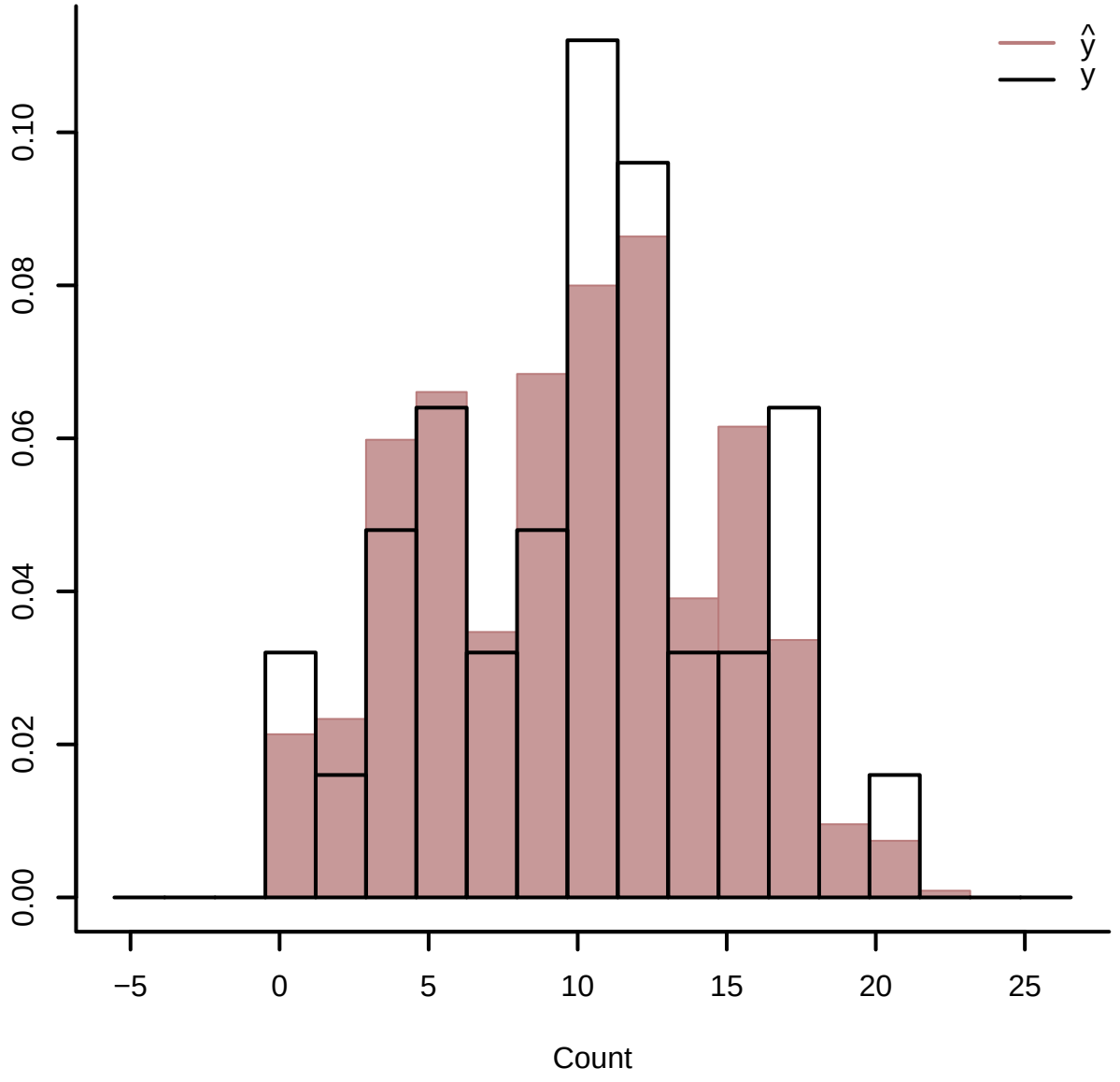
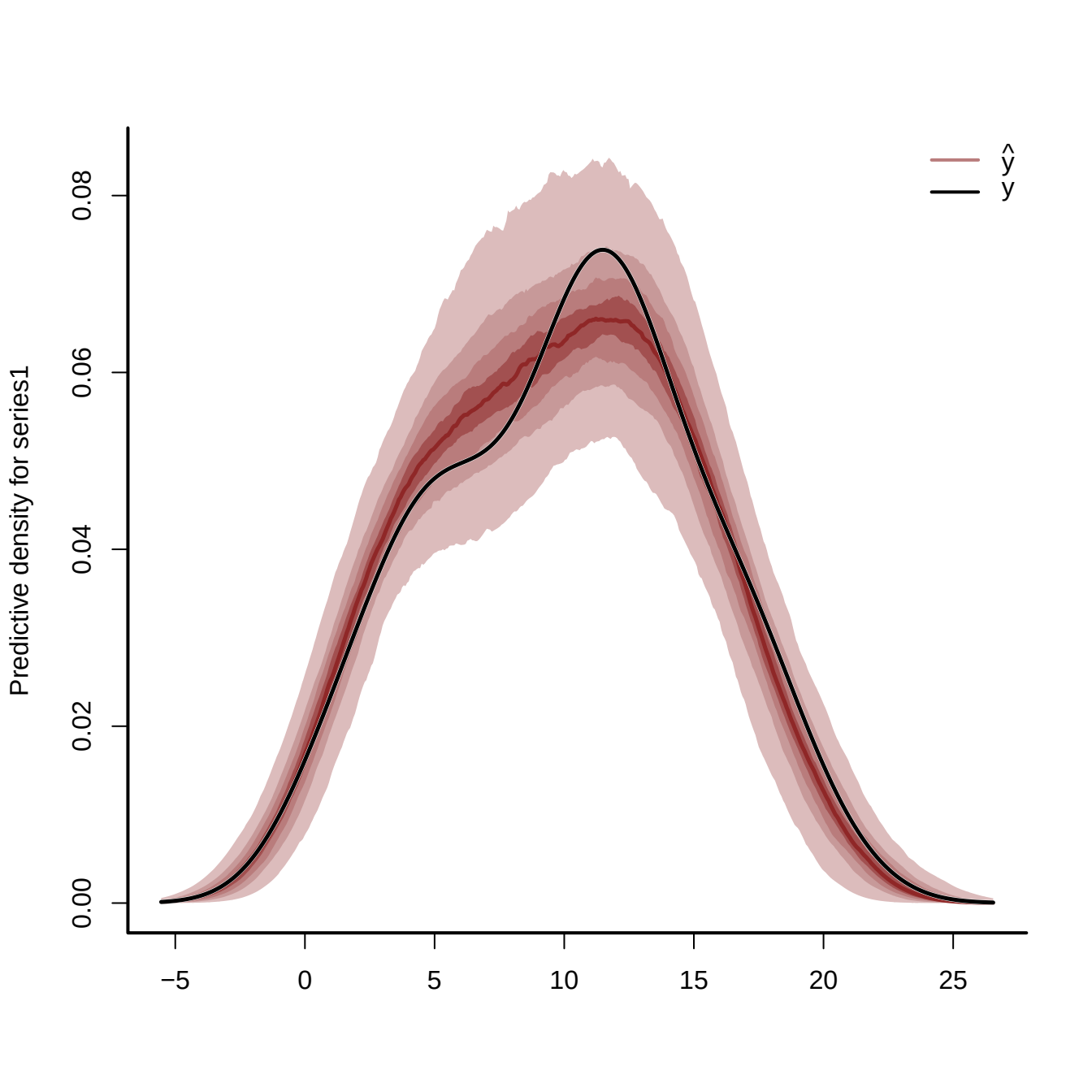
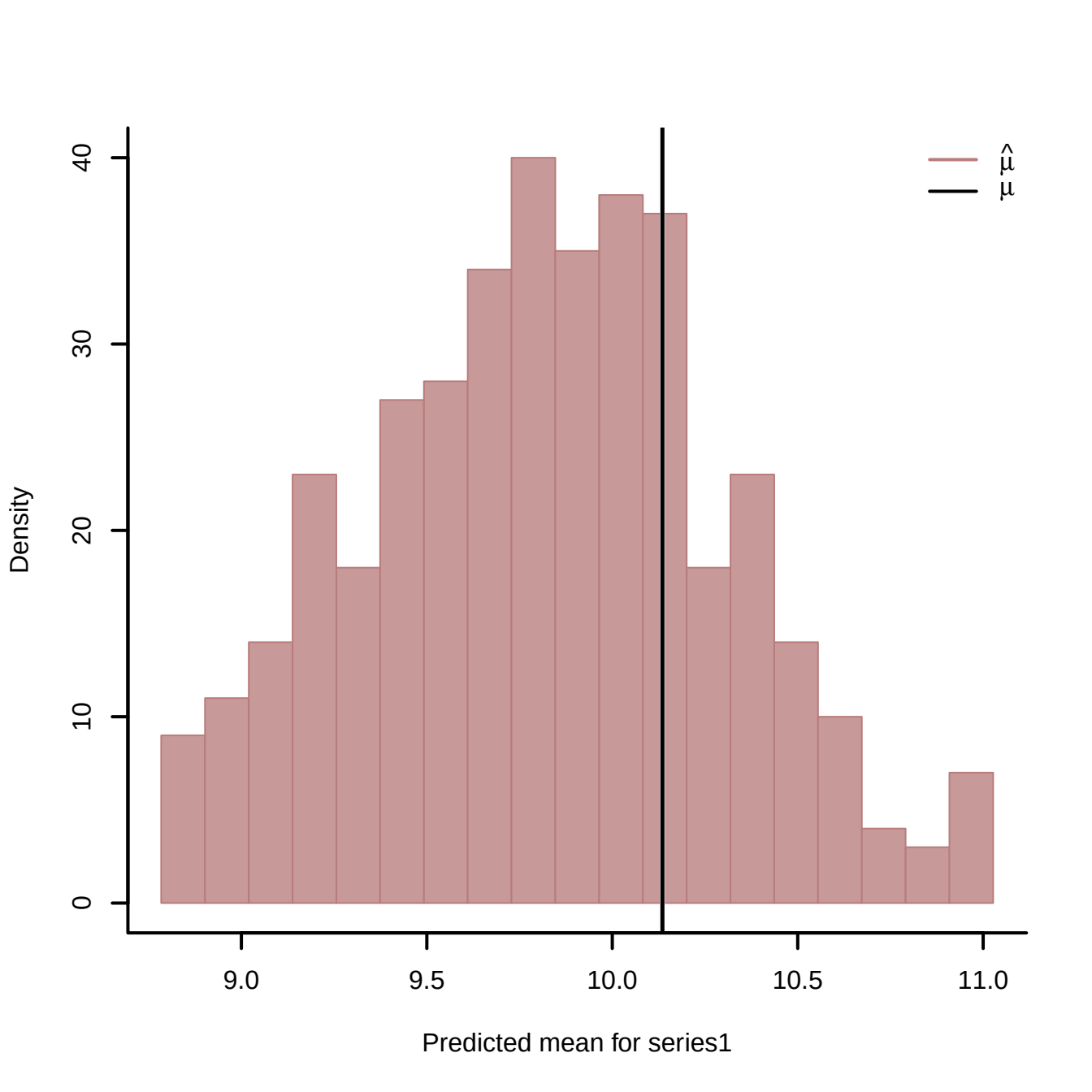
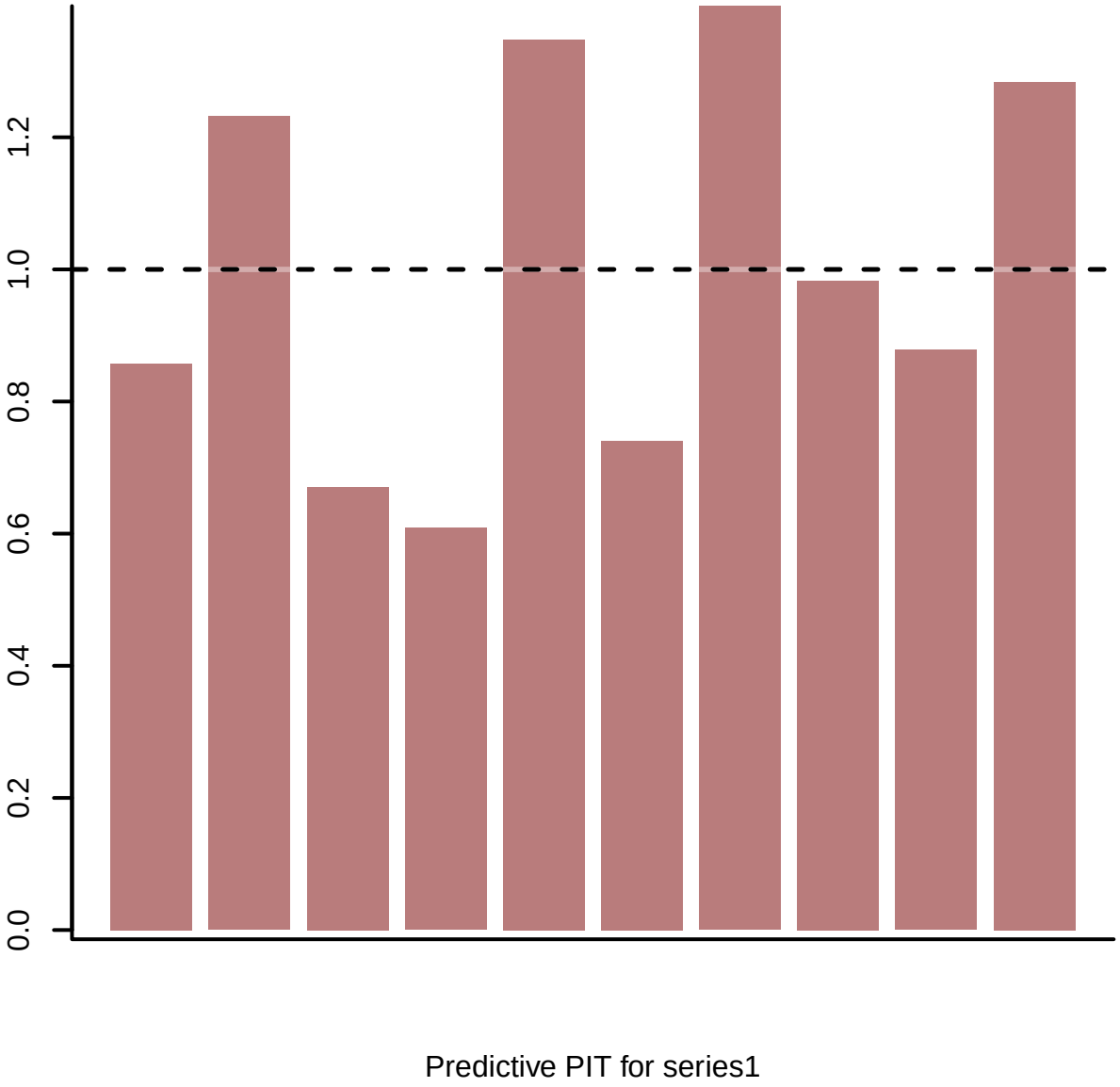
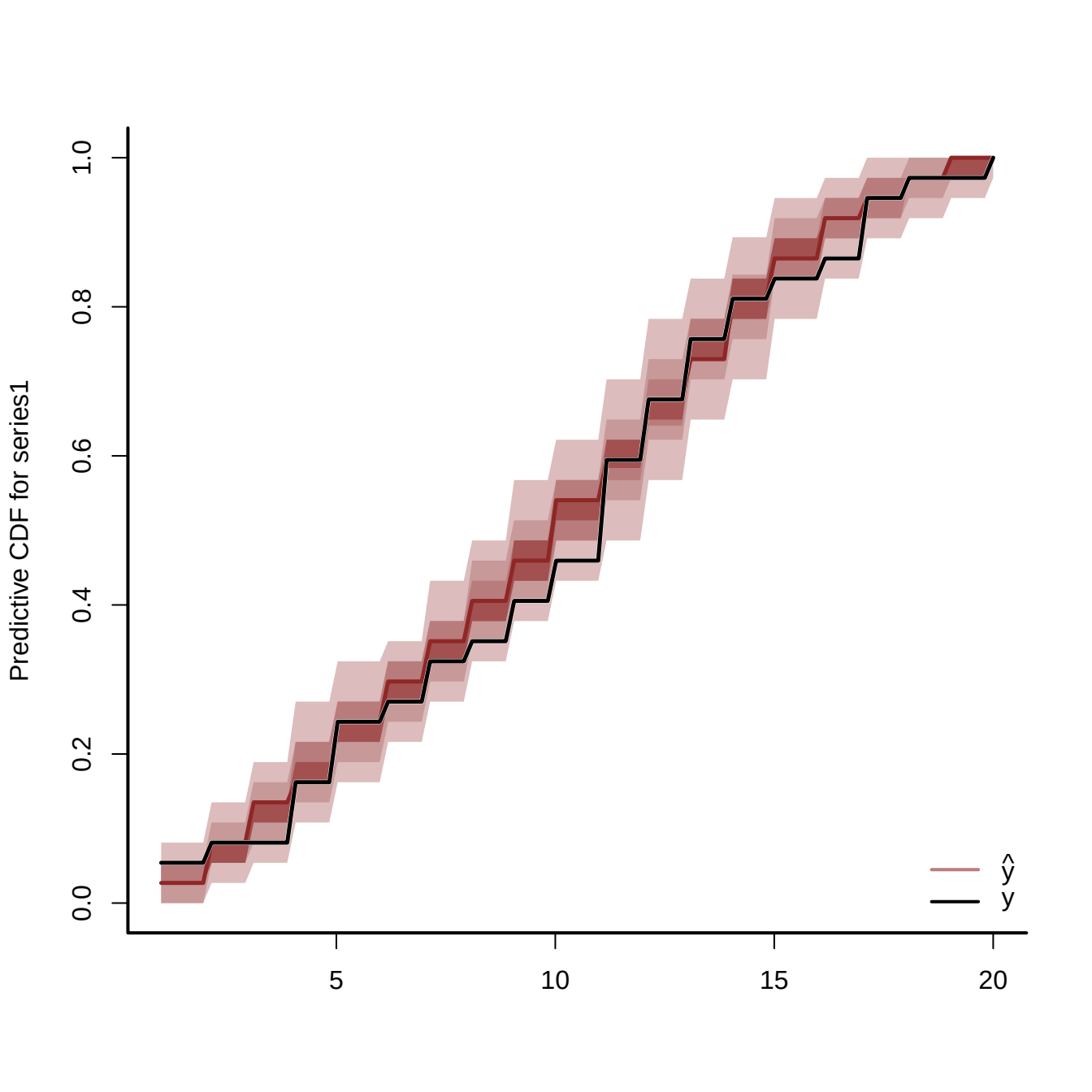
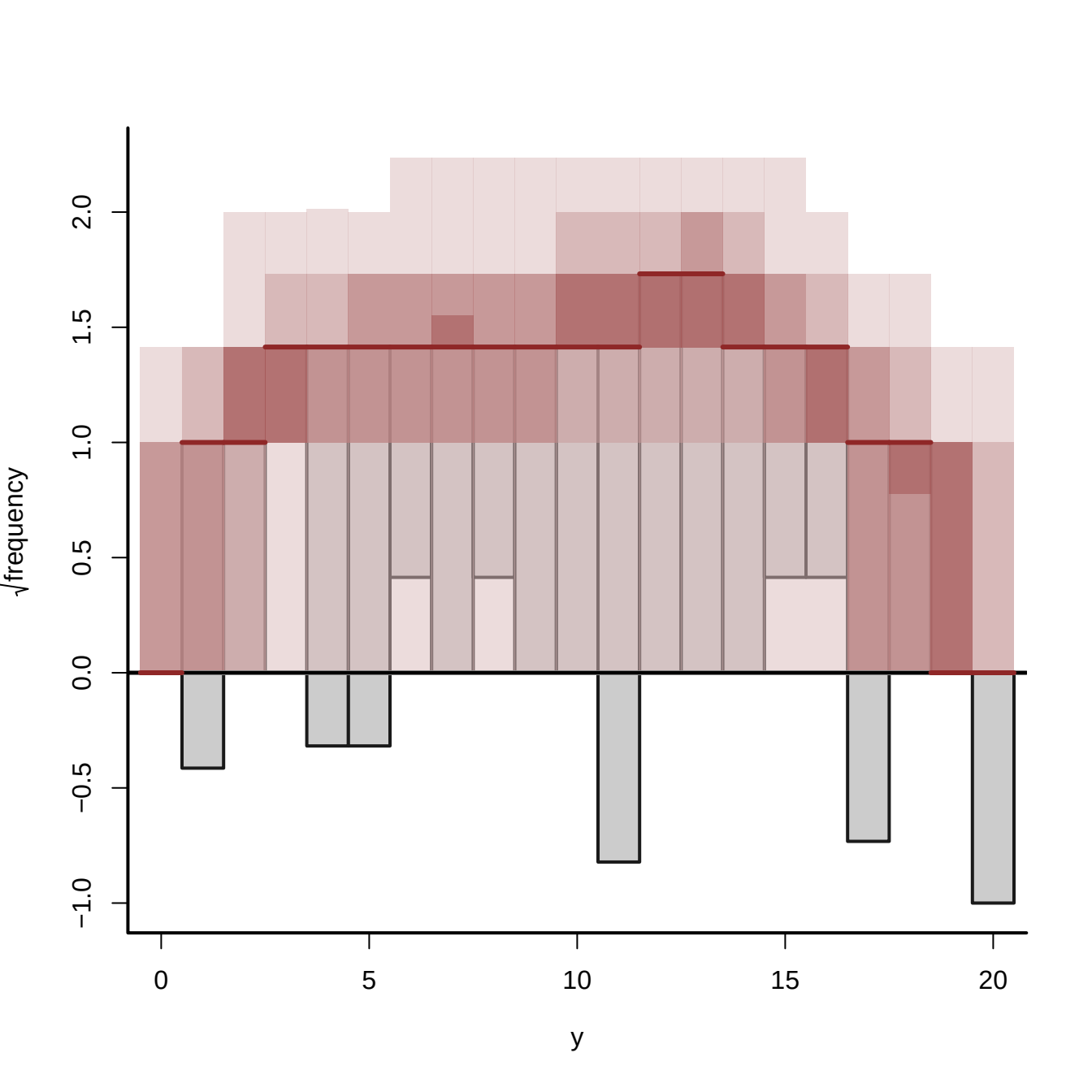

ŷ
y
0.00
0.02
0.04
0.06
0.08
0.10
−5
0
5
10
15
20
25
Count

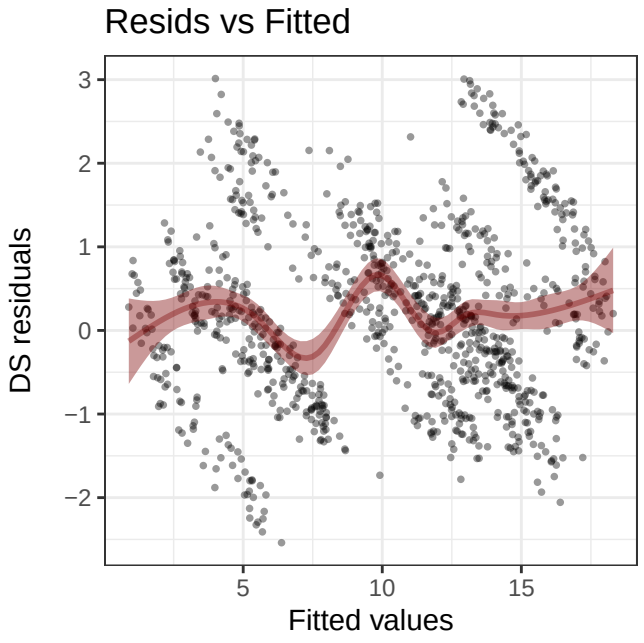

Predictive density for series1
0.00
0.02
0.04
0.06
0.08
−5
0
5
10
15
20
25
ŷ
y

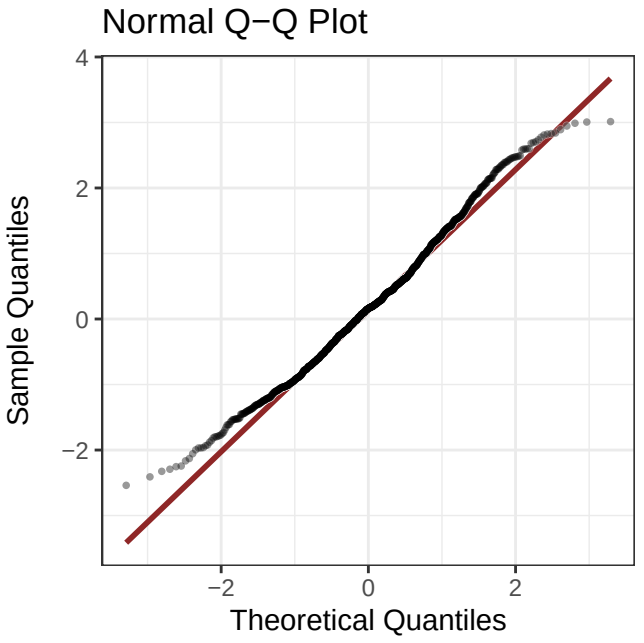

Density
0
10
20
30
40
9.0
9.5
10.0
10.5
11.0
Predicted mean for series1
μ
<μ>

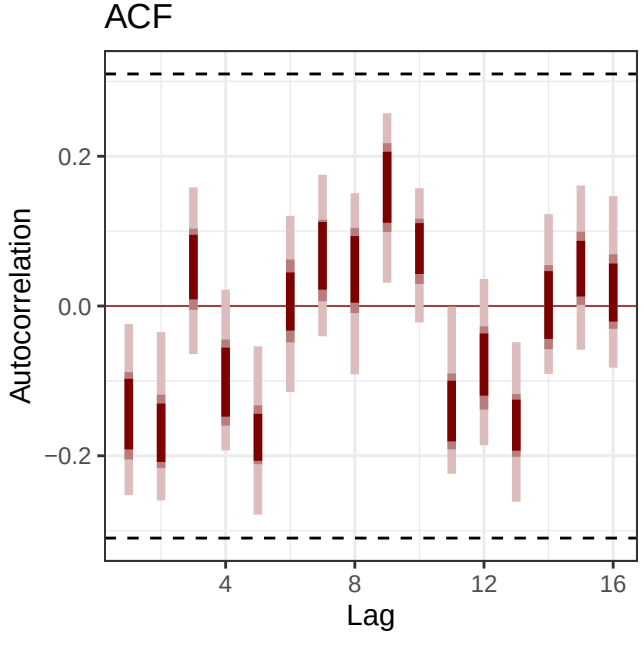

0.0
0.2
0.4
0.6
0.8
1.0
1.2
Predictive PIT for series1

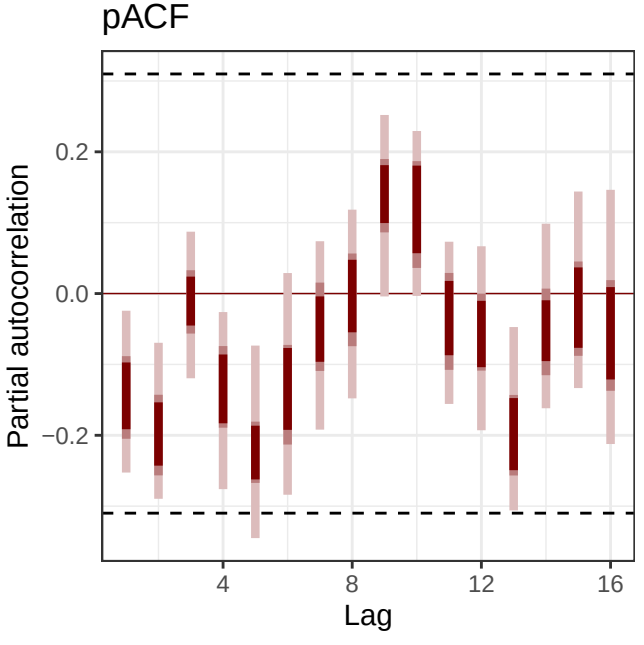

Predictive CDF for series1
0.0
0.2
0.4
0.6
0.8
1.0
5
10
15
20
ŷ
y

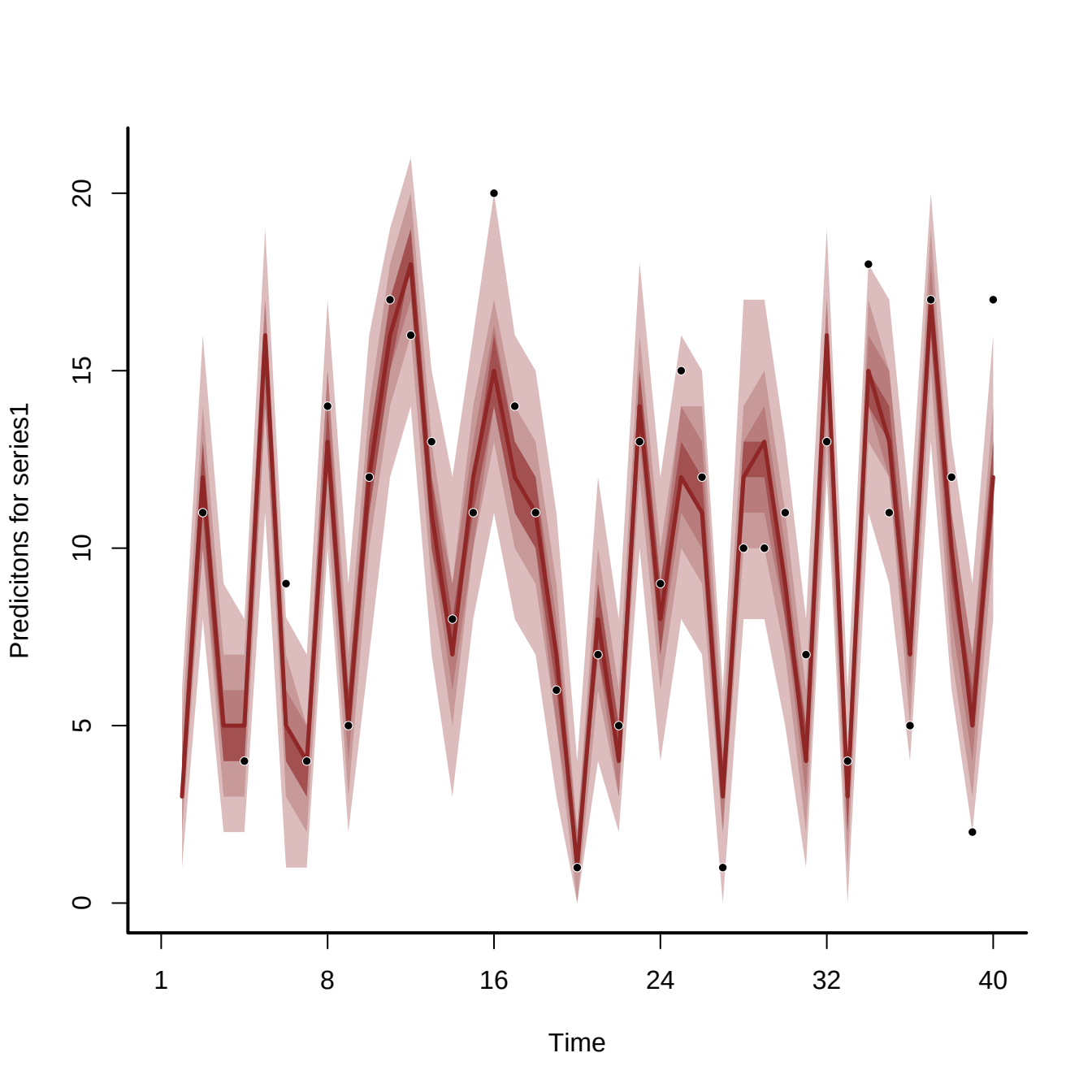

√frequency
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
0
5
10
15
20
y

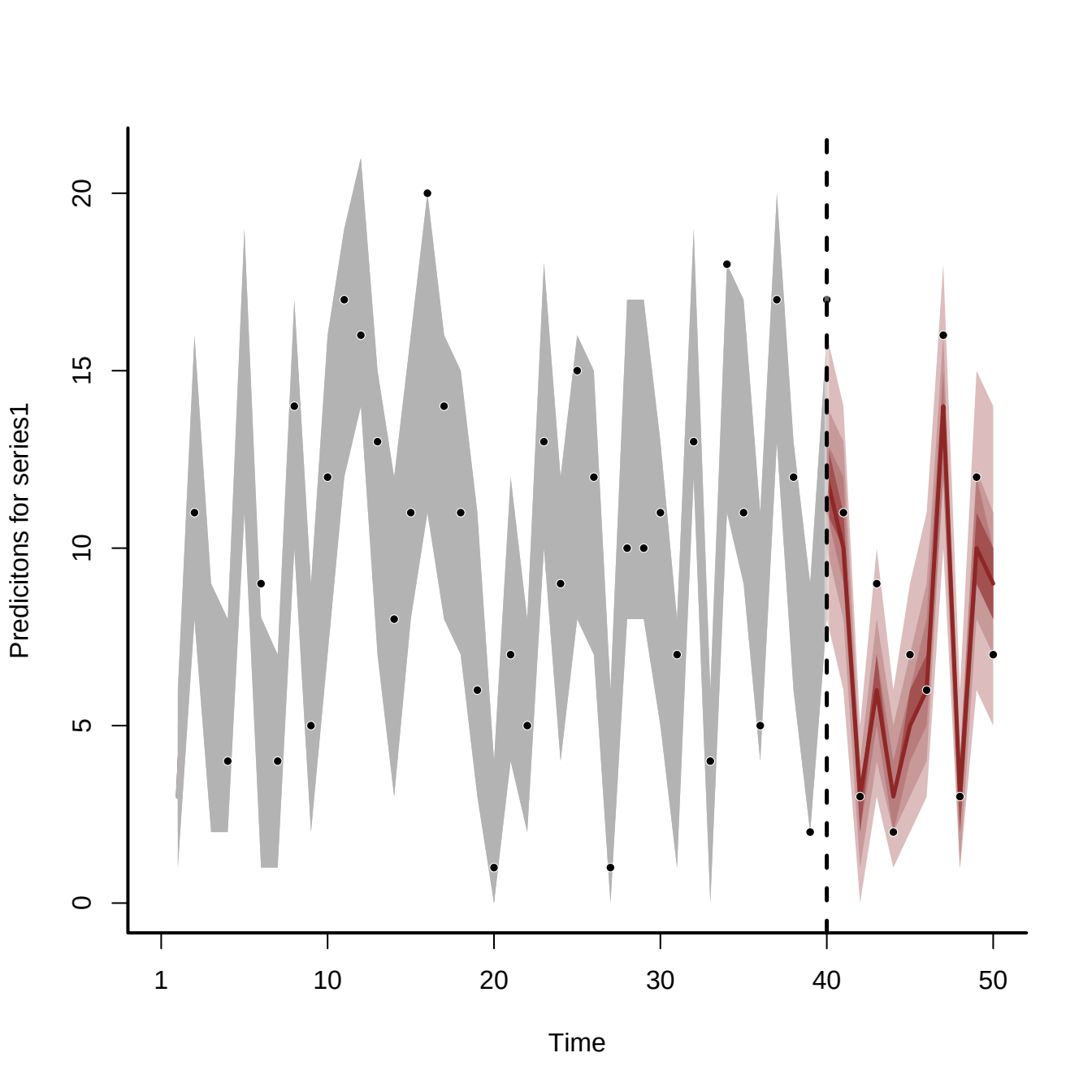

Resids vs Fitted
DS residuals
Fitted values
3
2
1
0
−1
−2
5
10
15

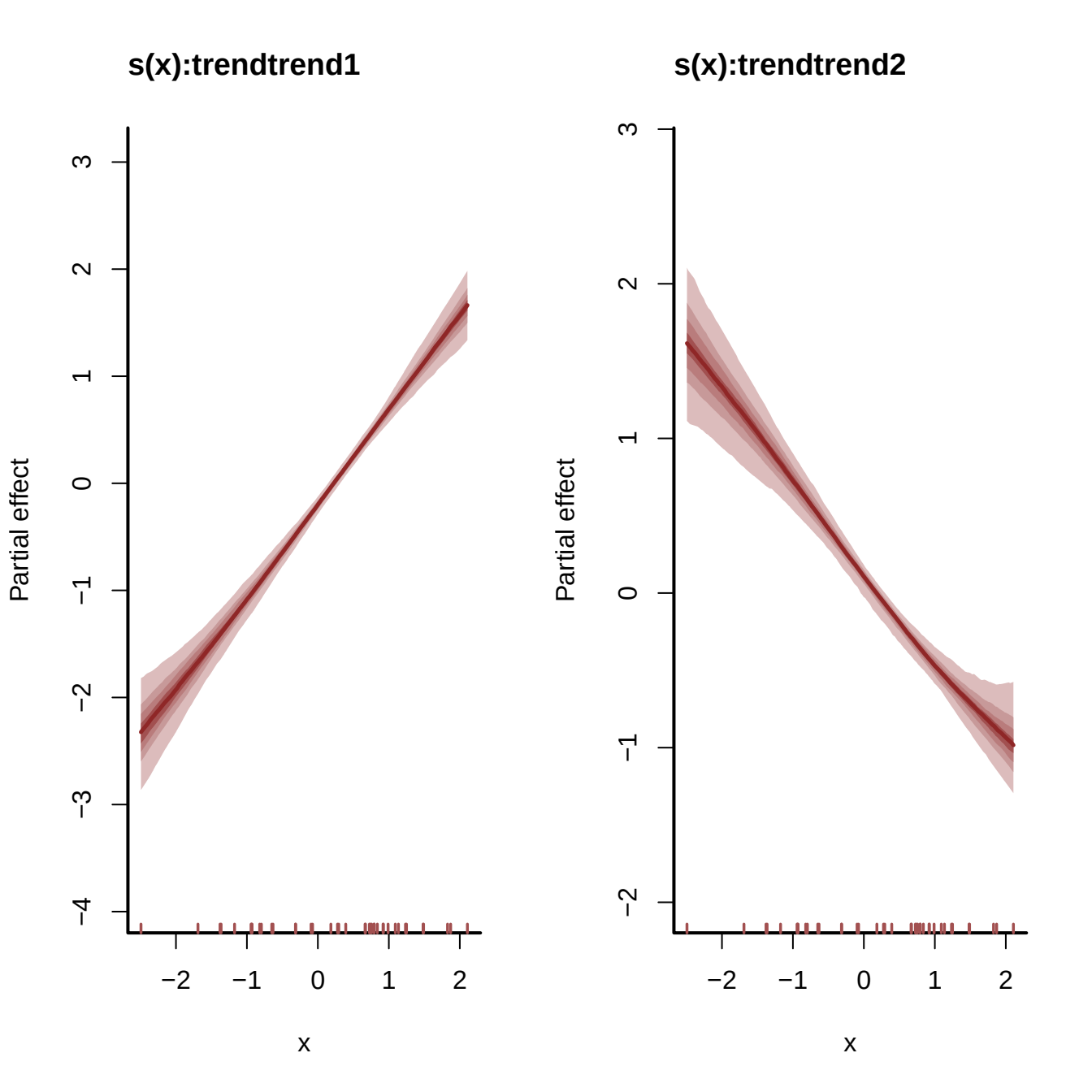

Normal Q−Q Plot
Sample Quantiles
Theoretical Quantiles
4
2
0
−2
−2
0
2

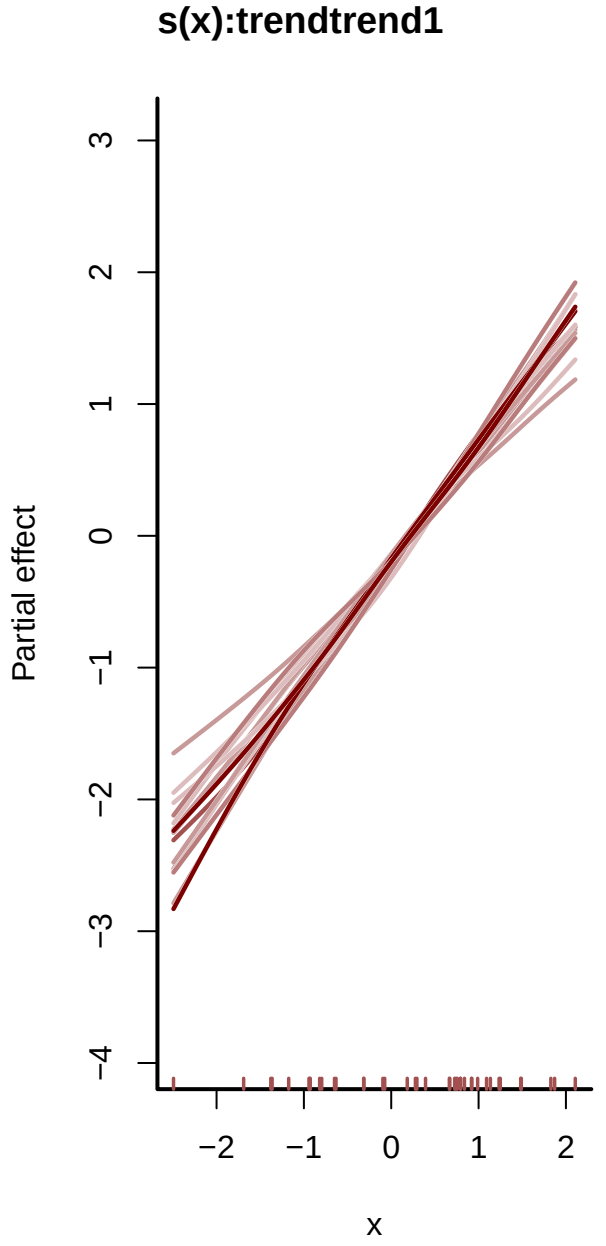

ACF
Autocorrelation
Lag
0.2
0.0
−0.2
4
8
12
16

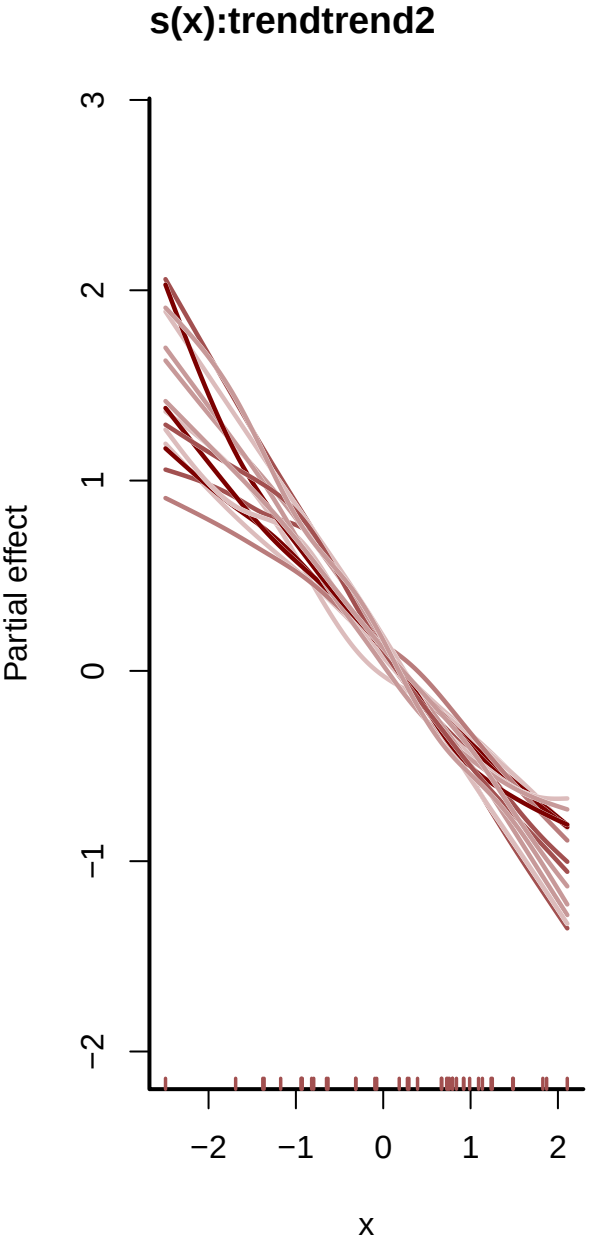

pACF
Partial autocorrelation
Lag
0.2
0.0
−0.2
4
8
12
16

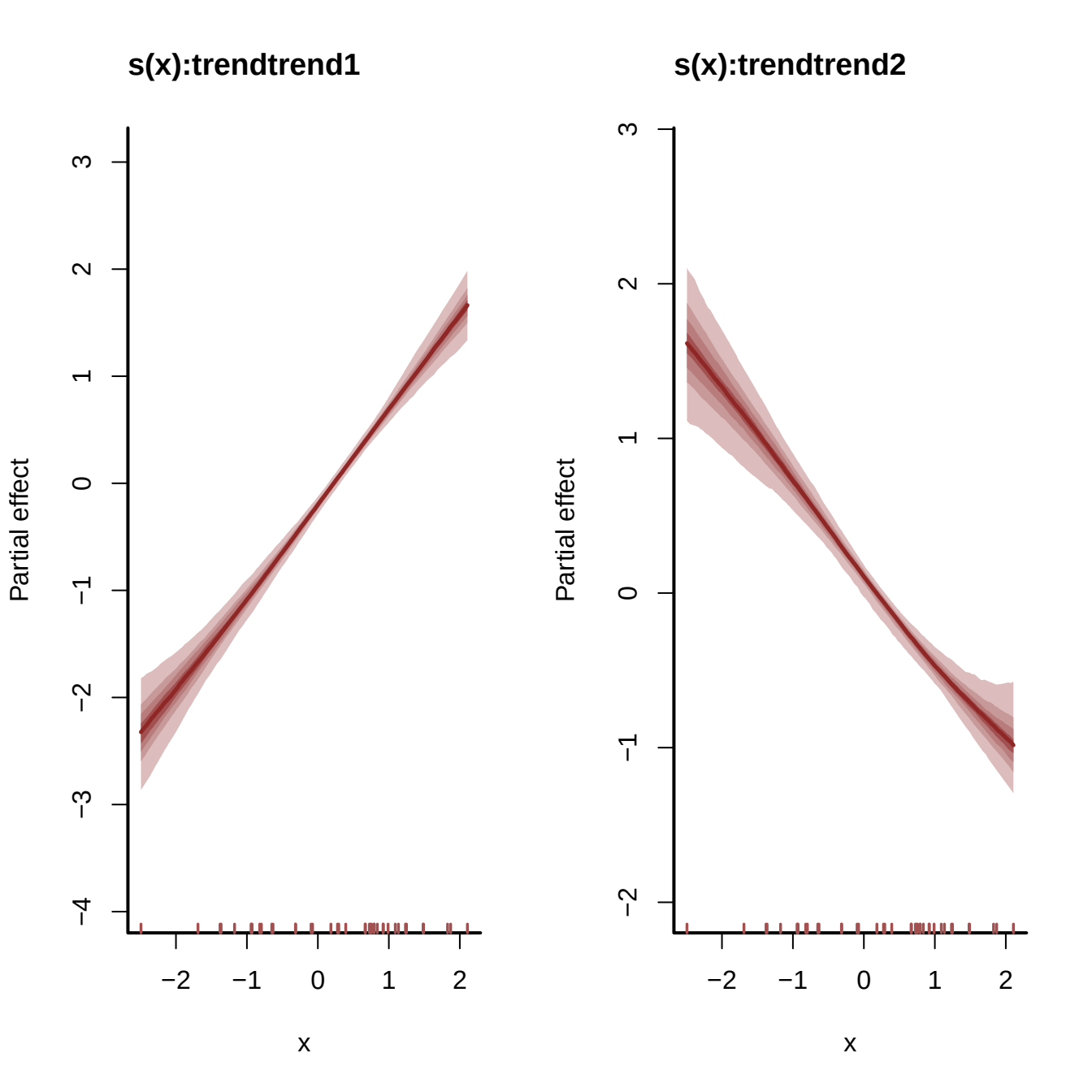

Predicitons for series1
0
5
10
15
20
1
8
16
24
32
40
Time

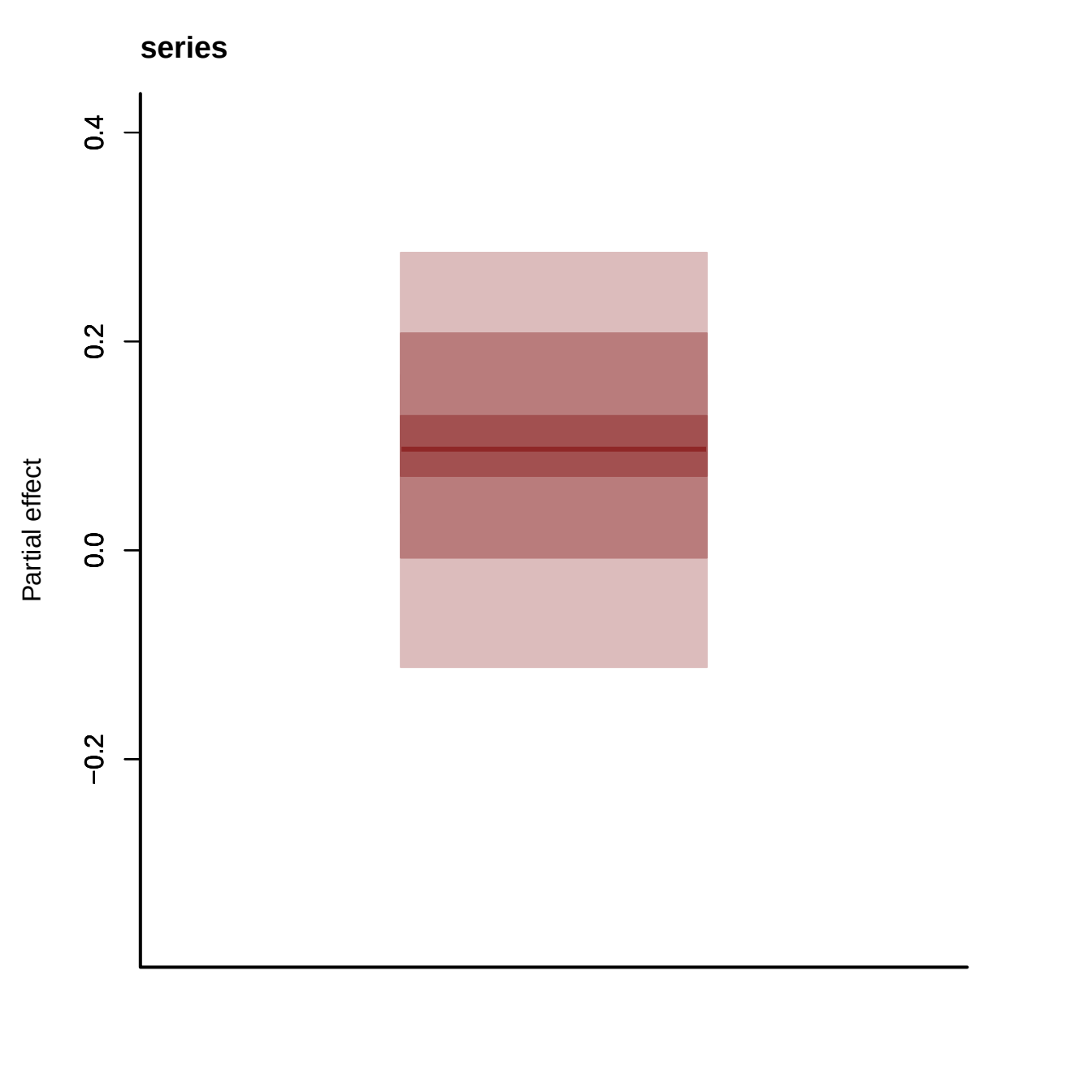

Predicitons for series1
0
5
10
15
20
1
10
20
30
40
50
Time

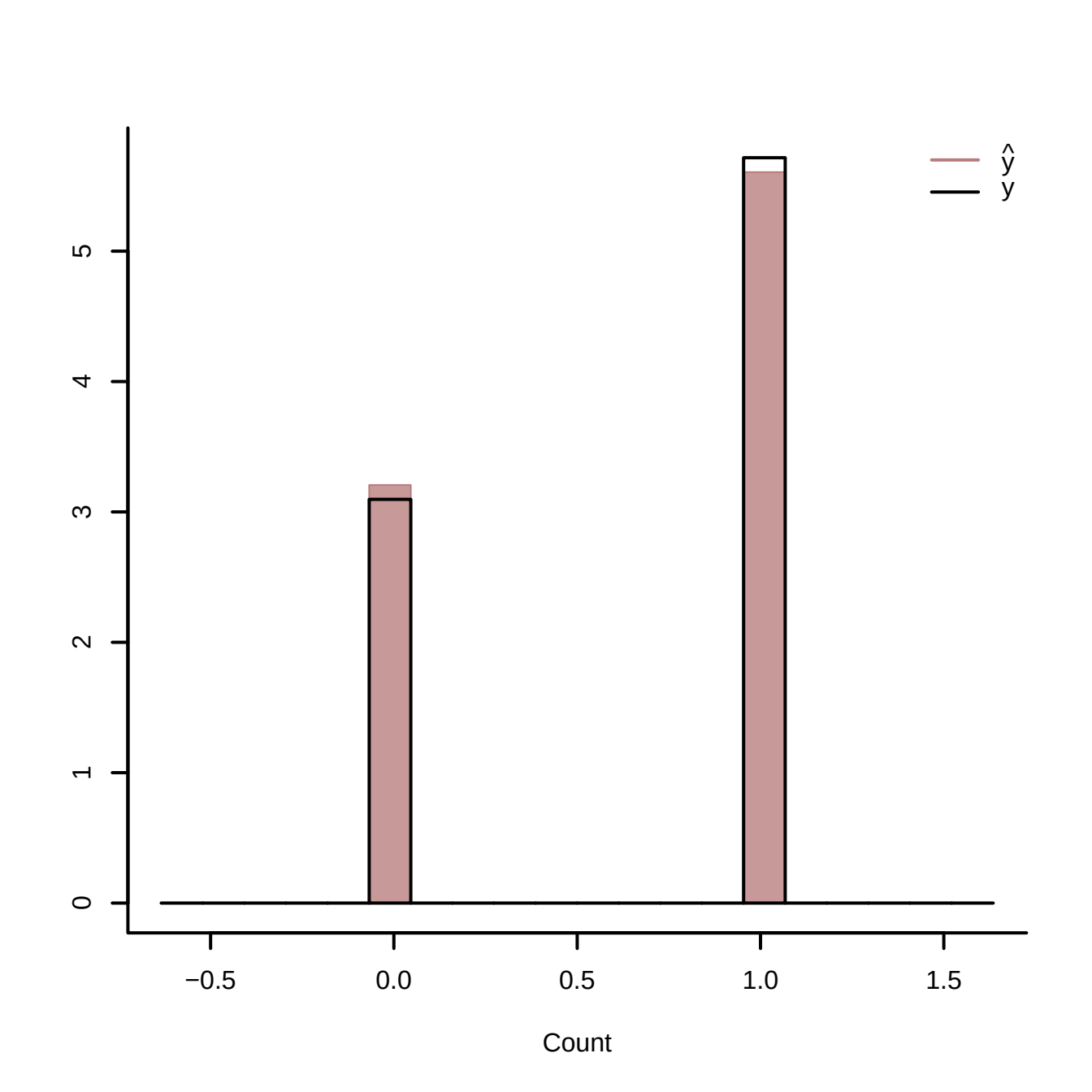

s(x):trendtrend1
Partial effect
3
2
1
0
−1
−2
−3
−4
−2
−1
0
1
2
x
s(x):trendtrend2
Partial effect
3
2
1
0
−1
−2
−2
−1
0
1
2
x

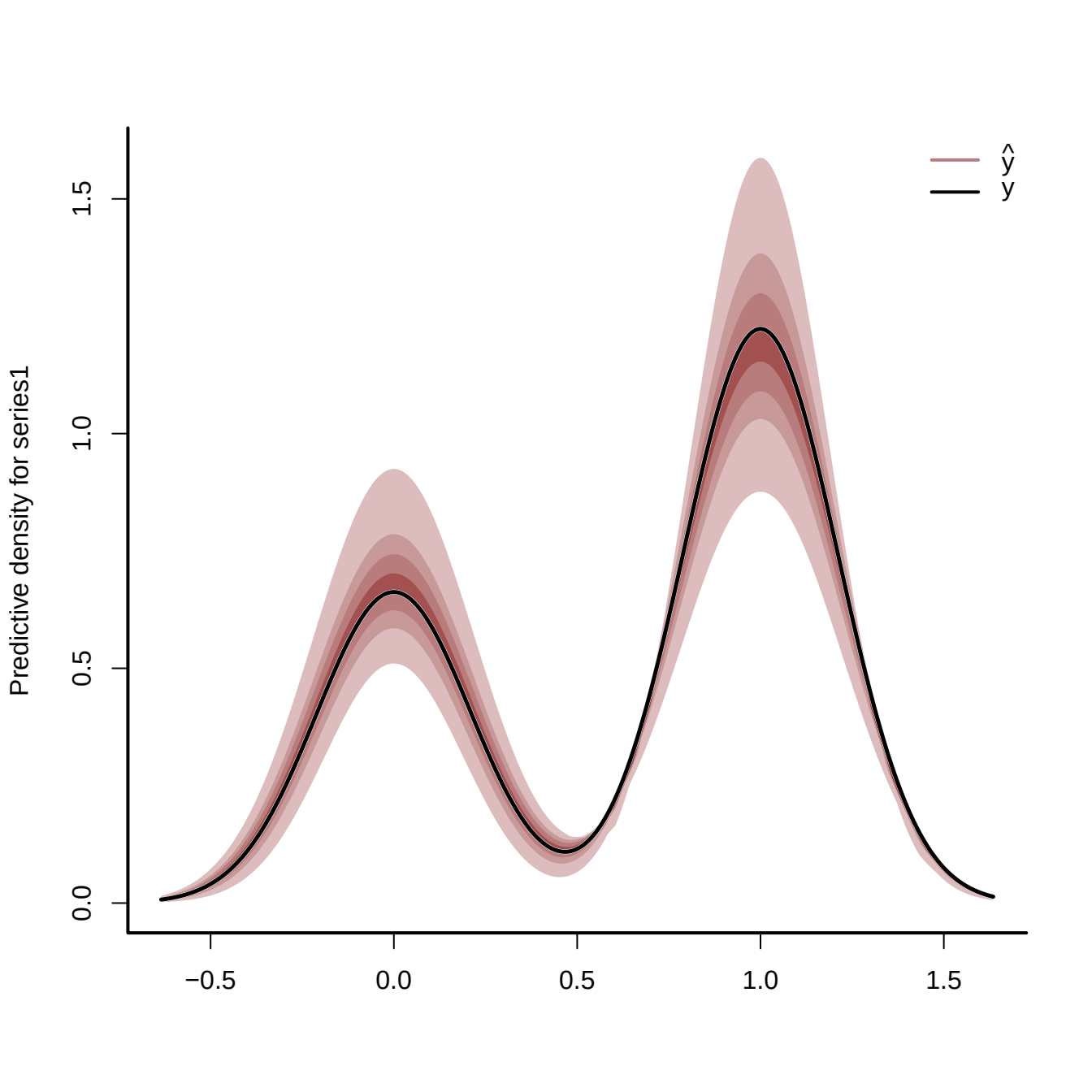

s(x):trendtrend1
Partial effect
3
2
1
0
−1
−2
−3
−4
−2
−1
0
1
2
x

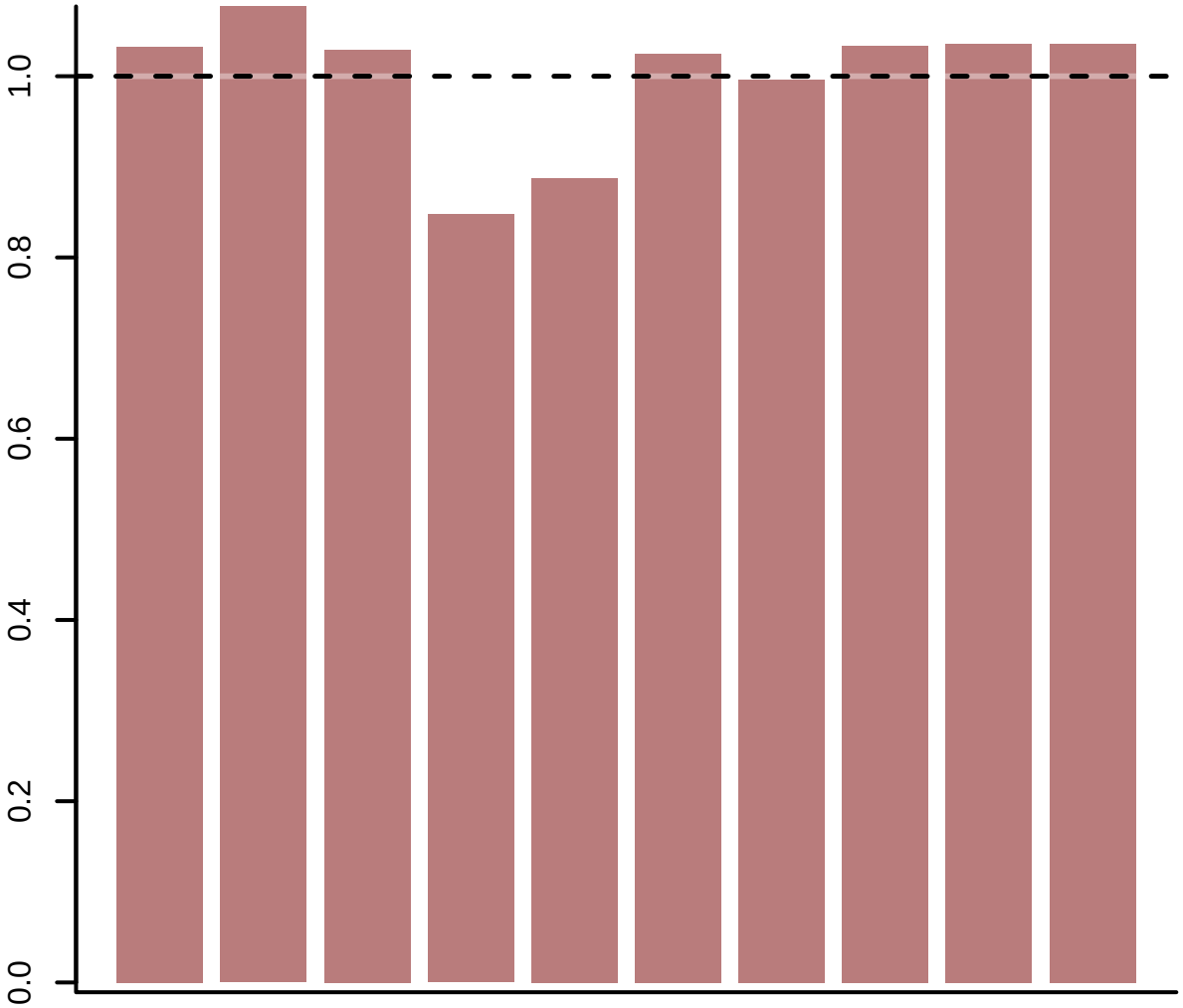

s(x):trendtrend2
Partial effect
3
2
1
0
−1
−2
−2
−1
0
1
2
x

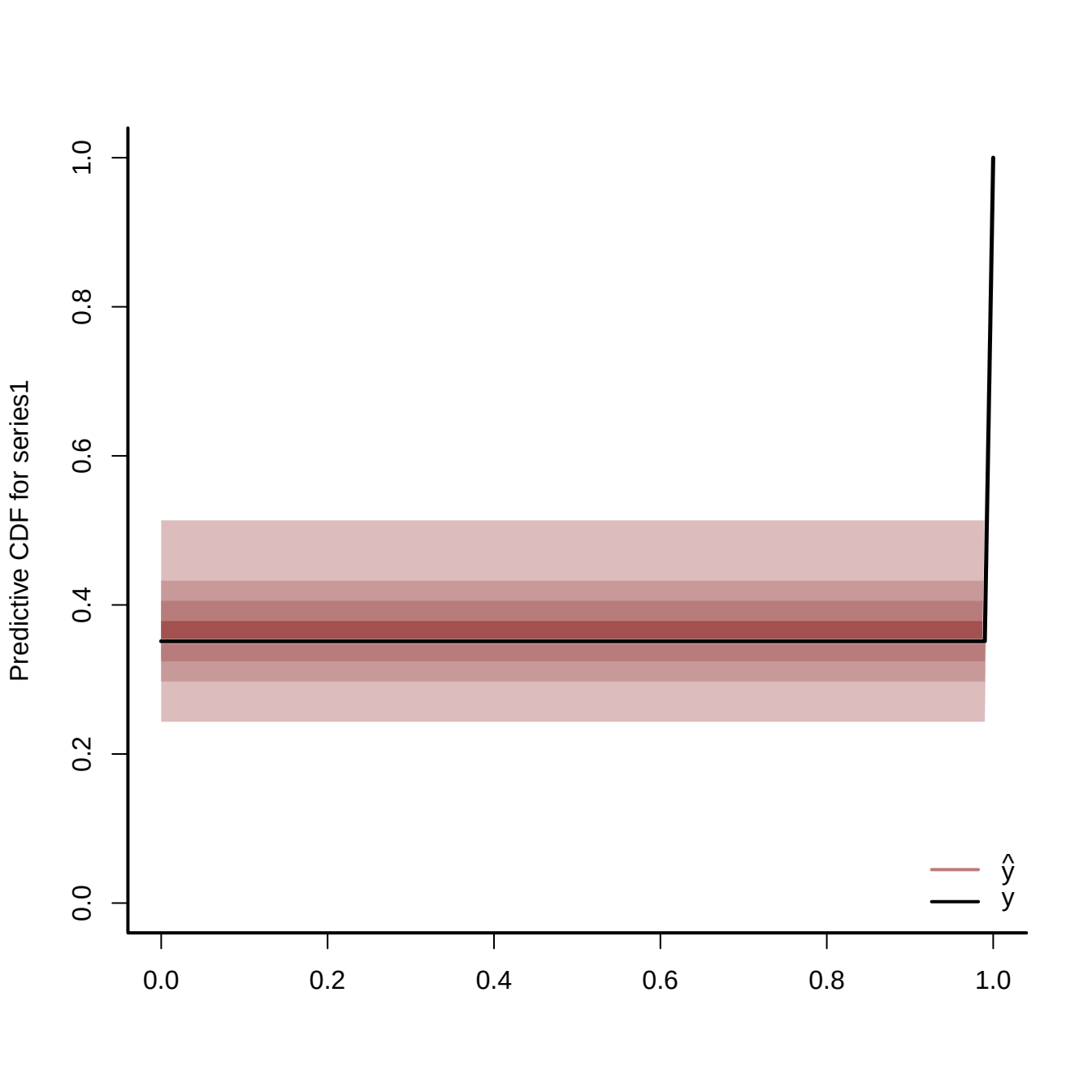

s(x):trendtrend1
Partial effect
3
2
1
0
−1
−2
−3
−4
−2
−1
0
1
2
x
s(x):trendtrend2
Partial effect
3
2
1
0
−1
−2
−2
−1
0
1
2
x

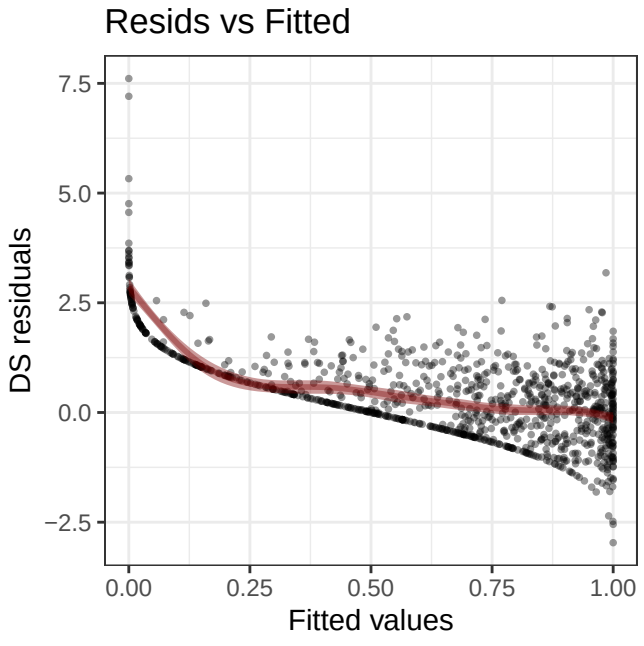

series
Partial effect
0.4
0.2
0.0
−0.2

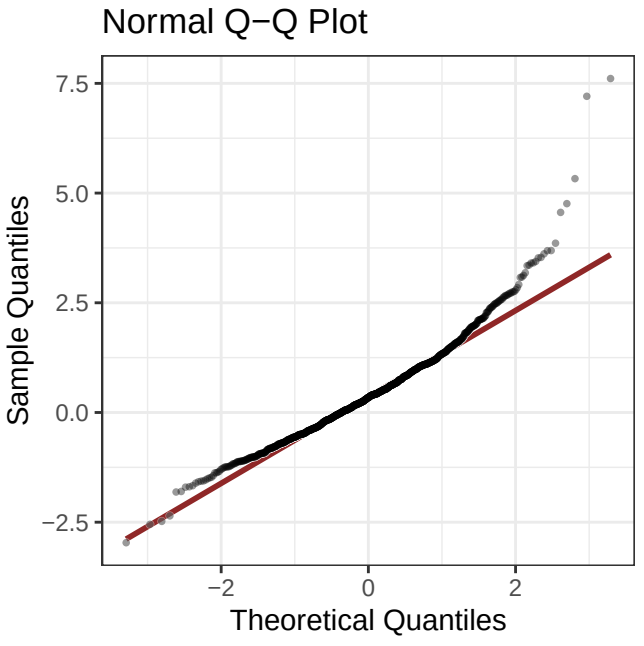

ŷ
y
0
1
2
3
4
5
−0.5
0.0
0.5
1.0
1.5
Count

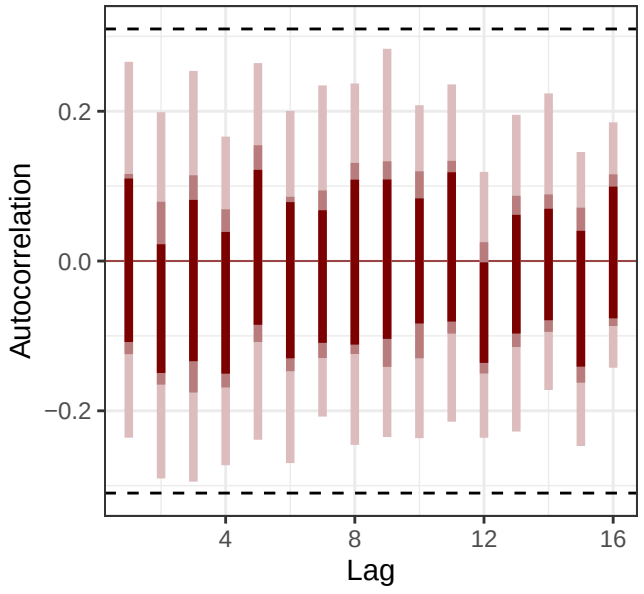

Predictive density for series1
0.0
0.5
1.0
1.5
−0.5
0.0
0.5
1.0
1.5
y>
y

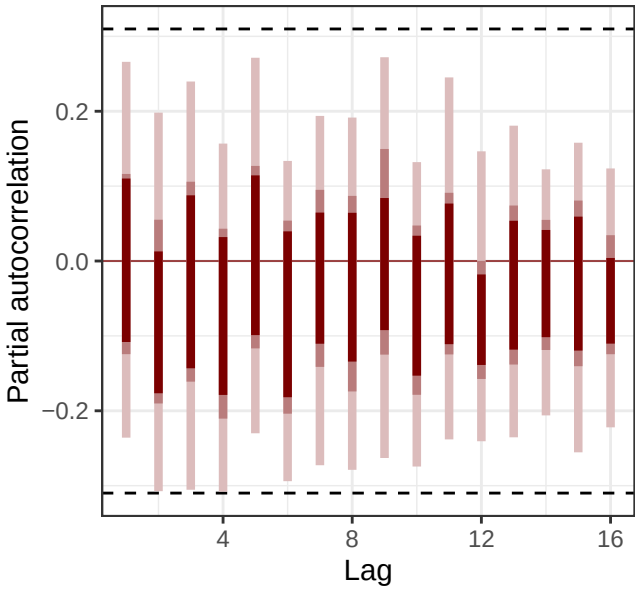

0.0
0.2
0.4
0.6
0.8
1.0
Predictive PIT for series1

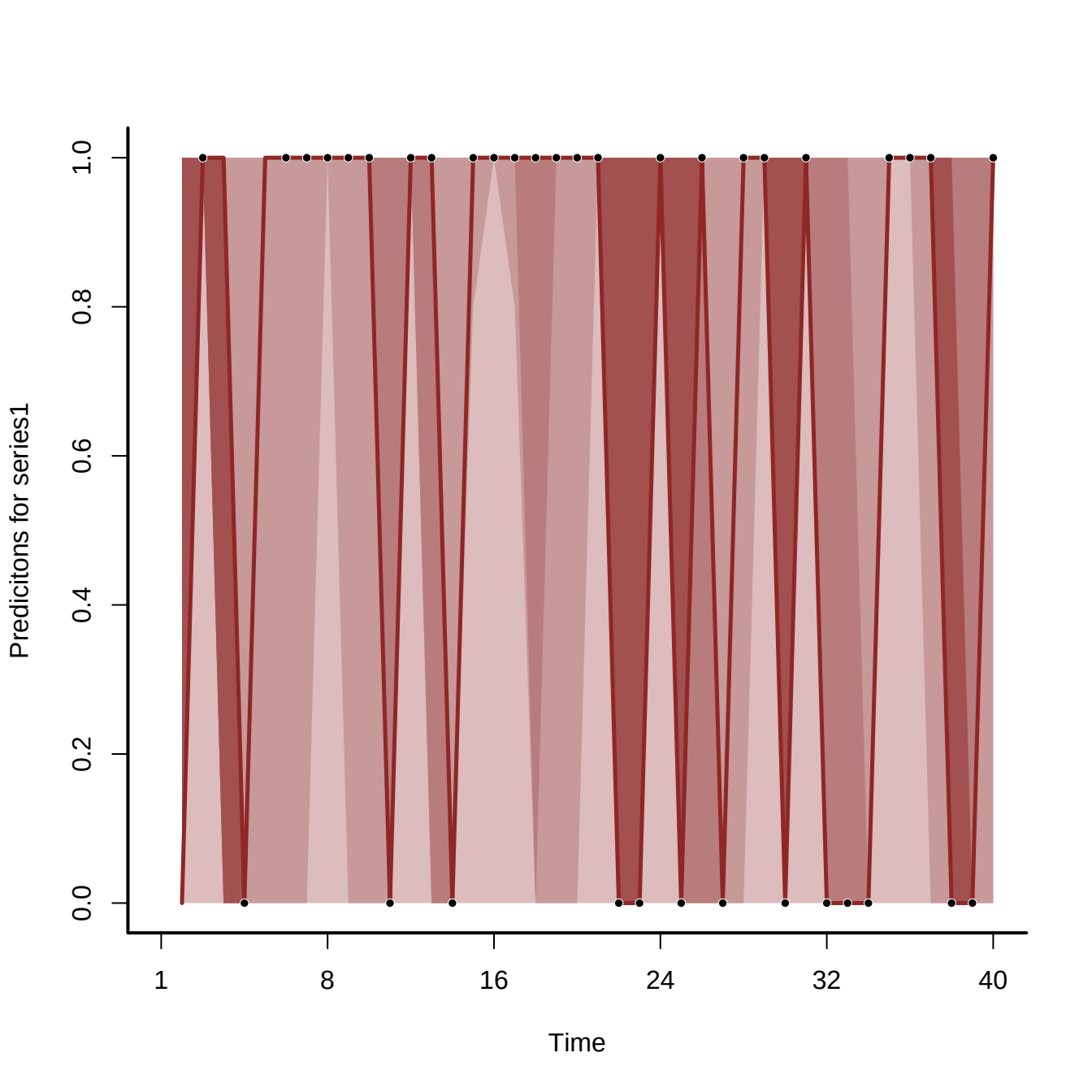

Predictive CDF for series1
0.0
0.2
0.4
0.6
0.8
1.0
0.0
0.2
0.4
0.6
0.8
1.0
ŷ
y

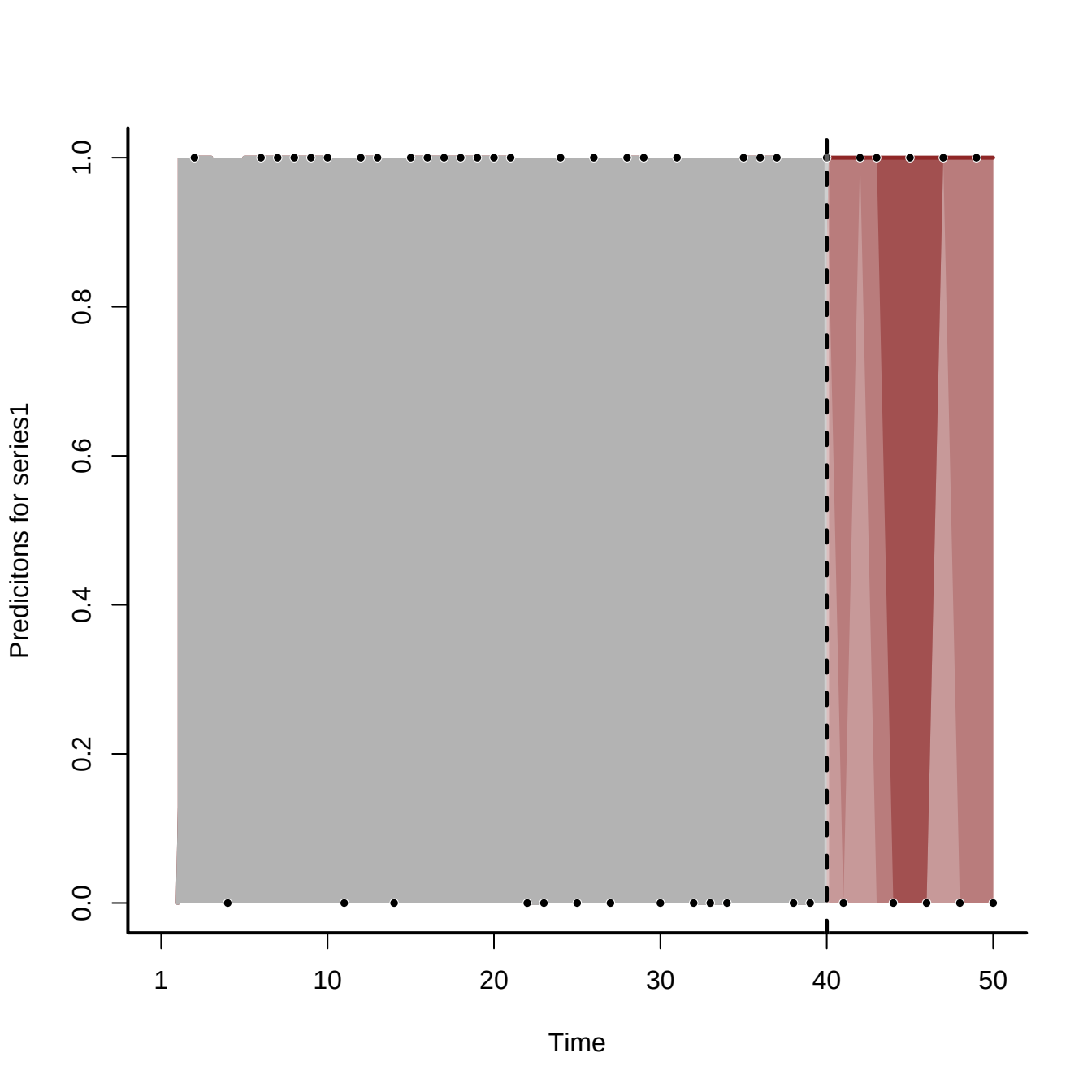

Resids vs Fitted
DS residuals
Fitted values
7.5
5.0
2.5
0.0
−2.5
0.00
0.25
0.50
0.75
1.00

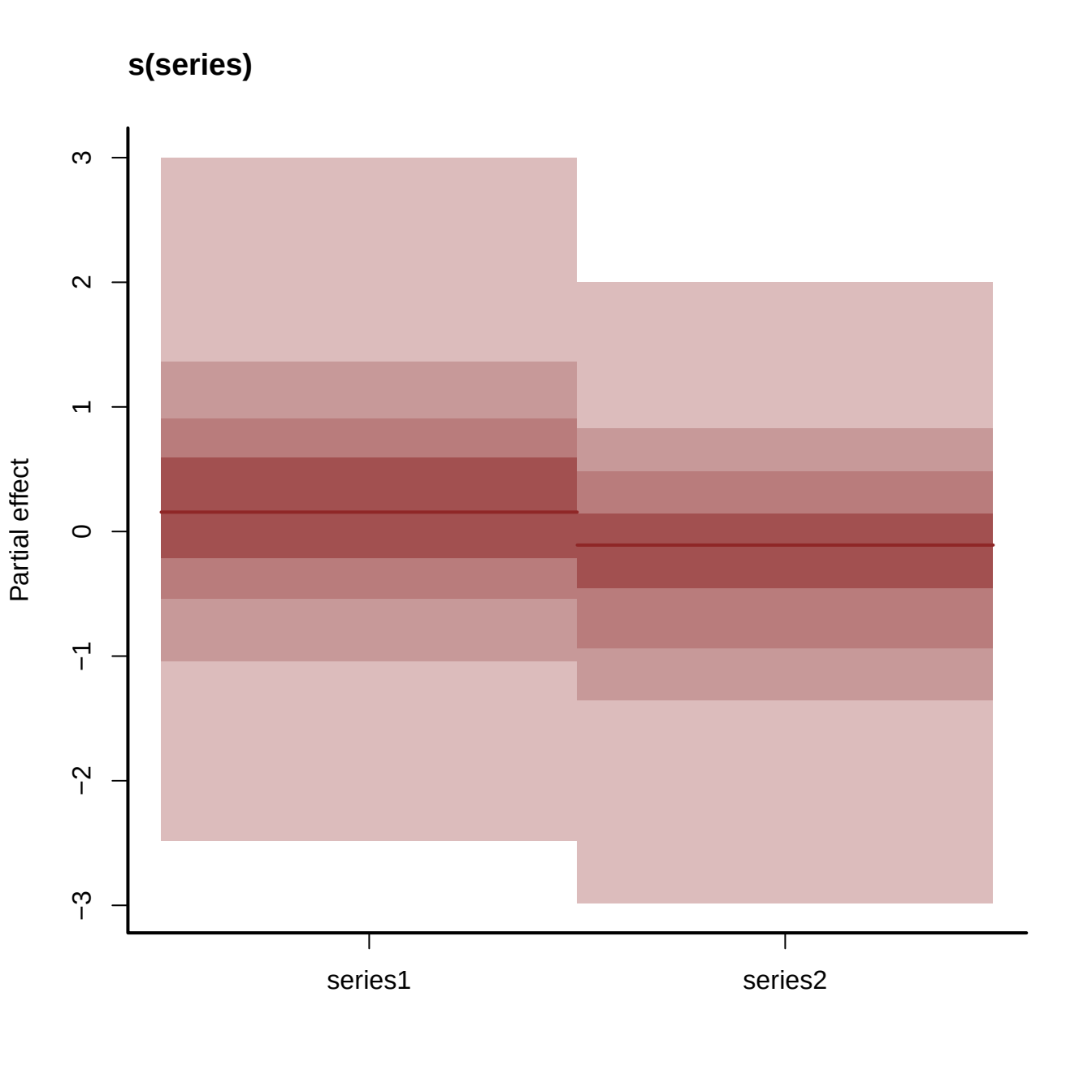

Normal Q−Q Plot
Sample Quantiles
Theoretical Quantiles
7.5
5.0
2.5
0.0
−2.5
−2
0
2

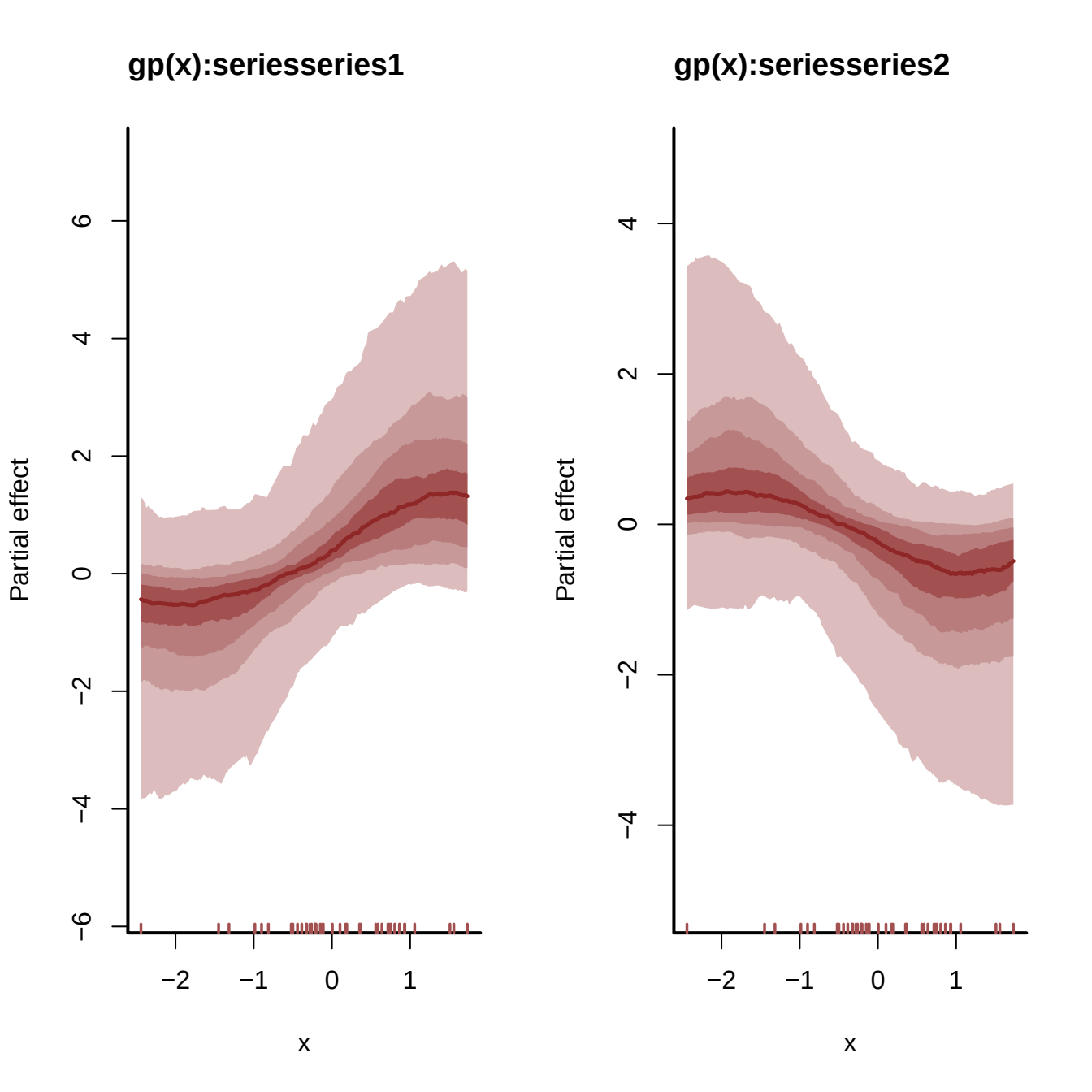

ACF
Autocorrelation
Lag
0.2
0.0
−0.2
4
8
12
16

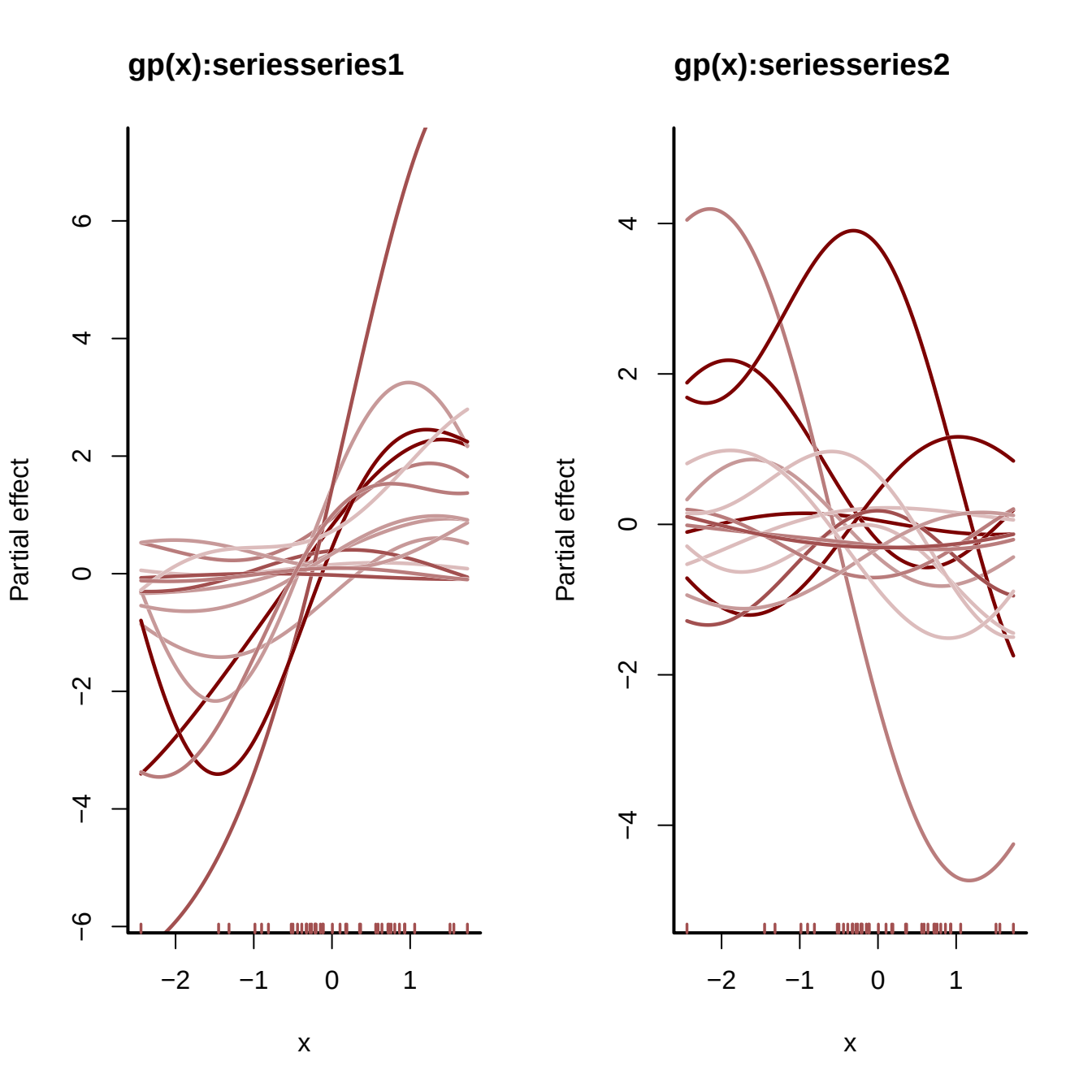

pACF
Partial autocorrelation
Lag
0.2
0.0
−0.2
4
8
12
16

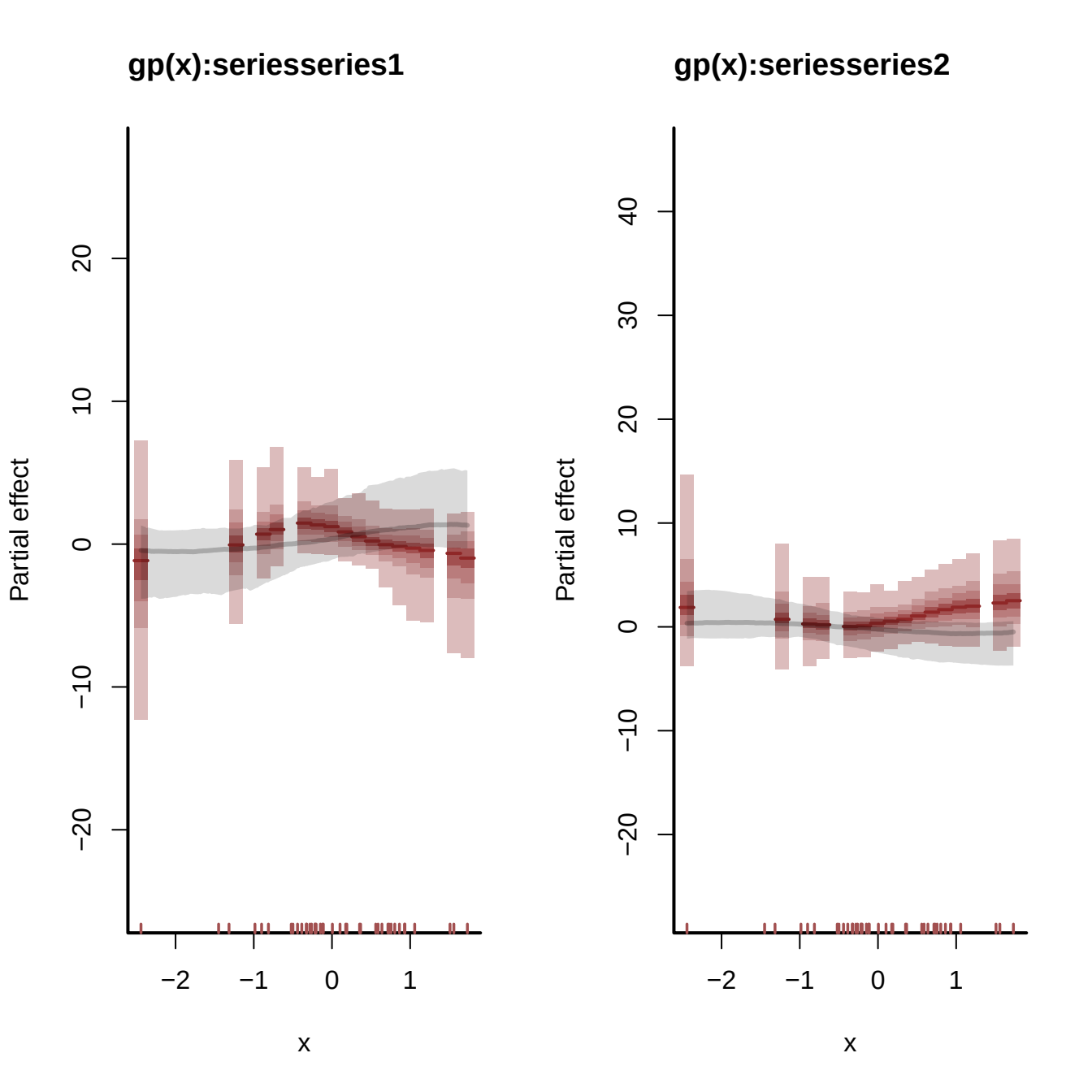

Predicitons for series1
0.0
0.2
0.4
0.6
0.8
1.0
1
8
16
24
32
40
Time

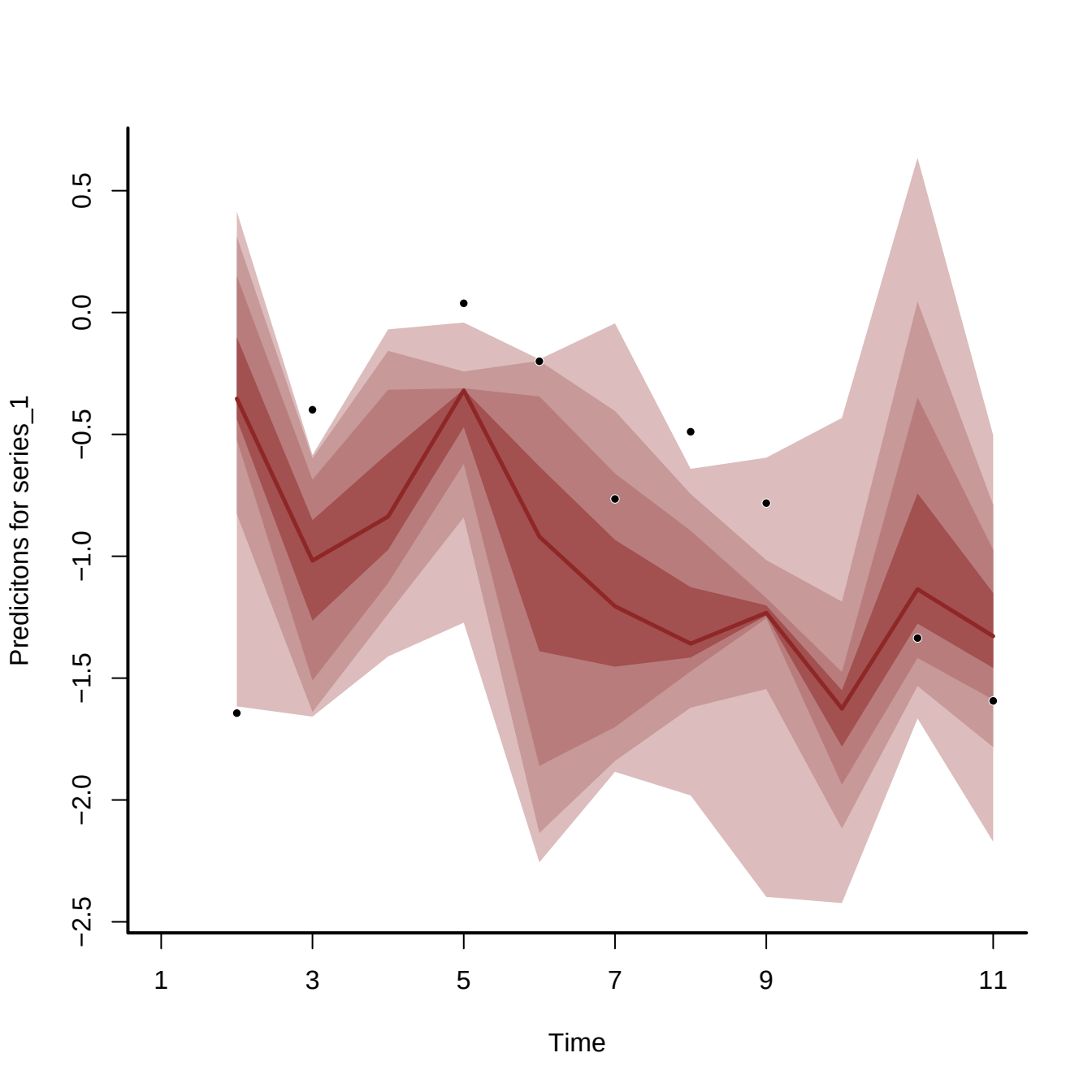

Predicitons for series1
0.0
0.2
0.4
0.6
0.8
1.0
1
10
20
30
40
50
Time

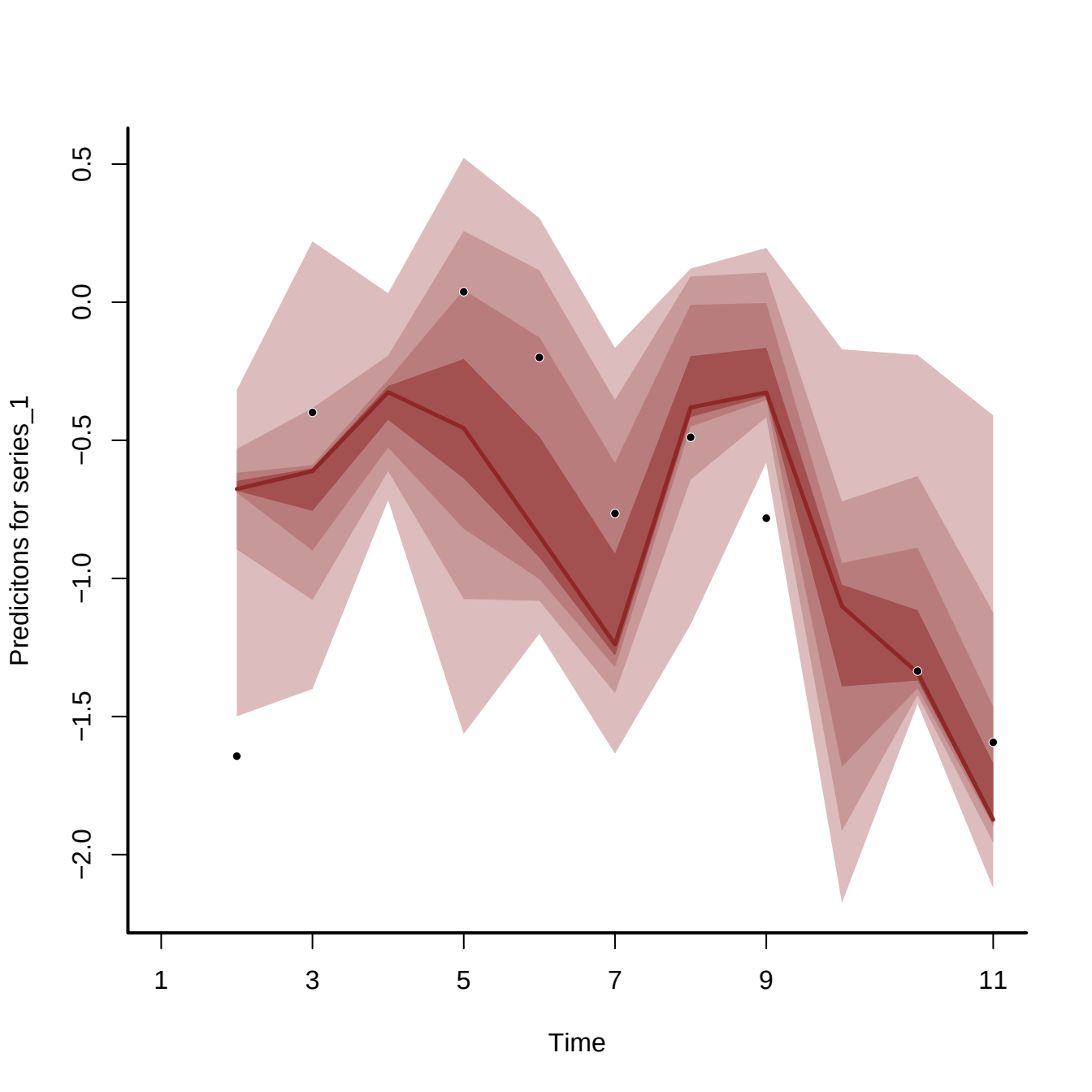

s(series)
Partial effect
3
2
1
0
−1
−2
−3
series1
series2

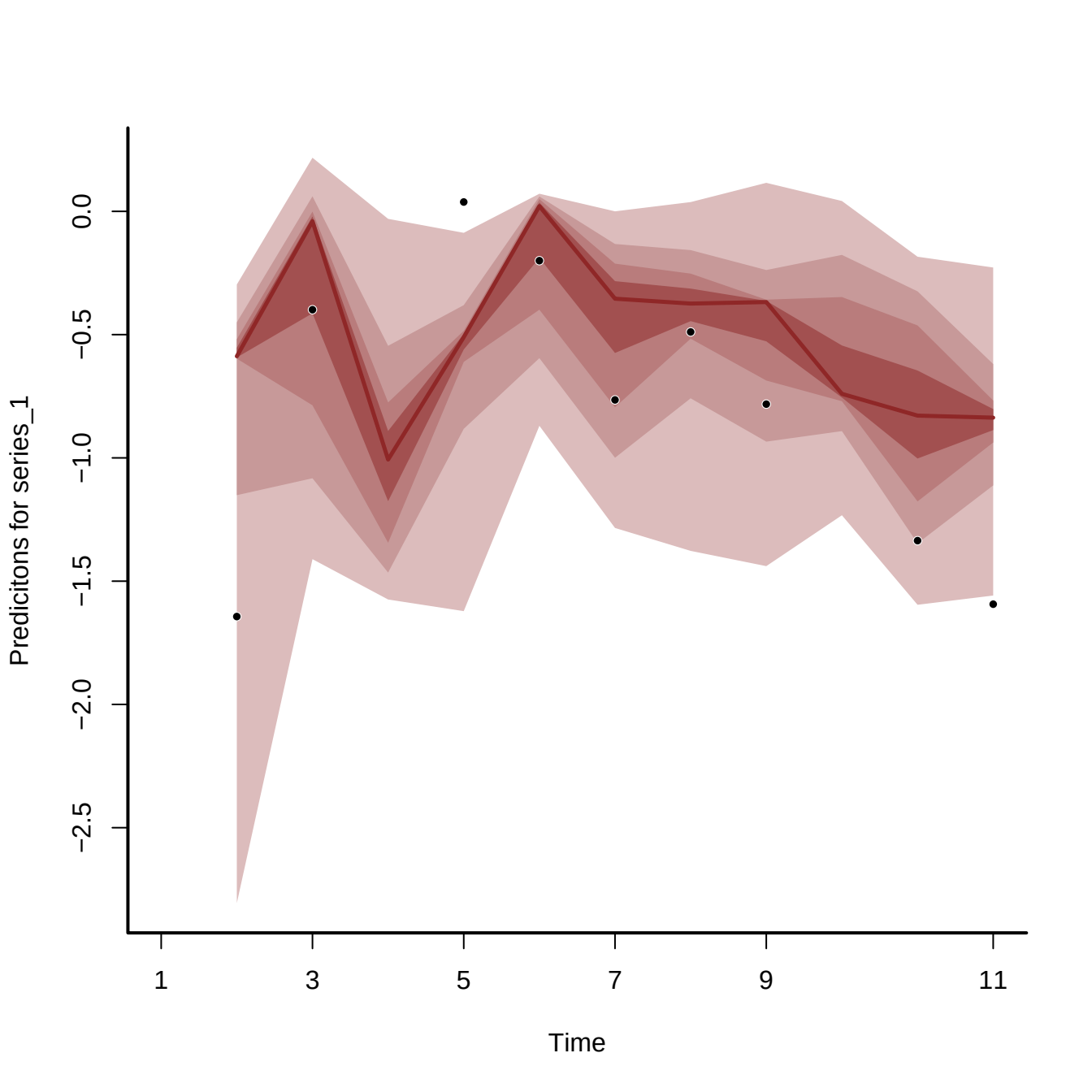

gp(x):seriesseries1
Partial effect
6
4
2
0
−2
−4
−6
−2
−1
0
1
x
gp(x):seriesseries2
Partial effect
4
2
0
−2
−4
−2
−1
0
1
x

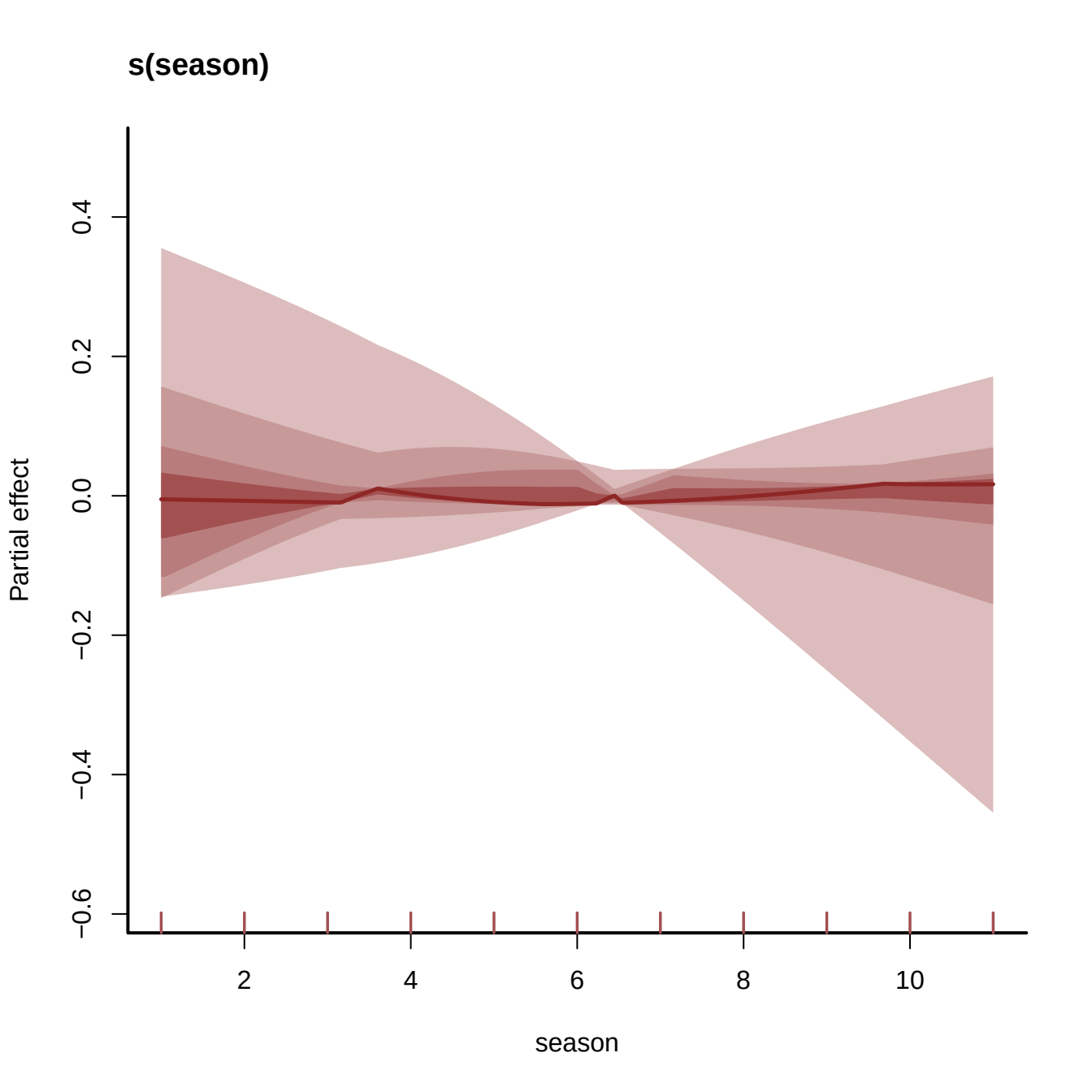

gp(x):seriesseries1
gp(x):seriesseries2
Partial effect
Partial effect
x
x
6
4
2
0
−2
−4
−6
−2
−1
0
1

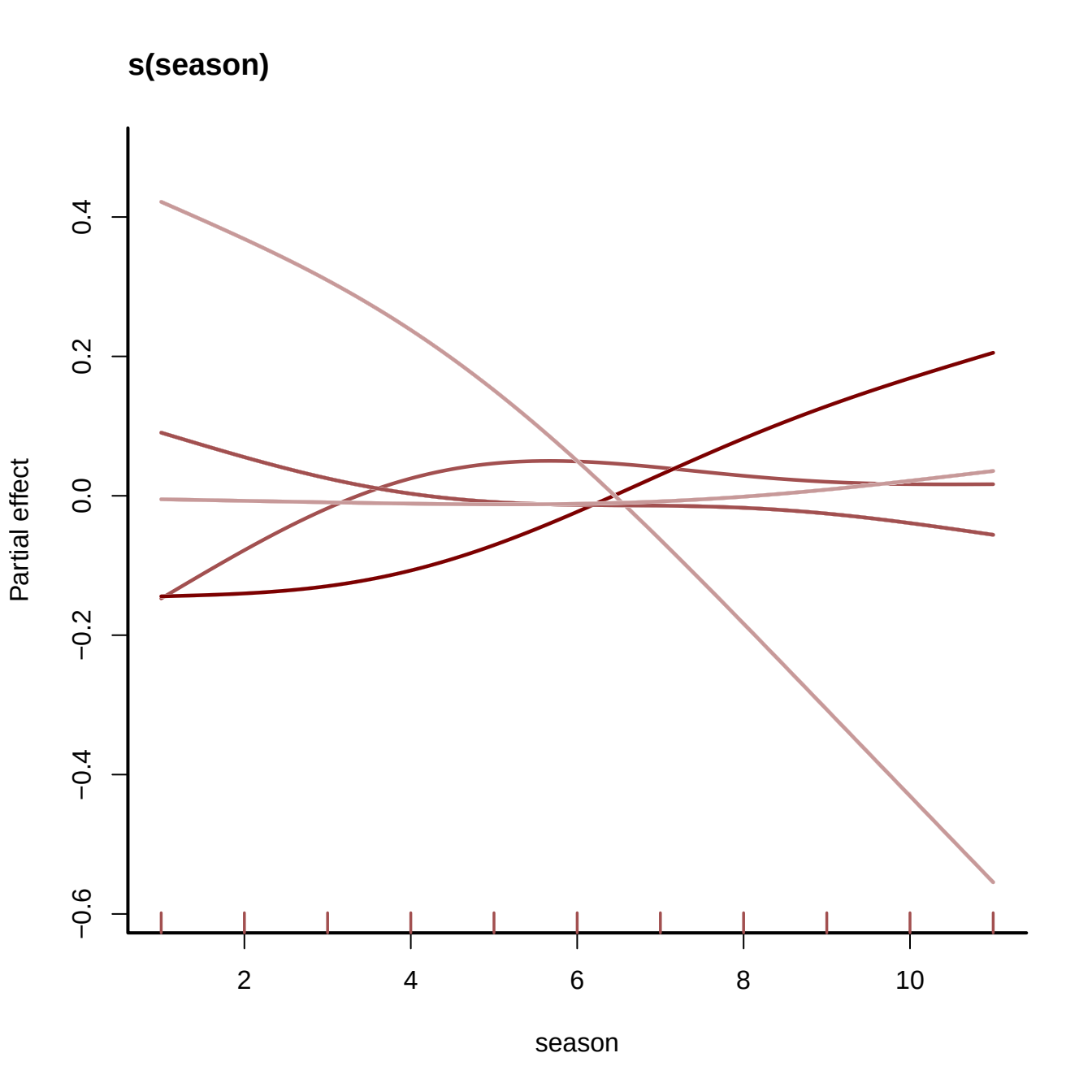

gp(x):seriesseries1
gp(x):seriesseries2
Partial effect
Partial effect
20
10
0
−10
−20
40
30
20
10
0
−10
−20
−2
−1
0
1
−2
−1
0
1
x
x

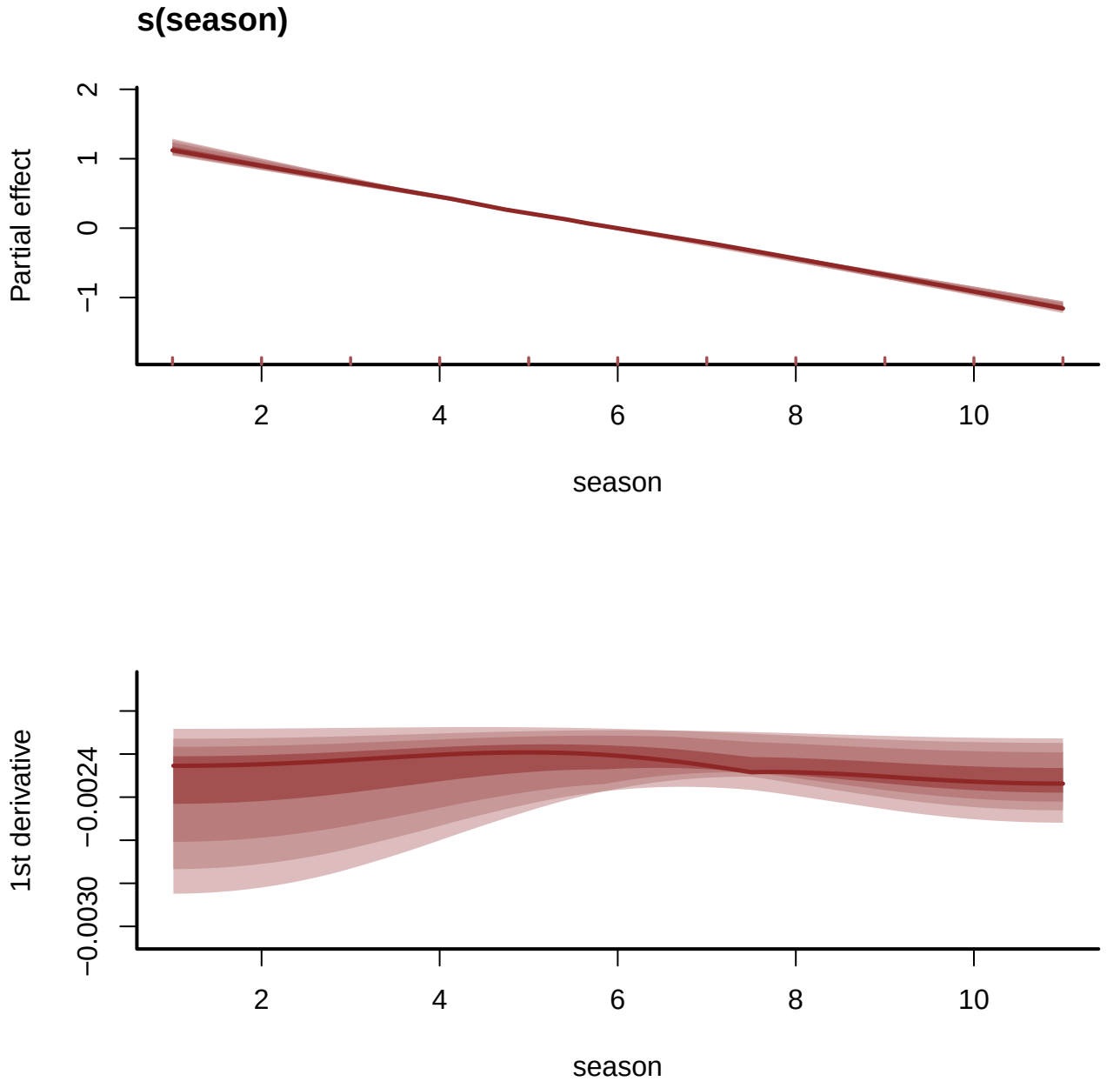

Predicitons for series_1
0.5
0.0
−0.5
−1.0
−1.5
−2.0
−2.5
1
3
5
7
9
11
Time

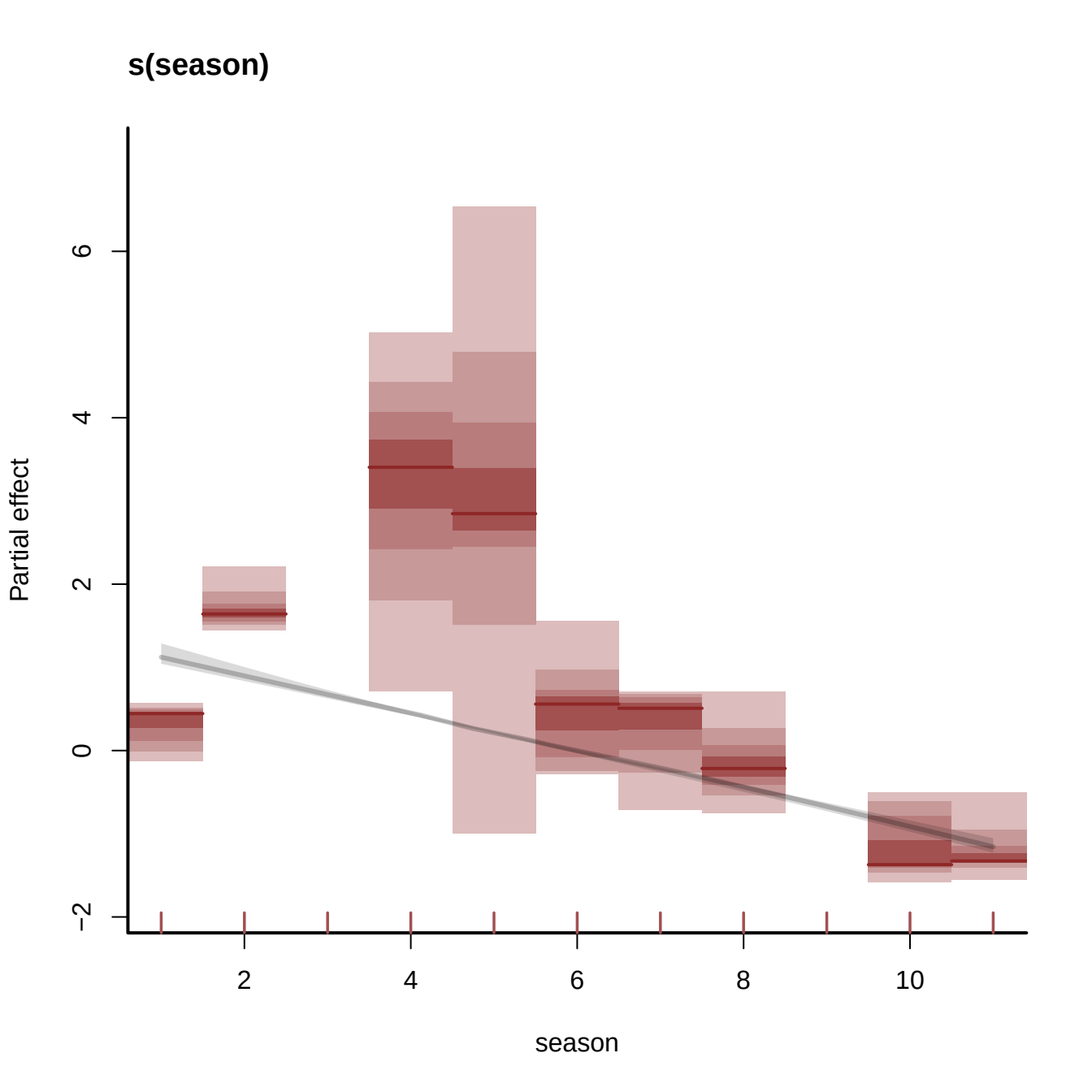

Predicitons for series_1
0.5
0.0
−0.5
−1.0
−1.5
−2.0
1
3
5
7
9
11
Time

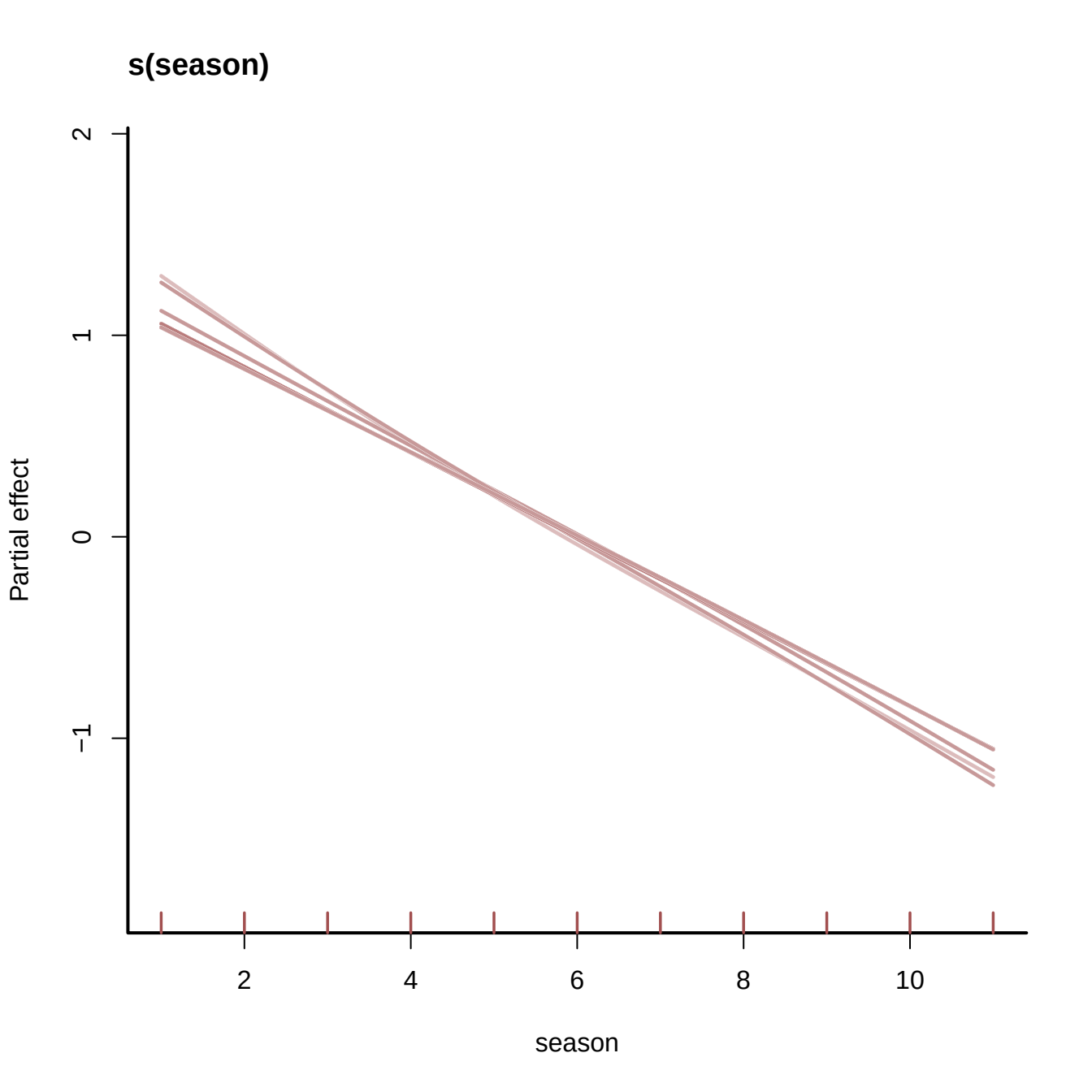

Predicitons for series_1
0.0
−0.5
−1.0
−1.5
−2.0
−2.5
1
3
5
7
9
11
Time

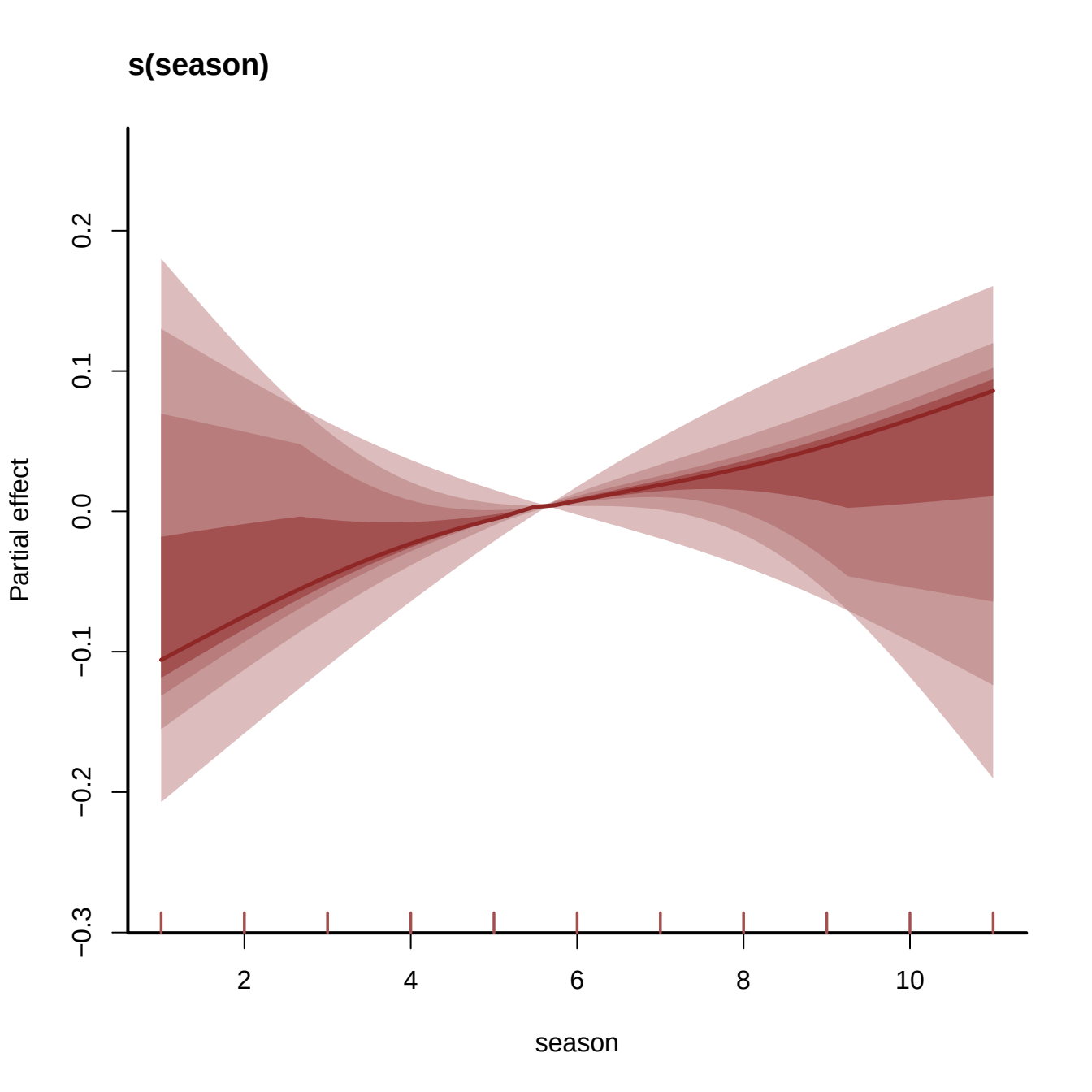

s(season)
Partial effect
0.4
0.2
0.0
−0.2
−0.4
−0.6
2
4
6
8
10
season

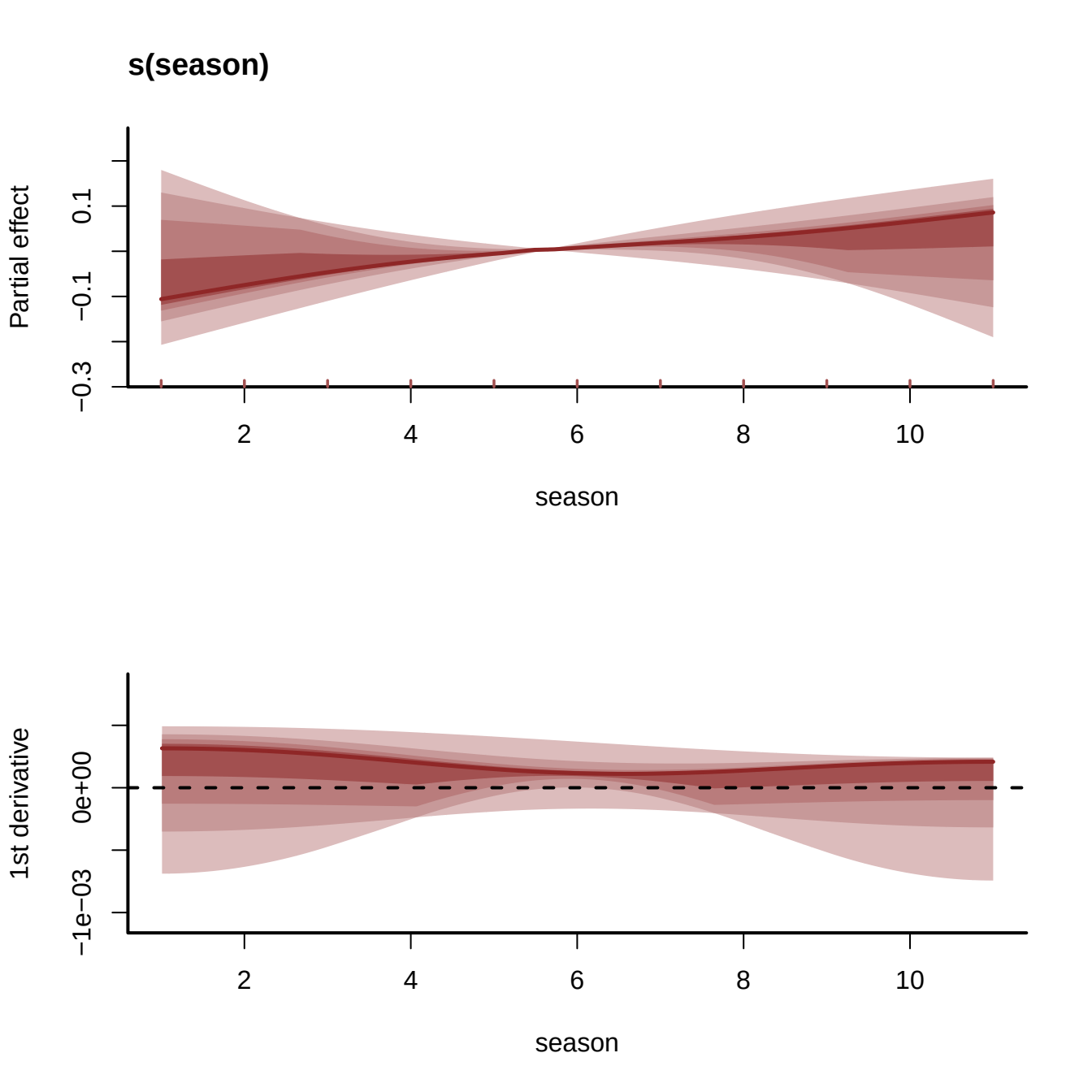

s(season)
Partial effect
0.4
0.2
0.0
−0.2
−0.4
−0.6
2
4
6
8
10
season

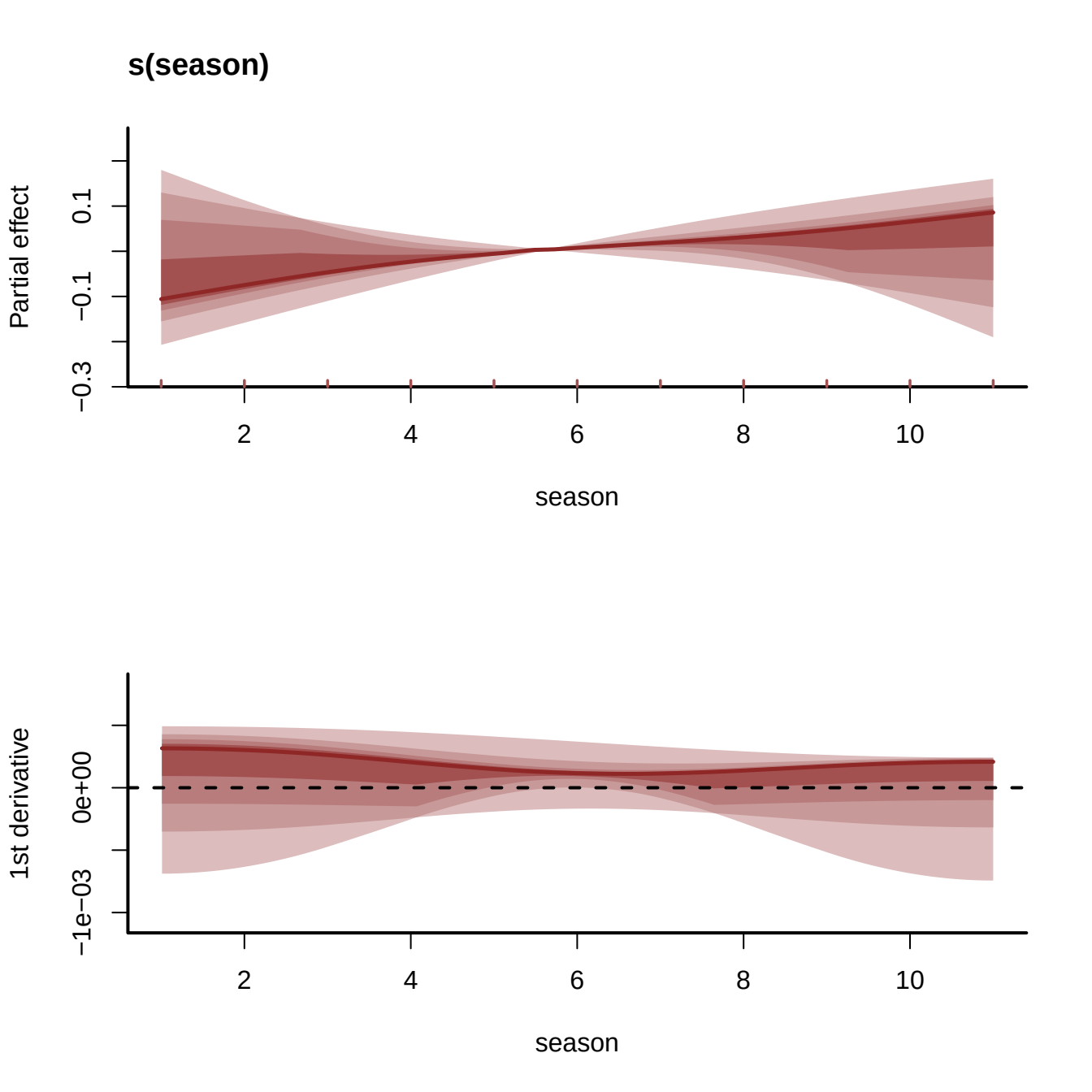

s(season)
Partial effect
2
1
0
−1
2
4
6
8
10
season
1st derivative
−0.0024
−0.0030
2
4
6
8
10
season

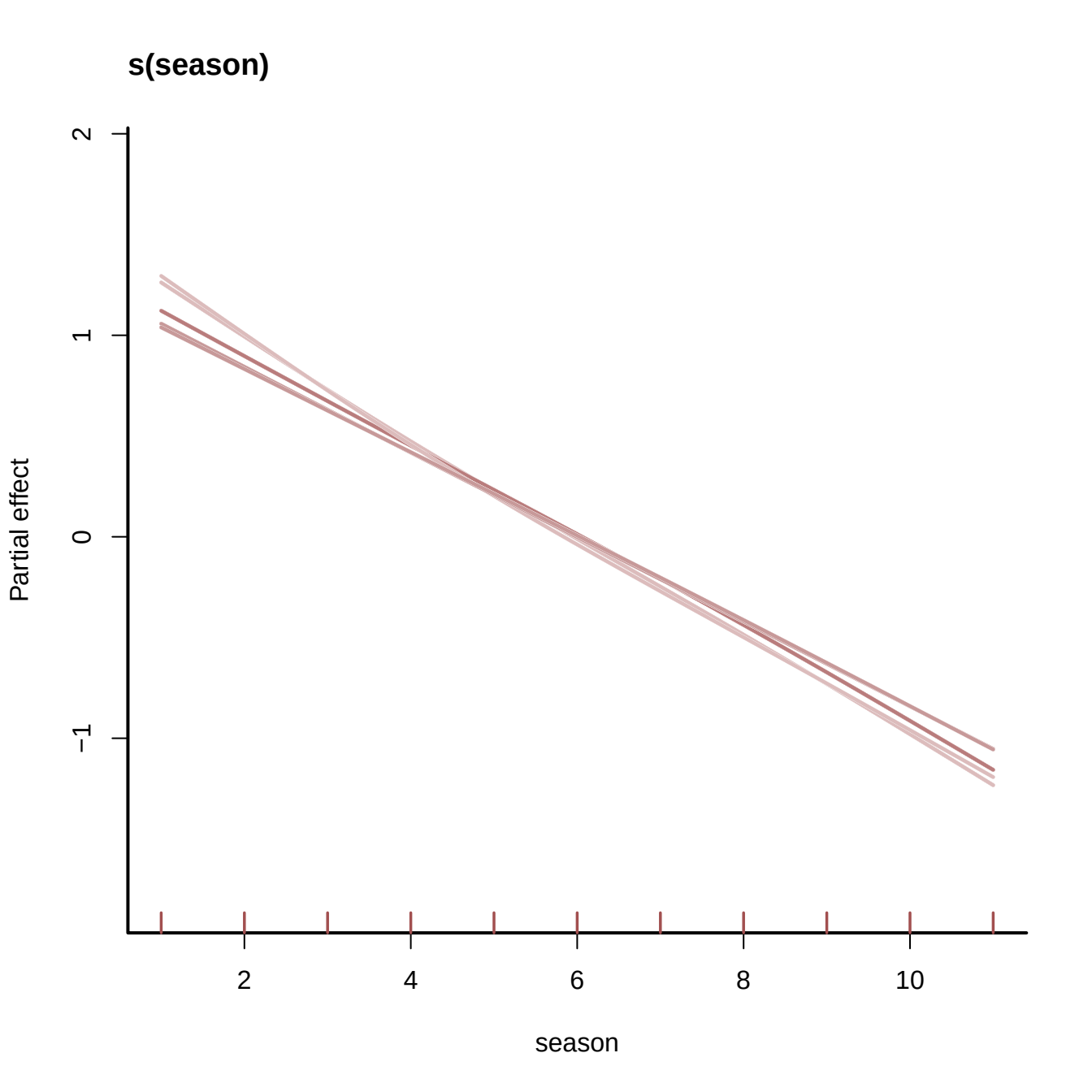

s(season)
Partial effect
6
4
2
0
−2
2
4
6
8
10
season

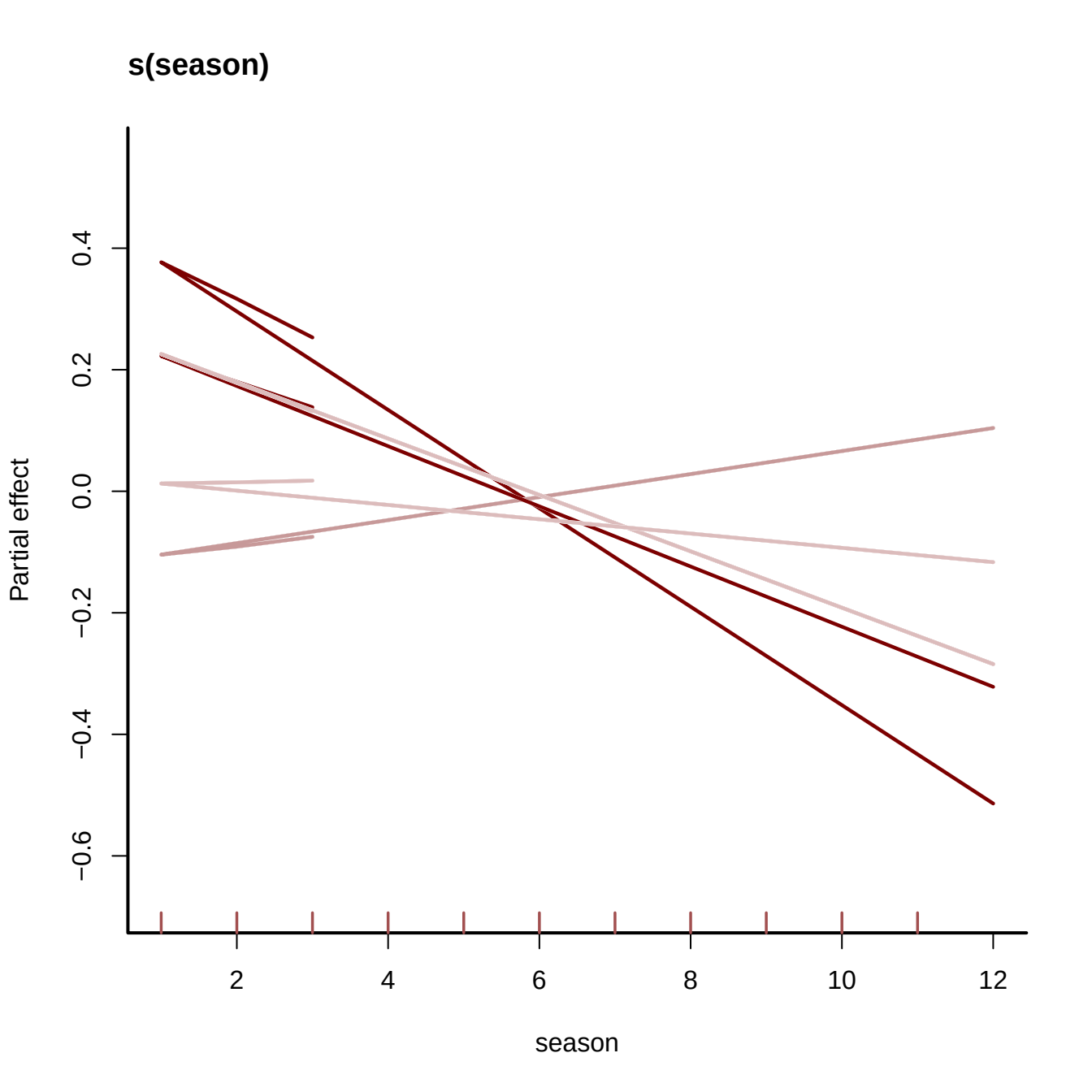

s(season)
Partial effect
2
1
0
−1
2
4
6
8
10
season

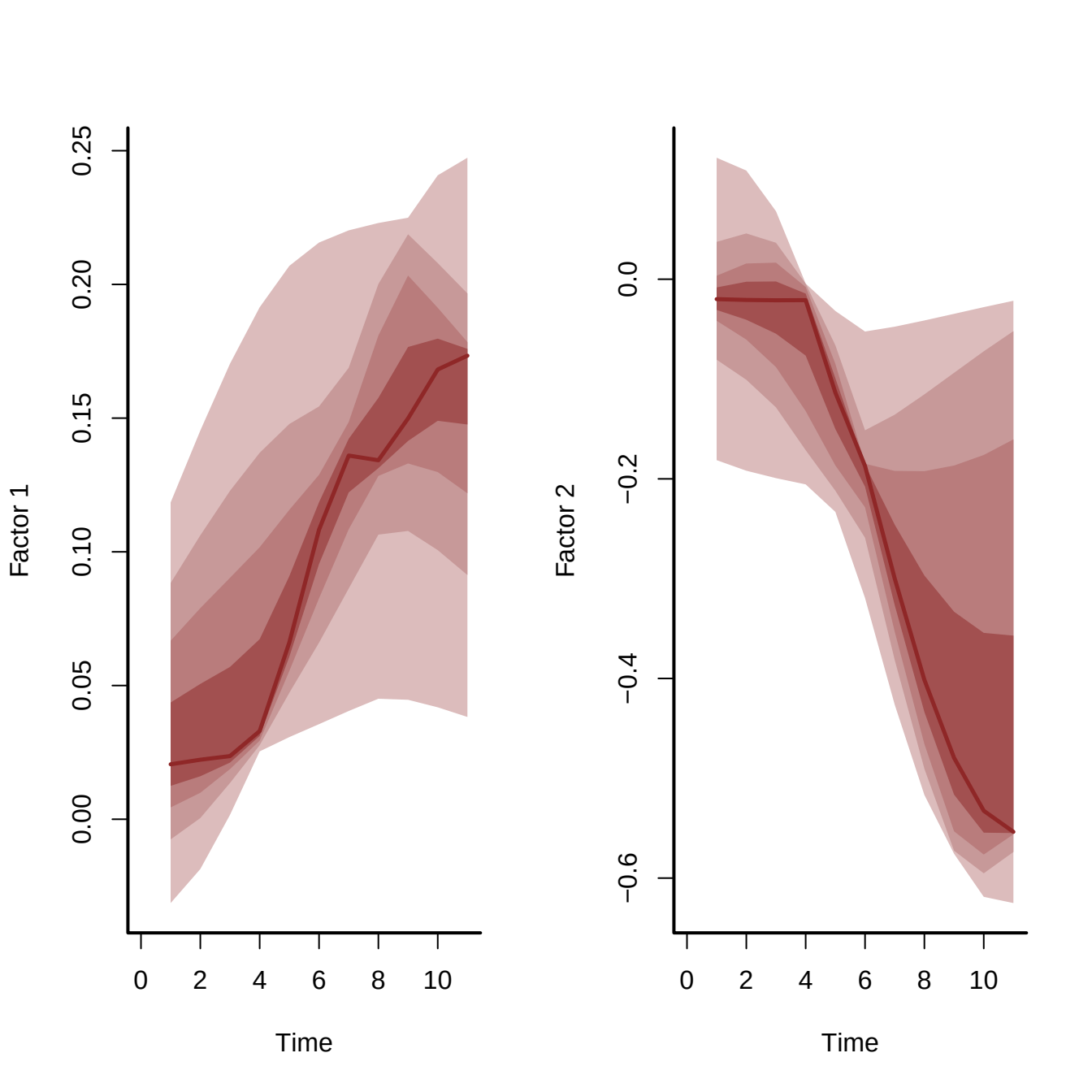

s(season)
Partial effect
0.2
0.1
0.0
−0.1
−0.2
−0.3
2
4
6
8
10
season

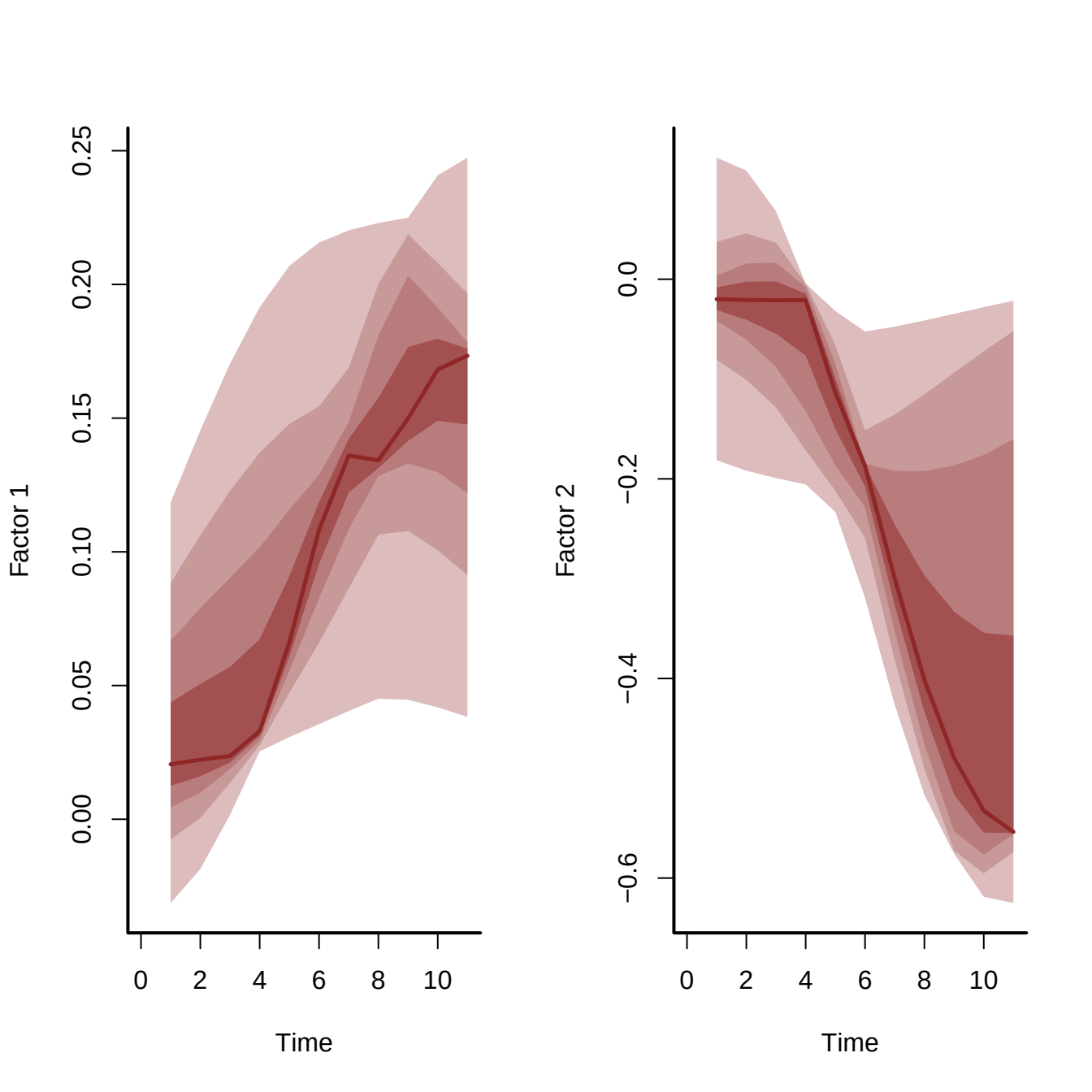

s(season)
Partial effect
0.1
−0.1
−0.3
2
4
6
8
10
season
1st derivative
0e+00
−1e−03
2
4
6
8
10
season

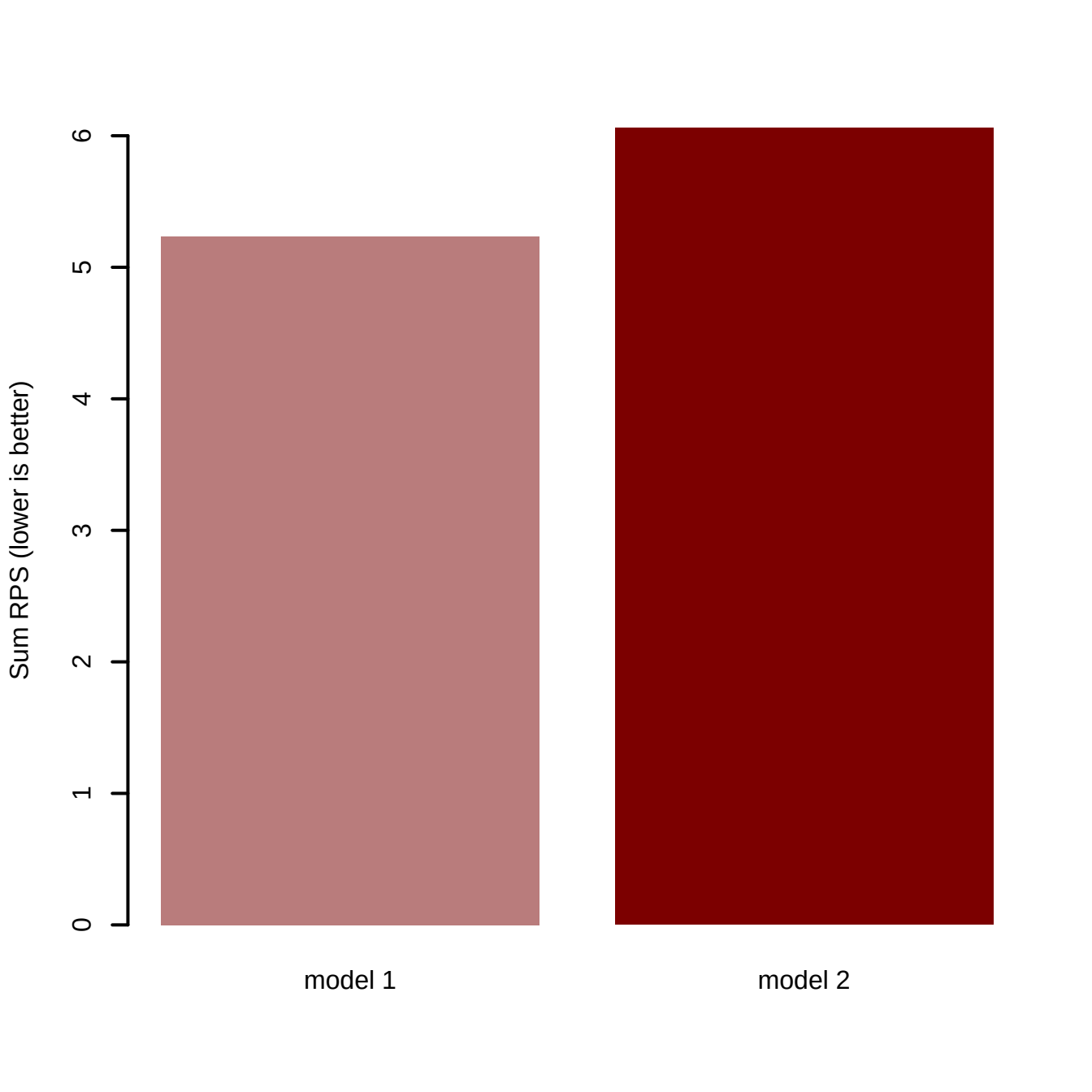

s(season)
Partial effect
0.1
−0.1
−0.3
2
4
6
8
10
season
1st derivative
0e+00
−1e−03
2
4
6
8
10
season

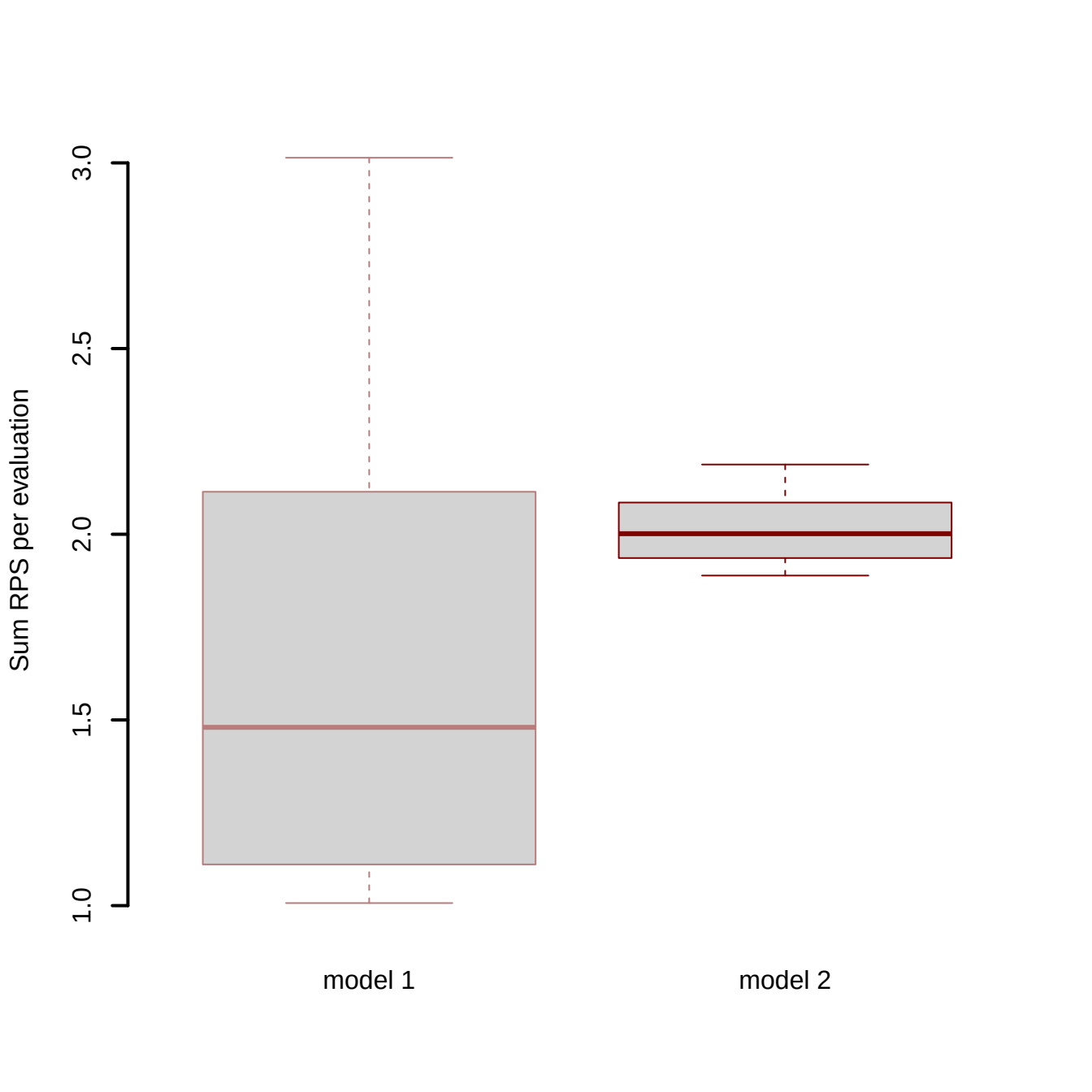

s(season)
Partial effect
2
1
0
−1
2
4
6
8
10
season

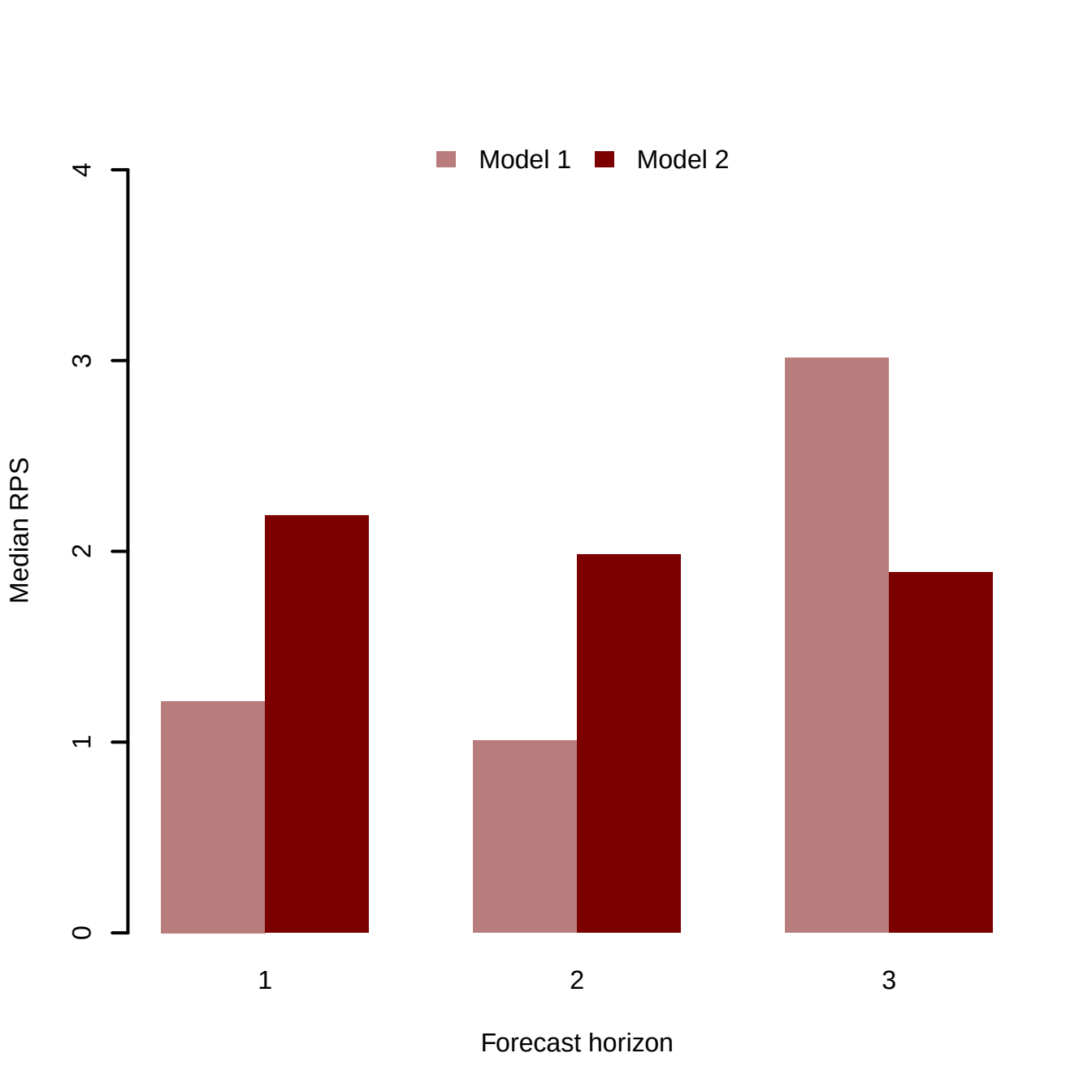

s(season)
Partial effect
0.4
0.2
0.0
−0.2
−0.4
−0.6
2
4
6
8
10
12
season

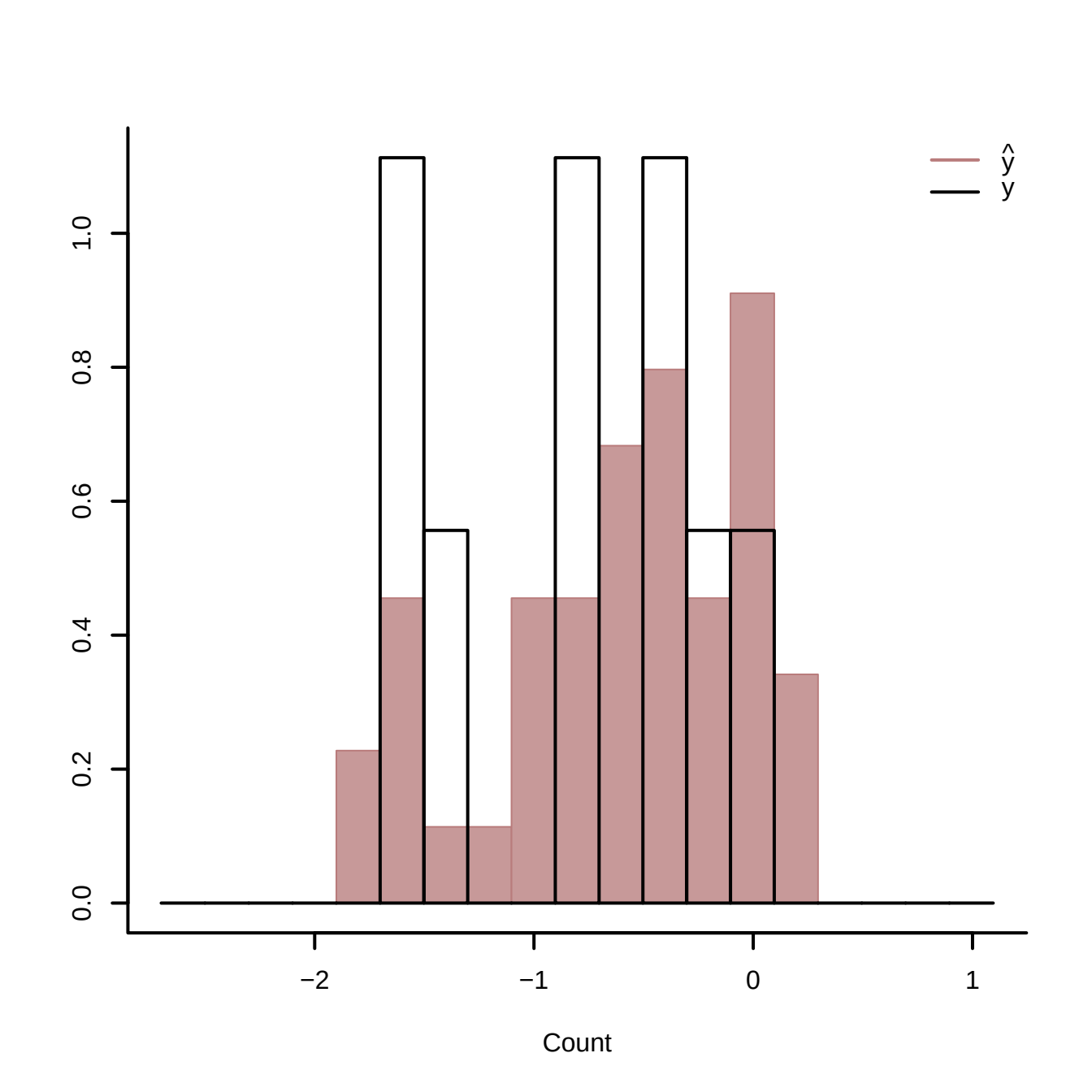

Factor 1
0.00
0.05
0.10
0.15
0.20
0.25
0
2
4
6
8
10
Time
Factor 2
−0.6
−0.4
−0.2
0.0
0
2
4
6
8
10
Time

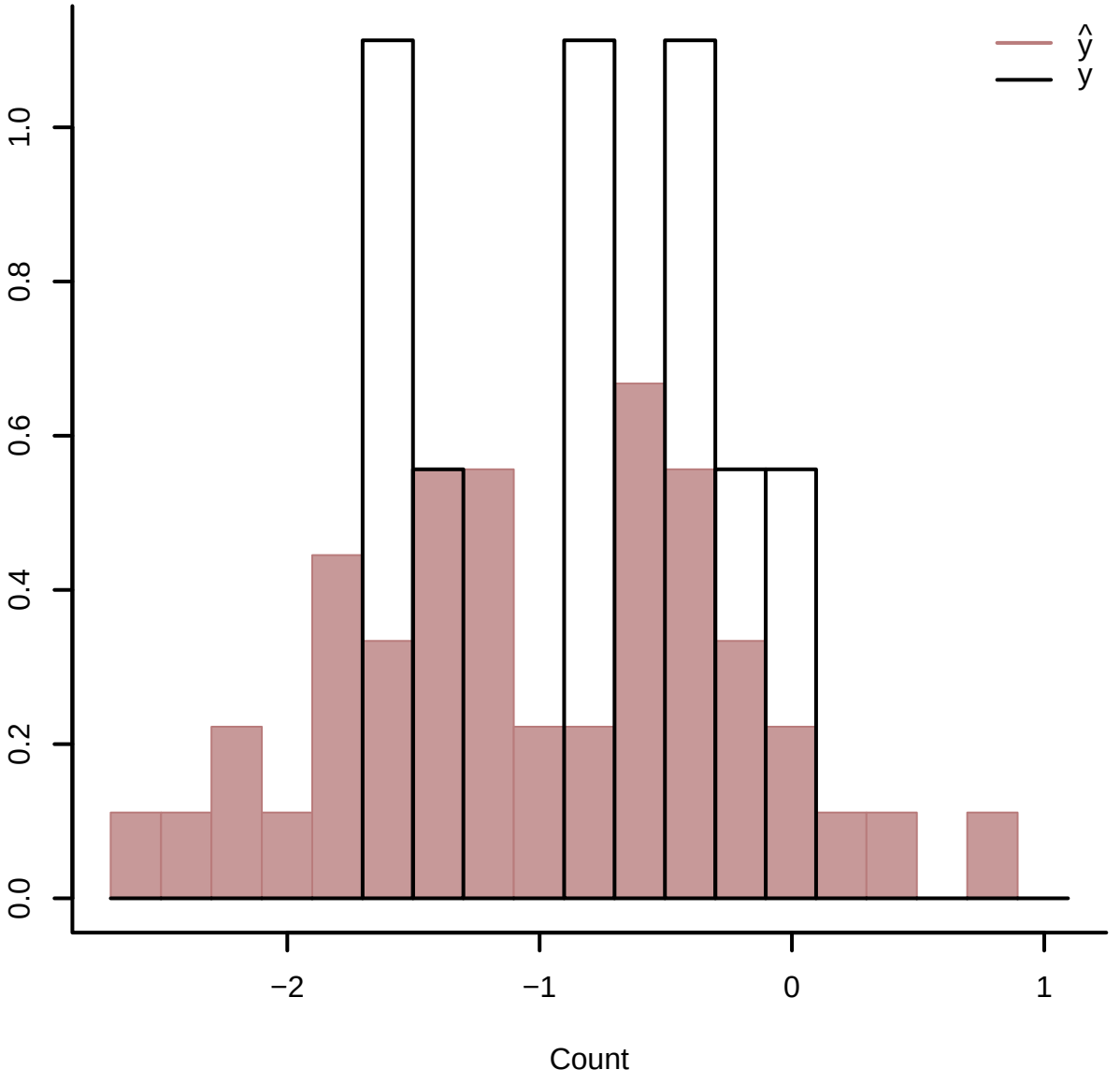

Factor 1
0.00
0.05
0.10
0.15
0.20
0.25
0
2
4
6
8
10
Time
Factor 2
−0.6
−0.4
−0.2
0.0
0
2
4
6
8
10
Time

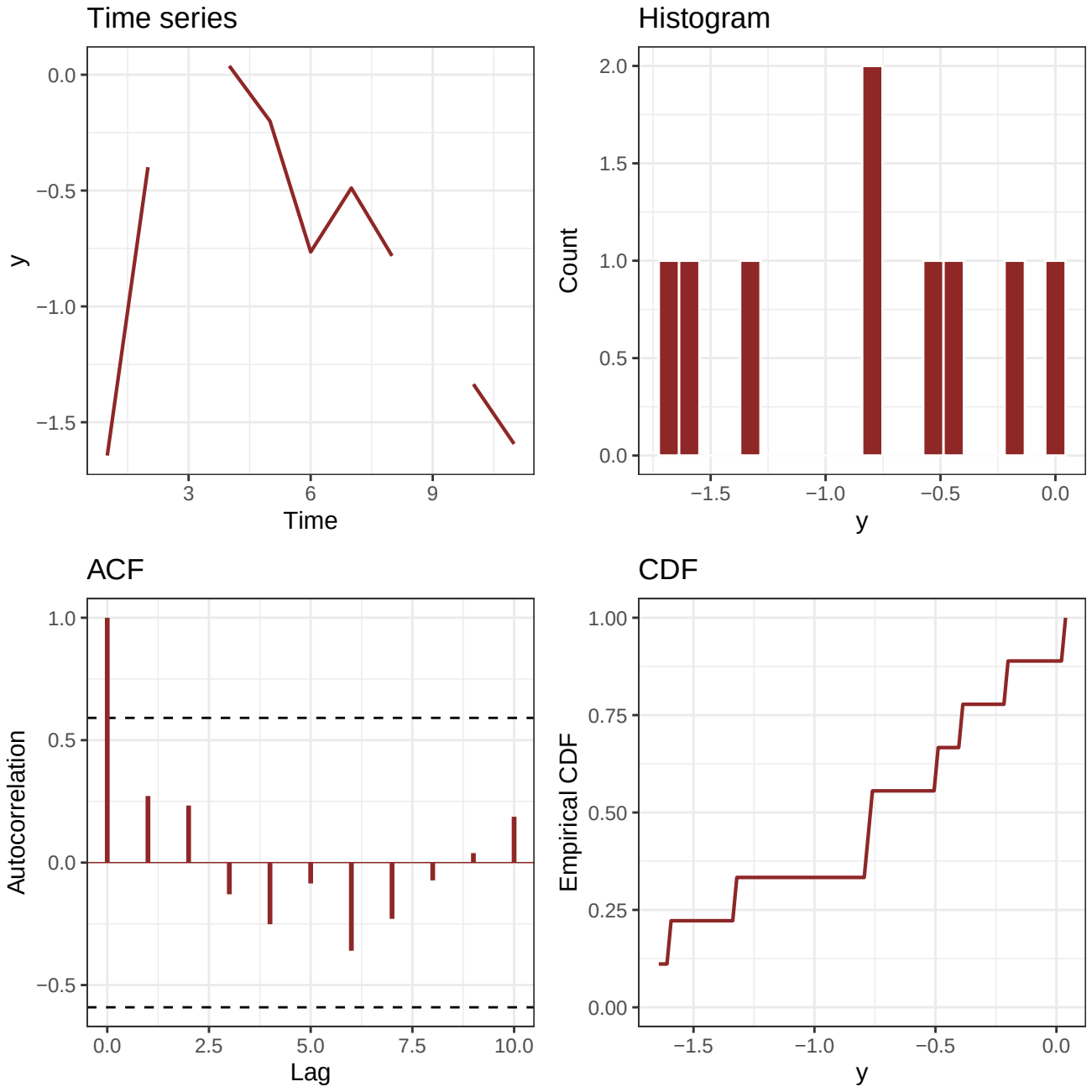

Sum RPS (lower is better)
0
1
2
3
4
5
6
model 1
model 2

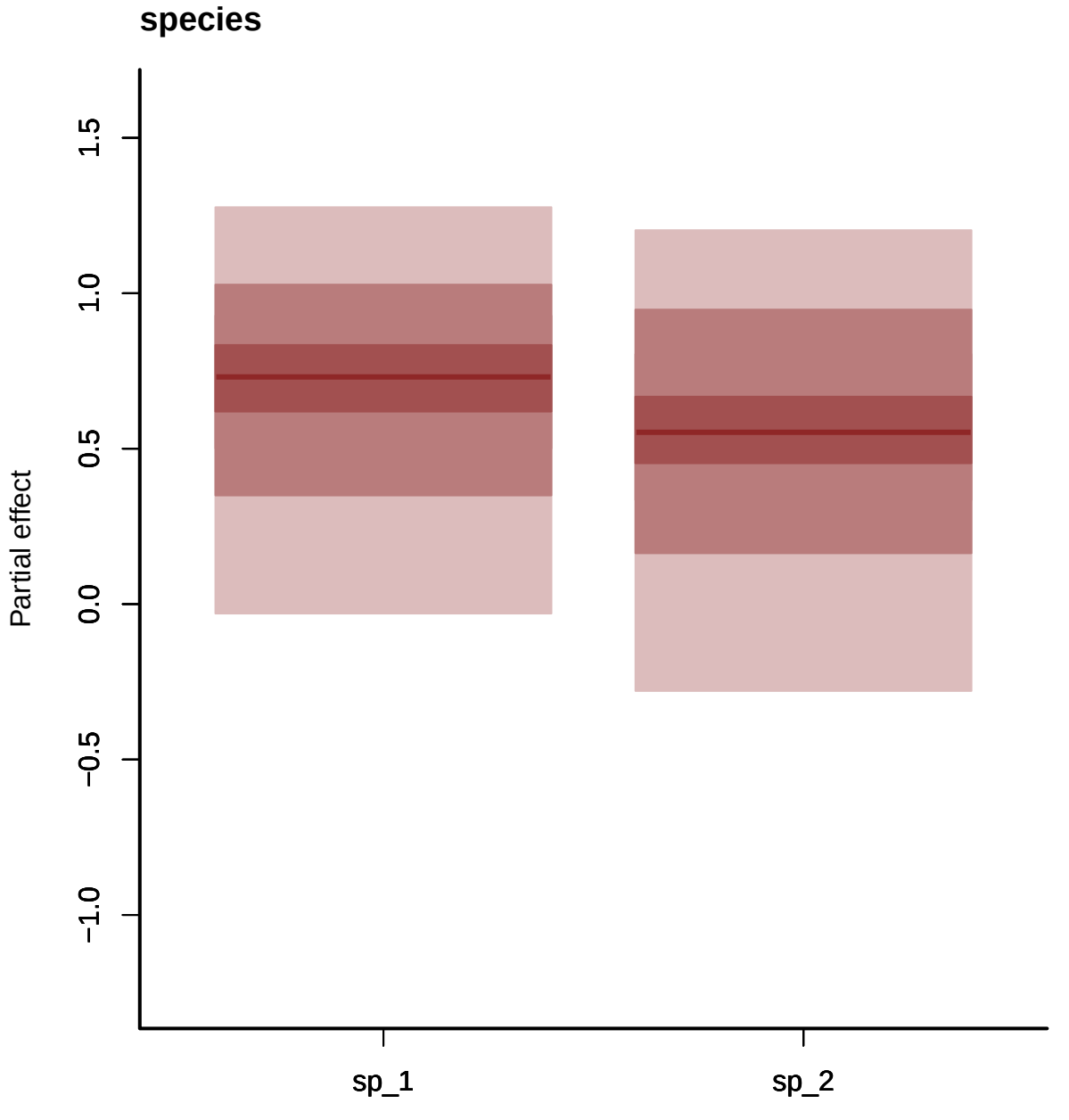

Sum RPS per evaluation
3.0
2.5
2.0
1.5
1.0
model 1
model 2

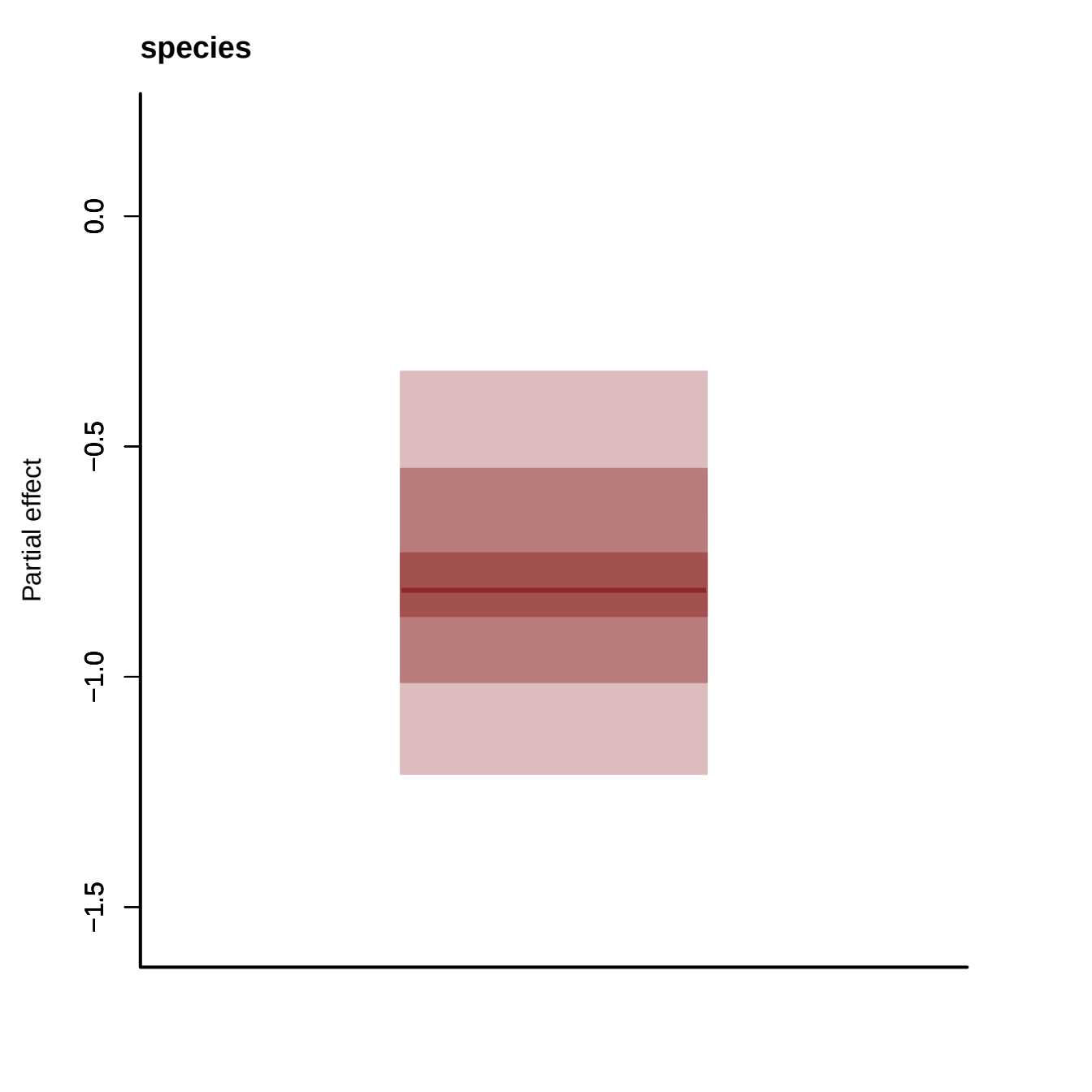

Model 1
Model 2
Median RPS
0
1
2
3
4
1
2
3
Forecast horizon

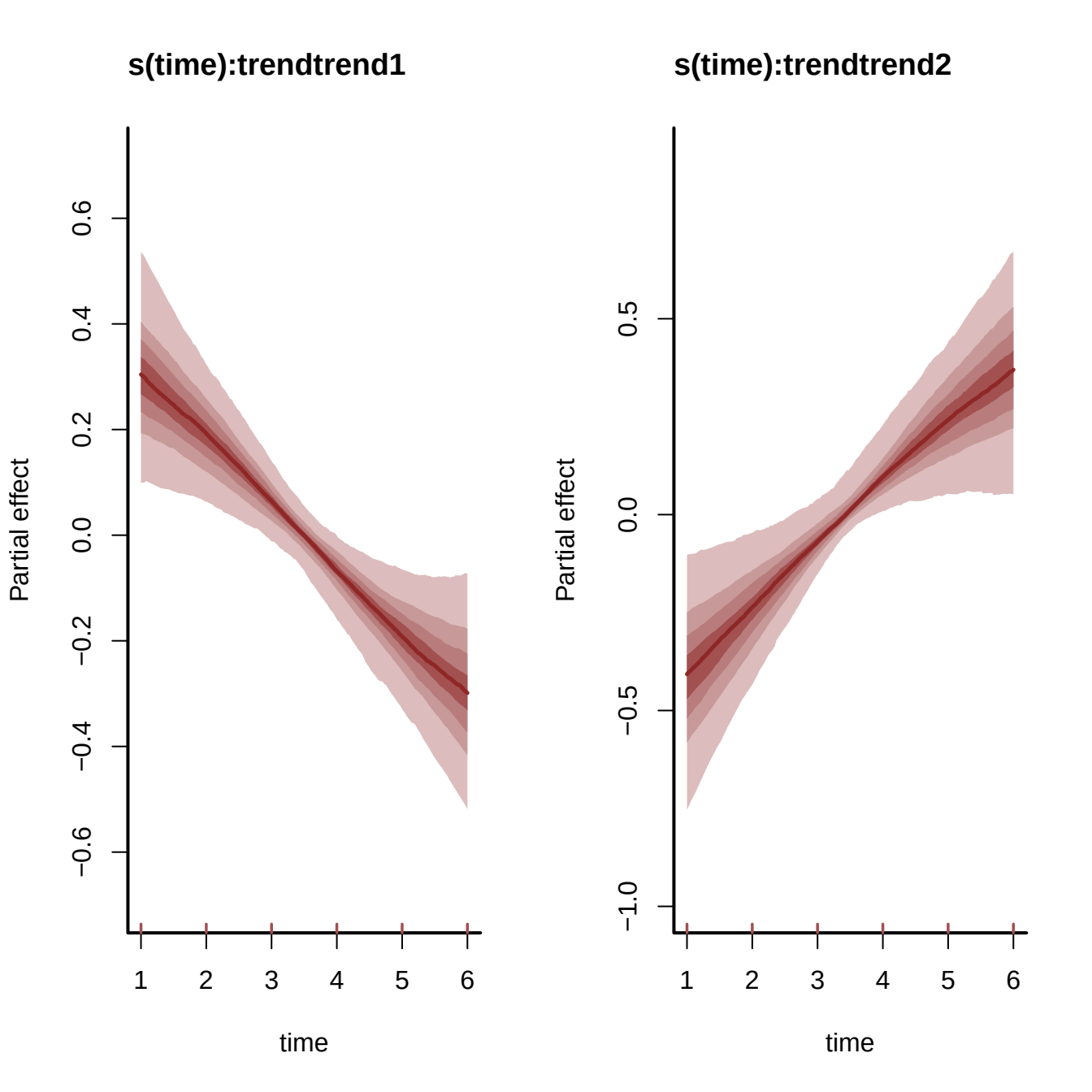

ŷ
y
0.0
0.2
0.4
0.6
0.8
1.0
−2
−1
0
1
Count

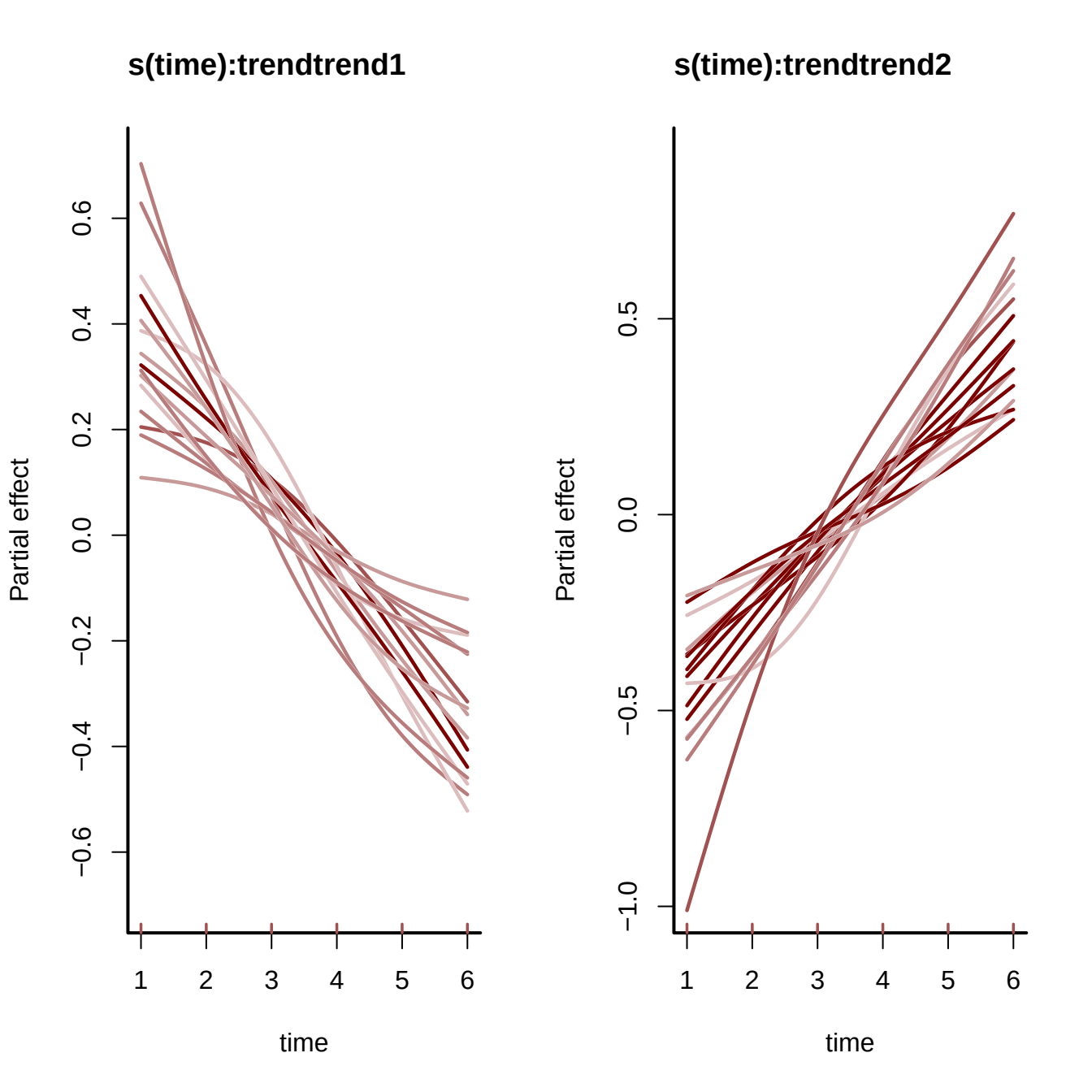

ŷ
y
0.0
0.2
0.4
0.6
0.8
1.0
−2
−1
0
1
Count

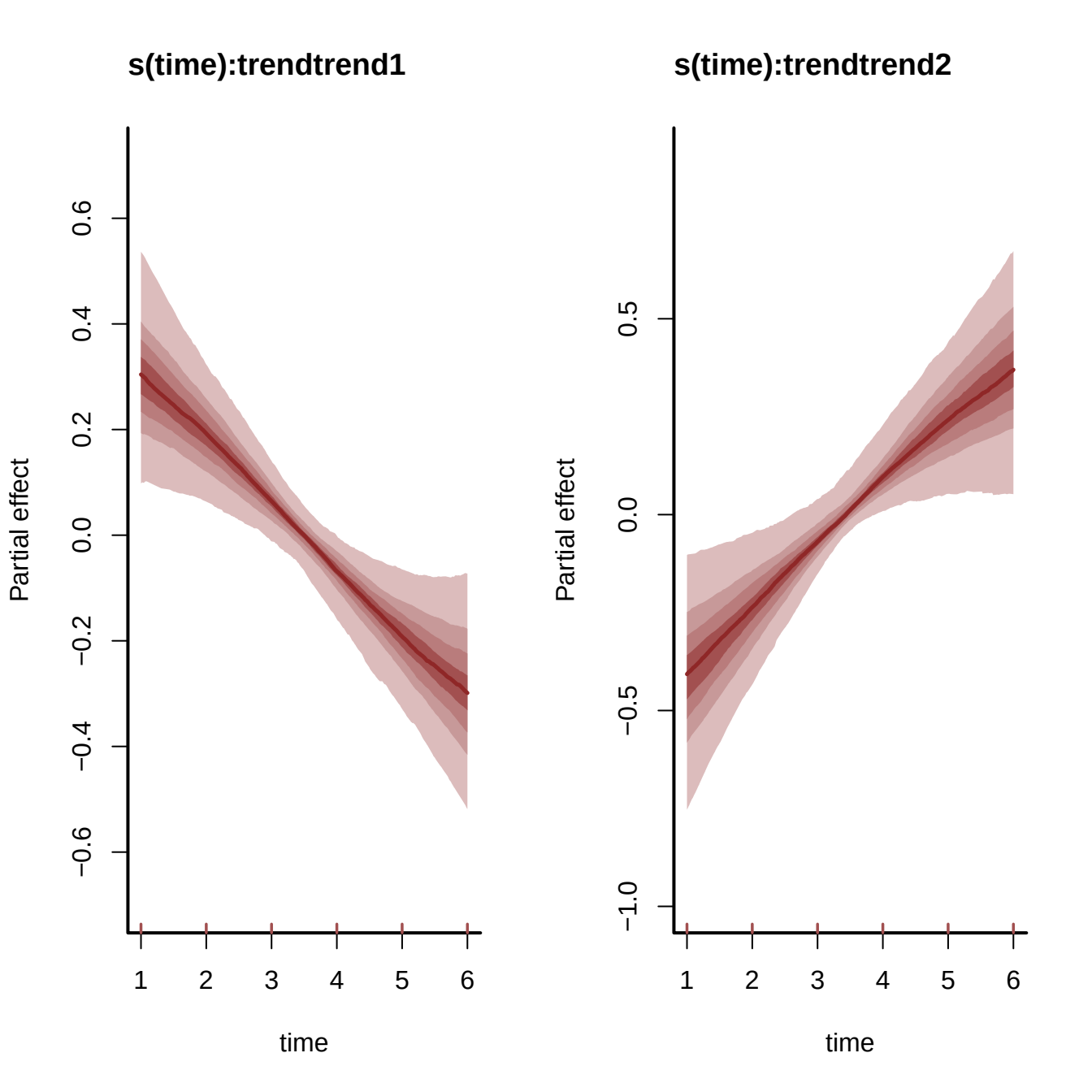

Time series
y
Time
Histogram
Count
y
ACF
Autocorrelation
Lag
CDF
Empirical CDF
y


species
Partial effect
1.5
1.0
0.5
0.0
−0.5
−1.0
sp_1
sp_2


species
Partial effect
0.0
−0.5
−1.0
−1.5


s(time):trendtrend1
Partial effect
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6
1
2
3
4
5
6
time
s(time):trendtrend2
Partial effect
0.5
0.0
−0.5
−1.0
1
2
3
4
5
6
time


s(time):trendtrend1
Partial effect
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6
1
2
3
4
5
6
time
s(time):trendtrend2
Partial effect
0.5
0.0
−0.5
−1.0
1
2
3
4
5
6
time


s(time):trendtrend1
Partial effect
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6
1
2
3
4
5
6
time
s(time):trendtrend2
Partial effect
0.5
0.0
−0.5
−1.0
1
2
3
4
5
6
time