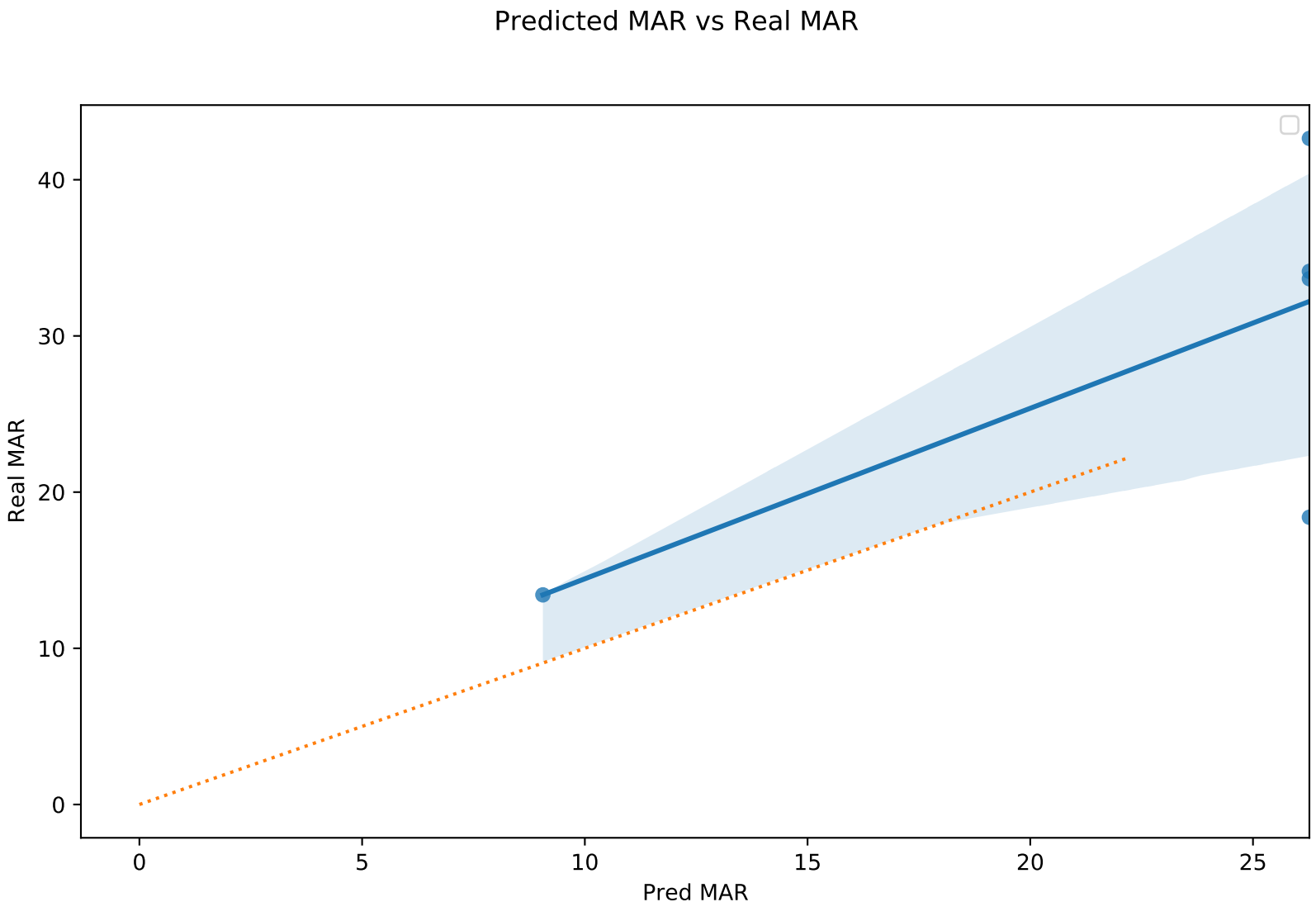
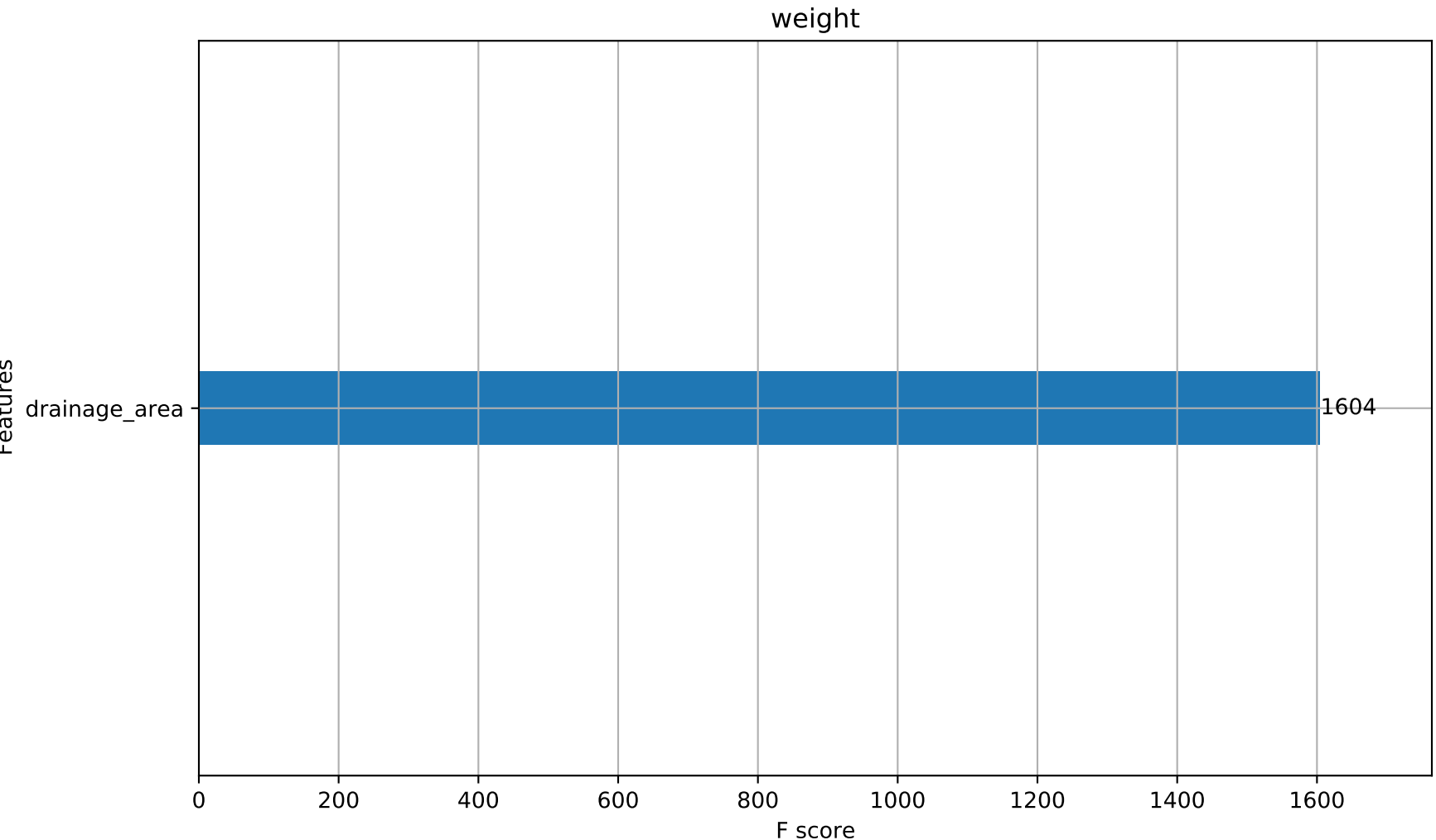
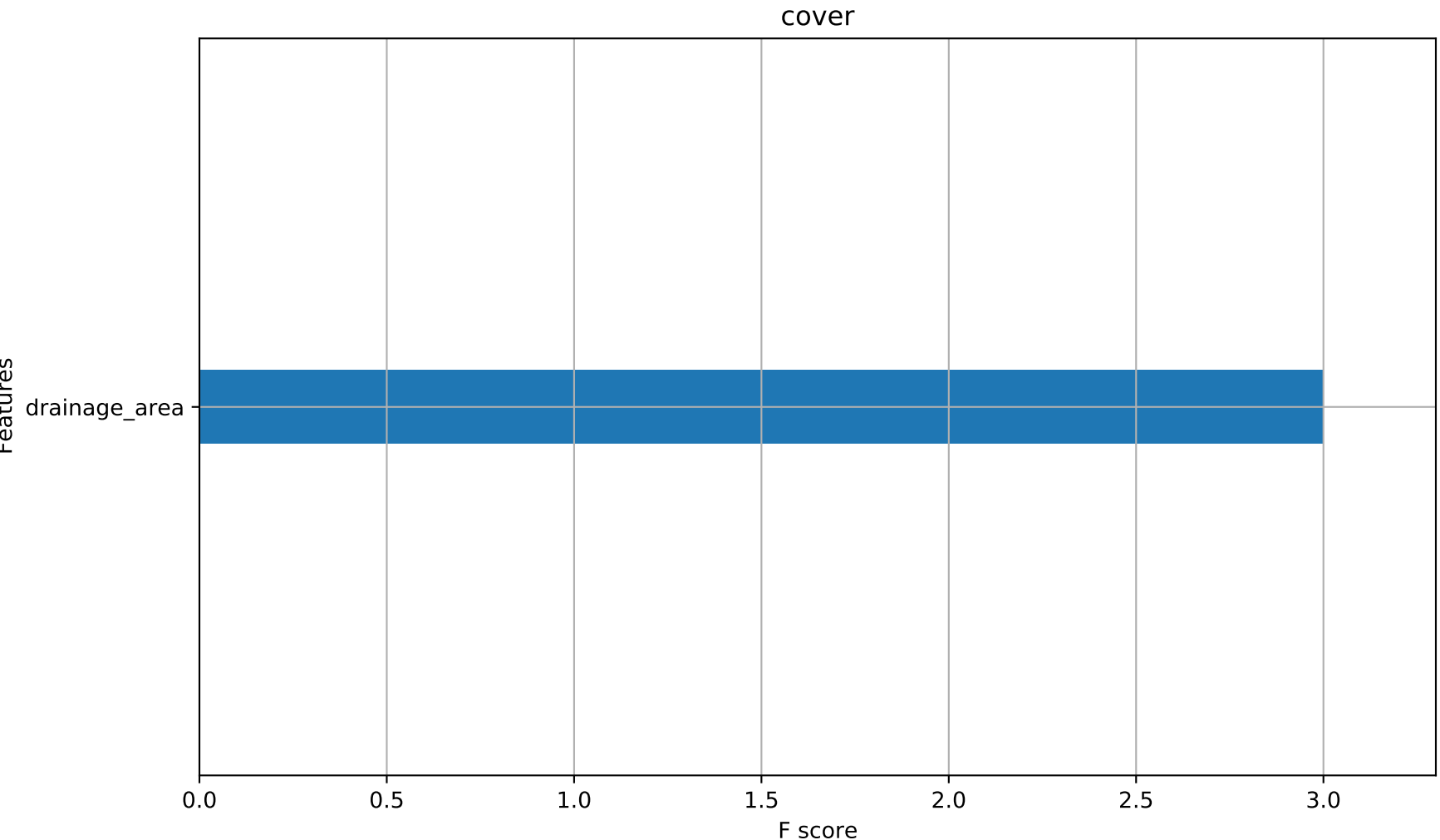
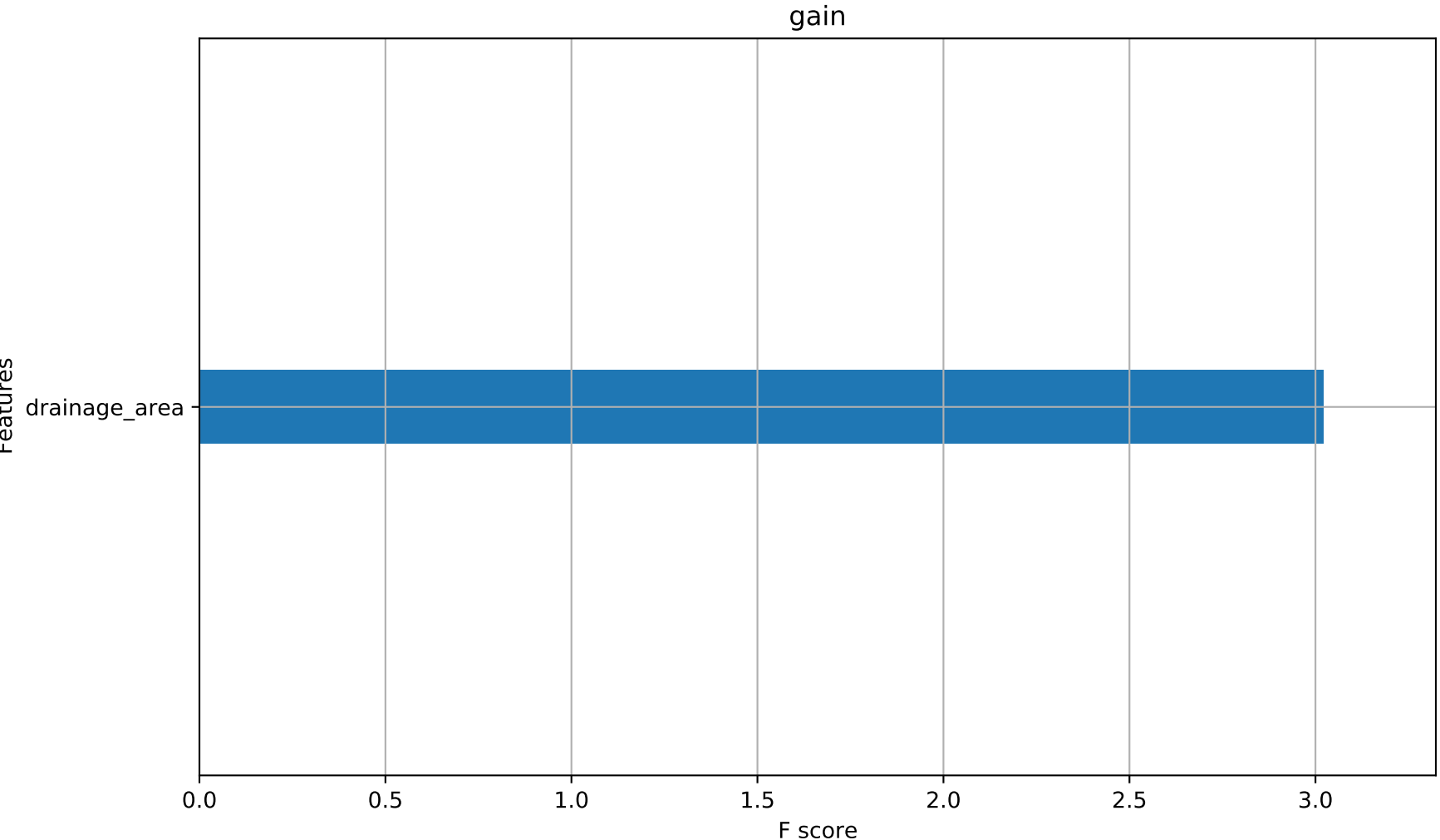
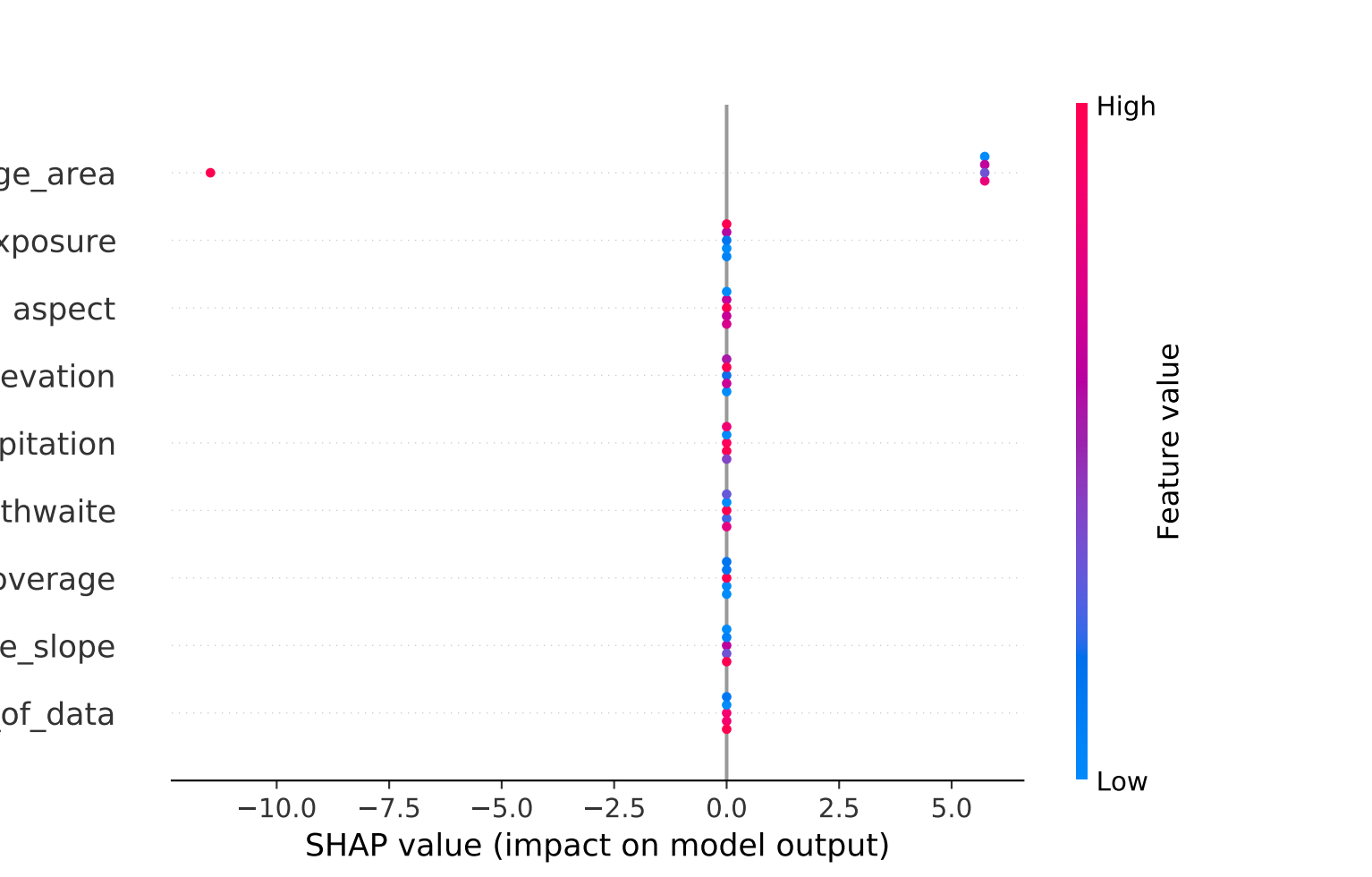

Predicted MAR vs Real MAR
Real MAR
Pred MAR
0
10
20
30
40
0
5
10
15
20
25

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

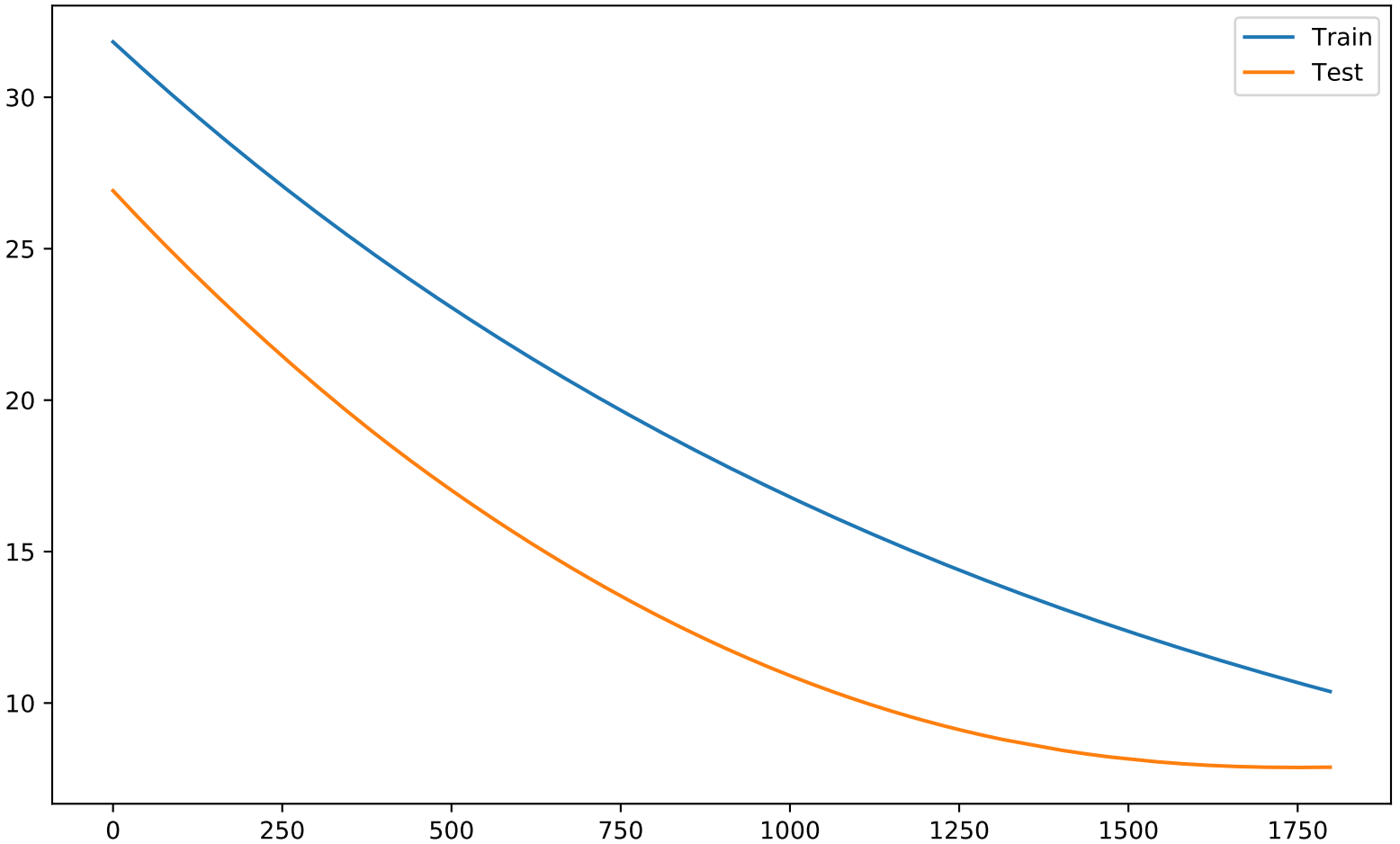

weight
Features
drainage_area
1604
0
200
400
600
800
1000
1200
1400
1600
F score

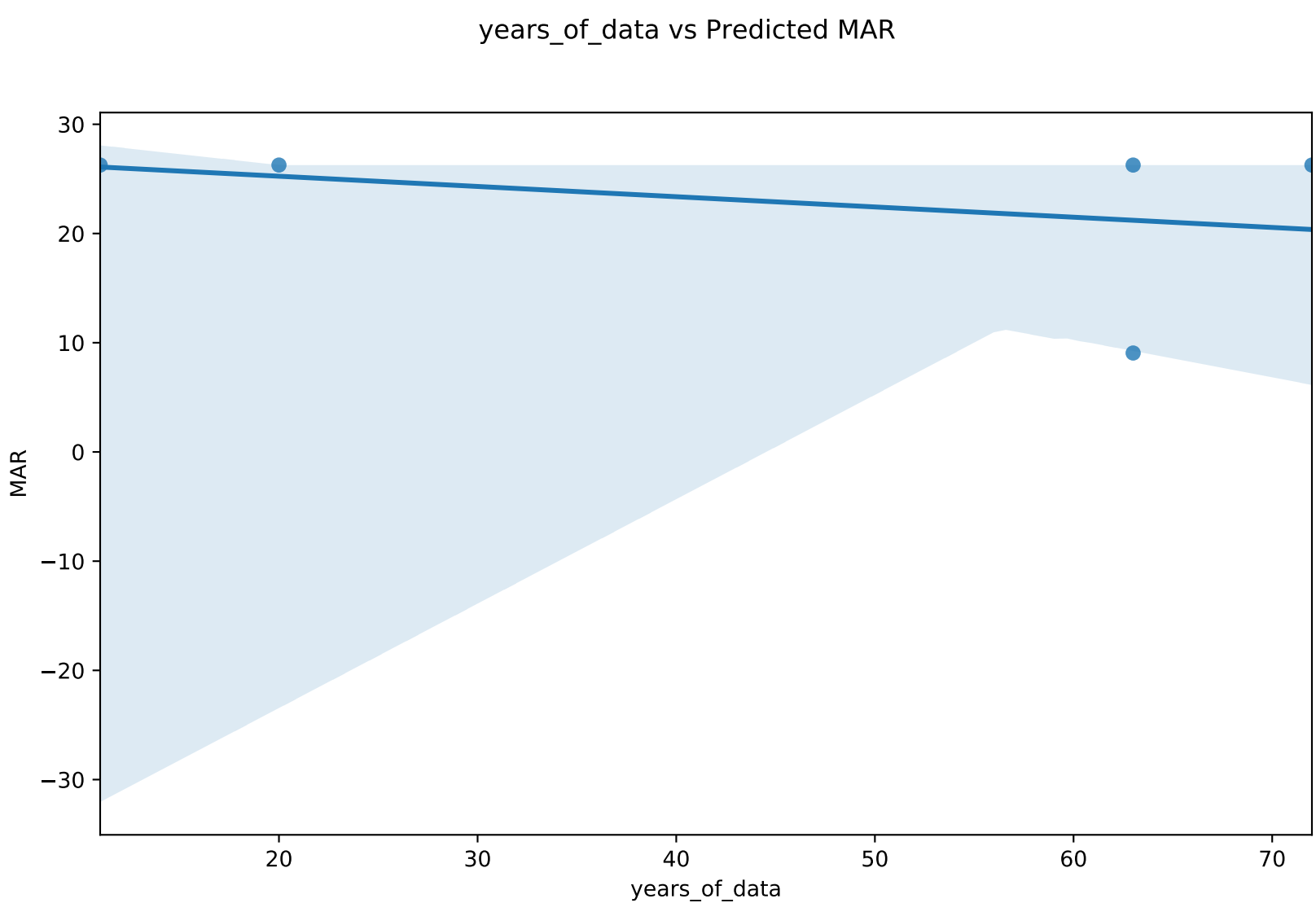

cover
Features
drainage_area
0.0
0.5
1.0
1.5
2.0
2.5
3.0
F score

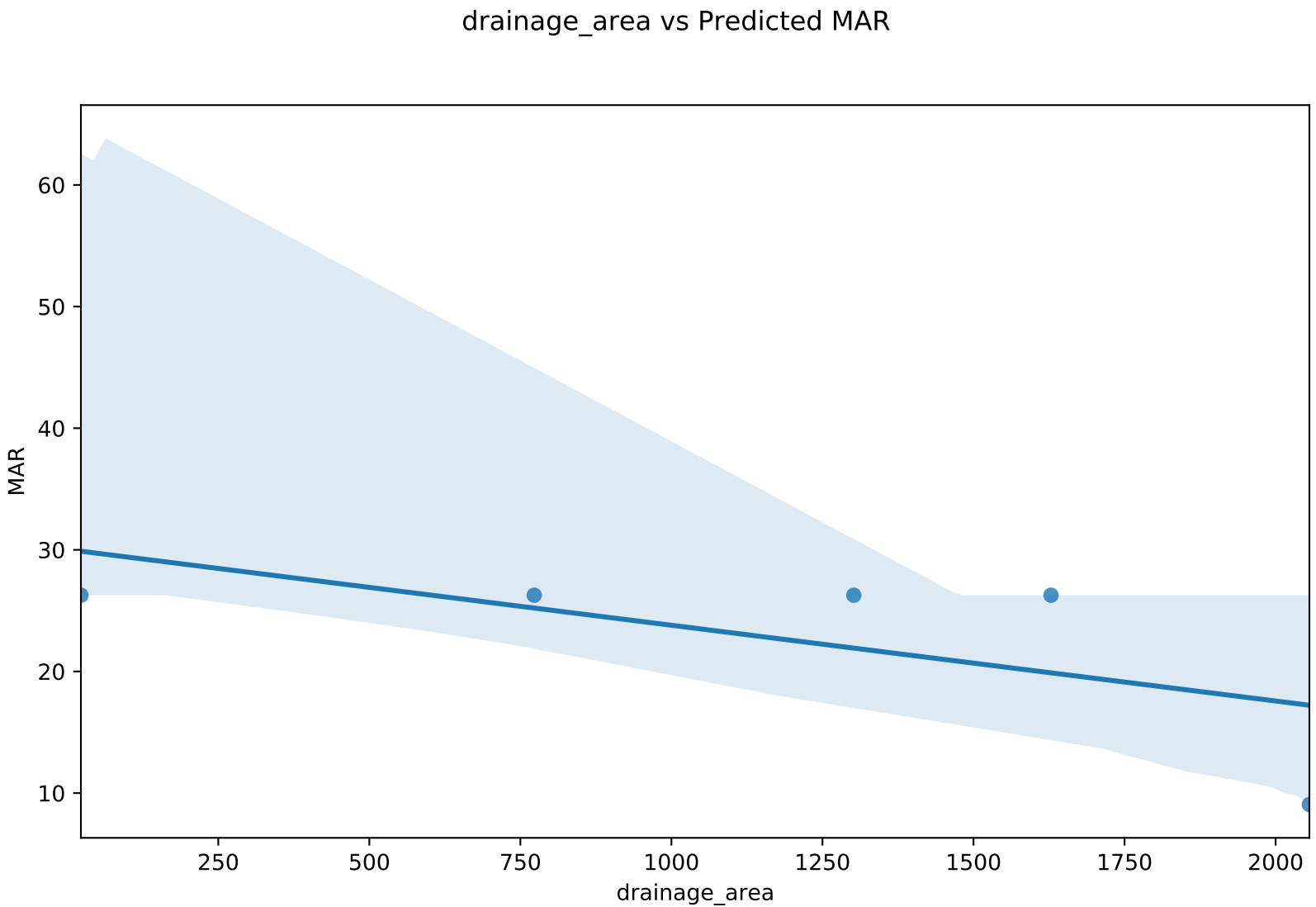

gain
Features
drainage_area
0.0
0.5
1.0
1.5
2.0
2.5
3.0
F score

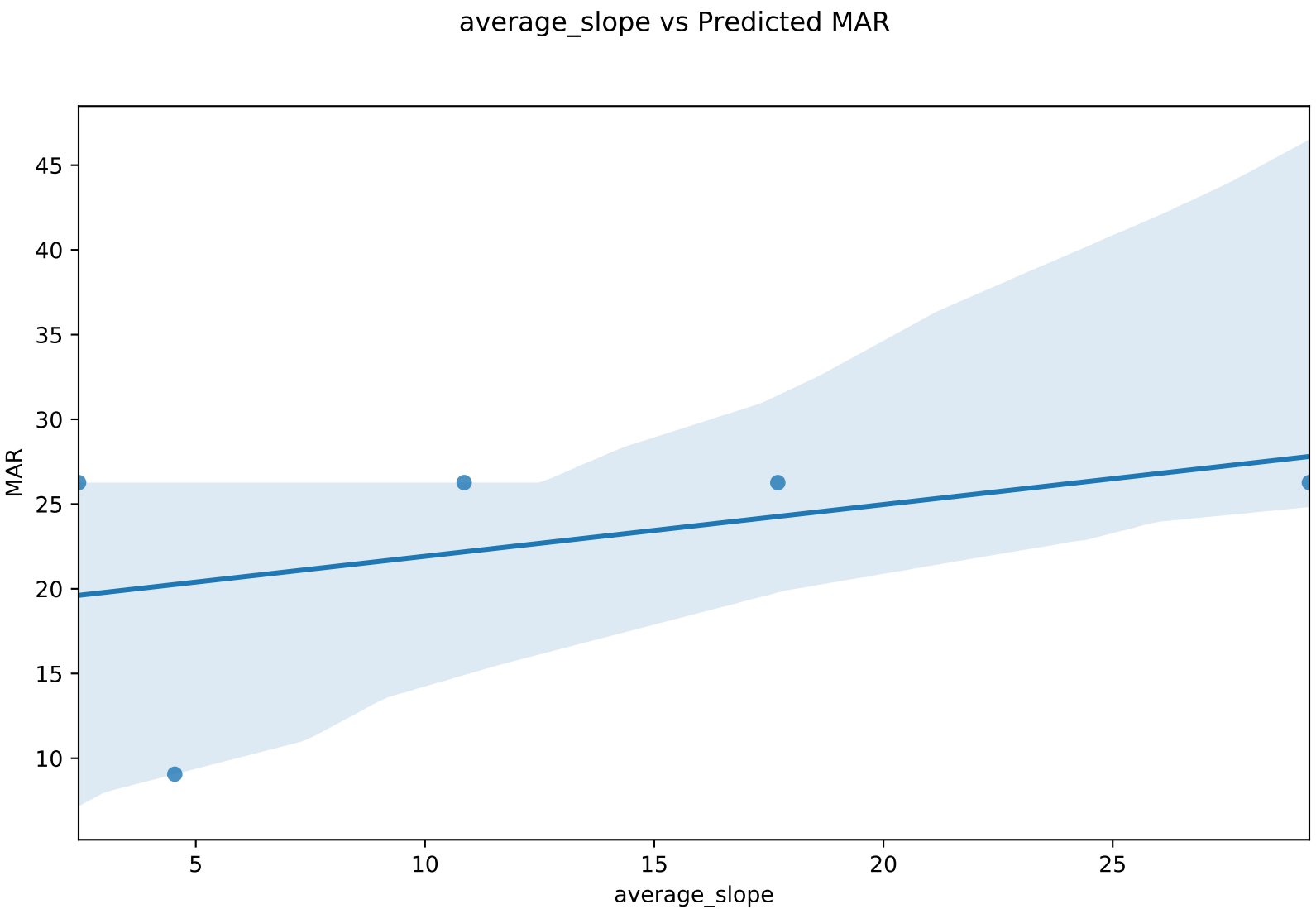

ge_area
xposure
aspect
evation
pitation
thwaite
overage
e_slope
of_data
−10.0
−7.5
−5.0
−2.5
0.0
2.5
5.0
SHAP value (impact on model output)
High
Feature value
Low

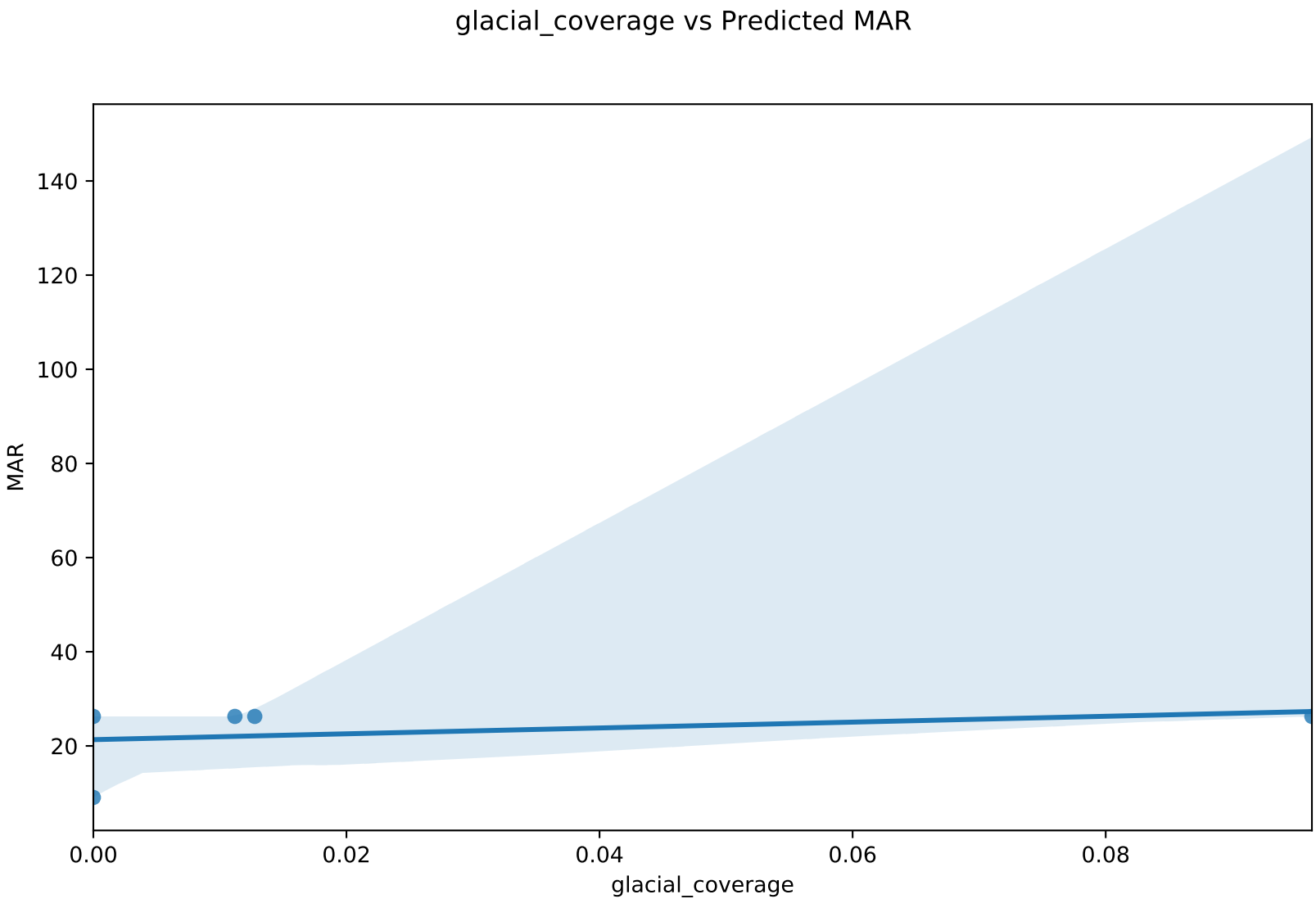
RMSE: 9.653920722131593 R2: 0.2076071269837907

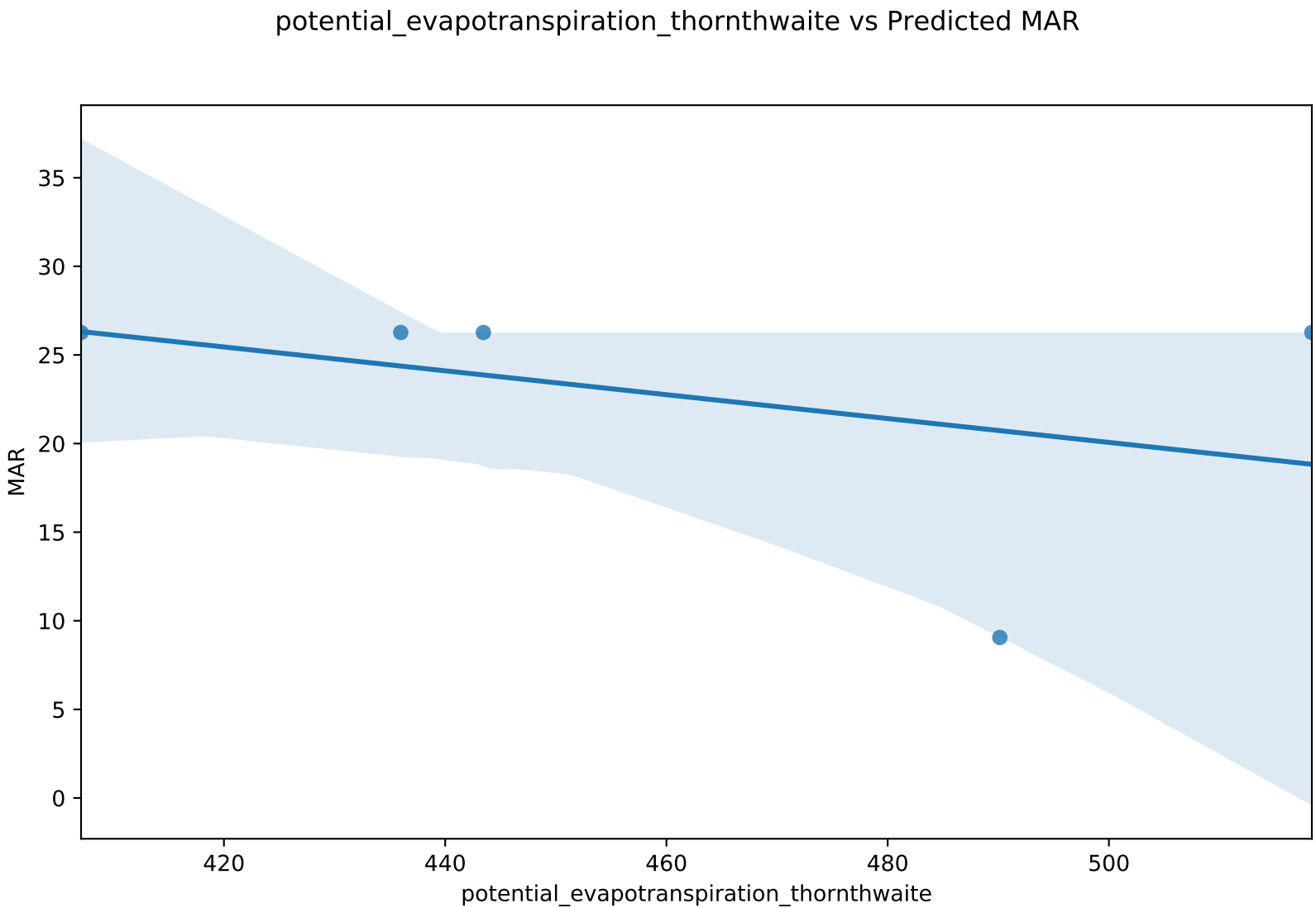


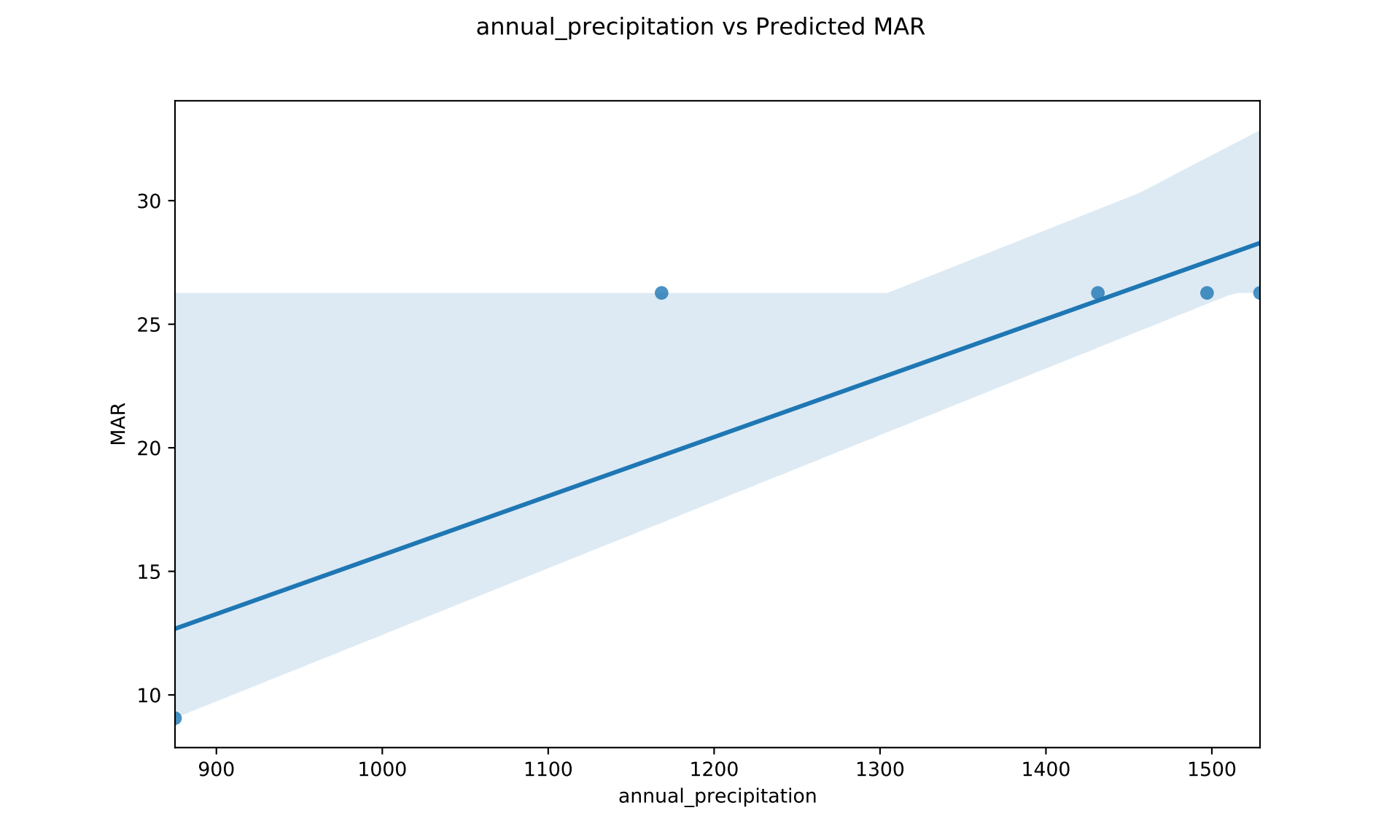

years_of_data vs Predicted MAR
MAR
years_of_data
30
20
10
0
−10
−20
−30
20
30
40
50
60
70

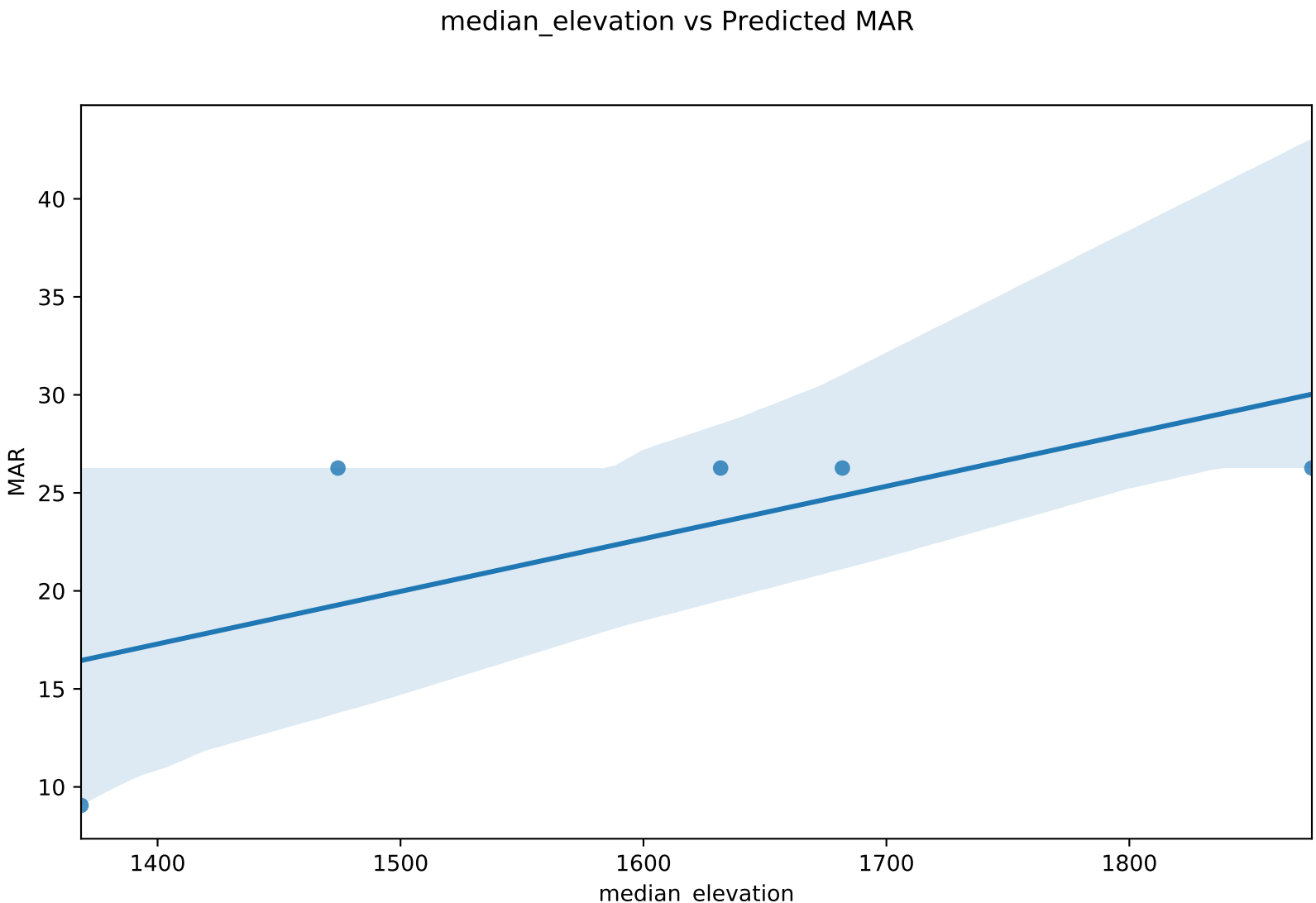

drainage_area vs Predicted MAR
MAR
60
50
40
30
20
10
250
500
750
1000
1250
1500
1750
2000
drainage_area

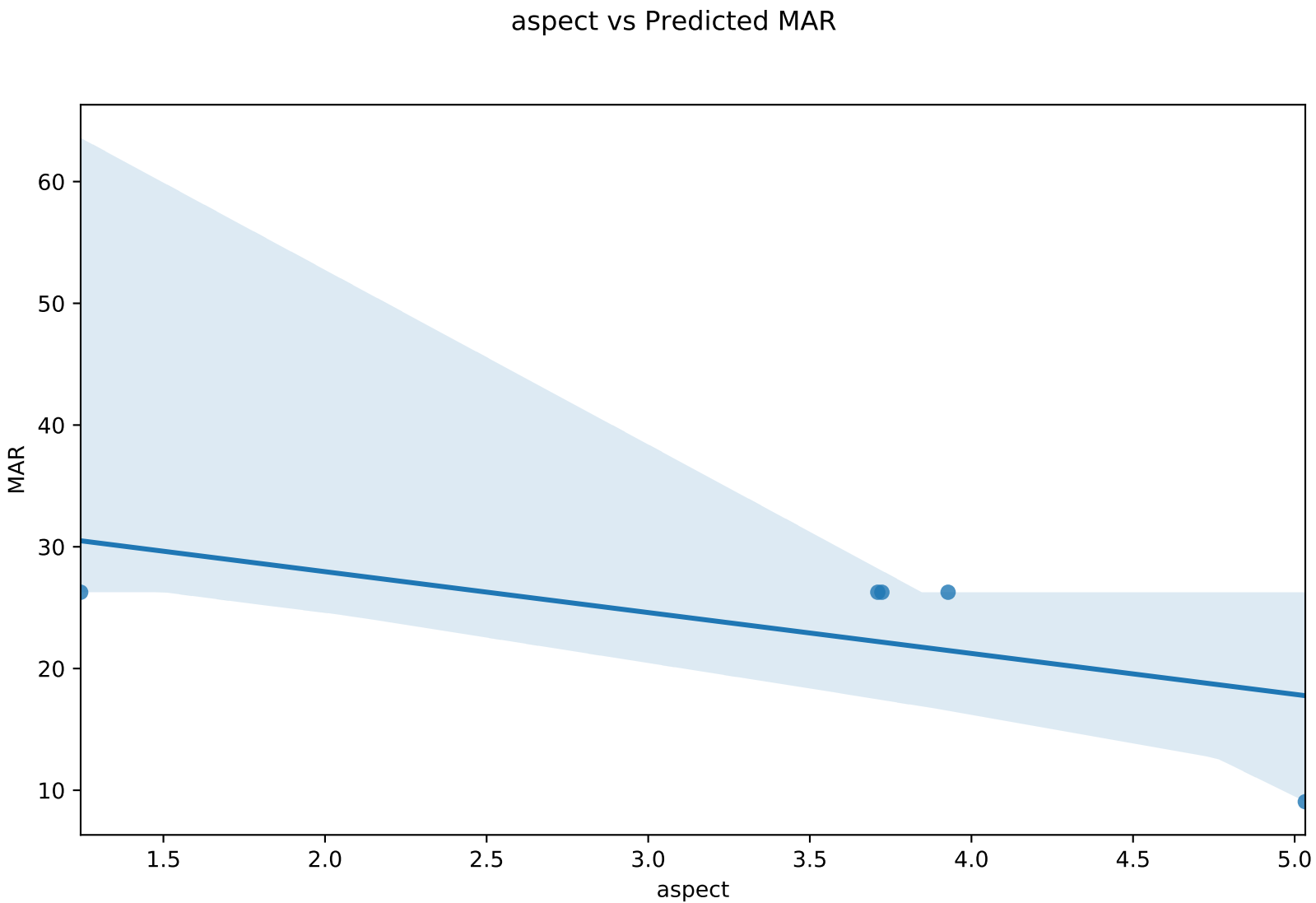

average_slope vs Predicted MAR
MAR
45
40
35
30
25
20
15
10
5
10
15
20
25
average_slope

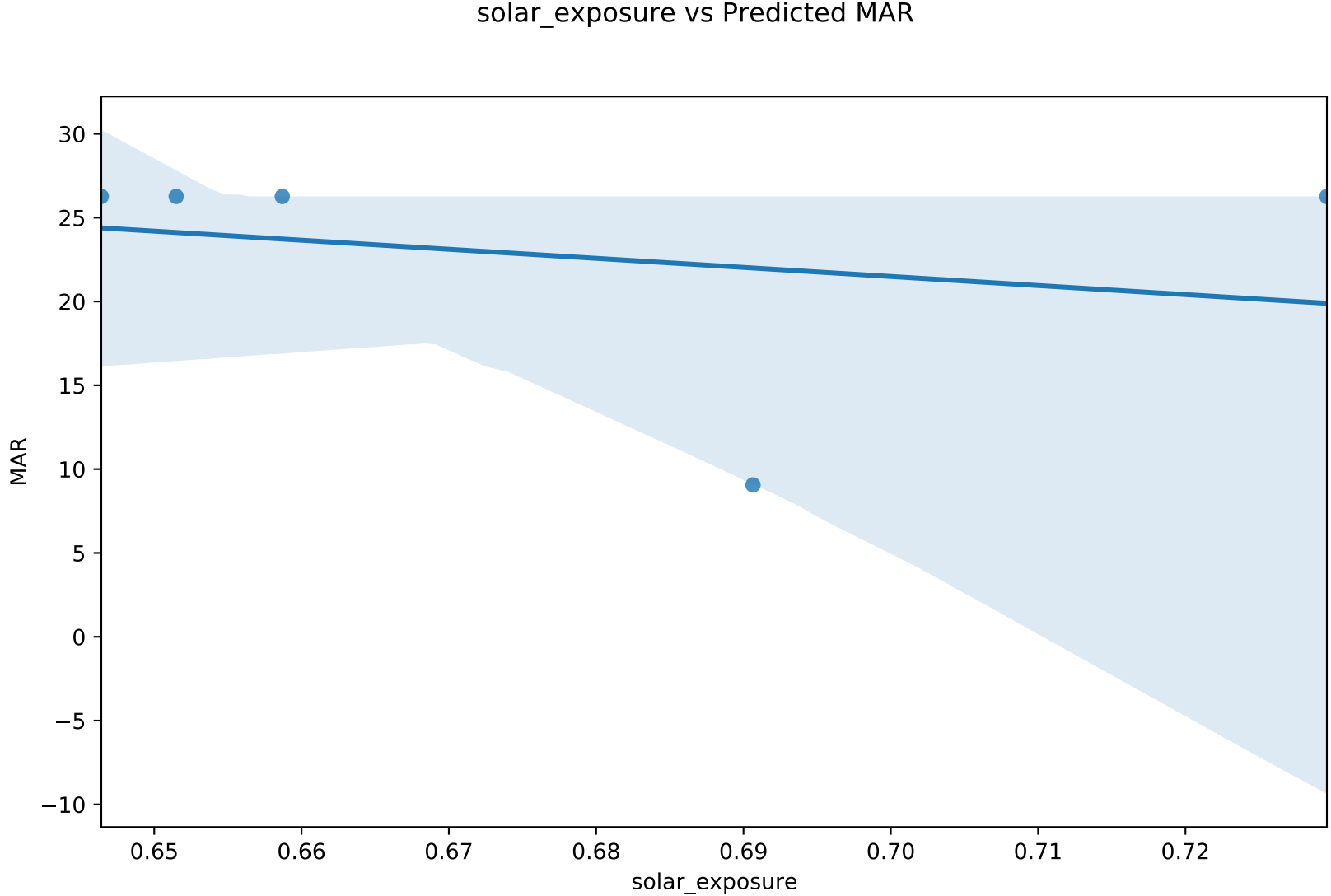

glacial_coverage vs Predicted MAR
MAR
140
120
100
80
60
40
20
0.00
0.02
0.04
0.06
0.08
glacial_coverage


potential_evapotranspiration_thornthwaite vs Predicted MAR
MAR
35
30
25
20
15
10
5
0
420
440
460
480
500
potential_evapotranspiration_thornthwaite


annual_precipitation vs Predicted MAR
MAR
30
25
20
15
10
900
1000
1100
1200
1300
1400
1500
annual_precipitation


median_elevation vs Predicted MAR
MAR
40
35
30
25
20
15
10
1400
1500
1600
1700
1800
median_elevation


aspect vs Predicted MAR
MAR
60
50
40
30
20
10
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
aspect


solar_exposure vs Predicted MAR
MAR
30
25
20
15
10
5
0
−5
−10
0.65
0.66
0.67
0.68
0.69
0.70
0.71
0.72
solar_exposure