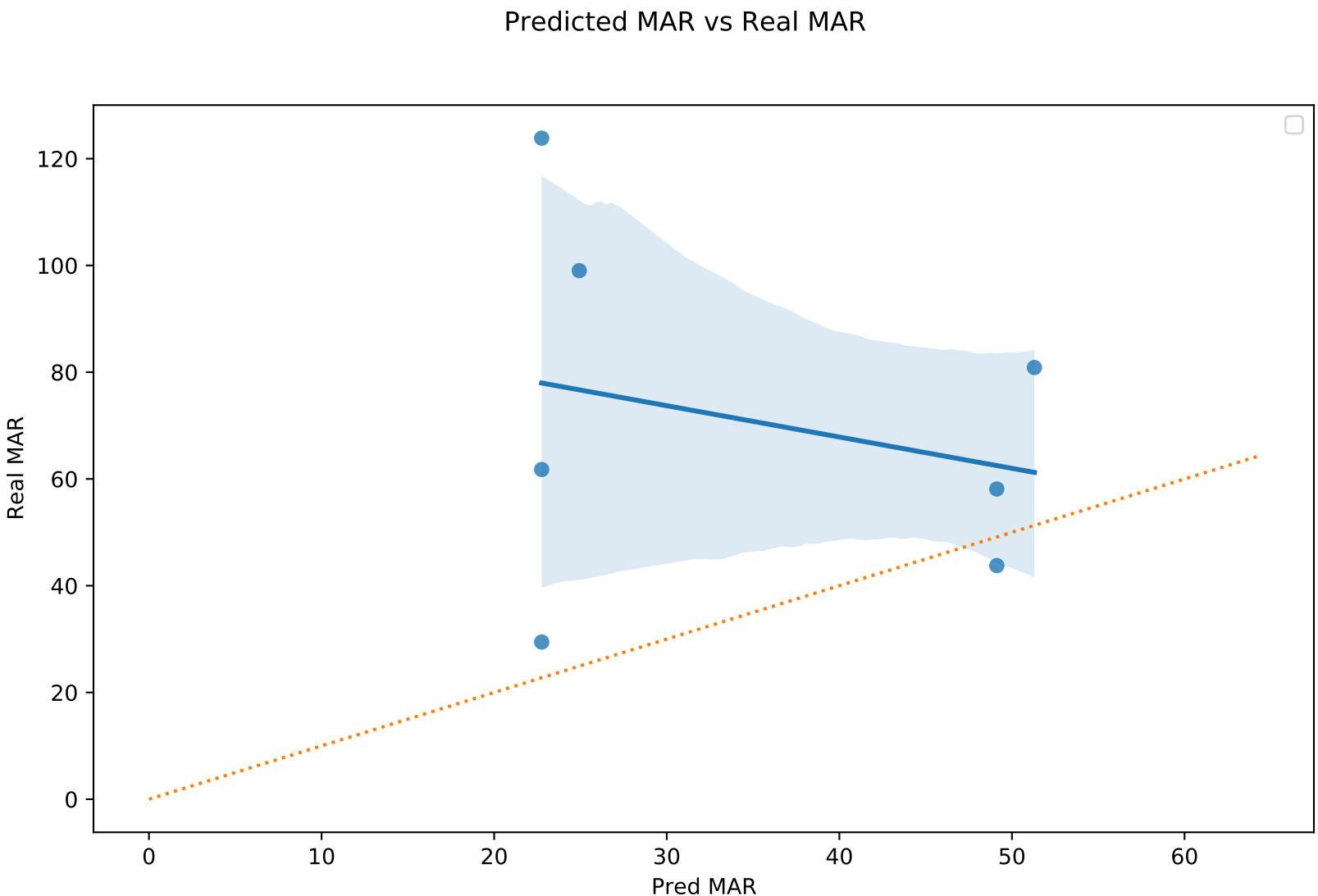
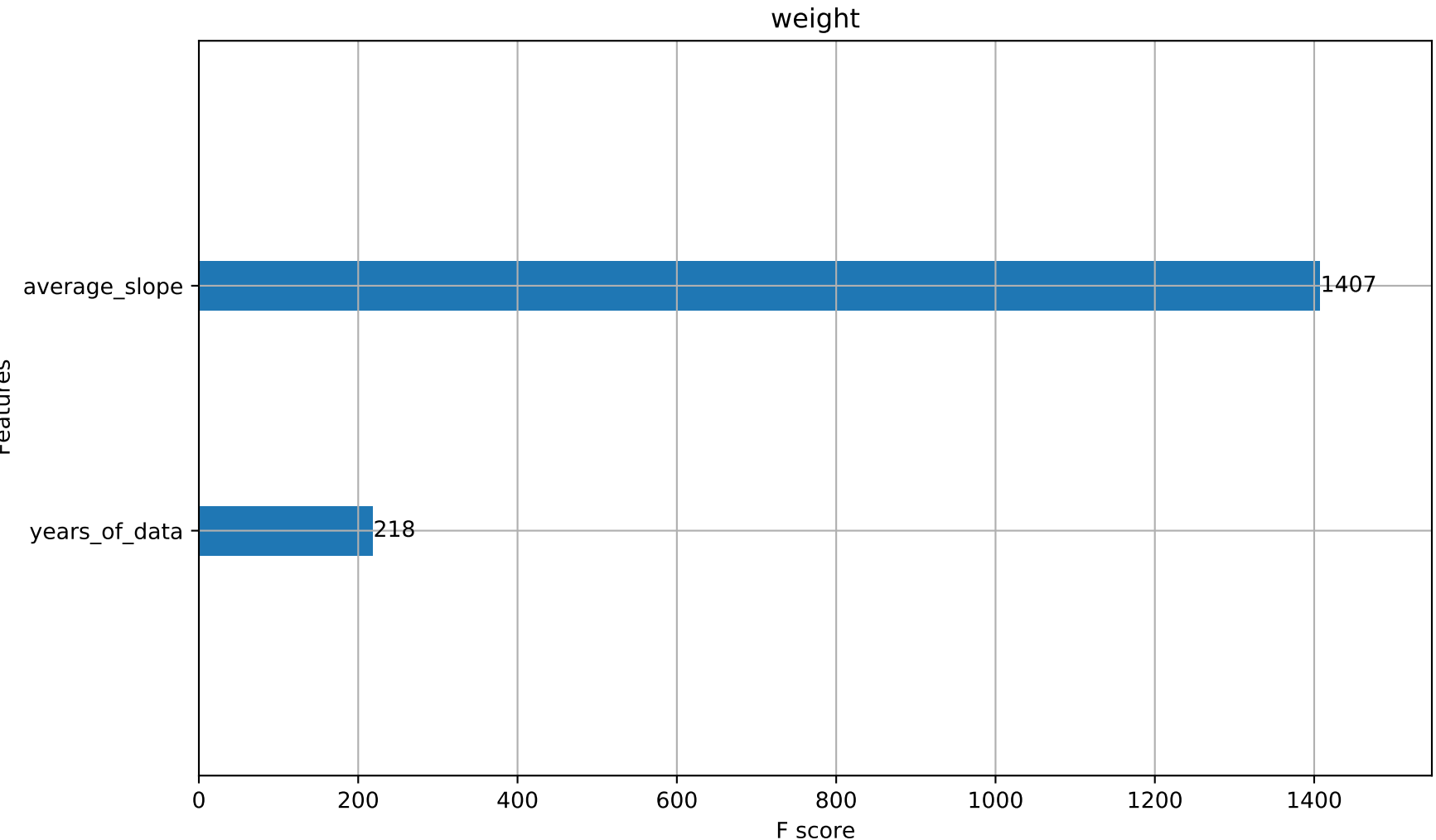
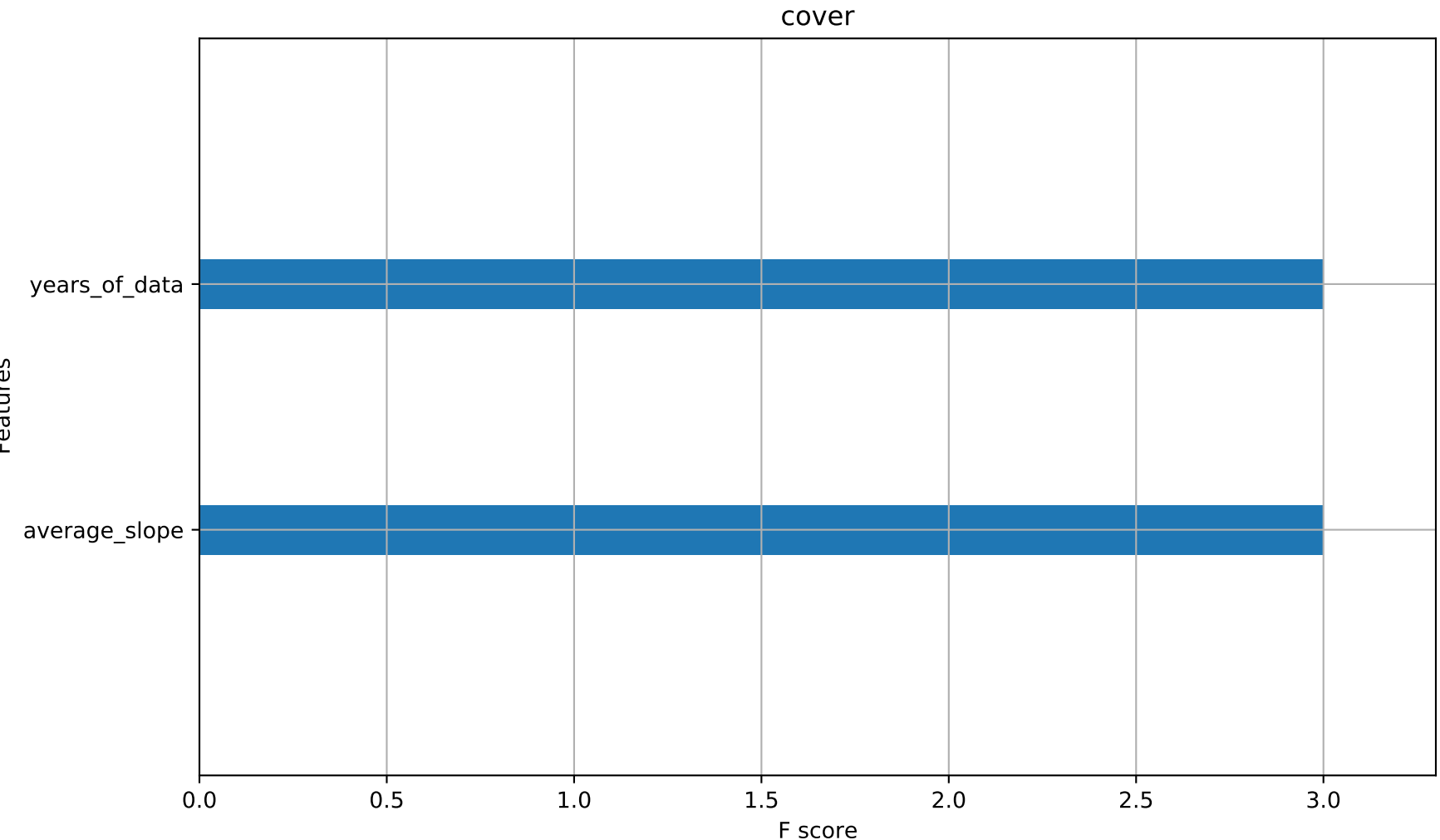
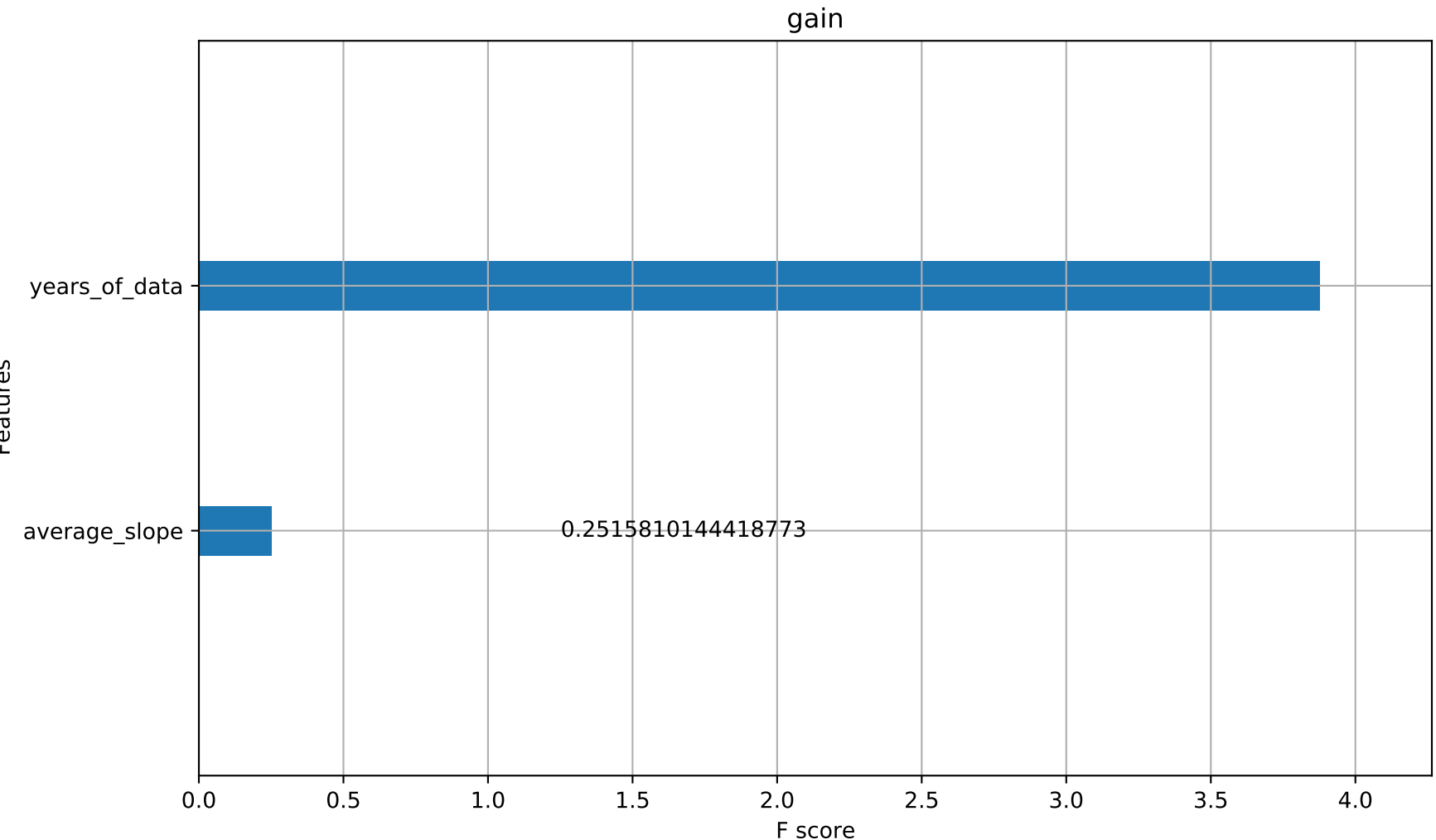
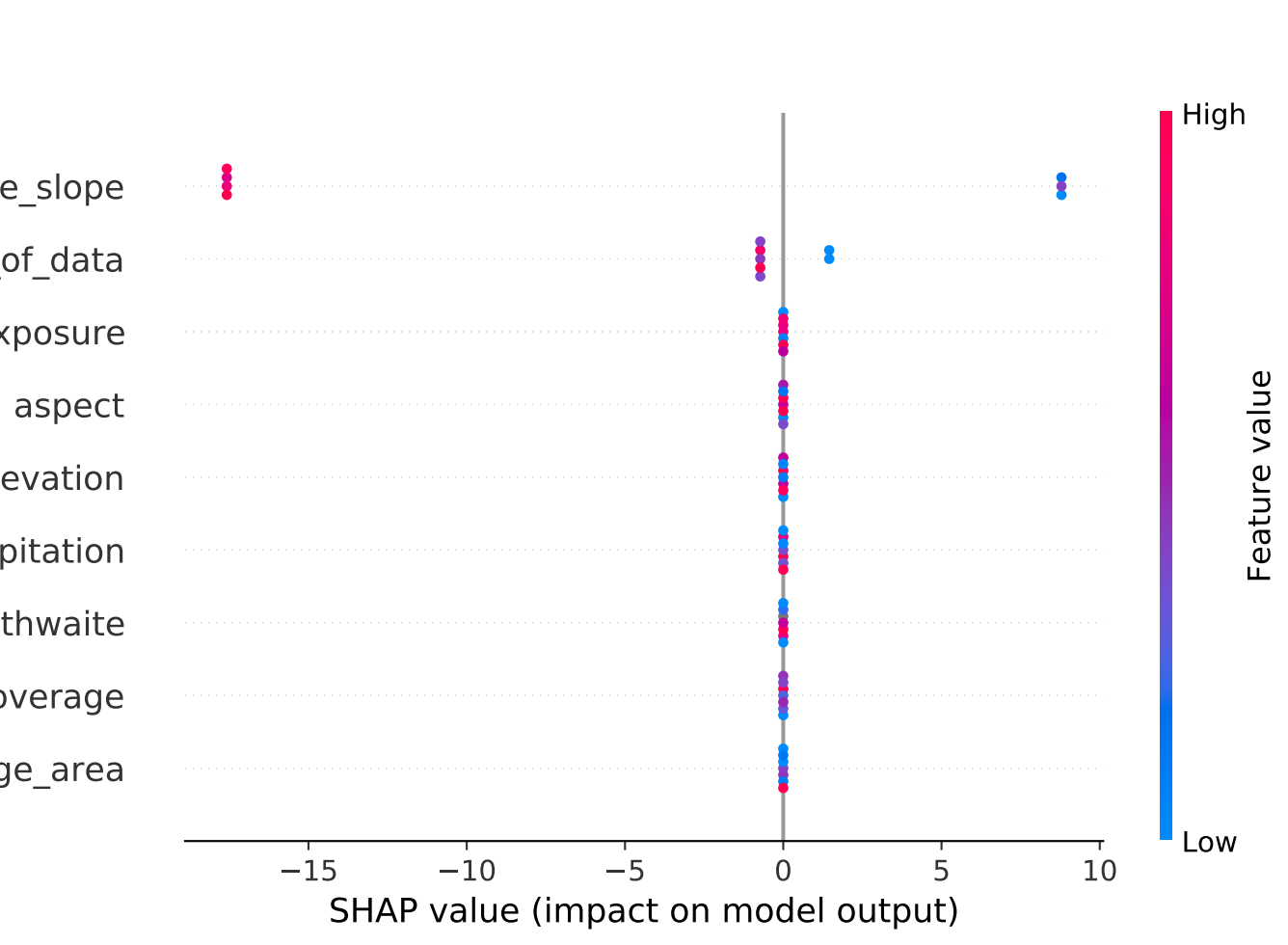

Predicted MAR vs Real MAR
Real MAR
Pred MAR
0
20
40
60
80
100
120
0
10
20
30
40
50
60

Feature Correlations
years_of_data
drainage_area
average_slope
glacial_coverage
ential_evapotranspiration_thornthwaite
annual_precipitation
median_elevation
aspect
solar_exposure
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
aspect

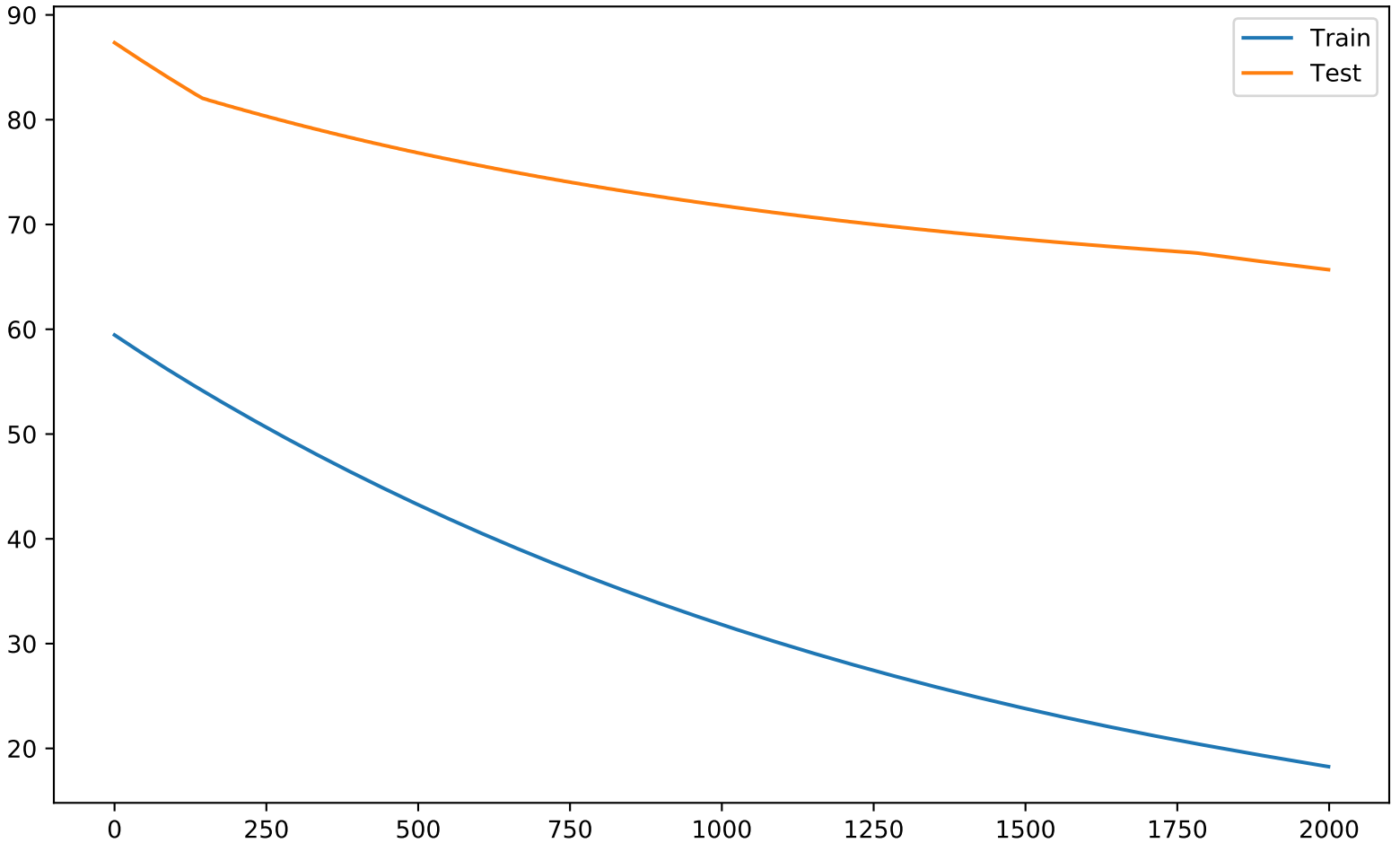

weight
average_slope
years_of_data
1407
218
Features
0
200
400
600
800
1000
1200
1400
F score

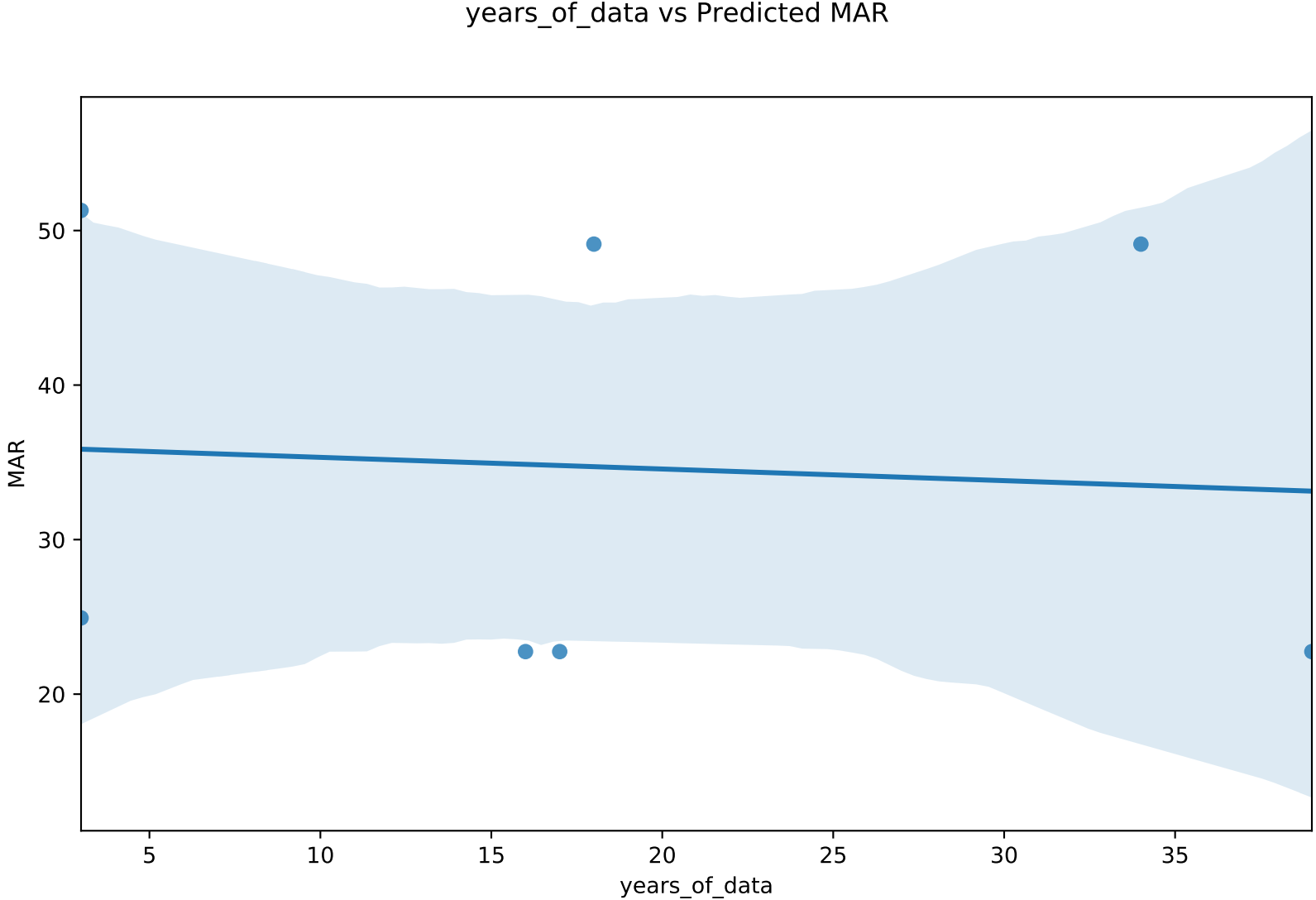

cover
years_of_data
average_slope
Features
0.0
0.5
1.0
1.5
2.0
2.5
3.0
F score

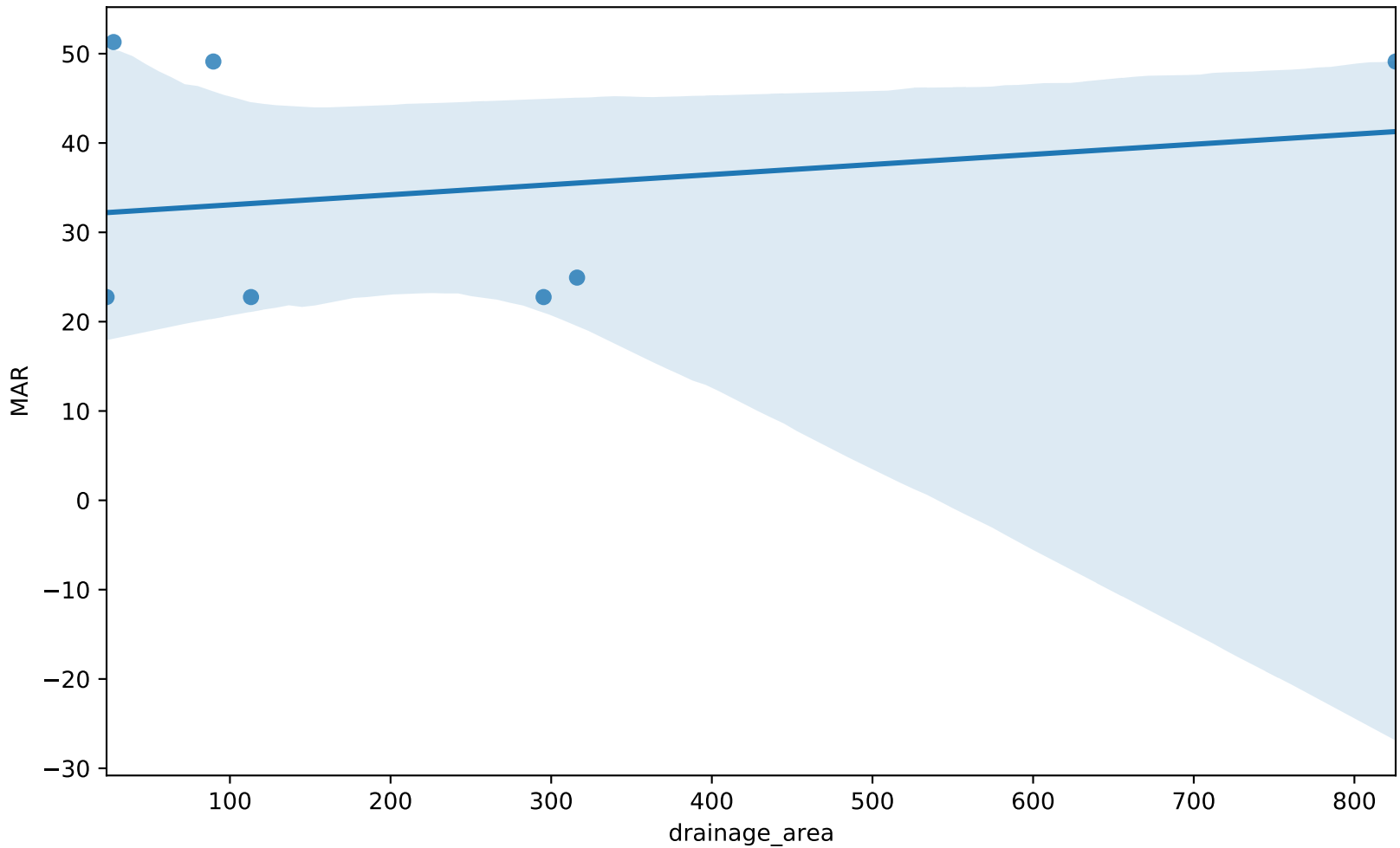

gain
years_of_data
average_slope
0.2515810144418773
Features
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
F score

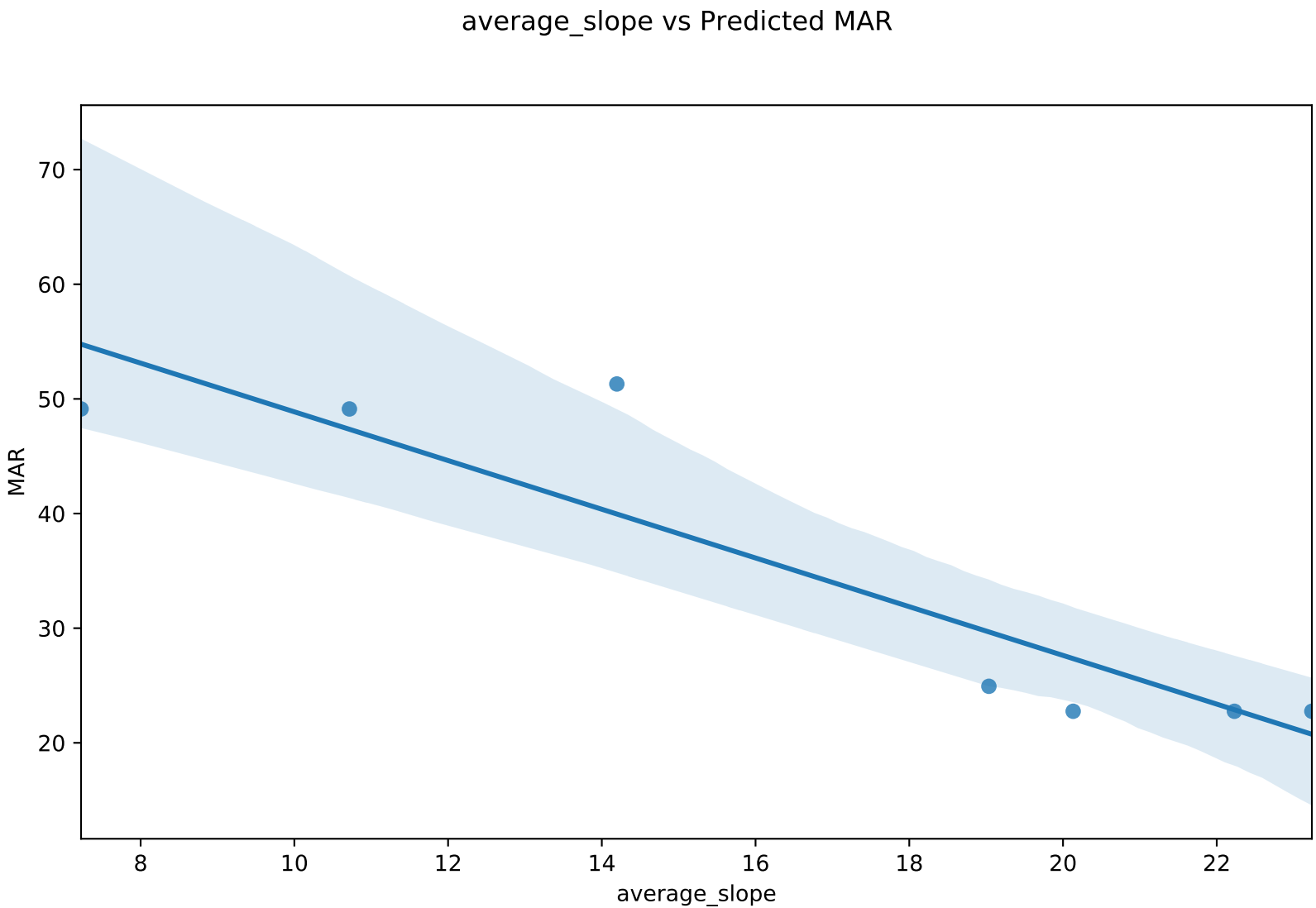

e_slope
of_data
xposure
aspect
evation
pitation
thwaite
overage
ge_area
−15
−10
−5
0
5
10
SHAP value (impact on model output)
High
Feature value
Low

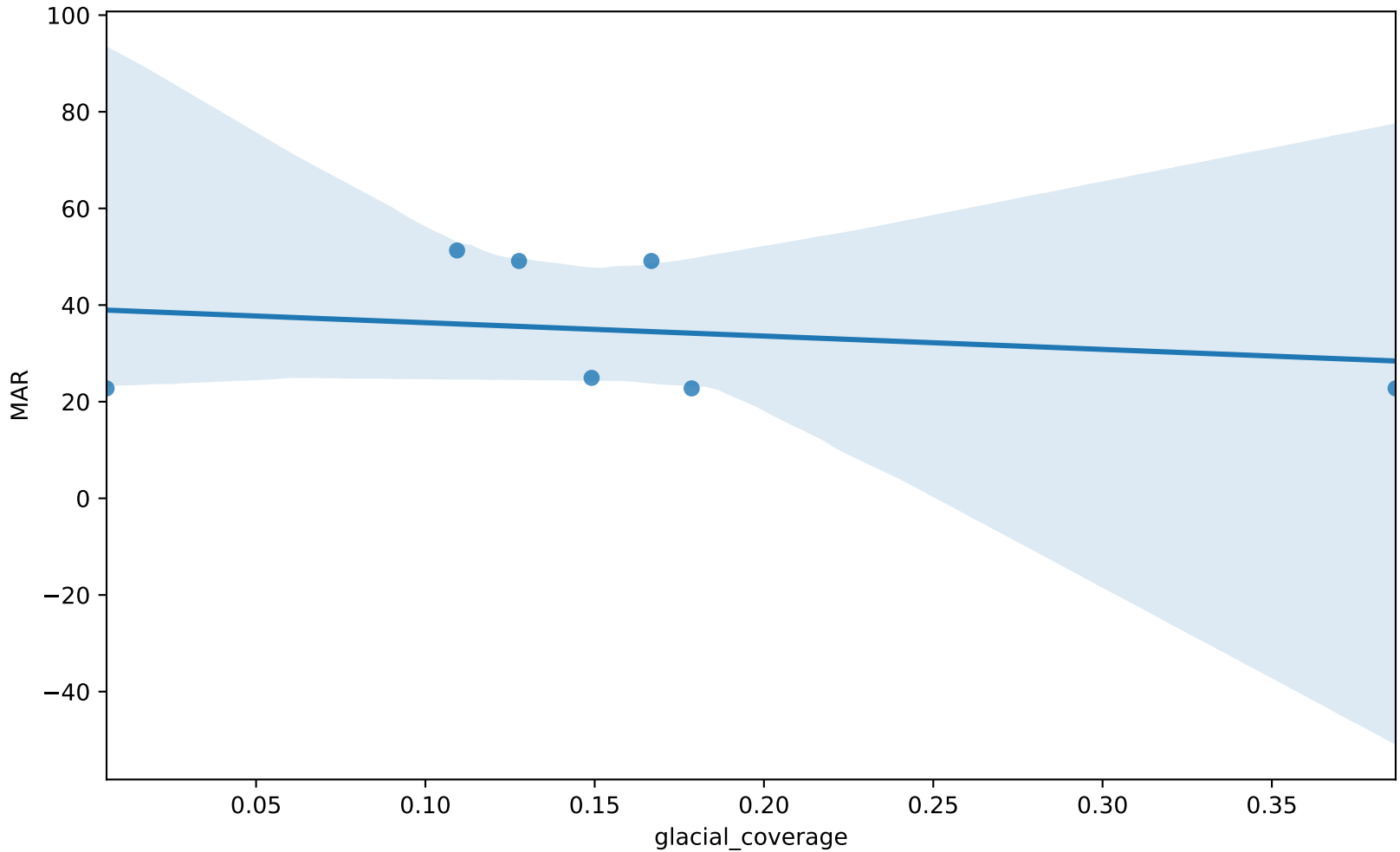
RMSE: 51.073073540861856 R2: -1.8557538997915528

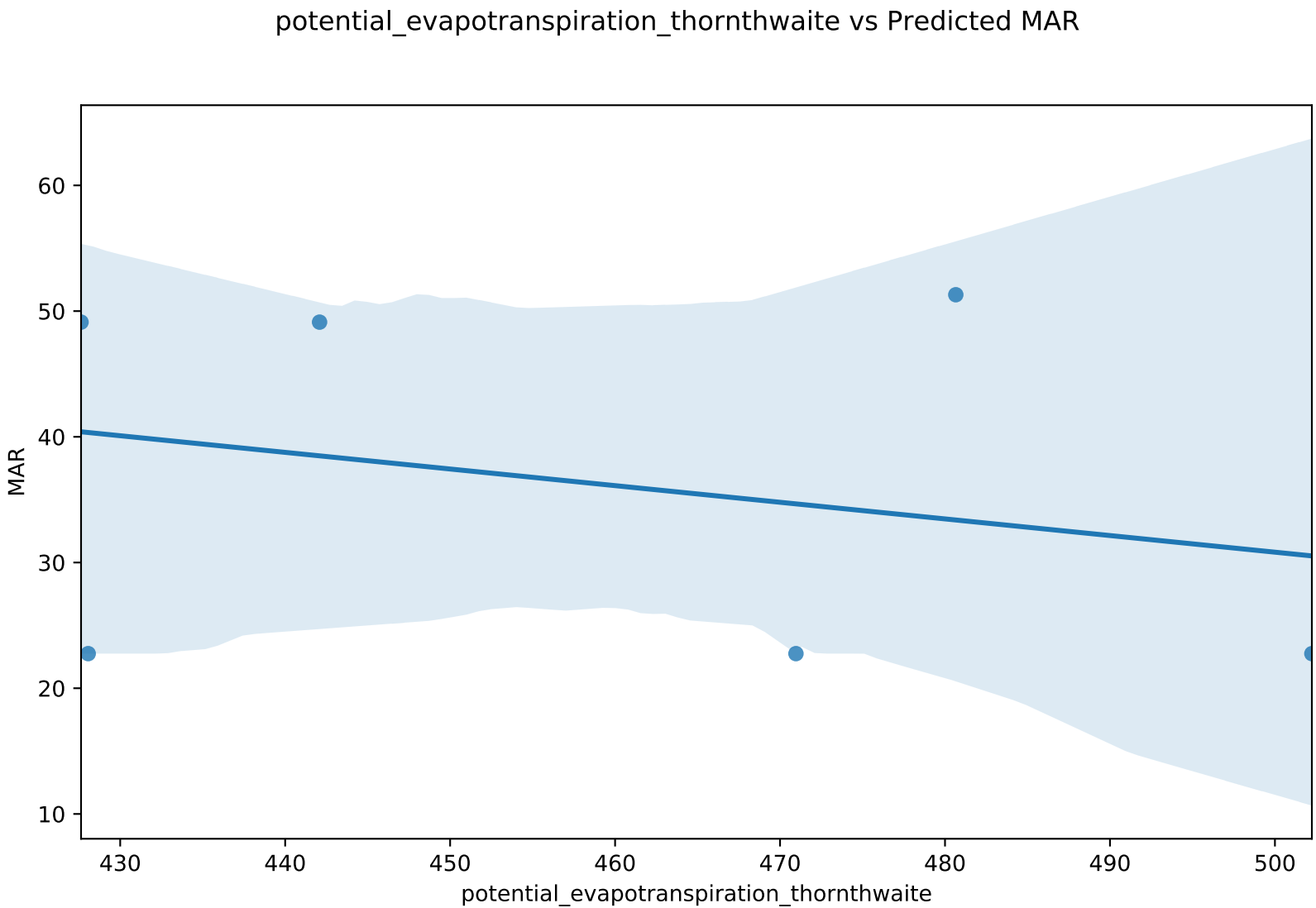


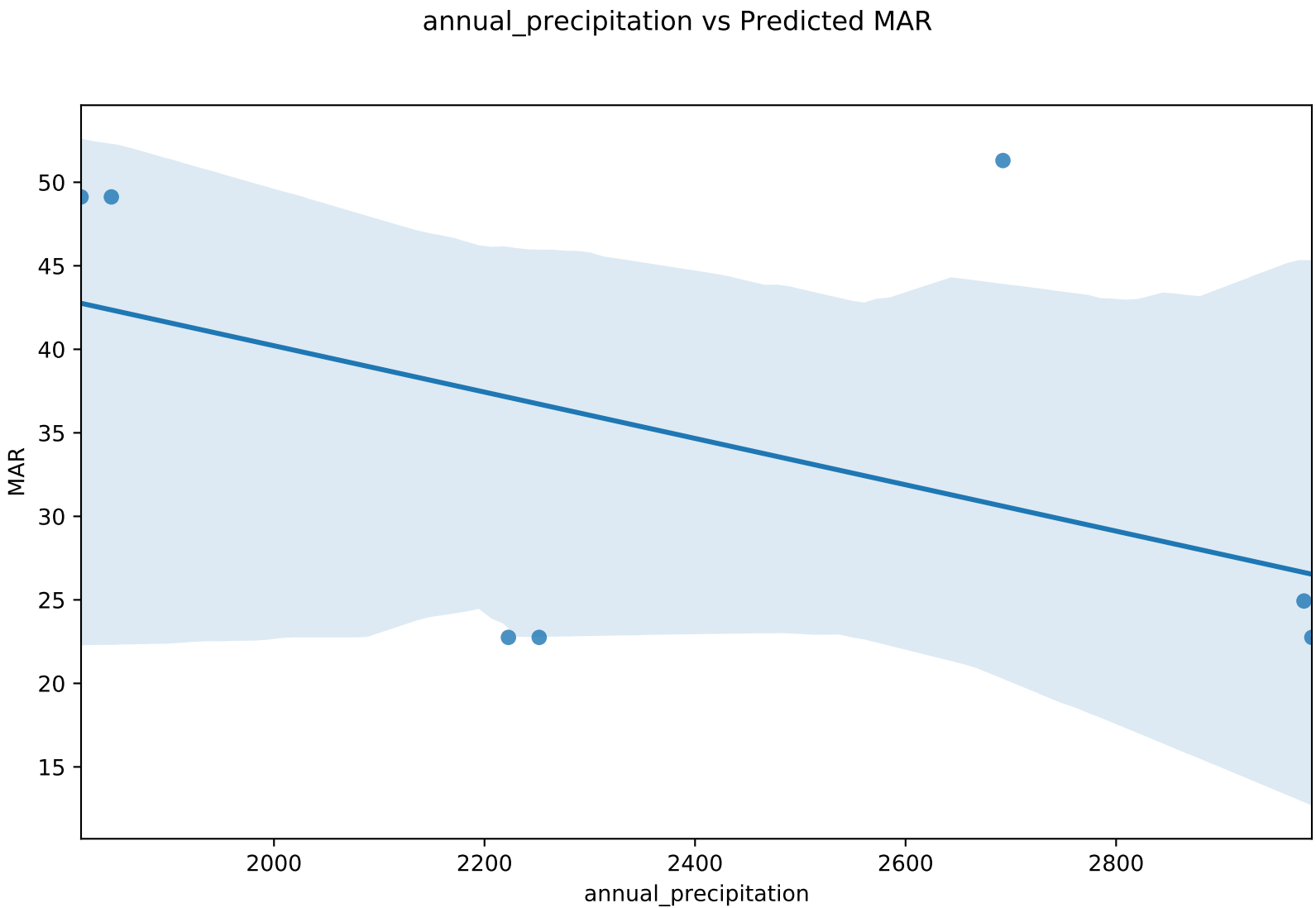

years_of_data vs Predicted MAR
MAR
50
40
30
20
5
10
15
20
25
30
35
years_of_data

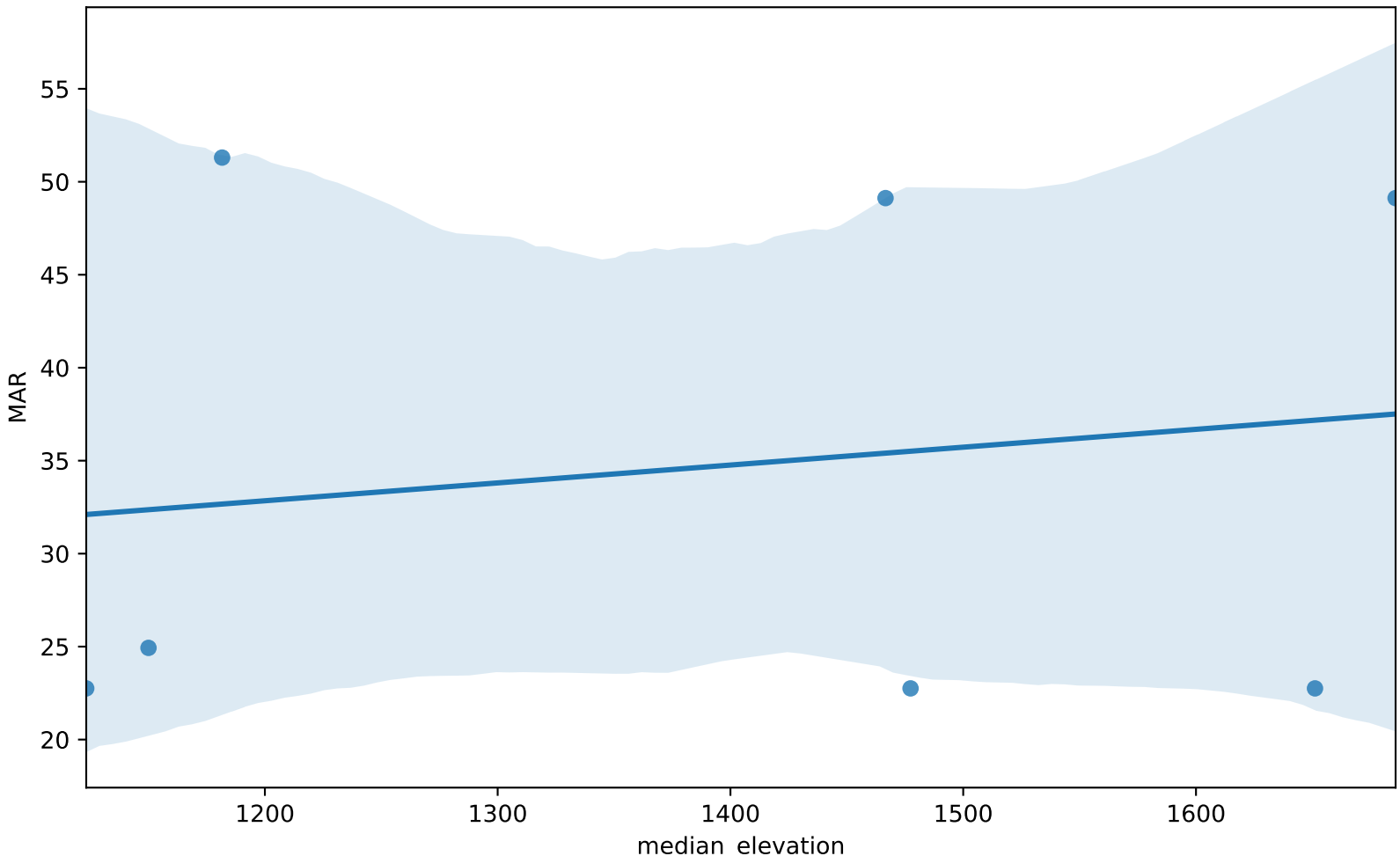

drainage_area vs Predicted MAR
MAR
drainage_area
50
40
30
20
10
0
−10
−20
−30
100
200
300
400
500
600
700
800

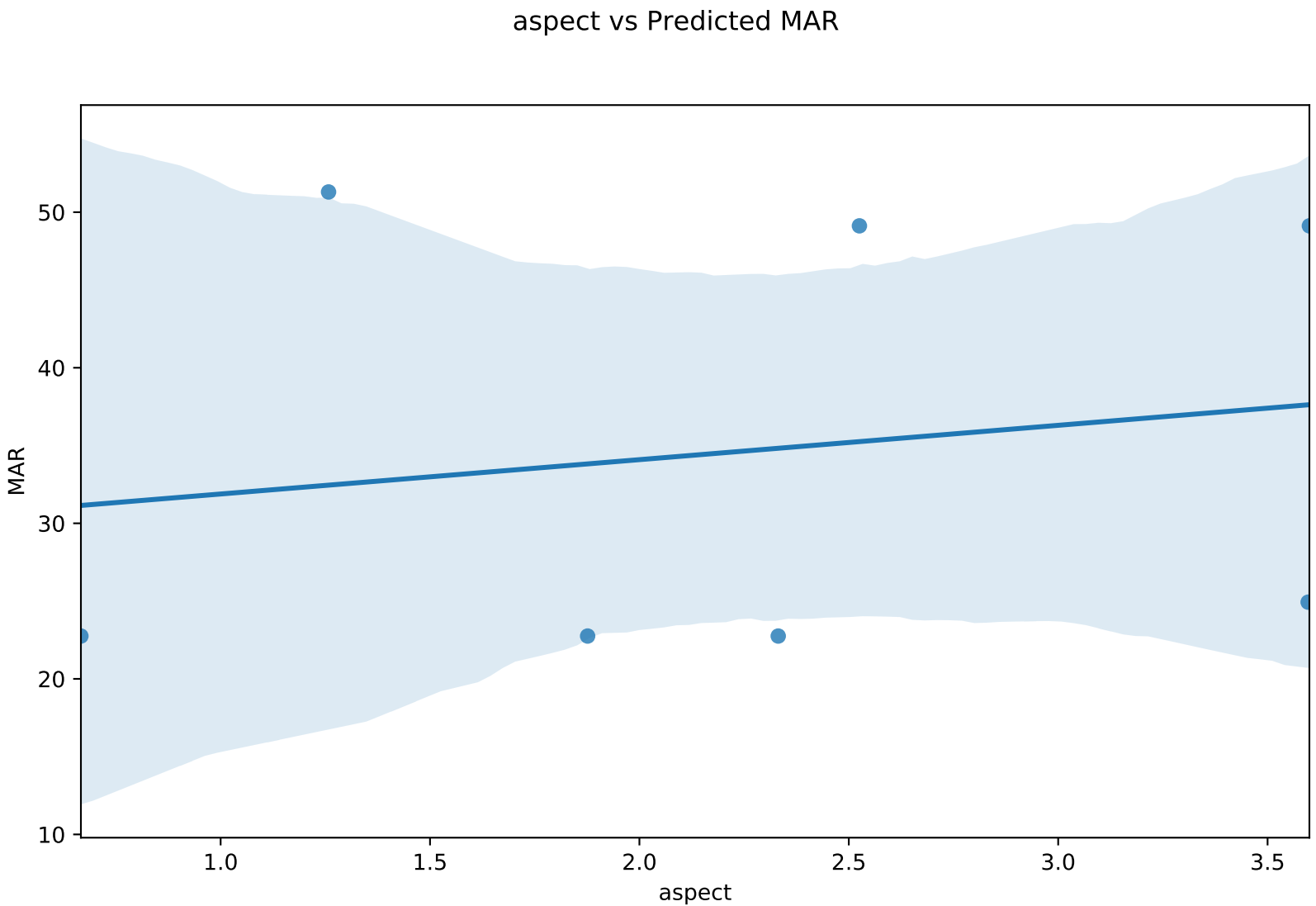

average_slope vs Predicted MAR
MAR
70
60
50
40
30
20
8
10
12
14
16
18
20
22
average_slope

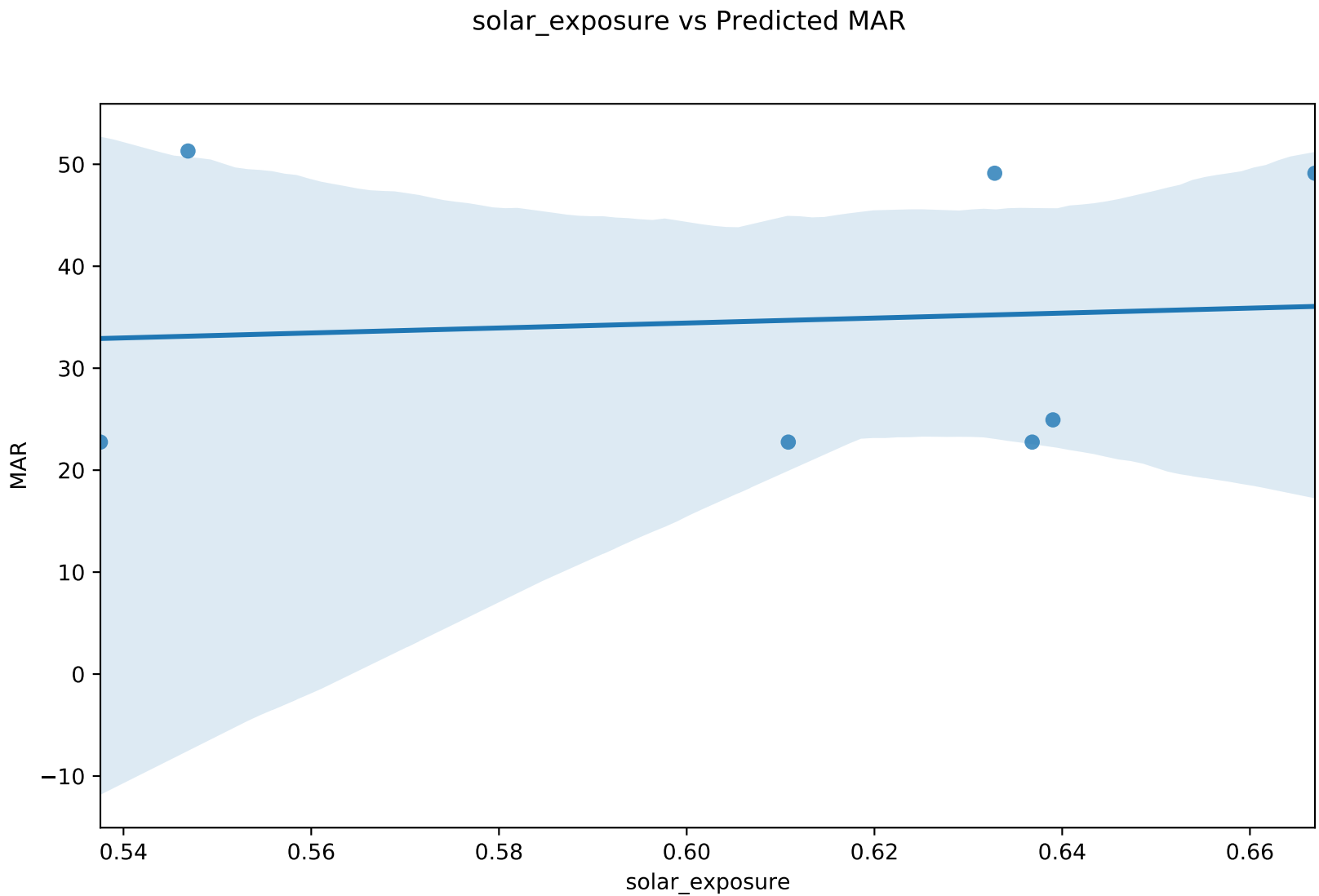

glacial_coverage vs Predicted MAR
MAR
glacial_coverage
100
80
60
40
20
0
−20
−40
0.05
0.10
0.15
0.20
0.25
0.30
0.35


potential_evapotranspiration_thornthwaite vs Predicted MAR
MAR
60
50
40
30
20
10
430
440
450
460
470
480
490
500
potential_evapotranspiration_thornthwaite


annual_precipitation vs Predicted MAR
MAR
50
45
40
35
30
25
20
15
2000
2200
2400
2600
2800
annual_precipitation


median_elevation vs Predicted MAR
MAR
55
50
45
40
35
30
25
20
1200
1300
1400
1500
1600
median_elevation


aspect vs Predicted MAR
MAR
aspect
10
20
30
40
50
1.0
1.5
2.0
2.5
3.0
3.5


solar_exposure vs Predicted MAR
MAR
50
40
30
20
10
0
−10
0.54
0.56
0.58
0.60
0.62
0.64
0.66
solar_exposure