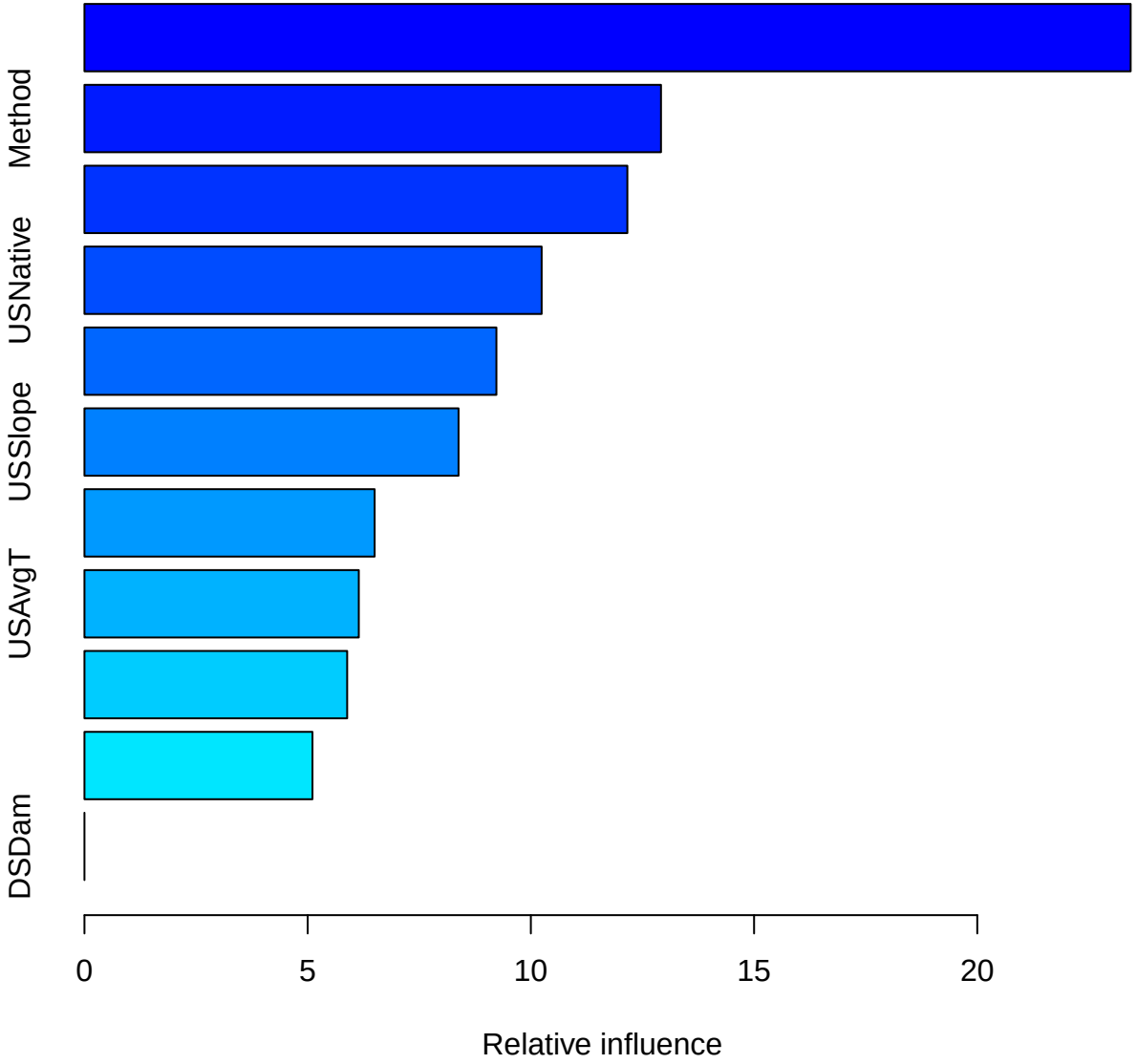
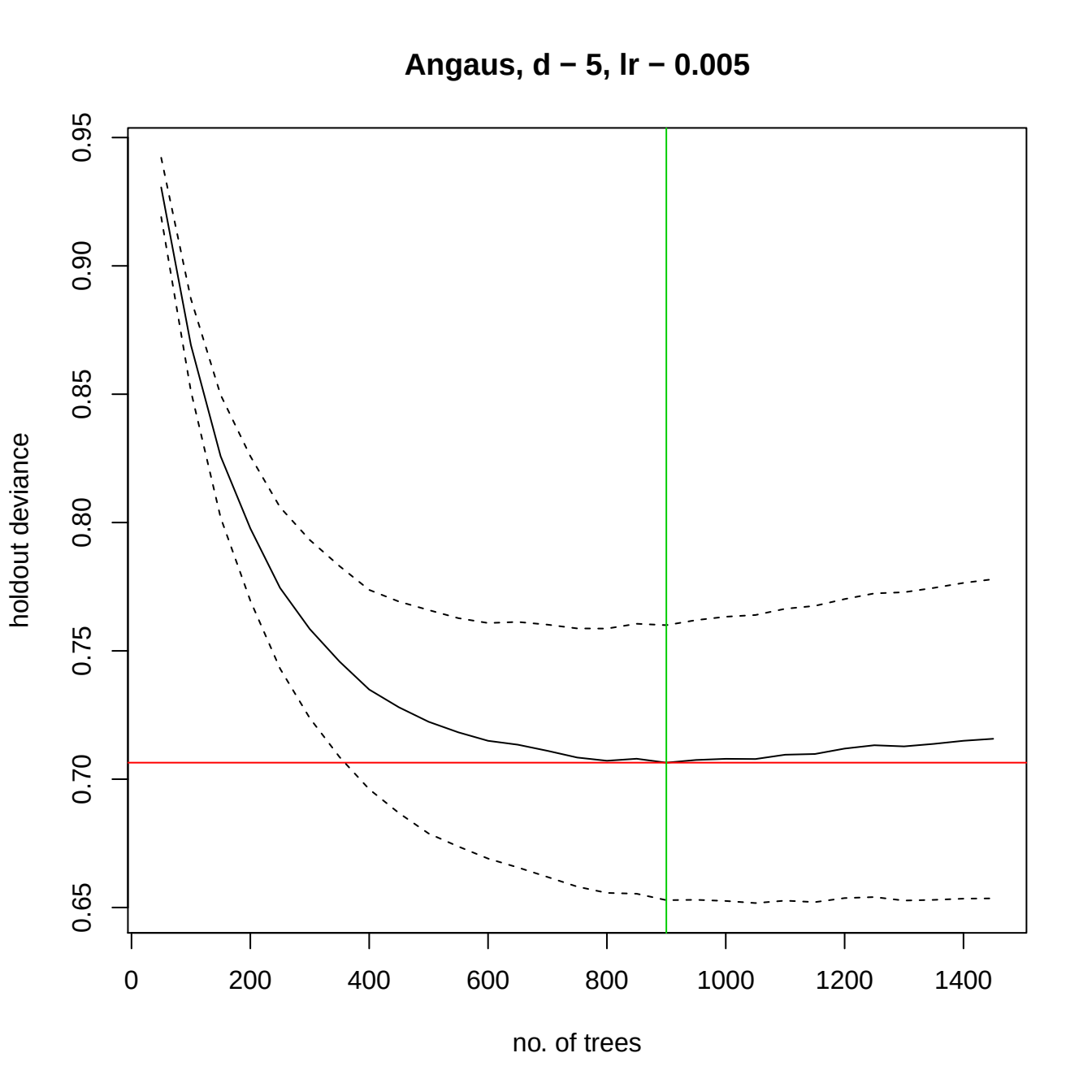
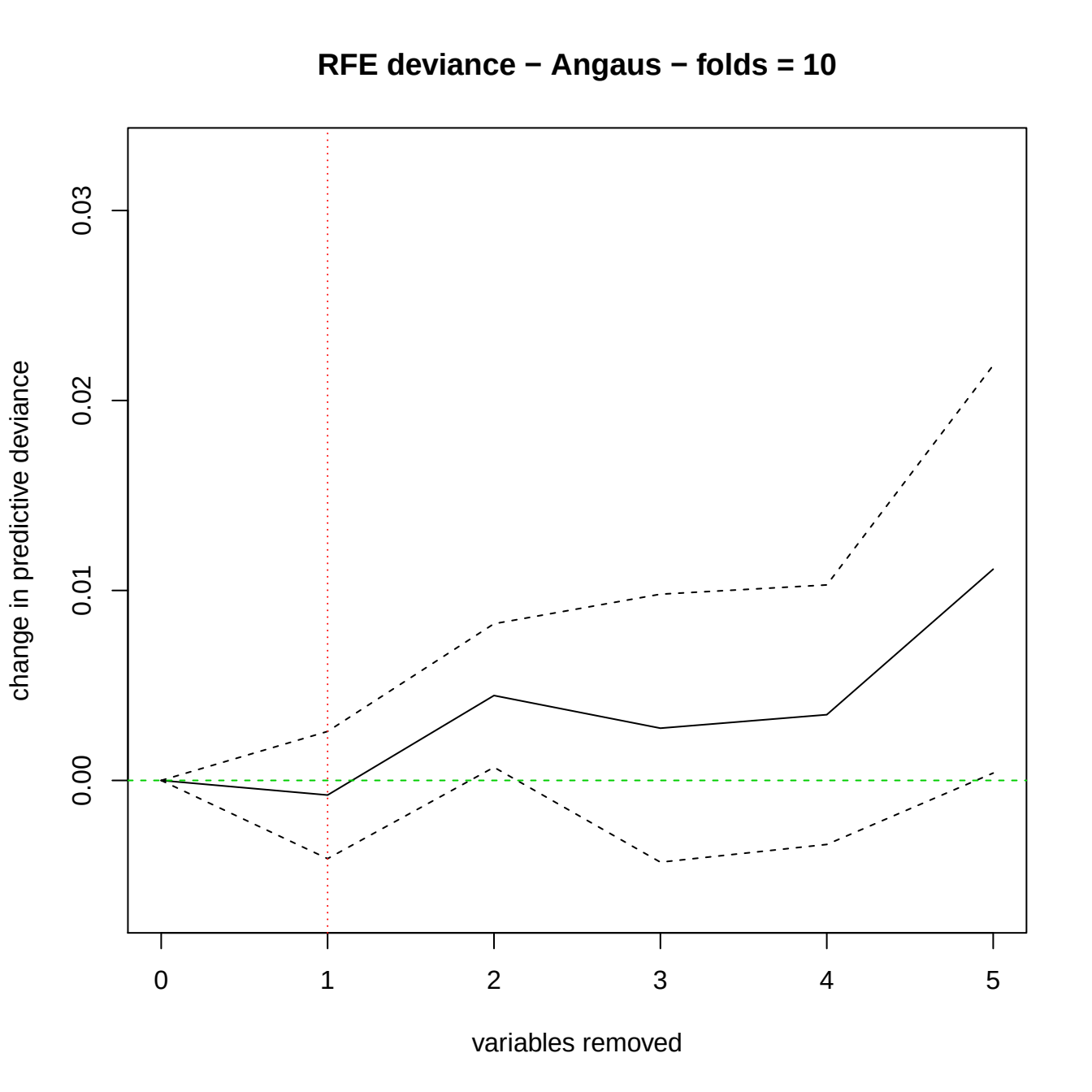
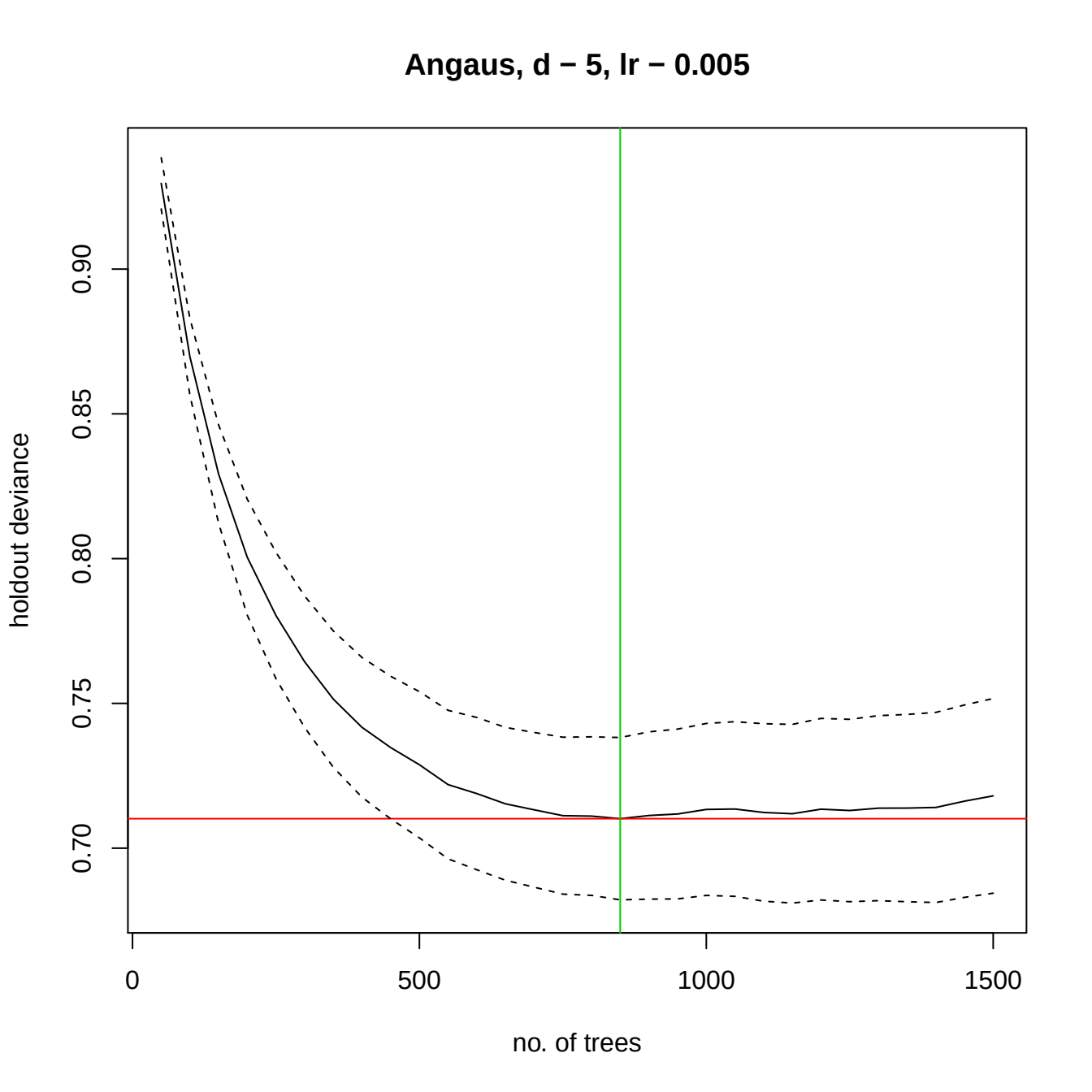
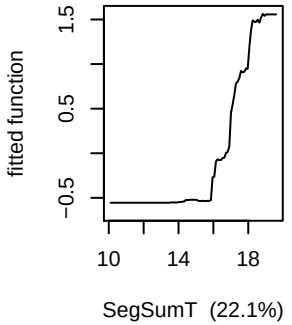

Angaus, d − 5, lr − 0.01
holdout deviance
0.70
0.75
0.80
0.85
200
400
600
800
1000
no. of trees

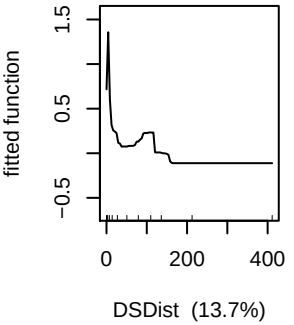

Method
USNative
USSlope
USAvgT
DSDam
0
5
10
15
20
Relative influence

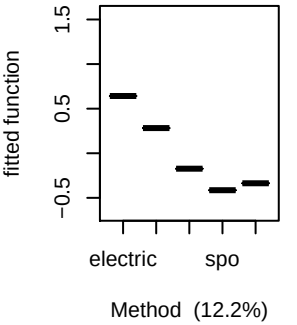

Angaus, d − 5, lr − 0.005
holdout deviance
0.65
0.70
0.75
0.80
0.85
0.90
0.95
0
200
400
600
800
1000
1200
1400
no. of trees

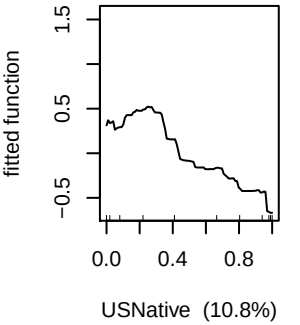

RFE deviance − Angaus − folds = 10
change in predictive deviance
0.00
0.01
0.02
0.03
0
1
2
3
4
5
variables removed

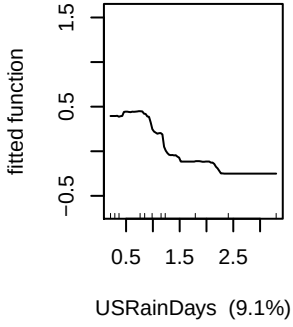

Angaus, d − 5, lr − 0.005
holdout deviance
0.70
0.75
0.80
0.85
0.90
0
500
1000
1500
no. of trees

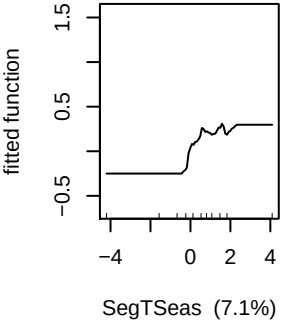

fitted function
1.5
0.5
−0.5
10
14
18
SegSumT (22.1%)

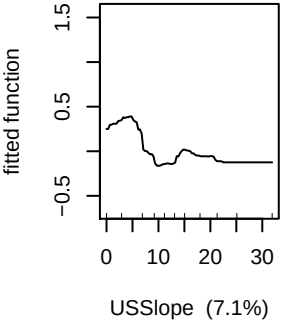

fitted function
1.5
0.5
−0.5
0
200
400
DSDist (13.7%)

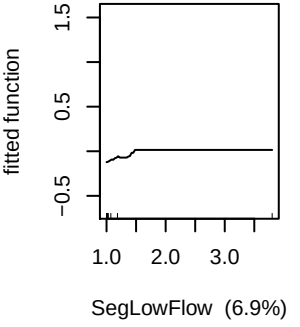

fitted function
1.5
0.5
−0.5
electric
spo
Method (12.2%)

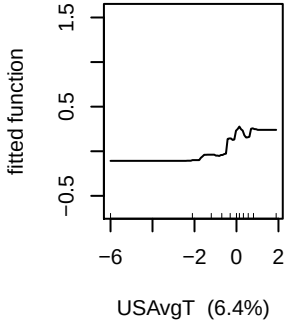

fitted function
1.5
0.5
−0.5
0.0
0.4
0.8
USNative (10.8%)

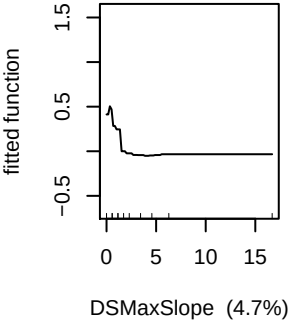

fitted function
1.5
0.5
−0.5
0.5
1.5
2.5
USRainDays (9.1%)

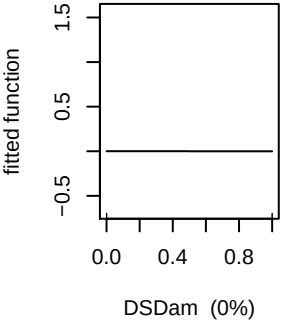

fitted function
1.5
0.5
−0.5
−4
0
2
4
SegTSeas (7.1%)

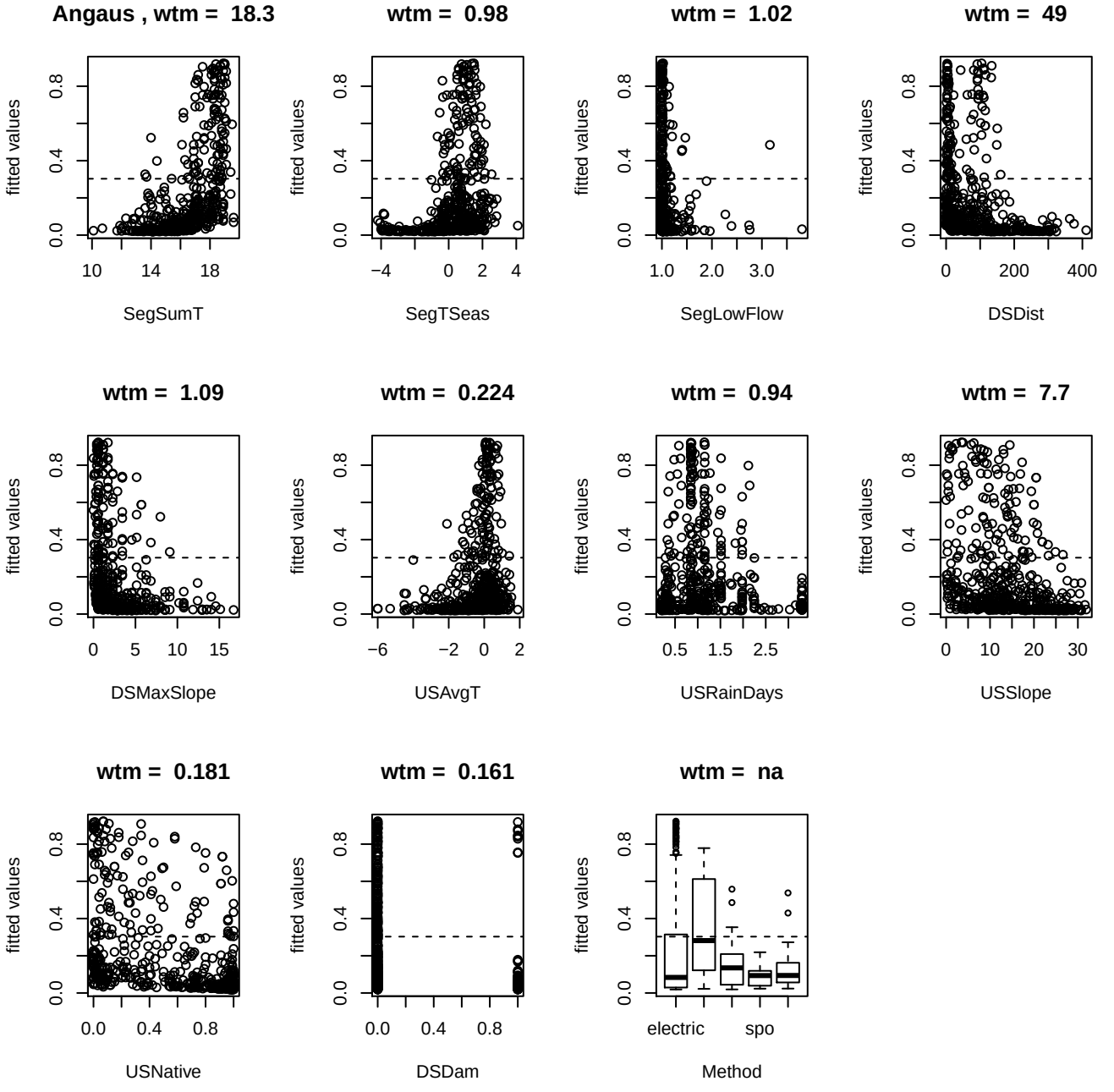

fitted function
1.5
0.5
−0.5
0
10
20
30
USSlope (7.1%)

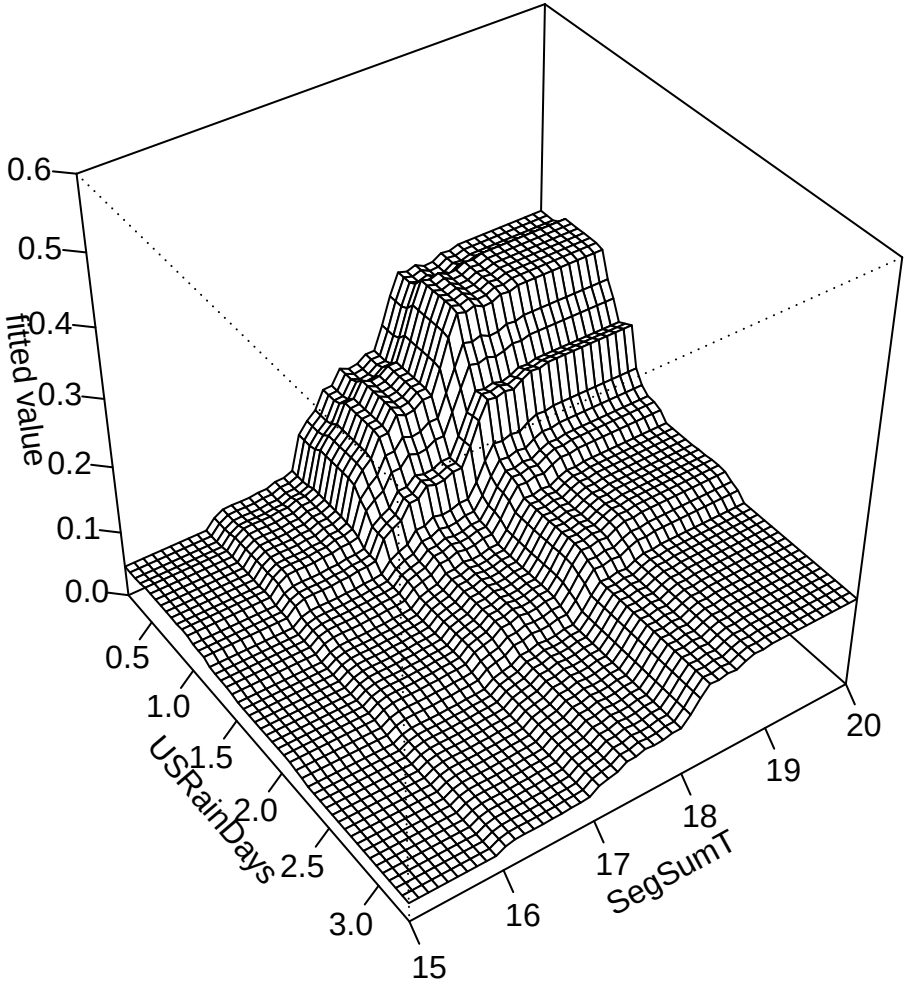

fitted function
1.5
0.5
−0.5
1.0
2.0
3.0
SegLowFlow (6.9%)

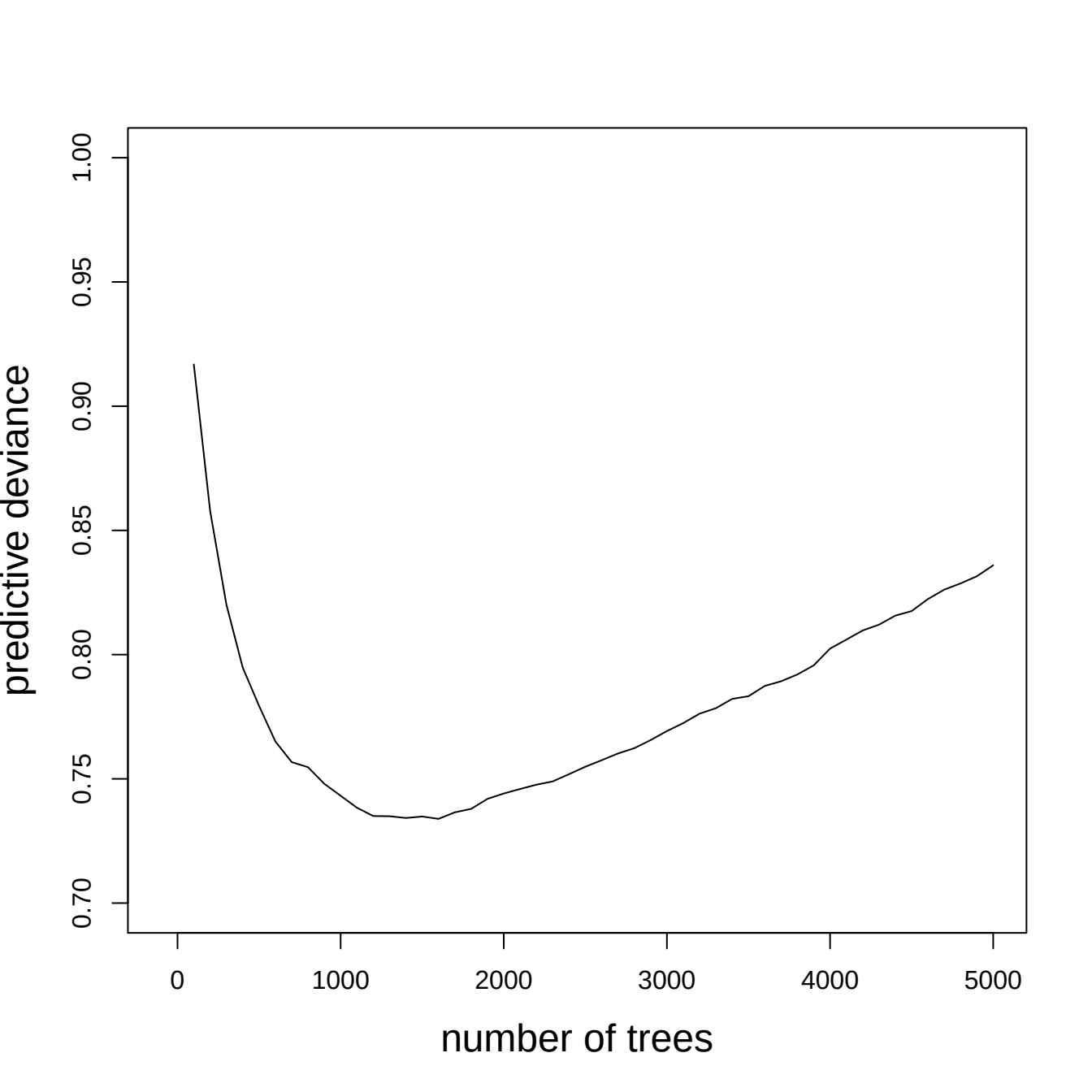

fitted function
1.5
0.5
−0.5
−6
−2
0
2
USAvgT (6.4%)

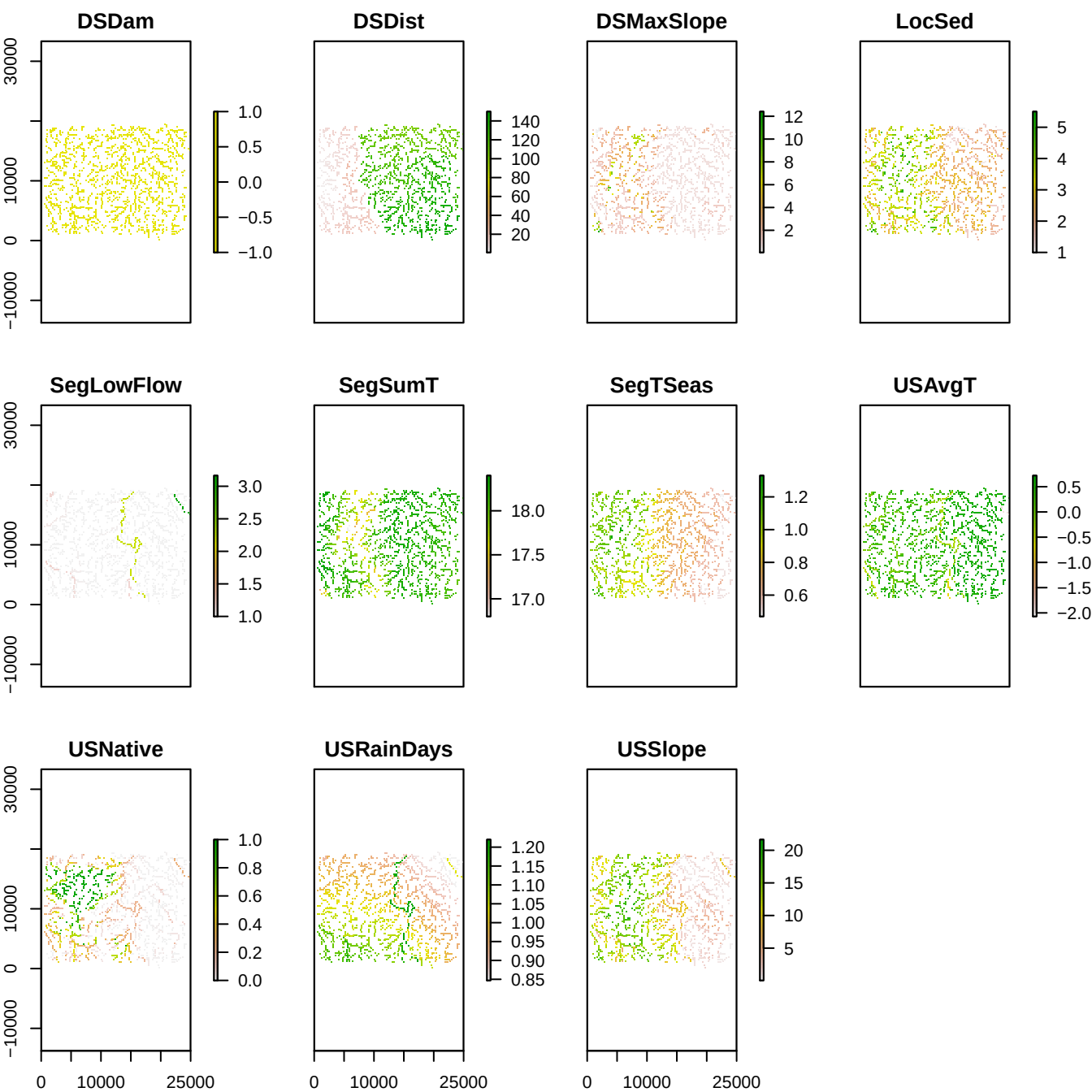

fitted function
1.5
0.5
−0.5
0
5
10
15
DSMaxSlope (4.7%)

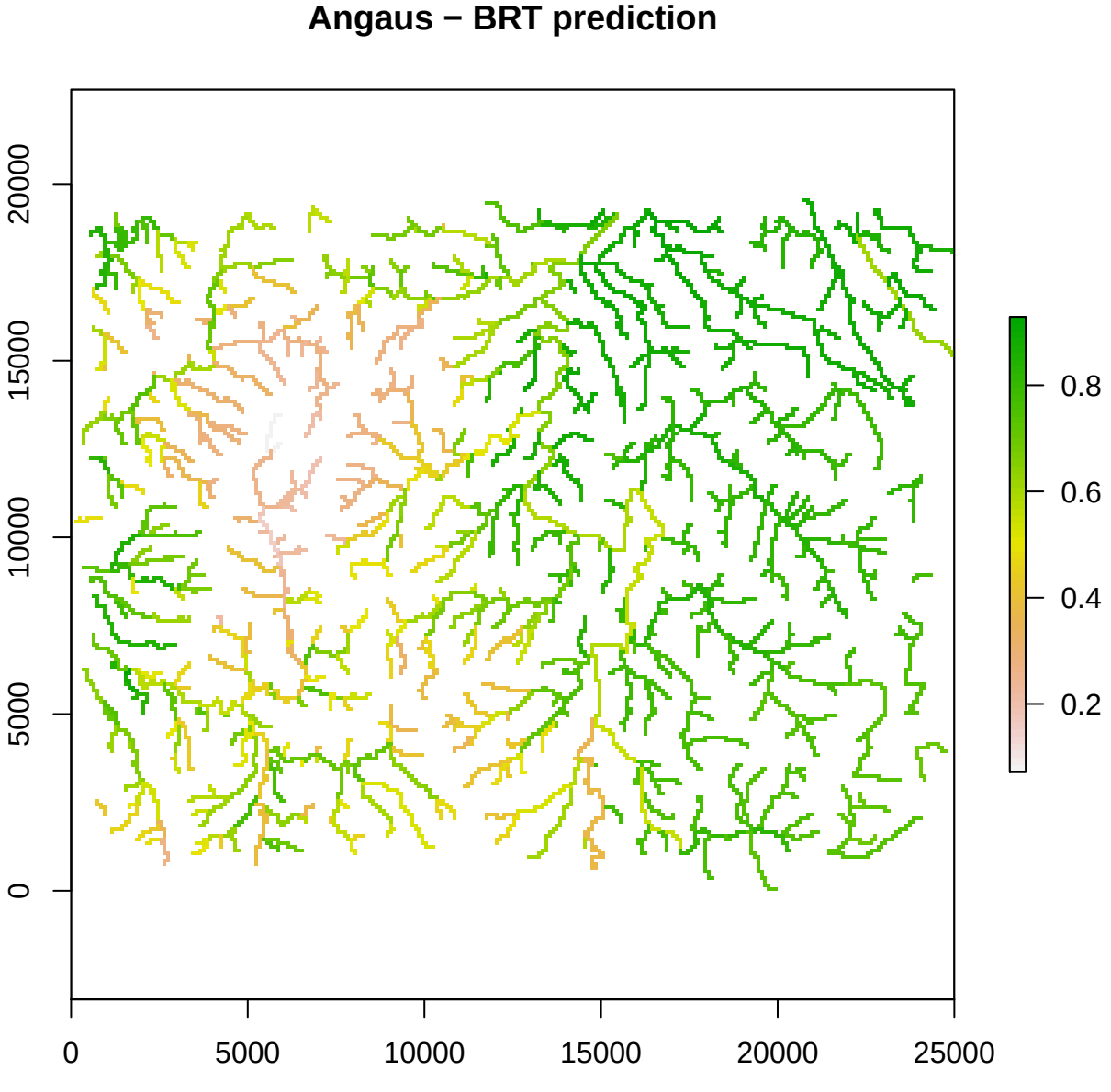

fitted function
1.5
0.5
−0.5
0.0
0.4
0.8
DSDam (0%)

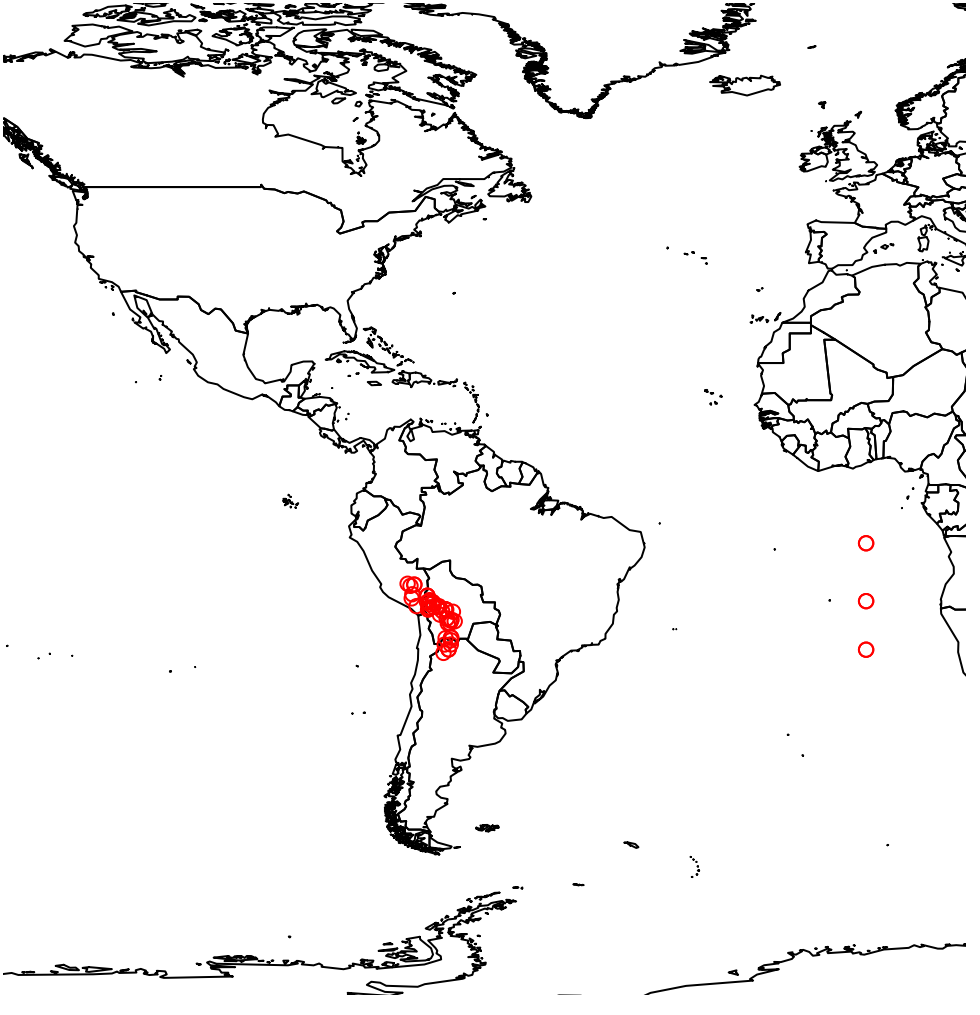

Angaus , wtm = 18.3
wtm = 0.98
wtm = 1.02
wtm = 49
wtm = 1.09
wtm = 0.224
wtm = 0.94
wtm = 7.7
wtm = 0.181
wtm = 0.161
wtm = na
fitted values
SegSumT
SegTSeas
SegLowFlow
DSDist
DSMaxSlope
USAvgT
USRainDays
USSlope
USNative
DSDam
Method
electric
spo

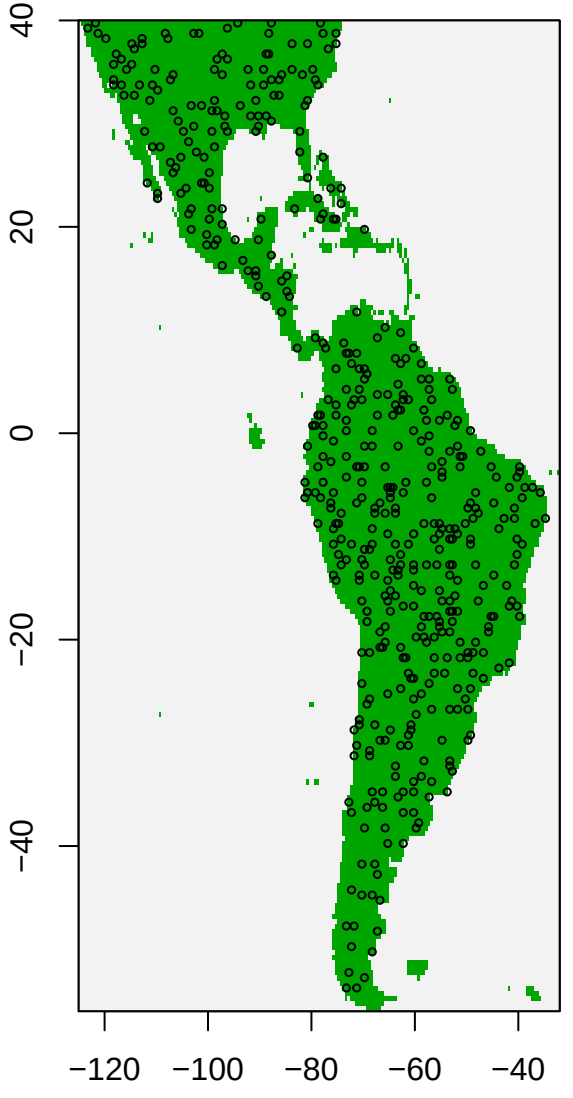

fitted value
0.6
0.5
0.4
0.3
0.2
0.1
0.0
USRainDays
0.5
1.0
1.5
2.0
2.5
3.0
SegSumT
15
16
17
18
19
20

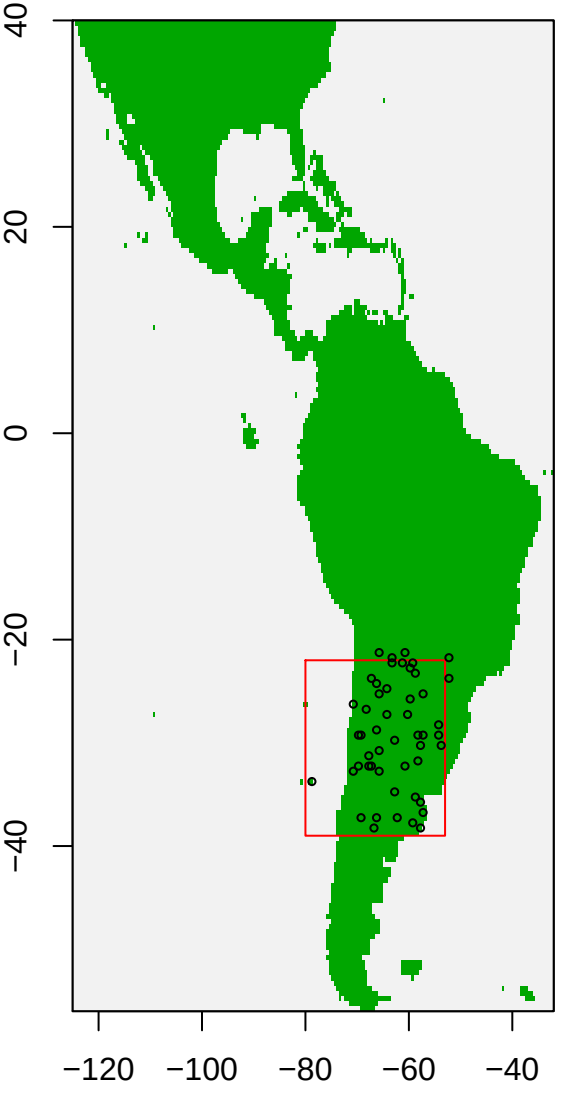

predictive deviance
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0
1000
2000
3000
4000
5000
number of trees

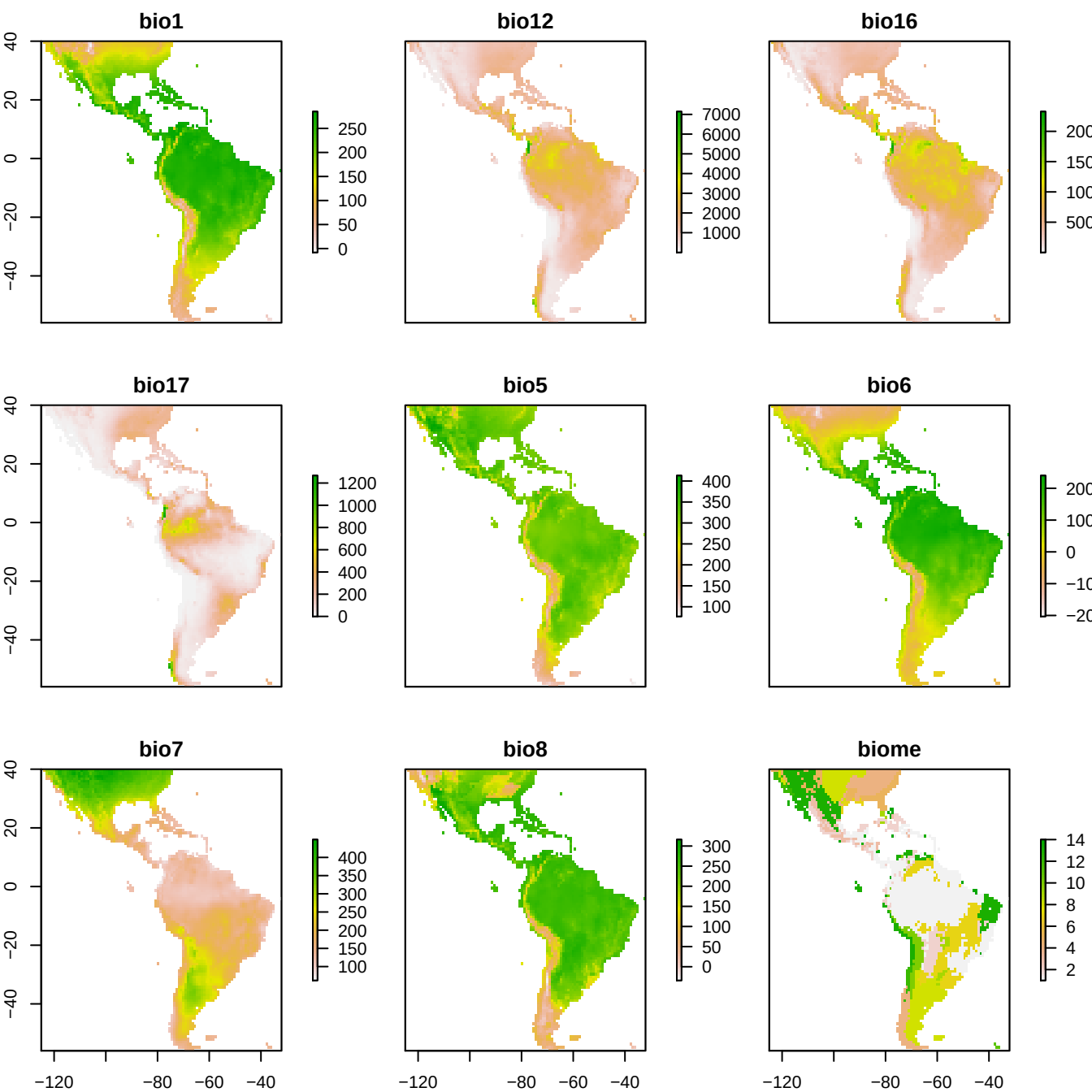

DSDam
DSDist
DSMaxSlope
LocSed
SegLowFlow
SegSumT
SegTSeas
USAvgT
USNative
USRainDays
USSlope
30000
10000
0
−10000
0
10000
25000
1.0
0.5
0.0
−0.5
−1.0
140
120
100
80
60
40
20
12
10
8
6
4
2
5
4
3
2
1
3.0
2.5
2.0
1.5
1.0
18.0
17.5
17.0
1.2
1.0
0.8
0.6
0.5
0.0
−0.5
−1.0
−1.5
−2.0
1.0
0.8
0.6
0.4
0.2
0.0
1.20
1.15
1.10
1.05
1.00
0.95
0.90
0.85
20
15
10
5

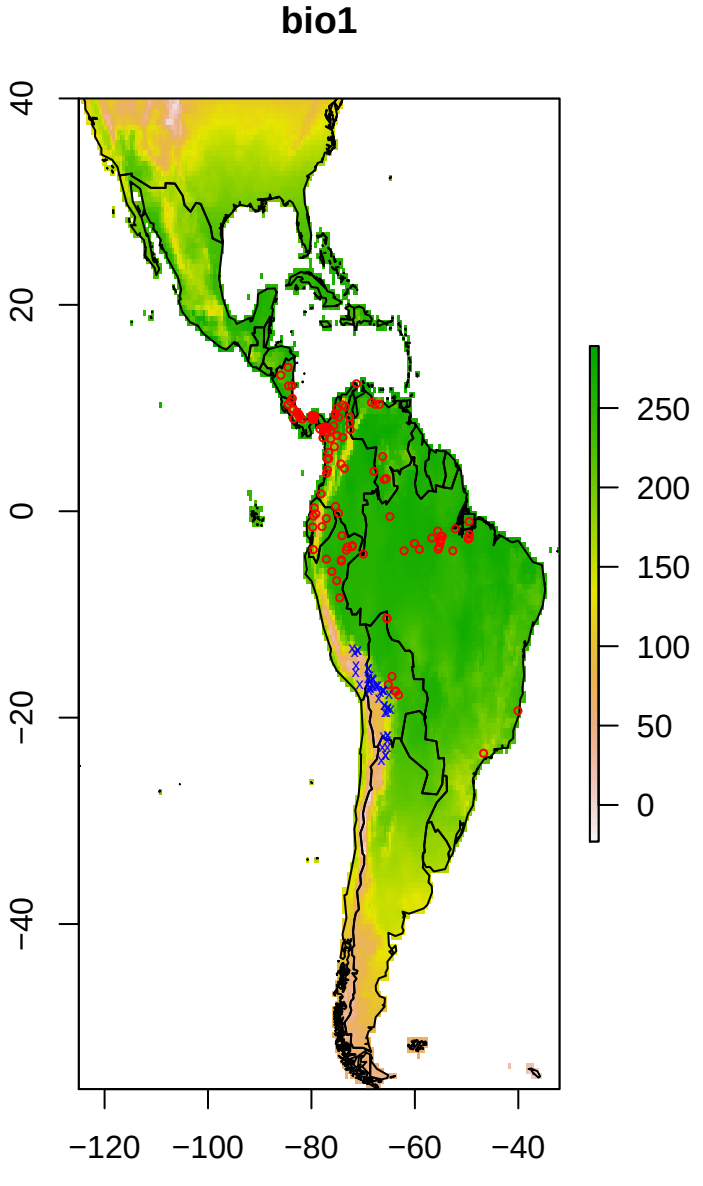

Angaus − BRT prediction
20000
15000
10000
5000
0
0
5000
10000
15000
20000
25000
0.8
0.6
0.4
0.2

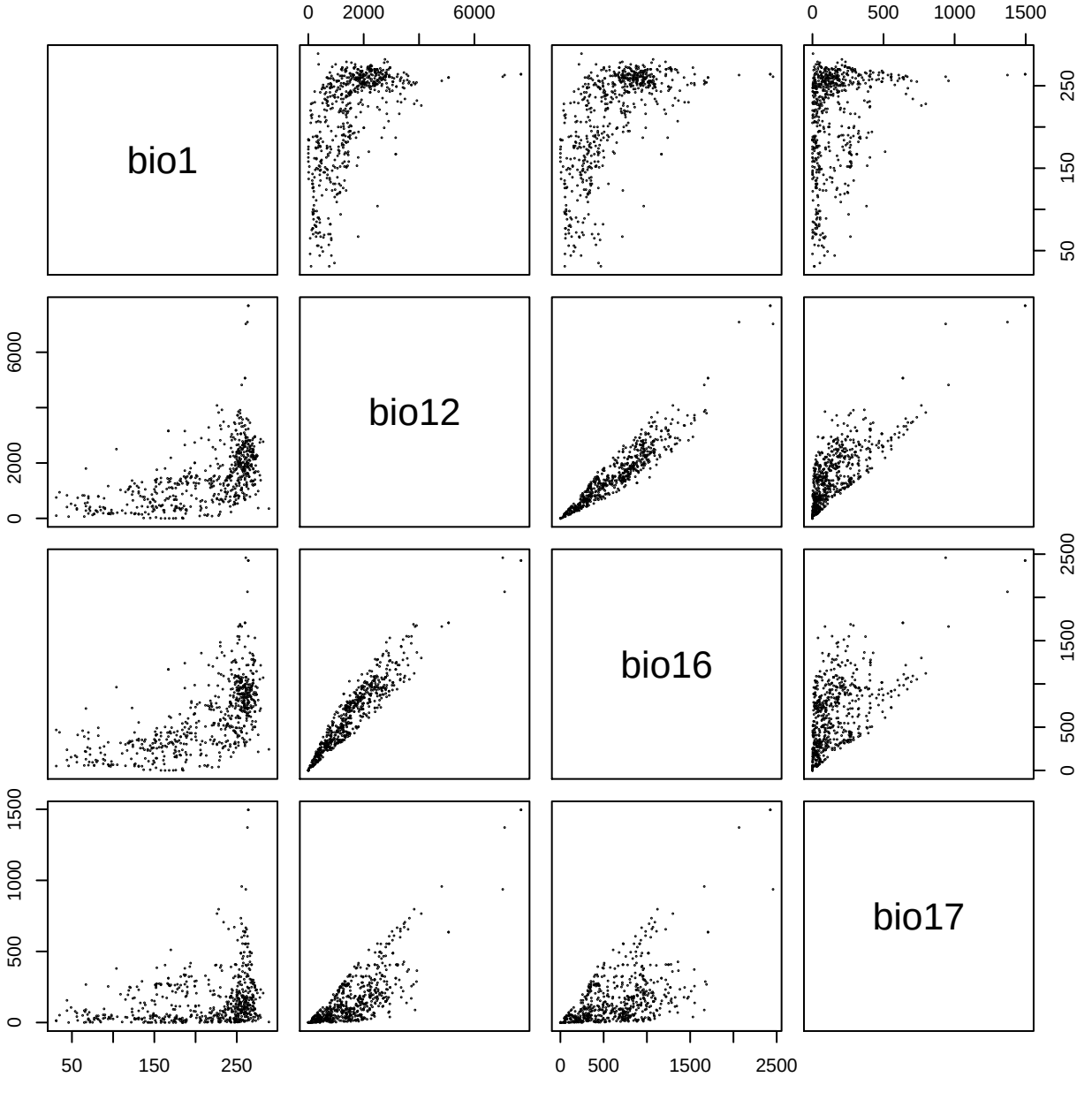


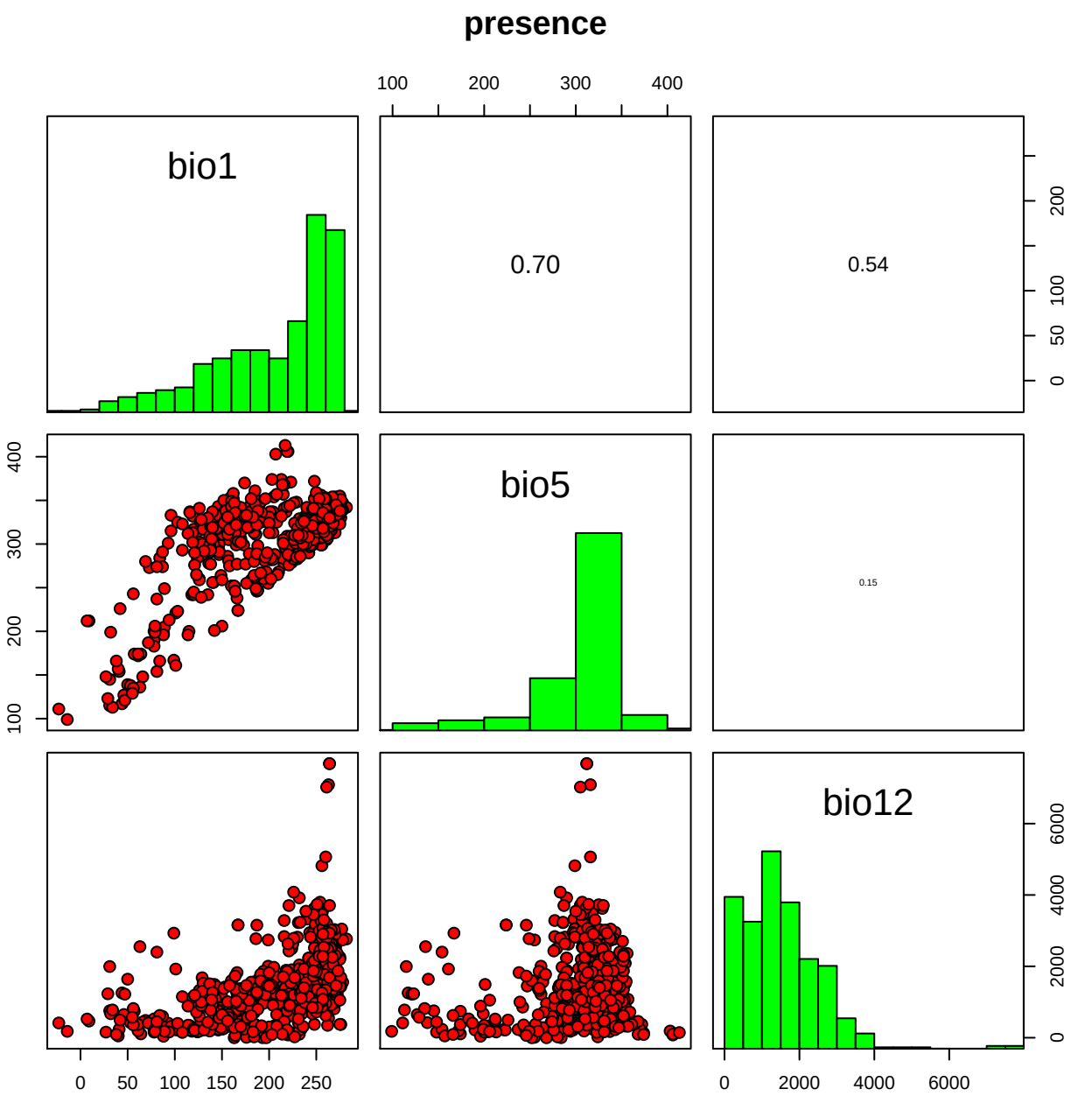

40
20
0
−20
−40
−120
−100
−80
−60
−40

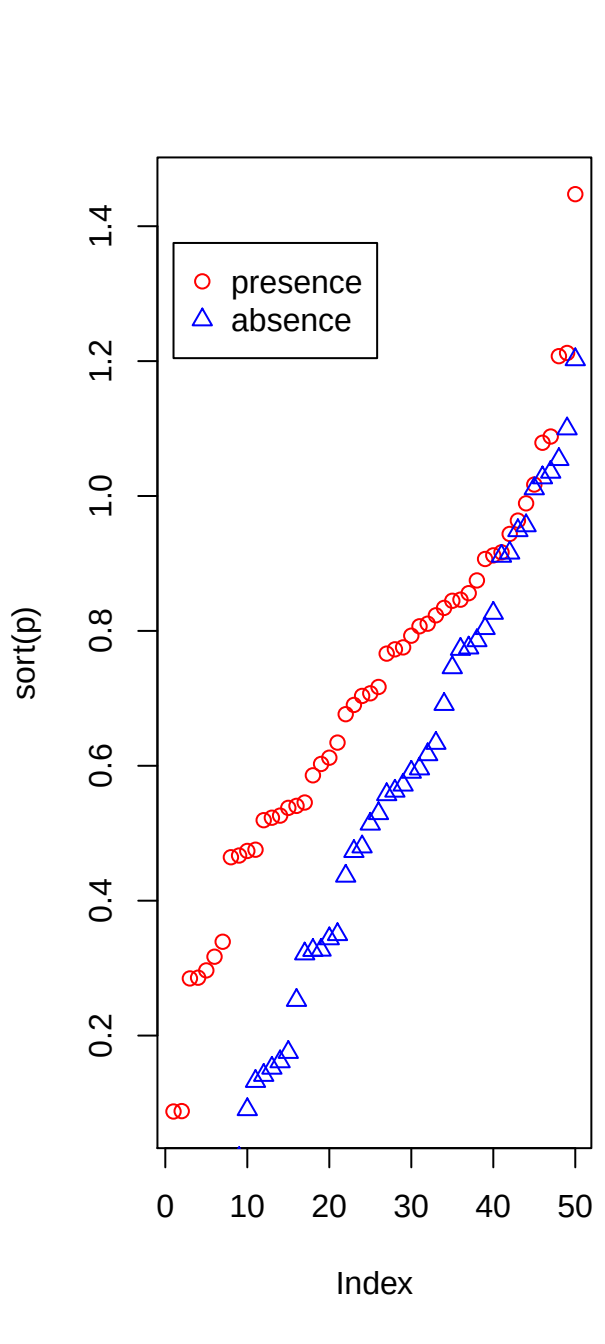

40
20
0
−20
−40
−120
−100
−80
−60
−40

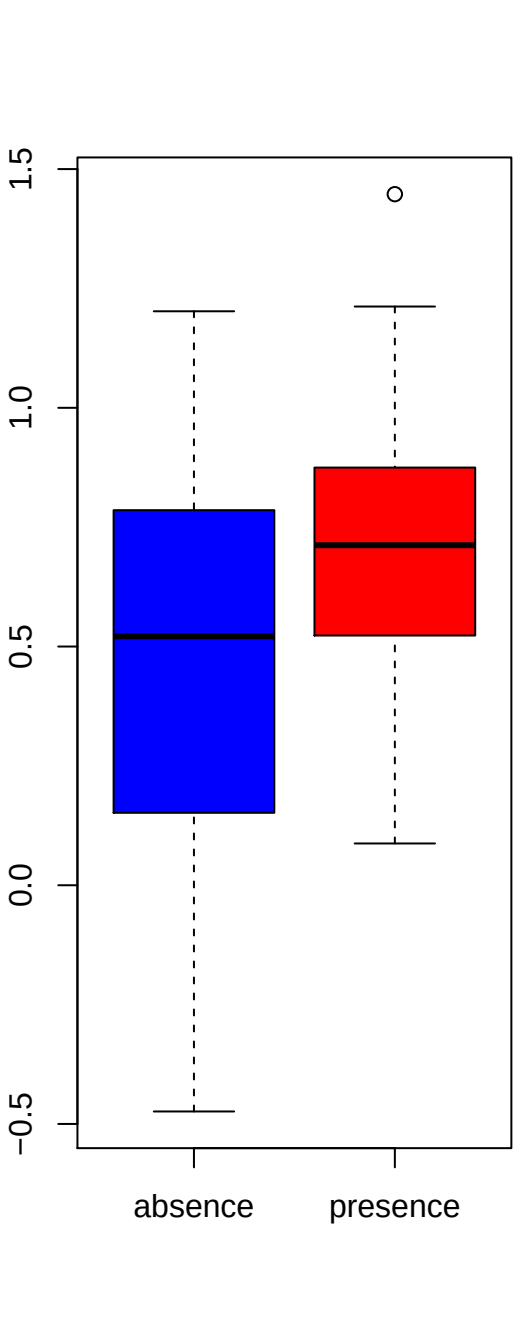

bio1
bio12
bio16
bio17
bio5
bio6
bio7
bio8
biome
40
20
0
−20
−40
−120
−80
−60
−40
250
200
150
100
50
0
7000
6000
5000
4000
3000
2000
1000
1200
1000
800
600
400
200
0
400
350
300
250
200
150
100
300
250
200
150
100
50
0
14
12
10
8
6
4
2

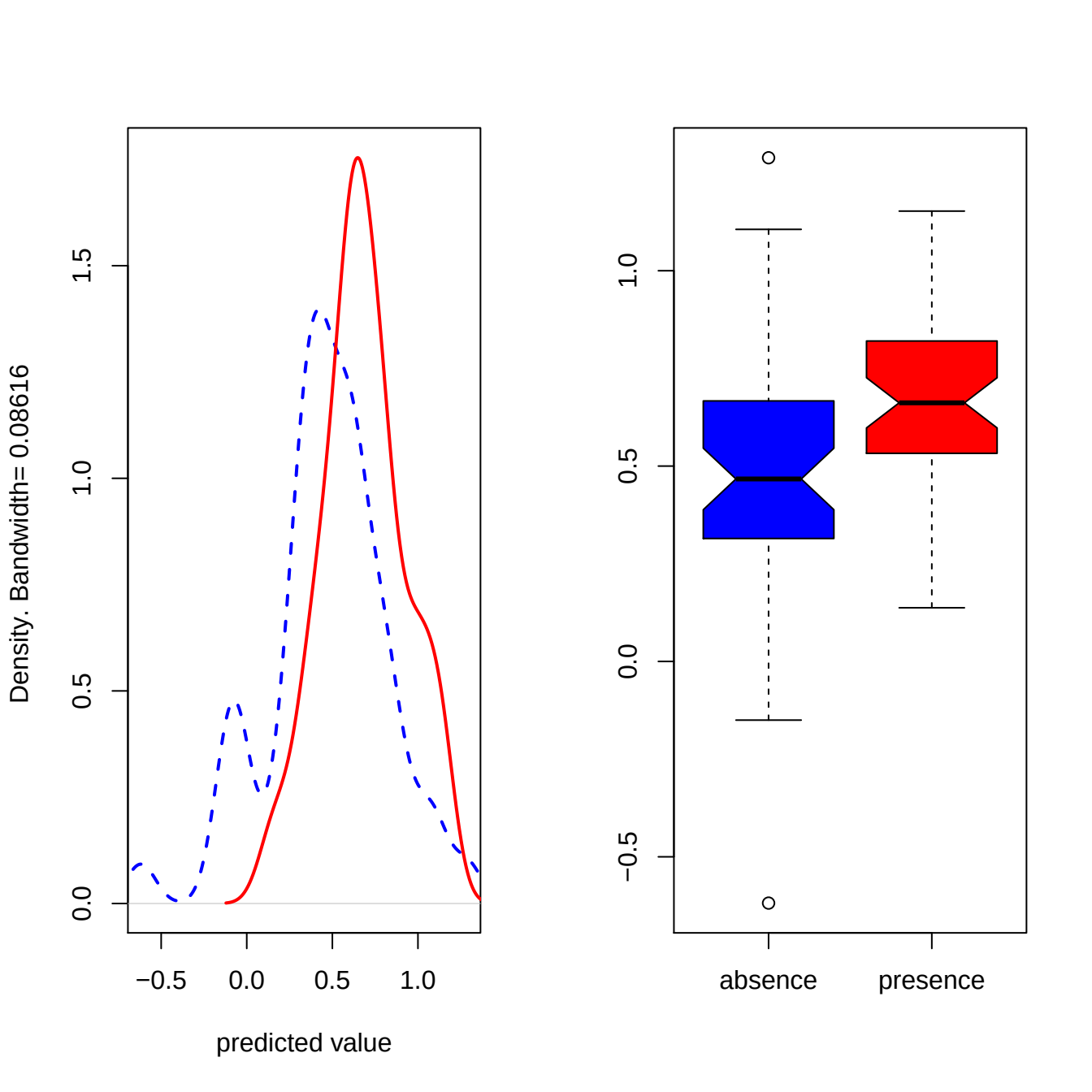

bio1
40
20
0
−20
−40
−120
−100
−80
−60
−40
250
200
150
100
50
0

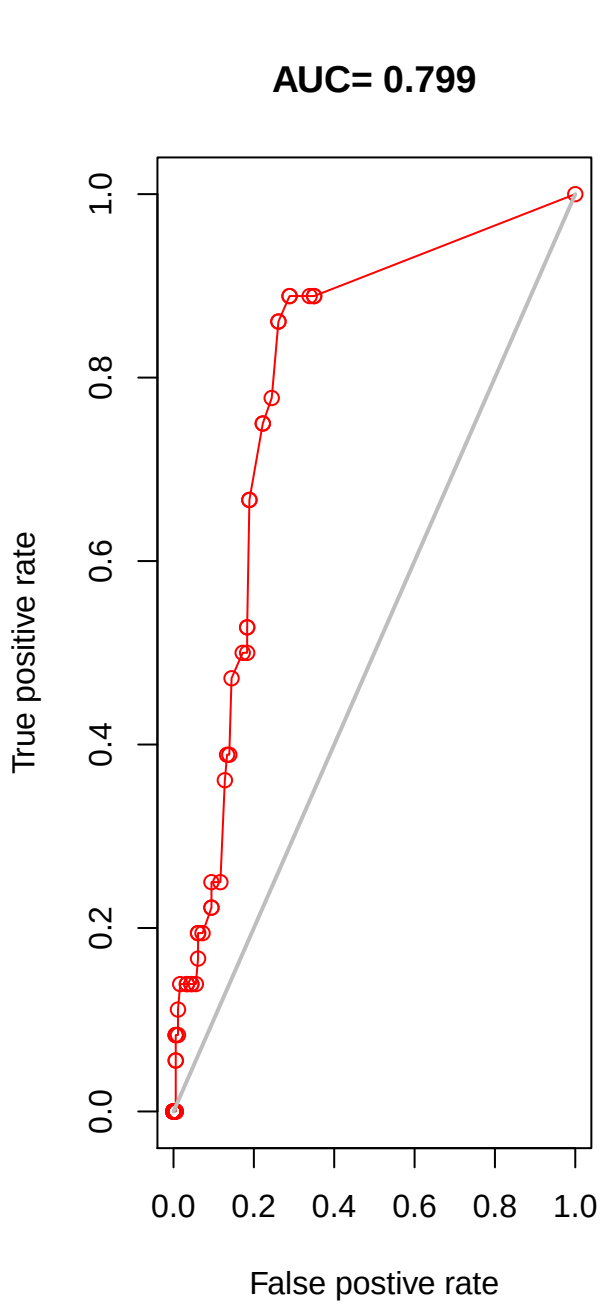

bio1
bio12
bio16
bio17
0
2000
6000
0
500
1000
1500
50
150
250
0
2000
6000
0
500
1000
1500
2500
0
500
1000
1500
50
150
250
0
500
1500
2500

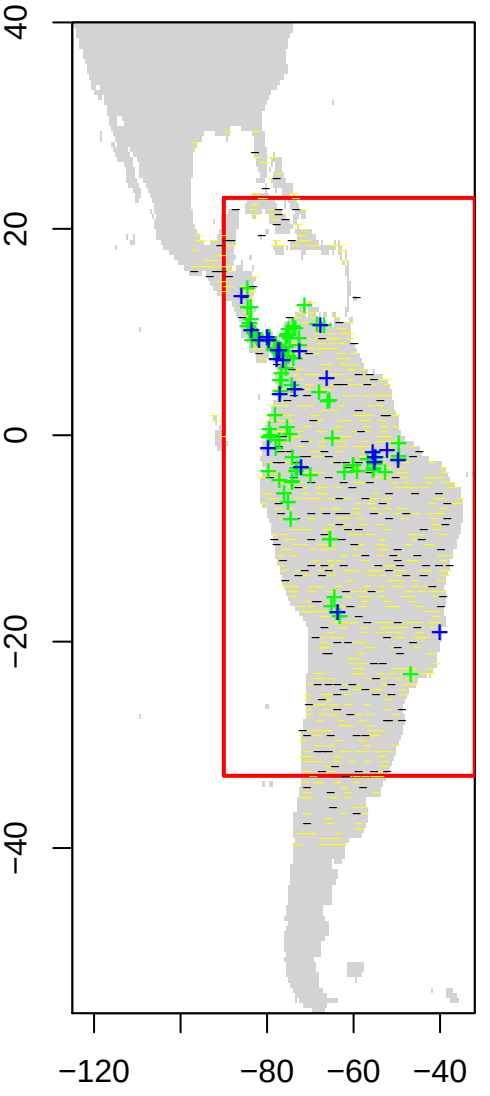

presence
bio1
0.70
0.54
bio5
0.15
bio12
100
200
300
400
0
50
100
150
200
250
2000
4000
6000

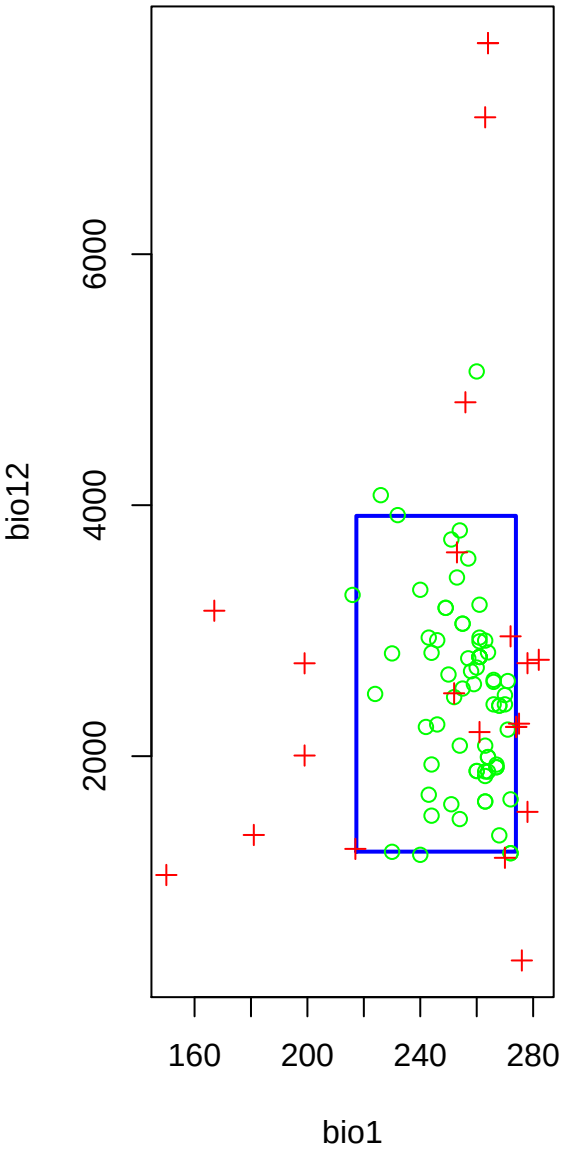

presence
absence
sort(p)
Index
0
10
20
30
40
50
0.2
0.4
0.6
0.8
1.0
1.2
1.4

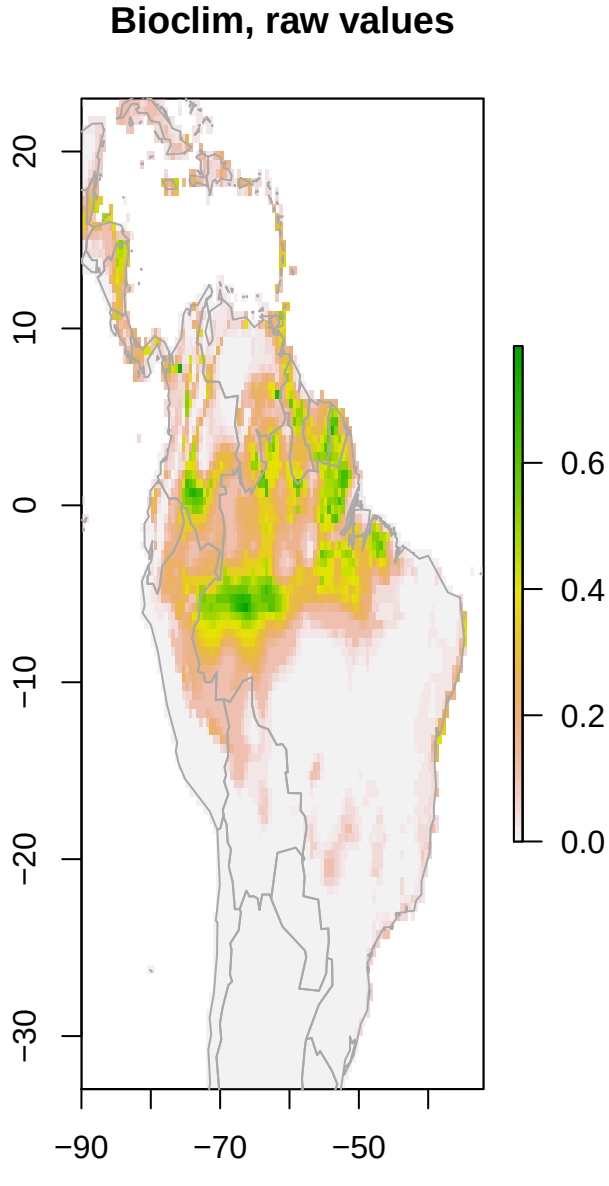

absence
presence
−0.5
0.0
0.5
1.0
1.5

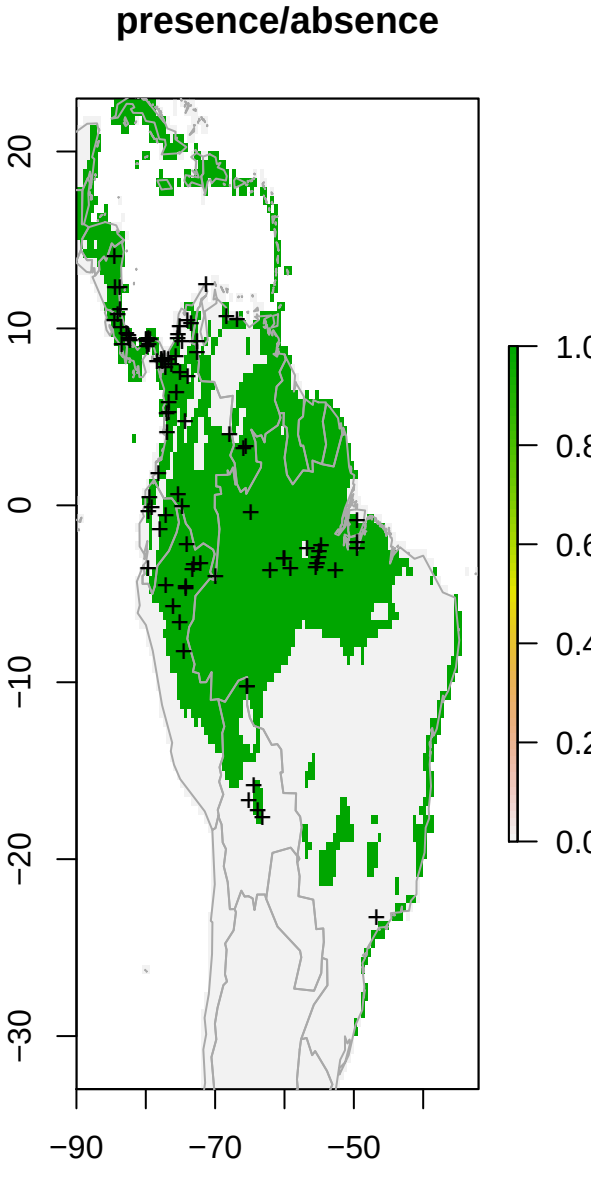

Density. Bandwidth= 0.08616
0.0
0.5
1.0
1.5
−0.5
0.0
0.5
1.0
predicted value
1.0
0.5
0.0
−0.5
absence
presence

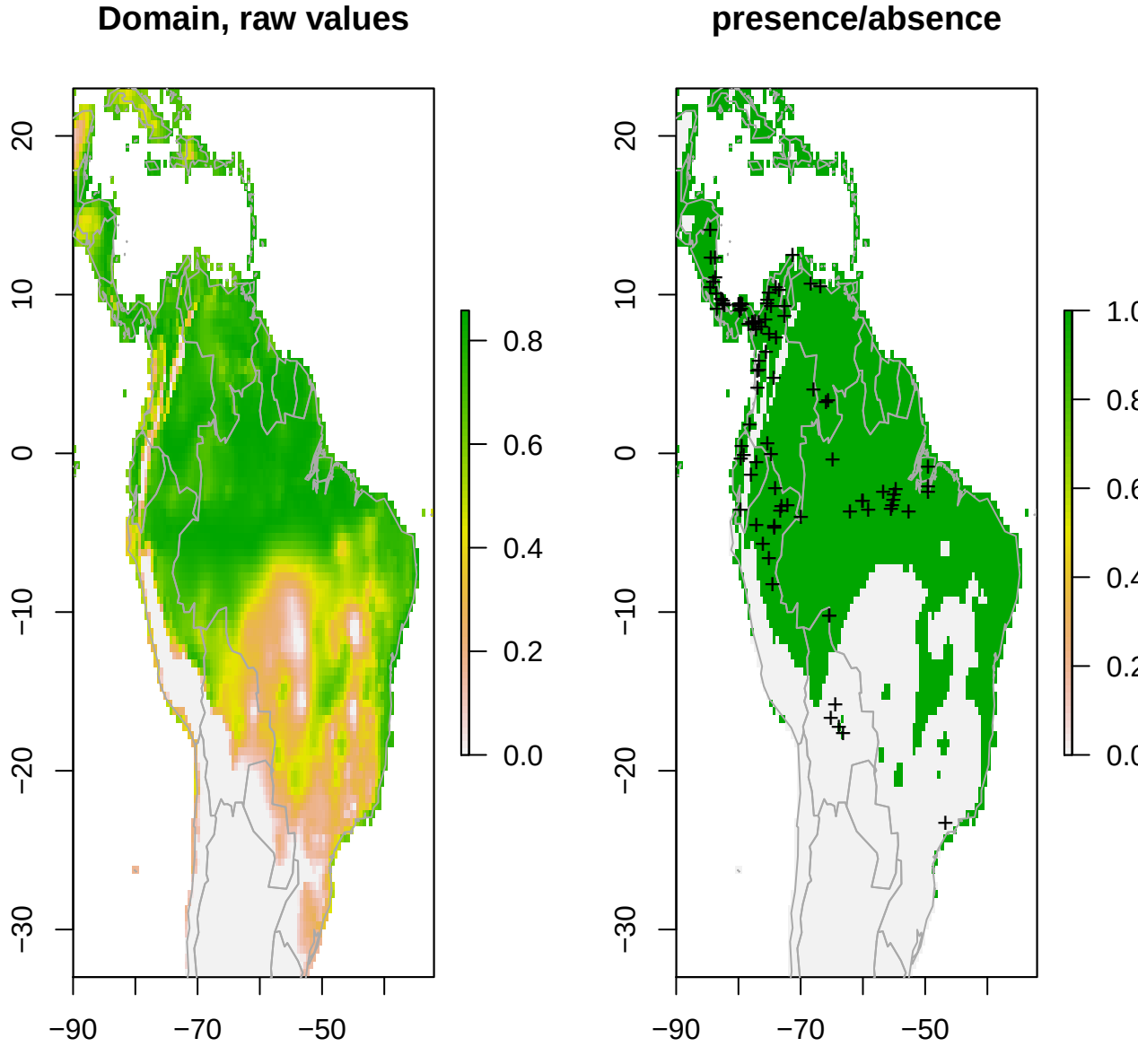

AUC= 0.799
True positive rate
False postive rate
0.0
0.2
0.4
0.6
0.8
1.0

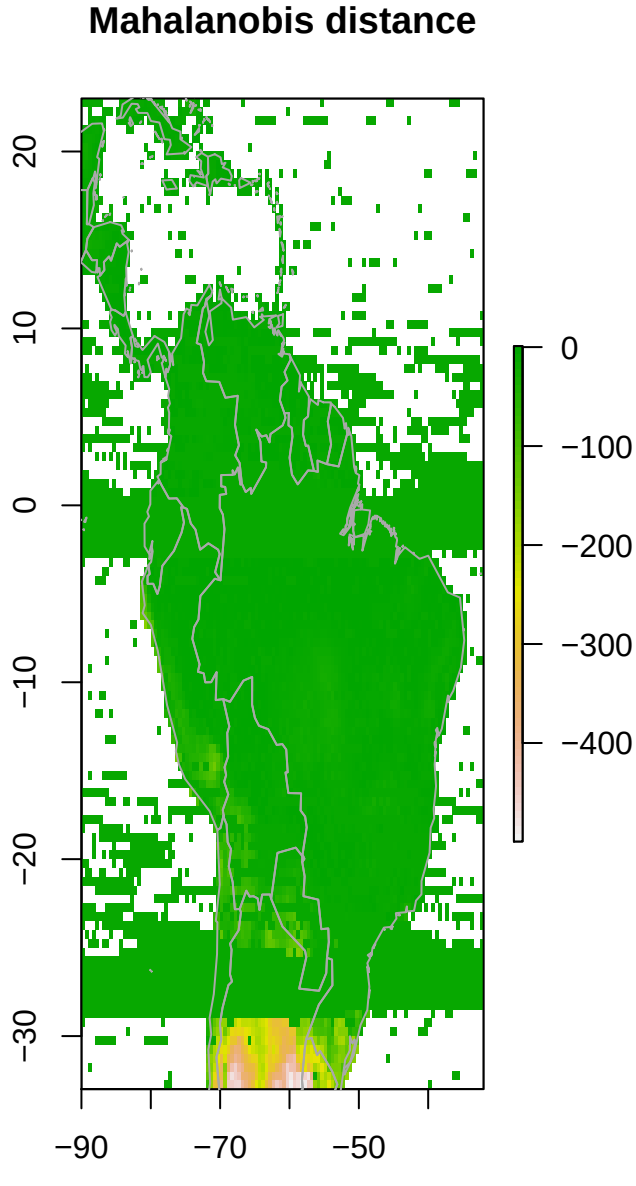

40
20
0
−20
−40
−120
−80
−60
−40

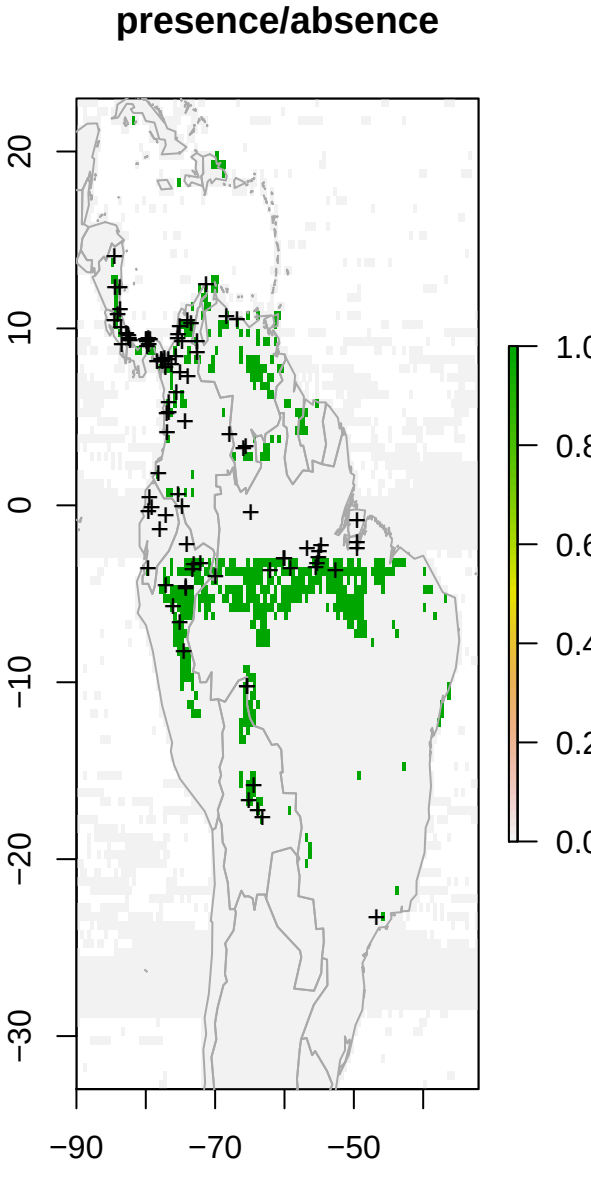

bio12
6000
4000
2000
160
200
240
280
bio1

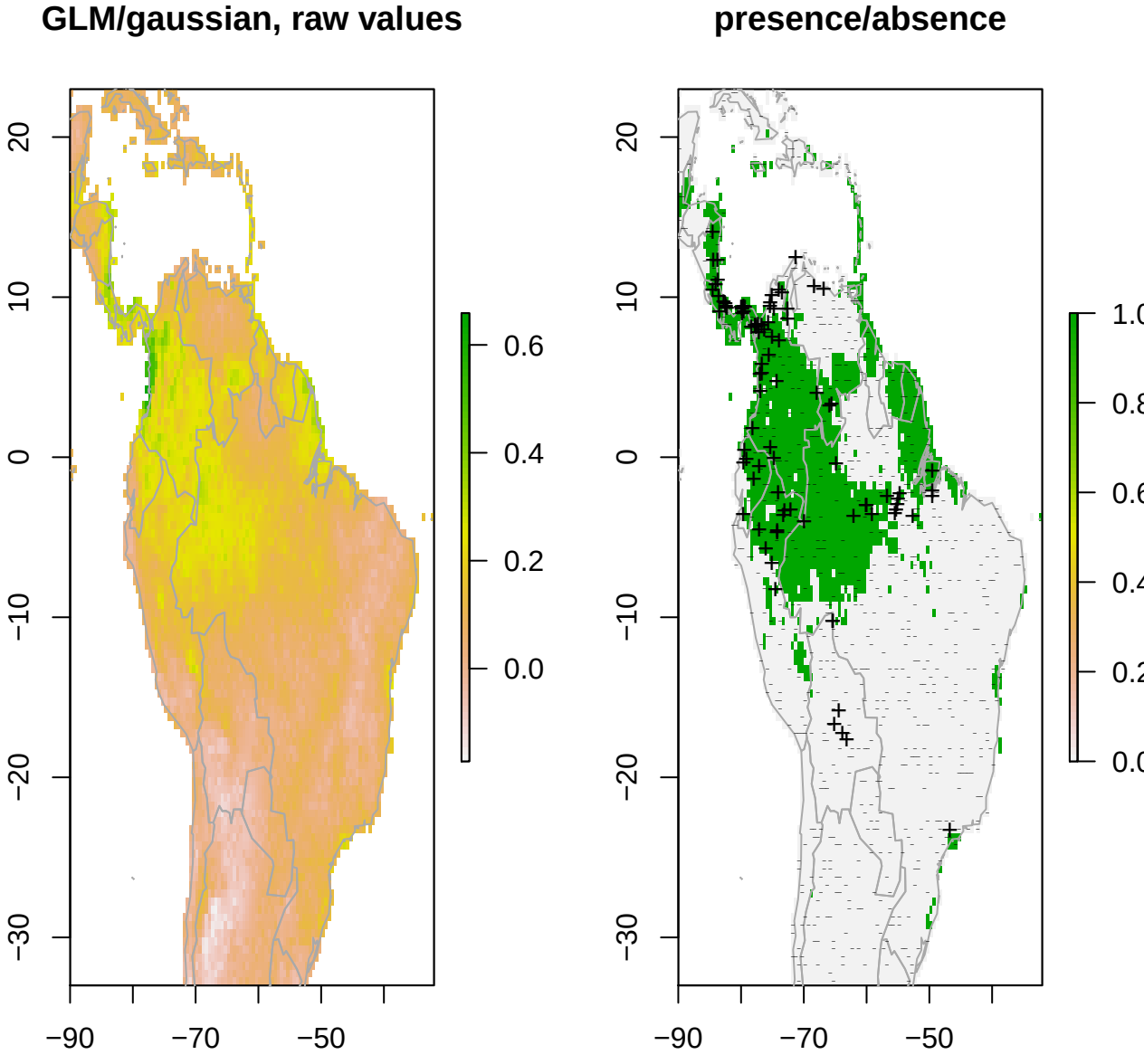

Bioclim, raw values
20
10
0
−10
−20
−30
−90
−70
−50
0.6
0.4
0.2
0.0

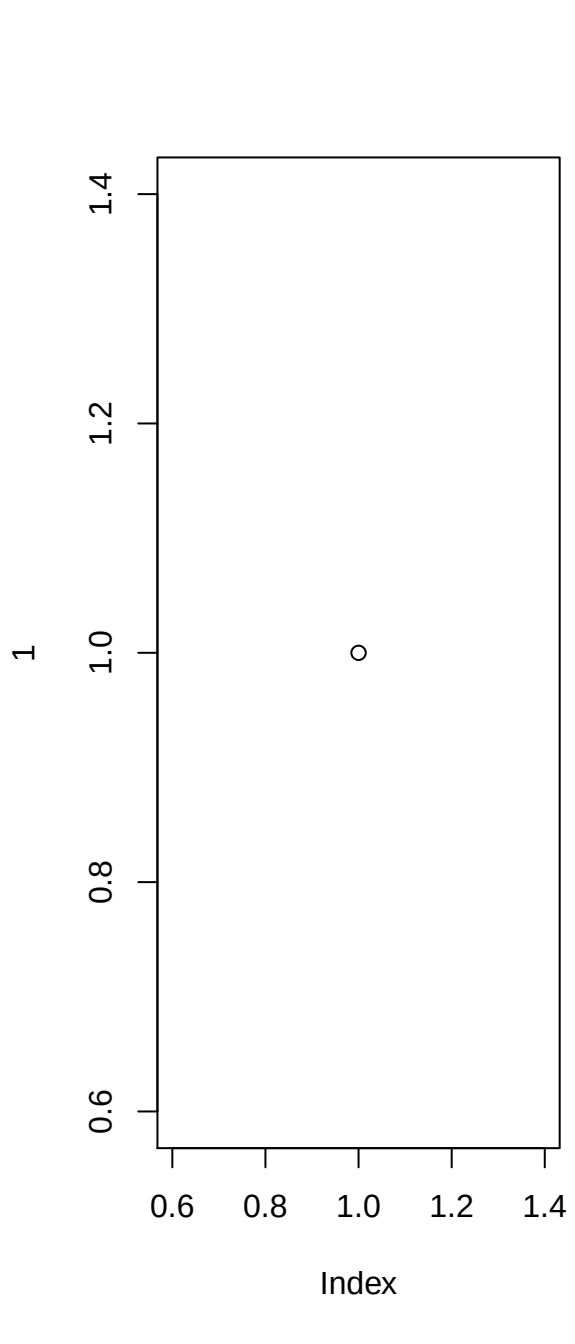

presence/absence
20
10
0
−10
−20
−30
−90
−70
−50
1.0
0.8
0.6
0.4
0.2
0.0

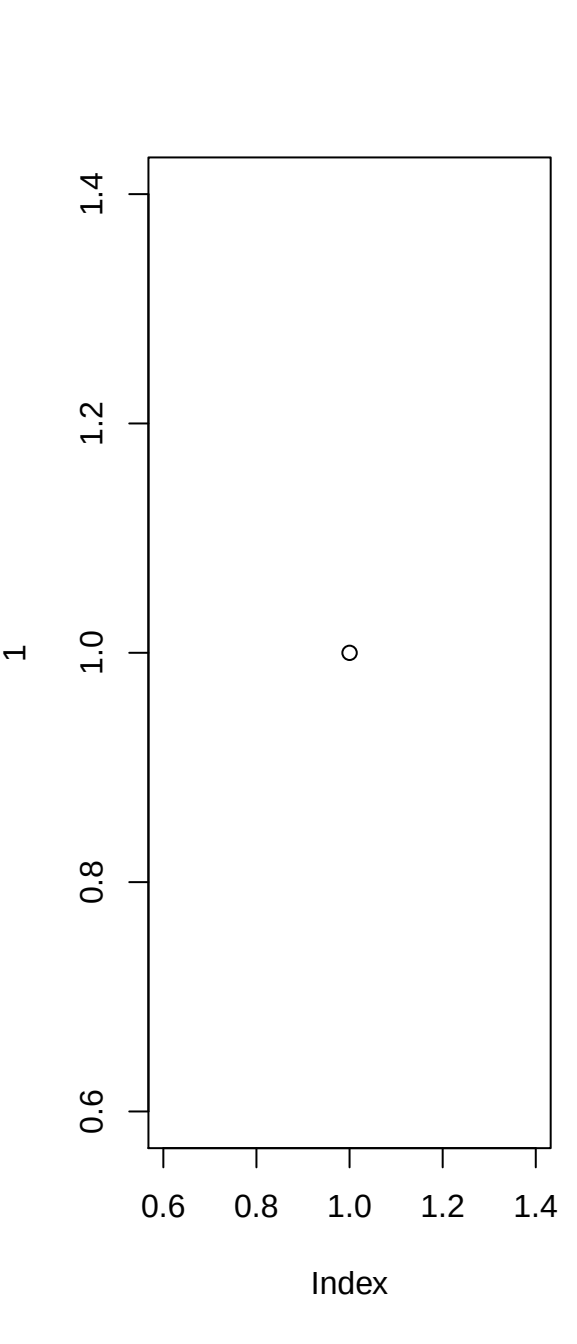

Domain, raw values
presence/absence
20
10
0
−10
−20
−30
−90
−70
−50
0.8
0.6
0.4
0.2
0.0
1.0
0.8
0.6
0.4
0.2
0.0

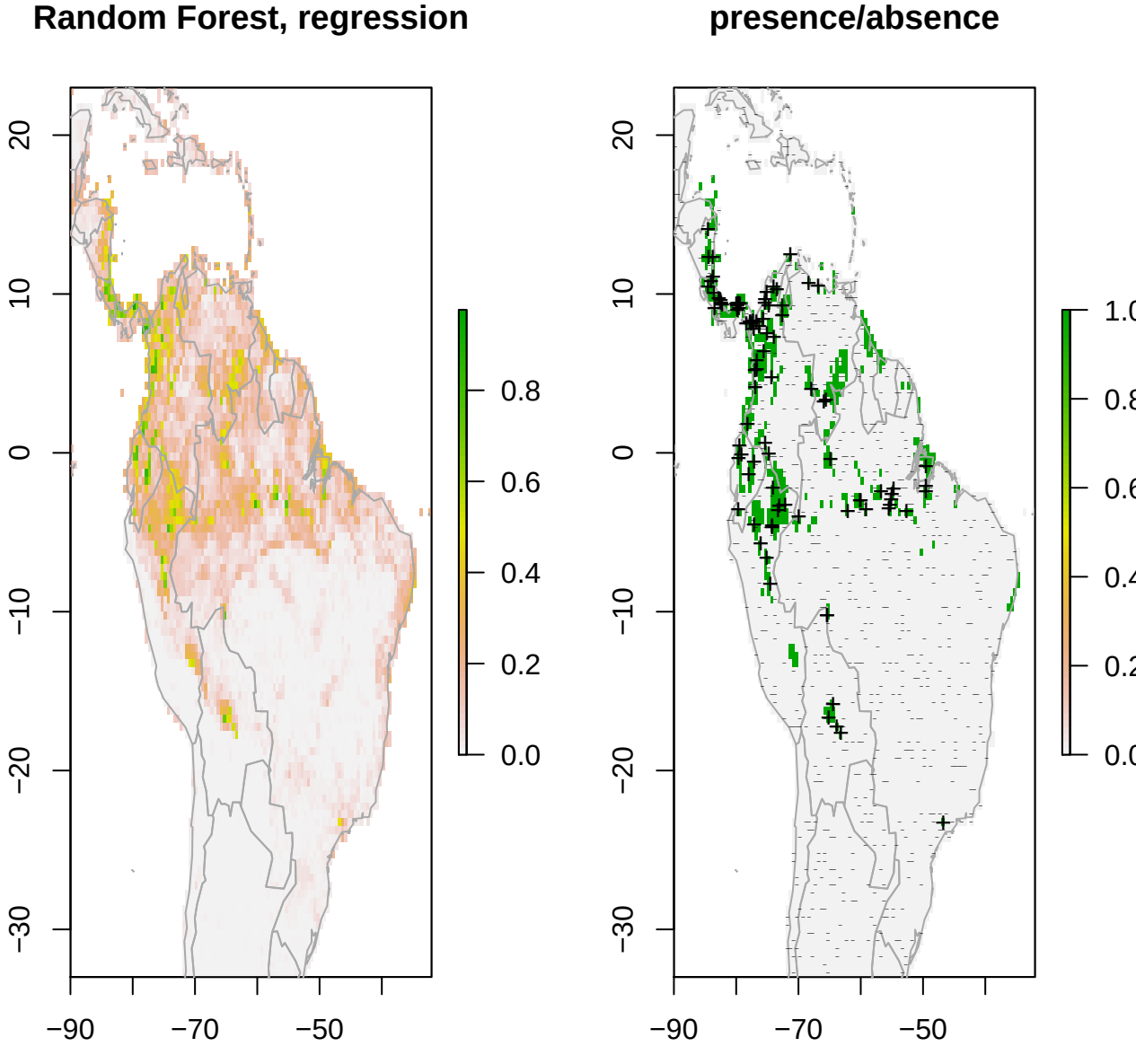

Mahalanobis distance
20
10
0
−10
−20
−30
−90
−70
−50
0
−100
−200
−300
−400

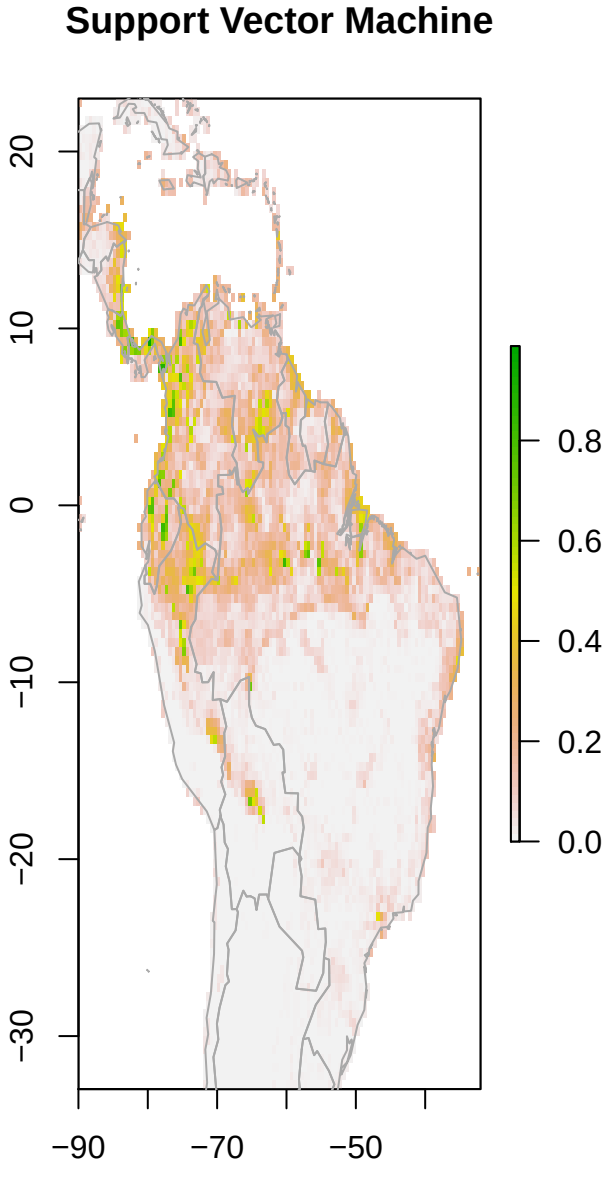

presence/absence
20
10
0
−10
−20
−30
−90
−70
−50
1.0
0.8
0.6
0.4
0.2
0.0

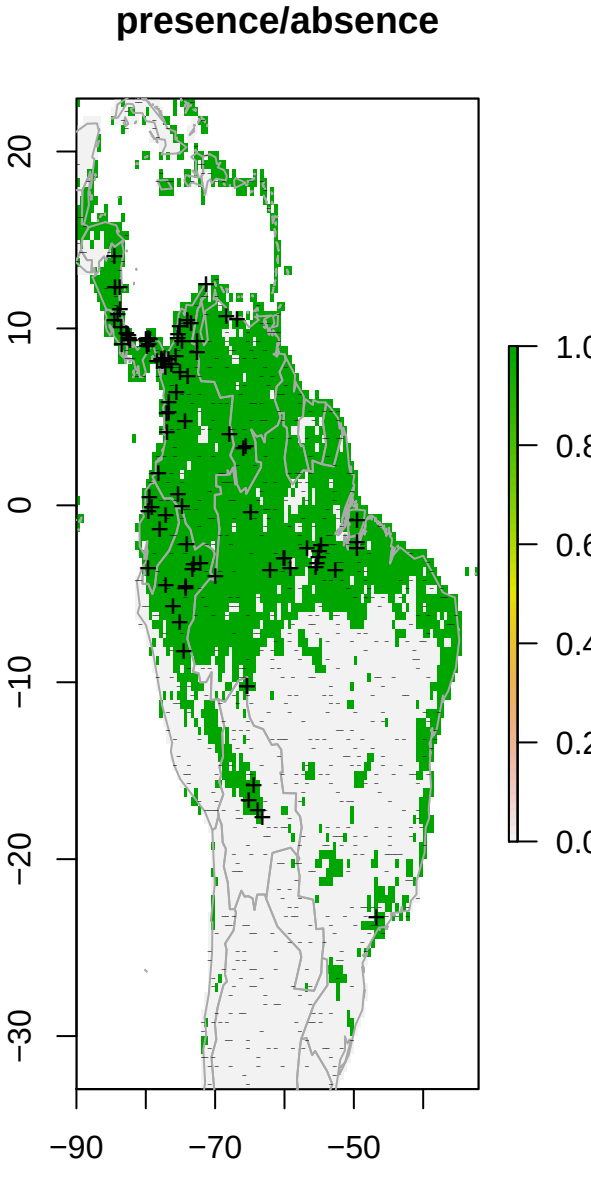

GLM/gaussian, raw values
presence/absence
20
10
0
−10
−20
−30
−90
−70
−50
0.6
0.4
0.2
0.0
1.0
0.8
0.6
0.4
0.2
0.0


1
0.6
0.8
1.0
1.2
1.4
Index


1
0.6
0.8
1.0
1.2
1.4
Index


Random Forest, regression
presence/absence
20
10
0
−10
−20
−30
−90
−70
−50
0.8
0.6
0.4
0.2
0.0
1.0


Support Vector Machine
20
10
0
−10
−20
−30
−90
−70
−50
0.8
0.6
0.4
0.2
0.0


presence/absence
20
10
0
−10
−20
−30
−90
−70
−50
1.0
0.8
0.6
0.4
0.2
0.0