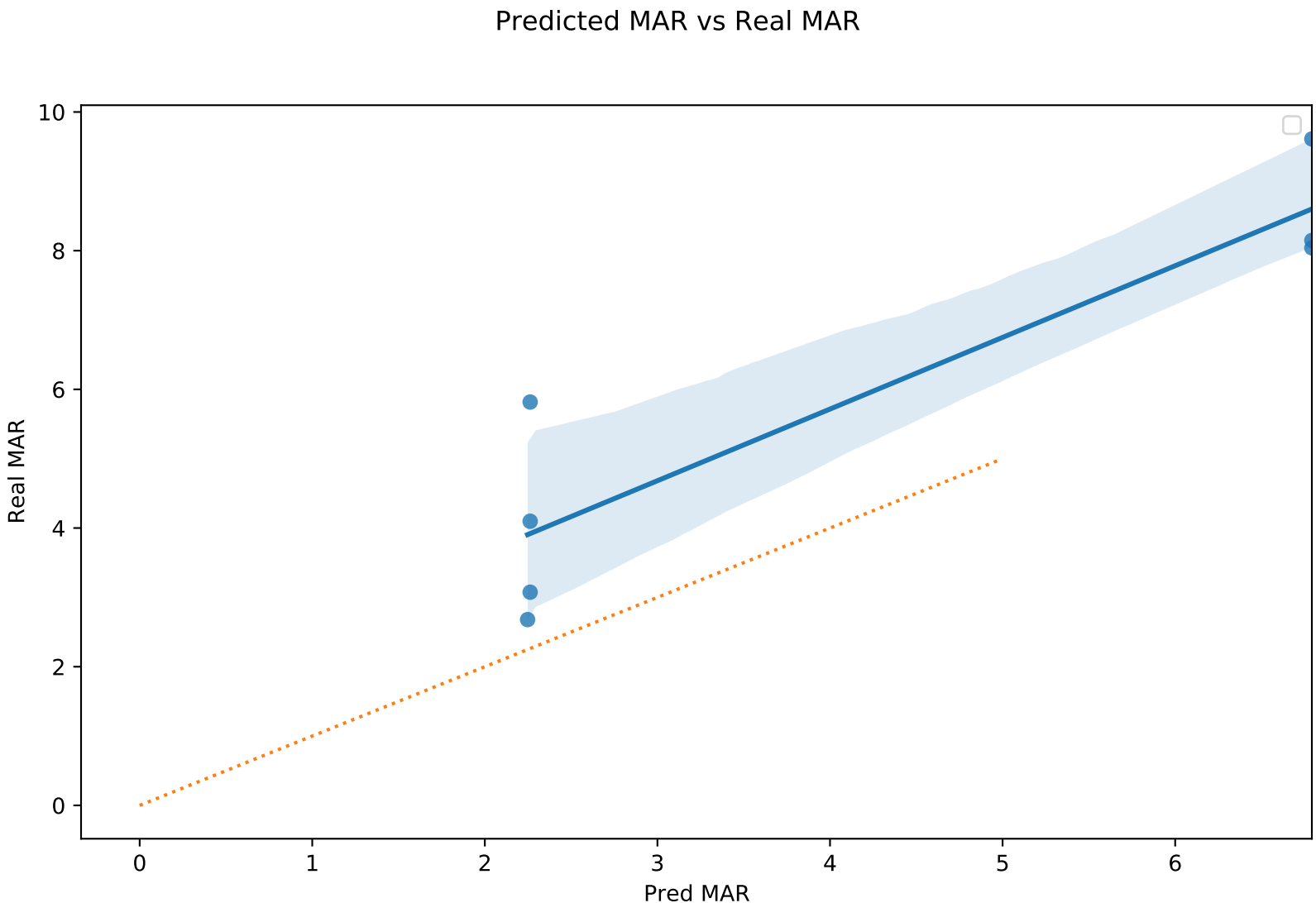
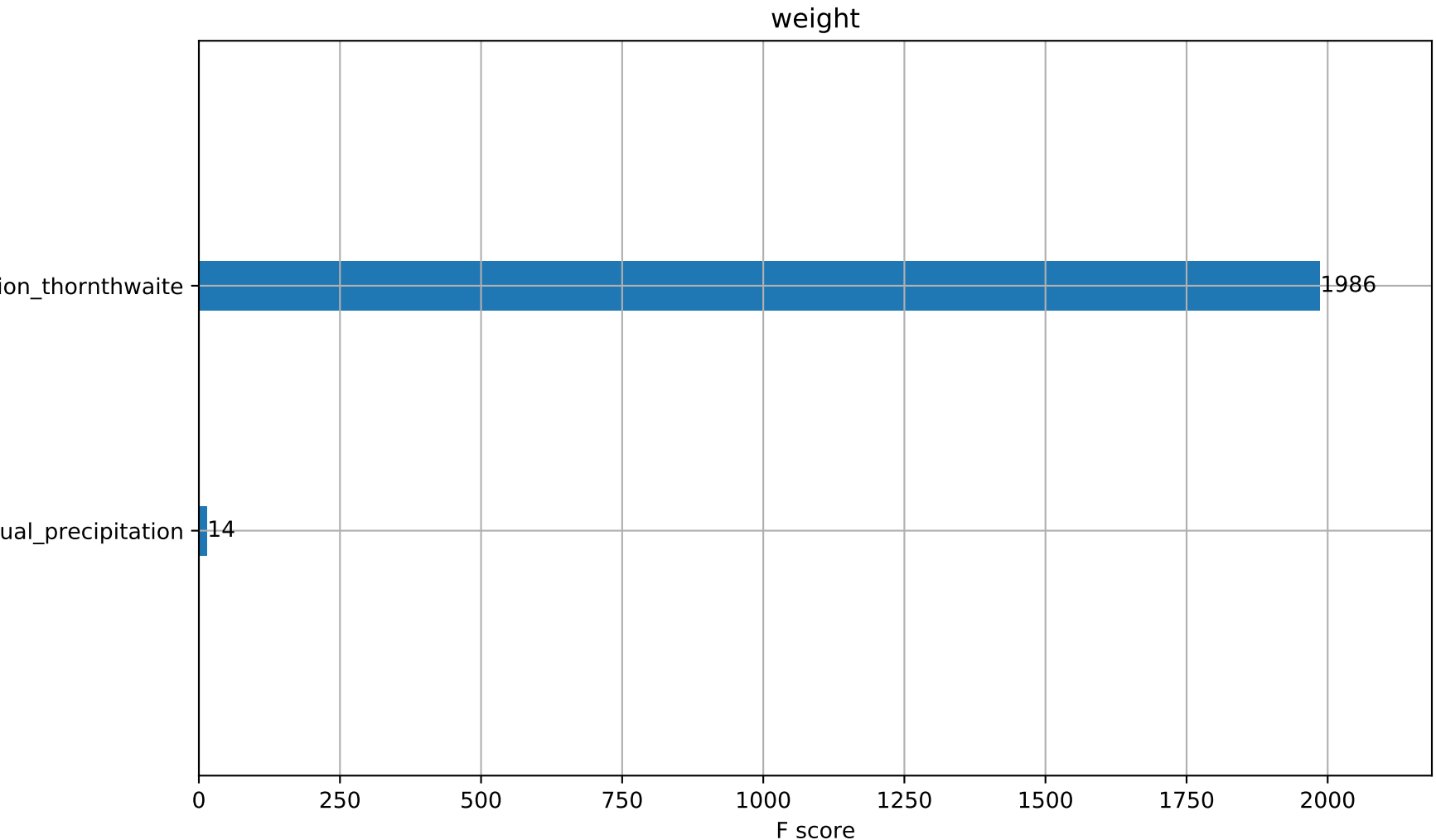
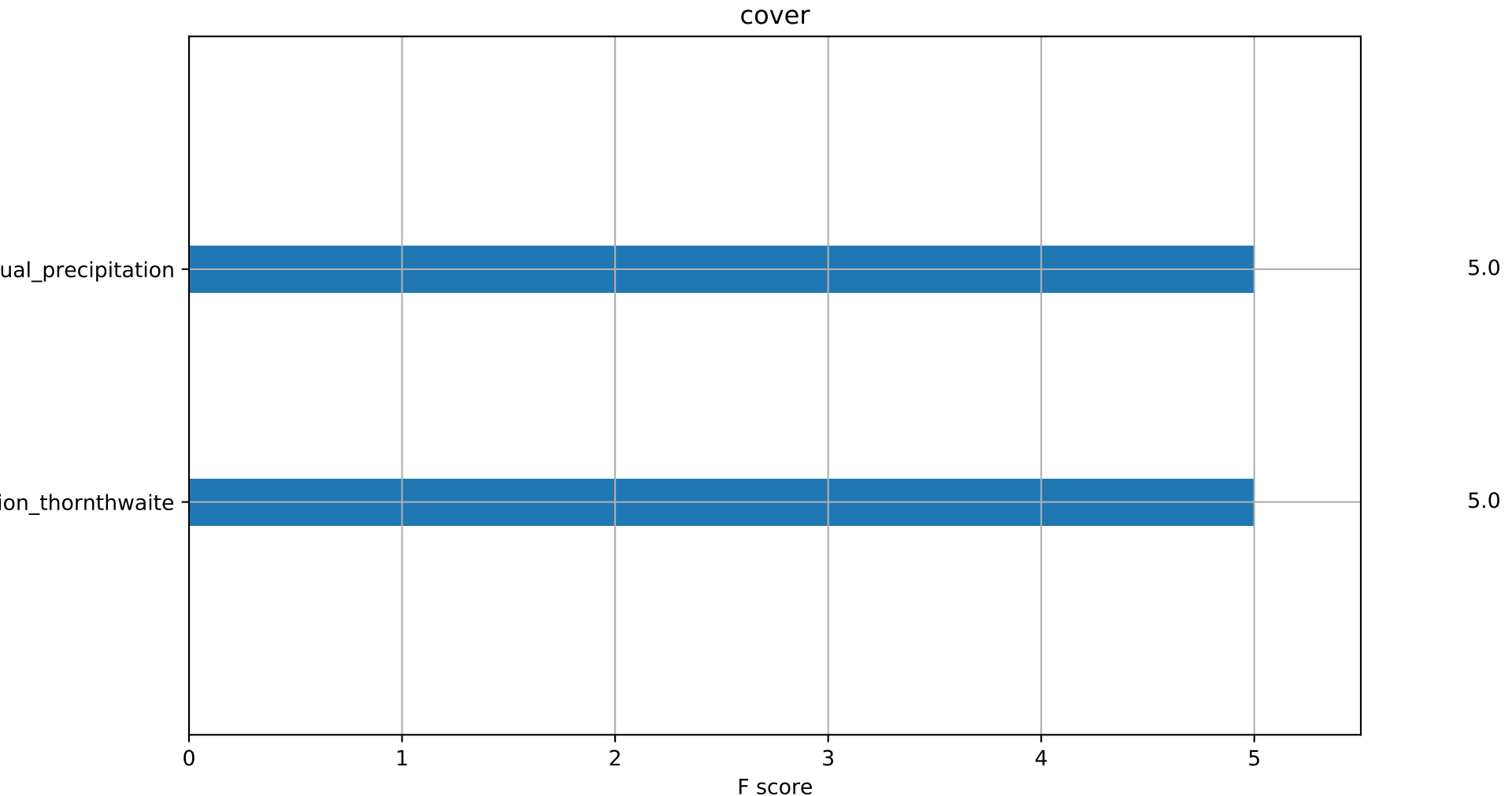
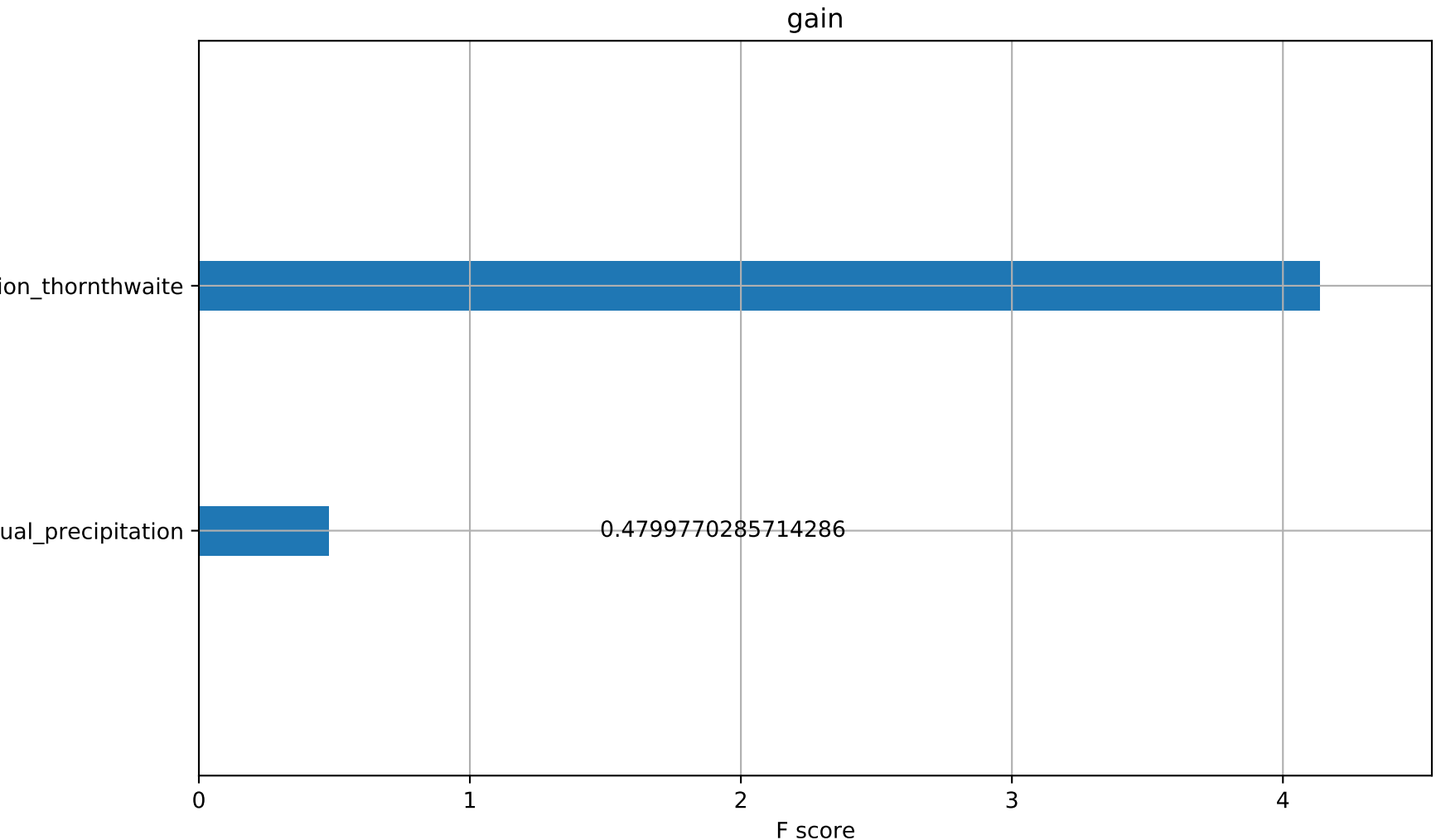
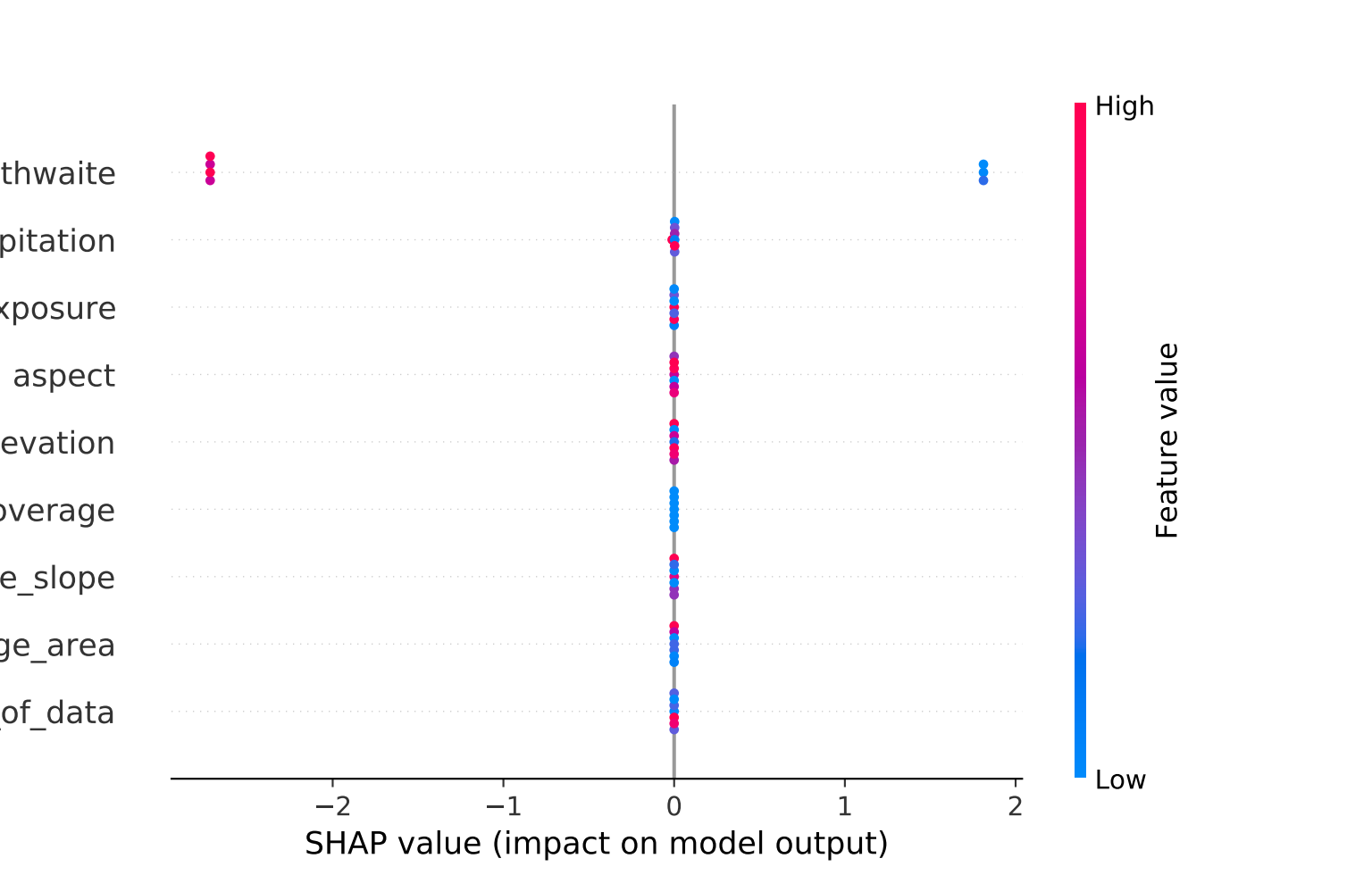

Predicted MAR vs Real MAR
Real MAR
Pred MAR
0
2
4
6
8
10
0
1
2
3
4
5
6

Feature Correlations
years_of_data
drainage_area
average_slope
glacial_coverage
ential_evapotranspiration_thornthwaite
annual_precipitation
median_elevation
aspect
solar_exposure
rs_of_data
inage_area
rage_slope
l coverage
ornthwaite
ecipitation
n elevation
aspect
r exposure
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00

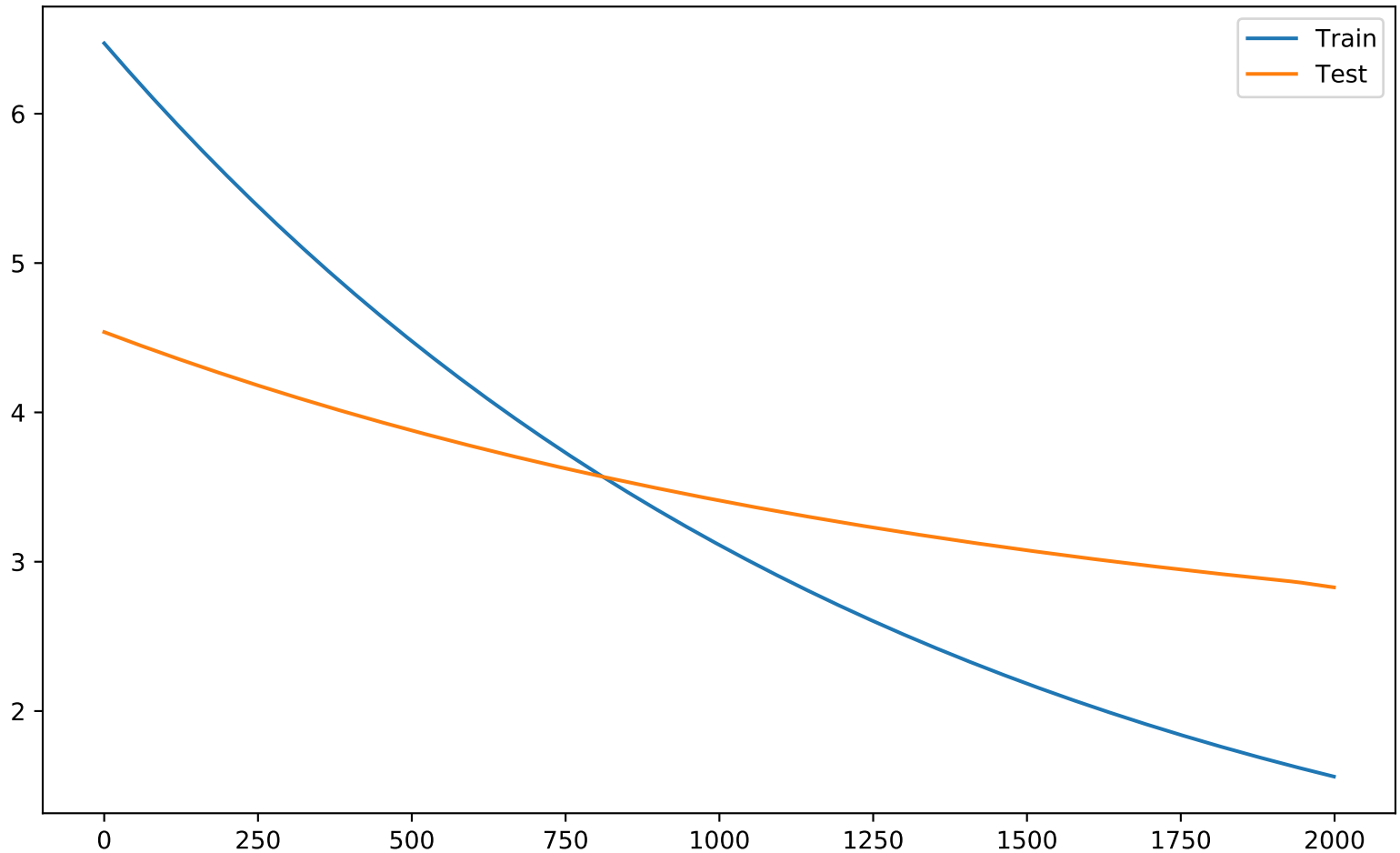

weight
ion_thornthwaite
ual_precipitation
1986
14
0
250
500
750
1000
1250
1500
1750
2000
F score

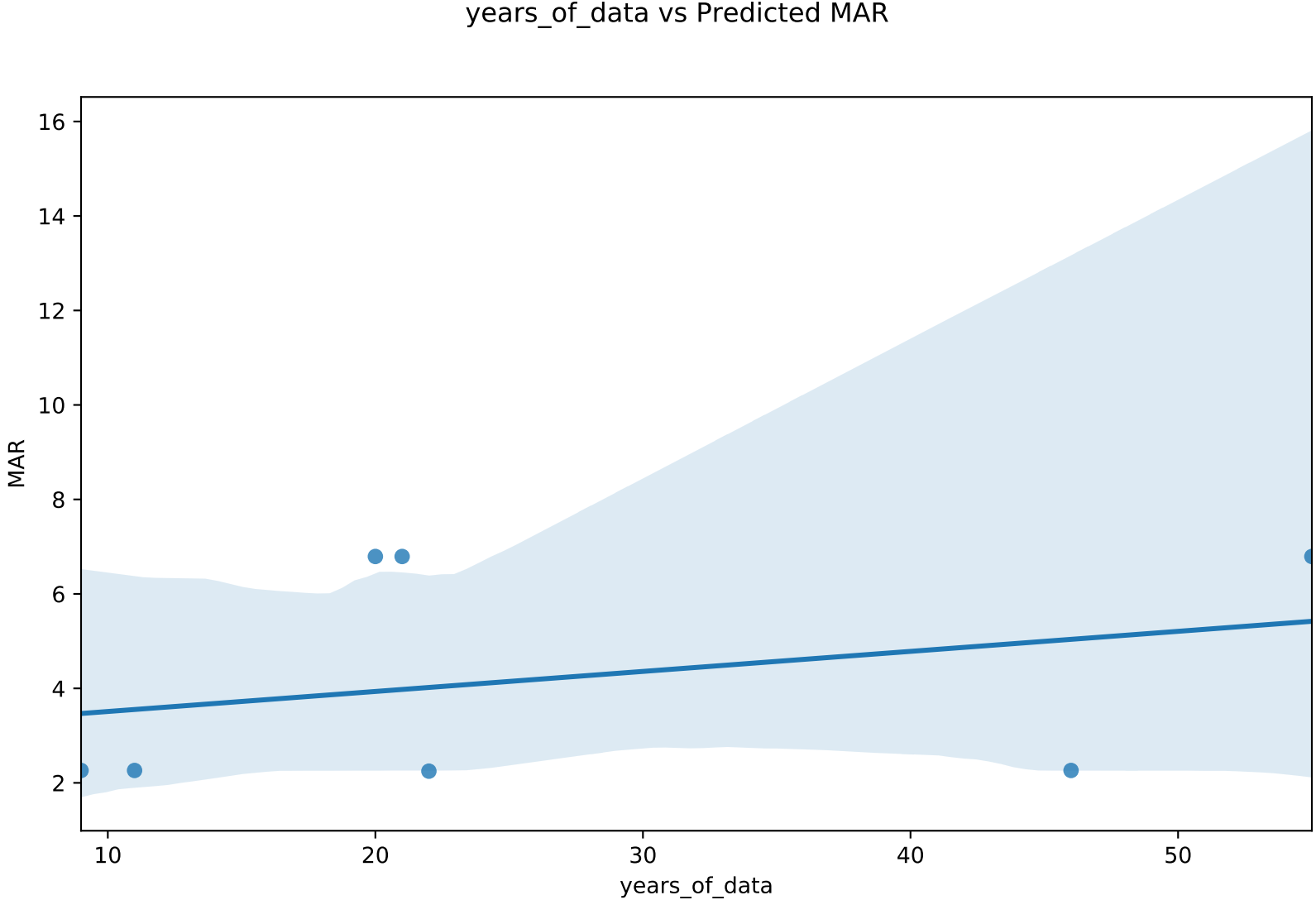

cover
ual_precipitation
ion_thornthwaite
5.0
5.0
0
1
2
3
4
5
F score

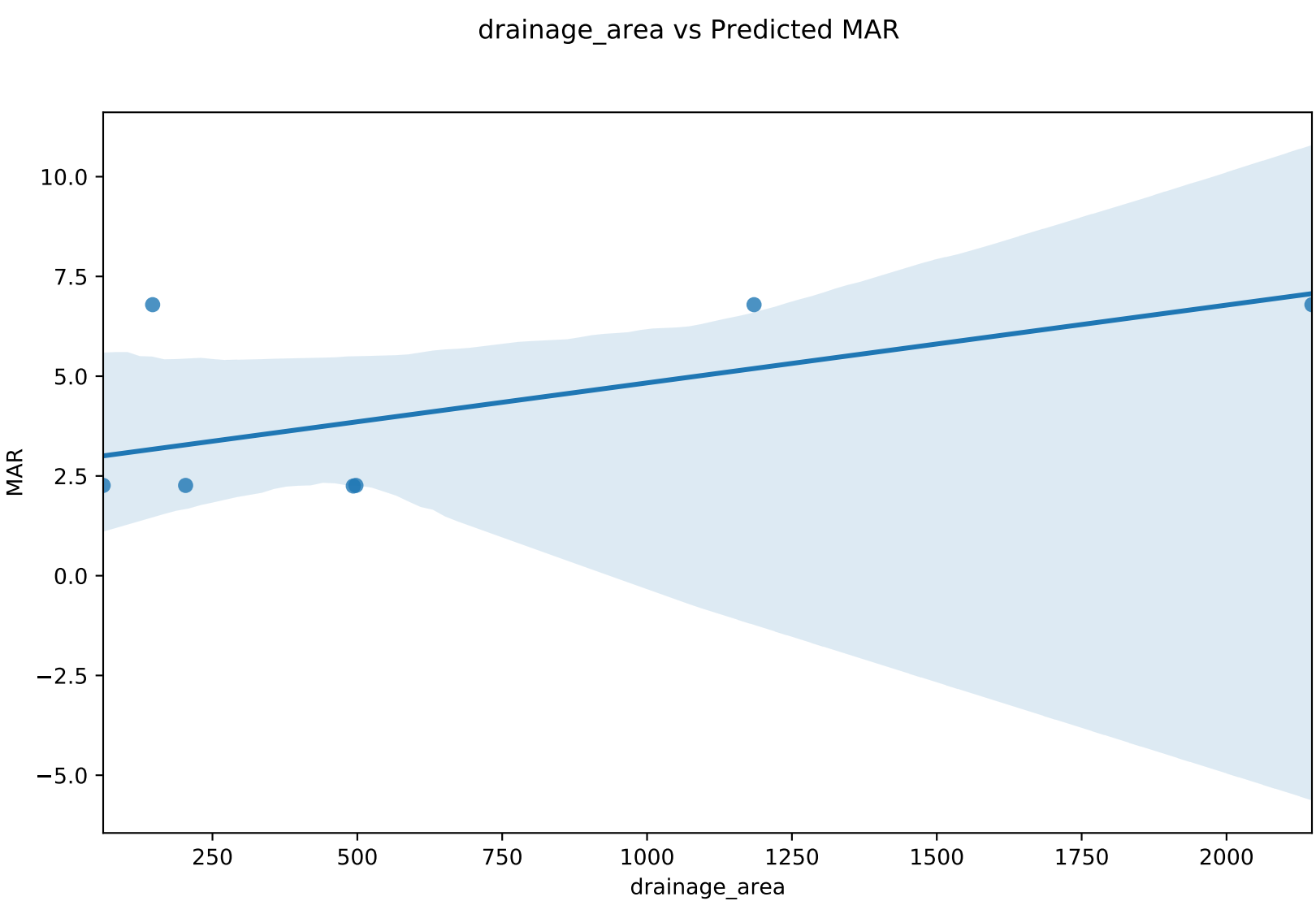

gain
ion_thornthwaite
ual_precipitation
0.4799770285714286
0
1
2
3
4
F score

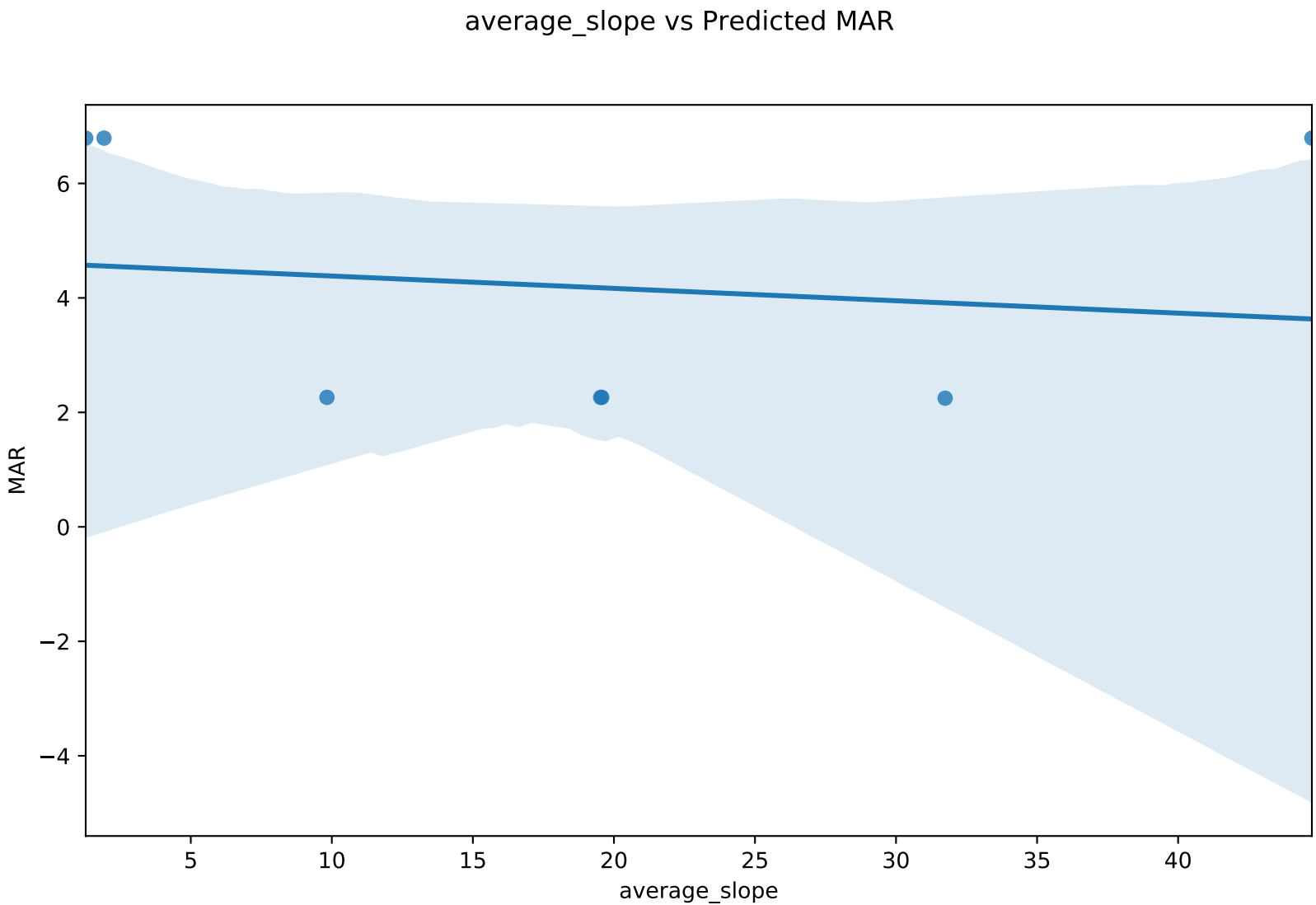

thwaite
pitation
xposure
aspect
evation
overage
e_slope
ge_area
of_data
−2
−1
0
1
2
SHAP value (impact on model output)
High
Feature value
Low

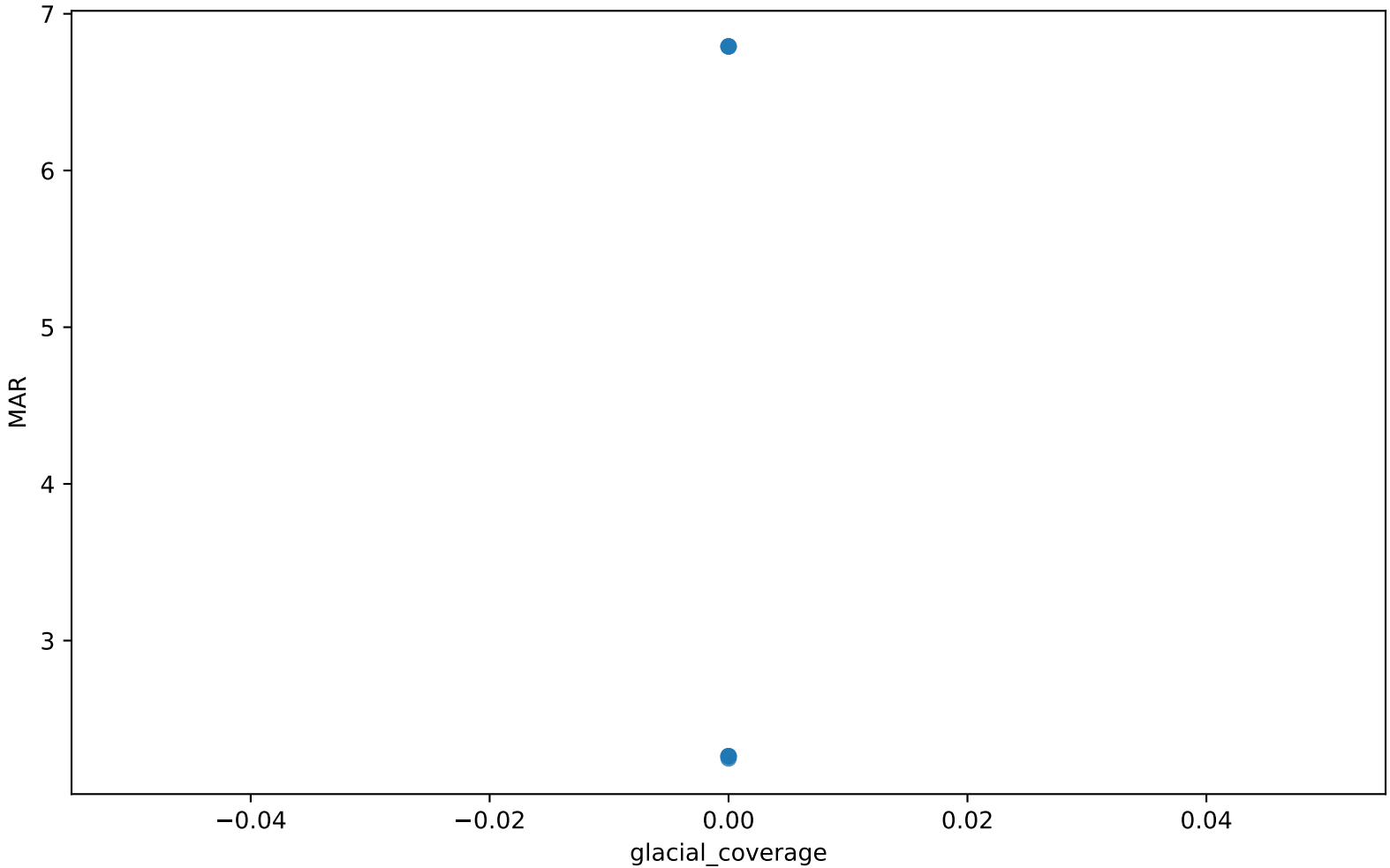
RMSE: 2.006800924222875 R2: 0.3736944399327754

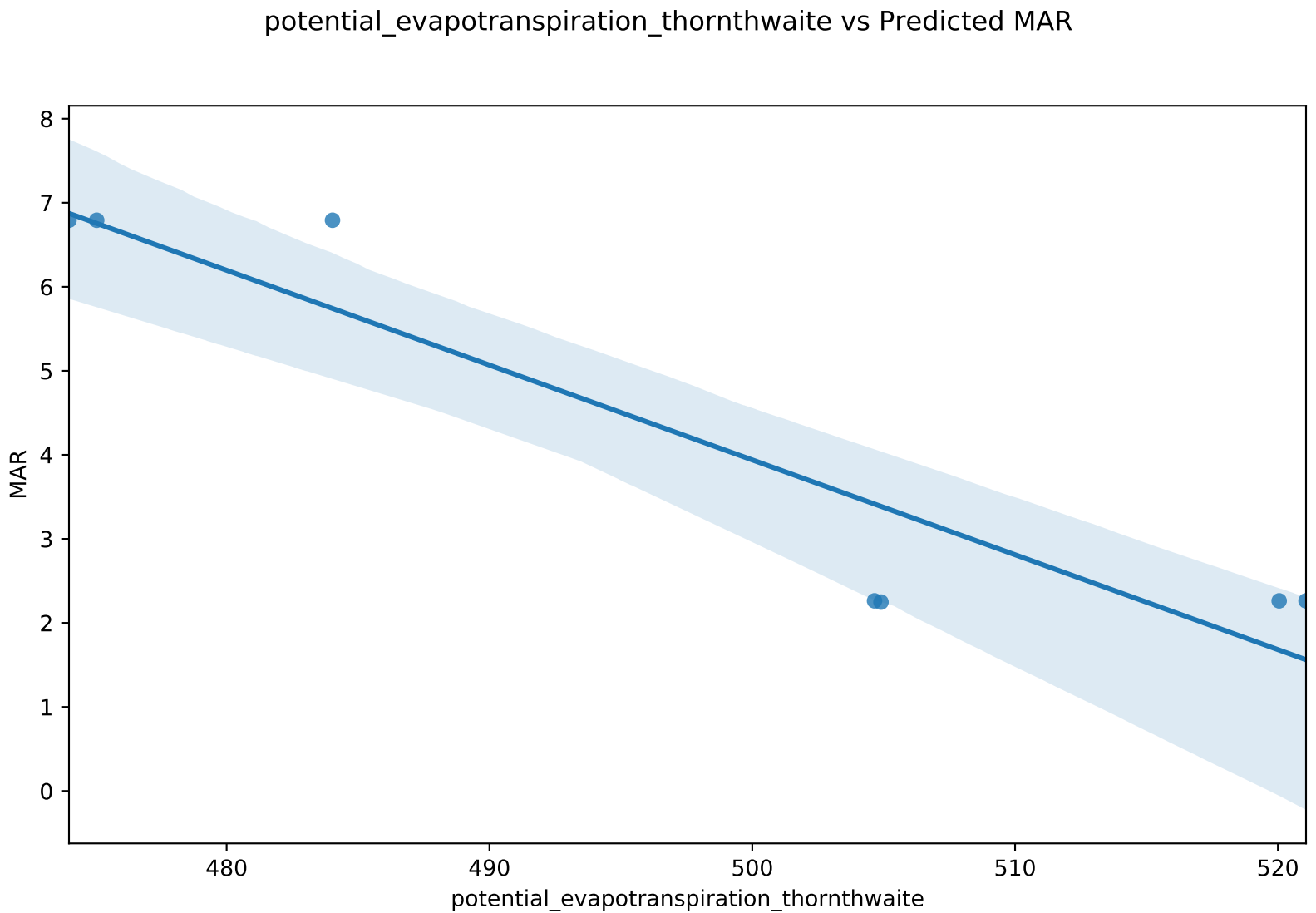


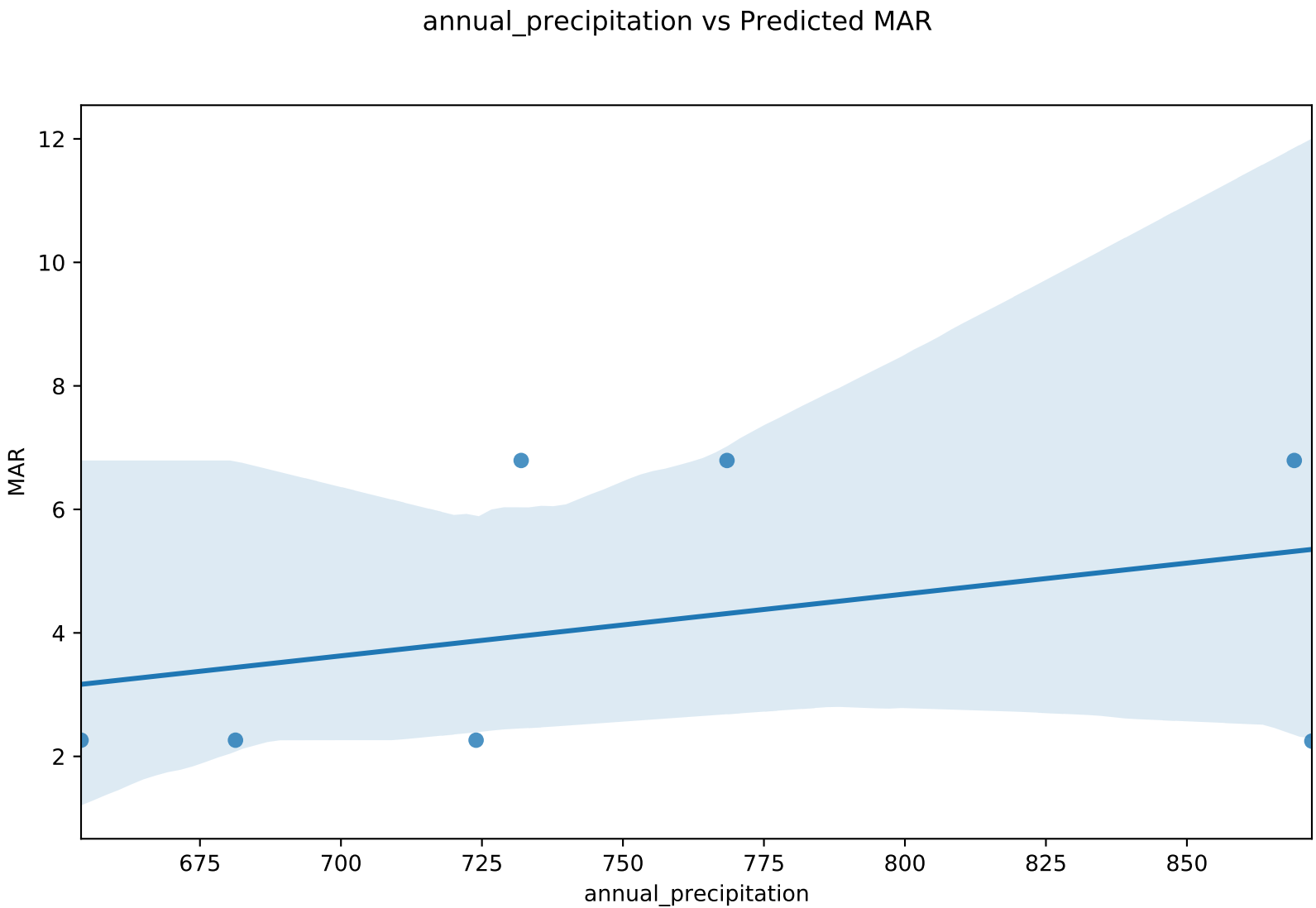

years_of_data vs Predicted MAR
MAR
16
14
12
10
8
6
4
2
10
20
30
40
50
years_of_data

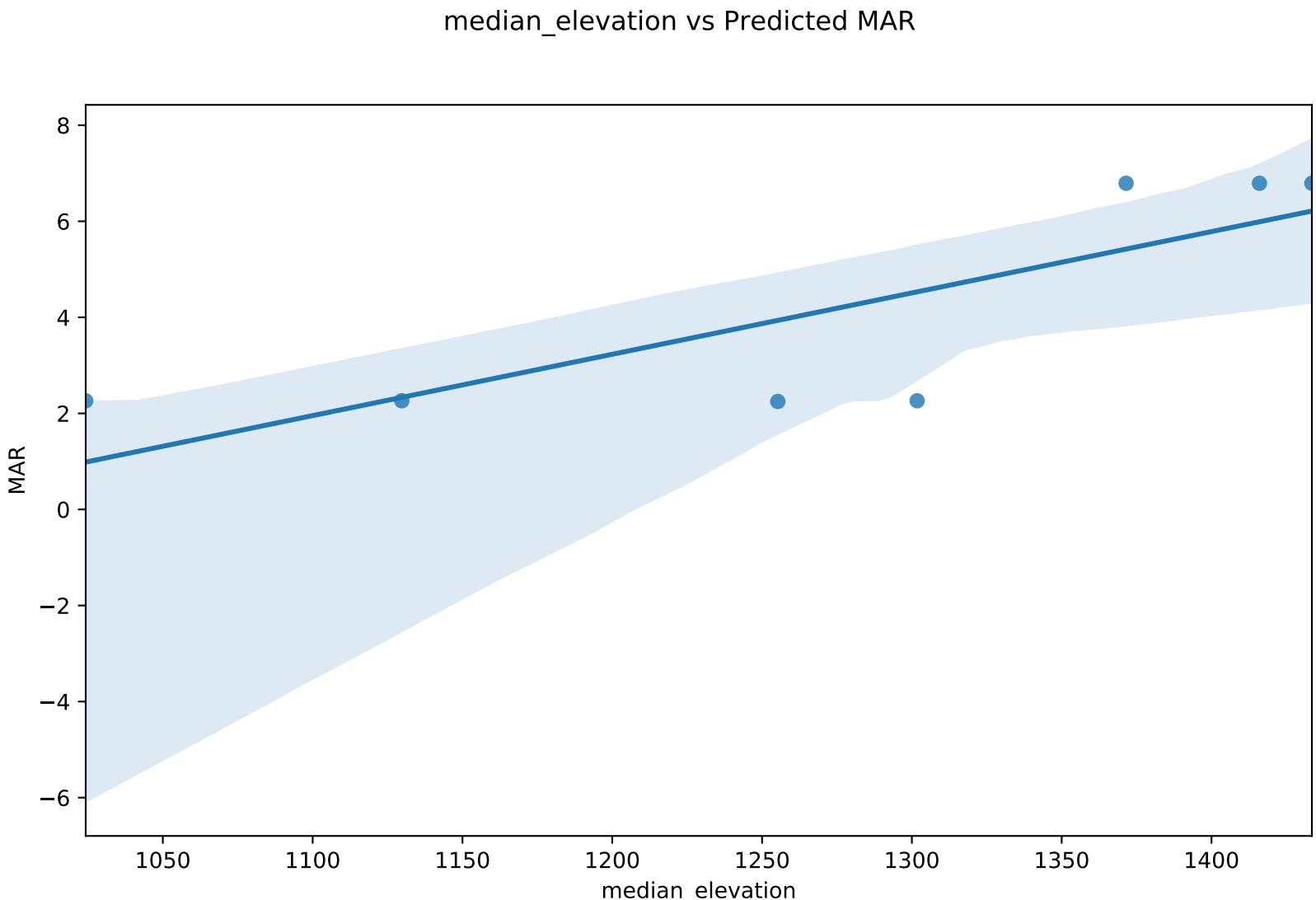

drainage_area vs Predicted MAR
MAR
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
250
500
750
1000
1250
1500
1750
2000
drainage_area

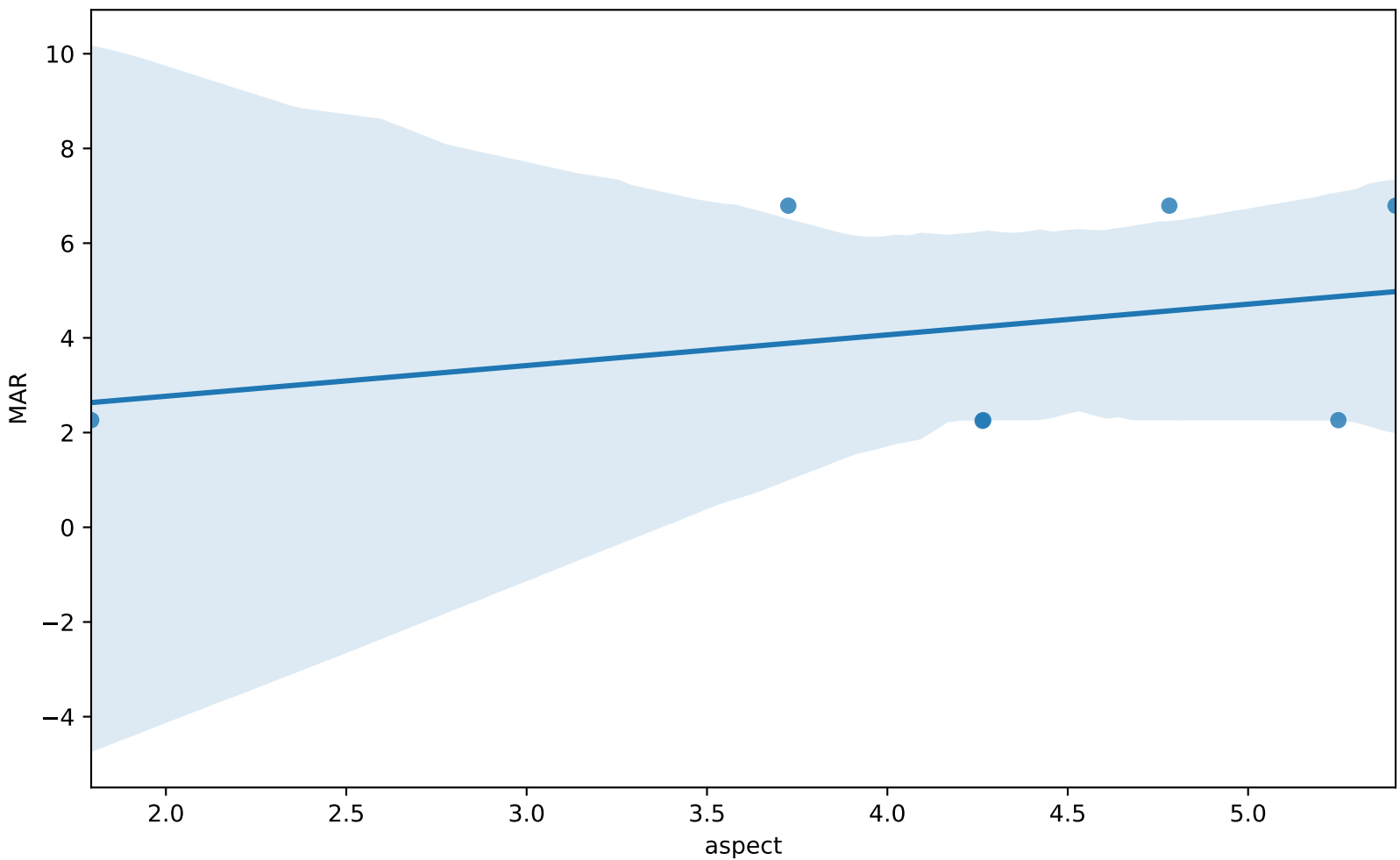

average_slope vs Predicted MAR
MAR
6
4
2
0
−2
−4
5
10
15
20
25
30
35
40
average_slope

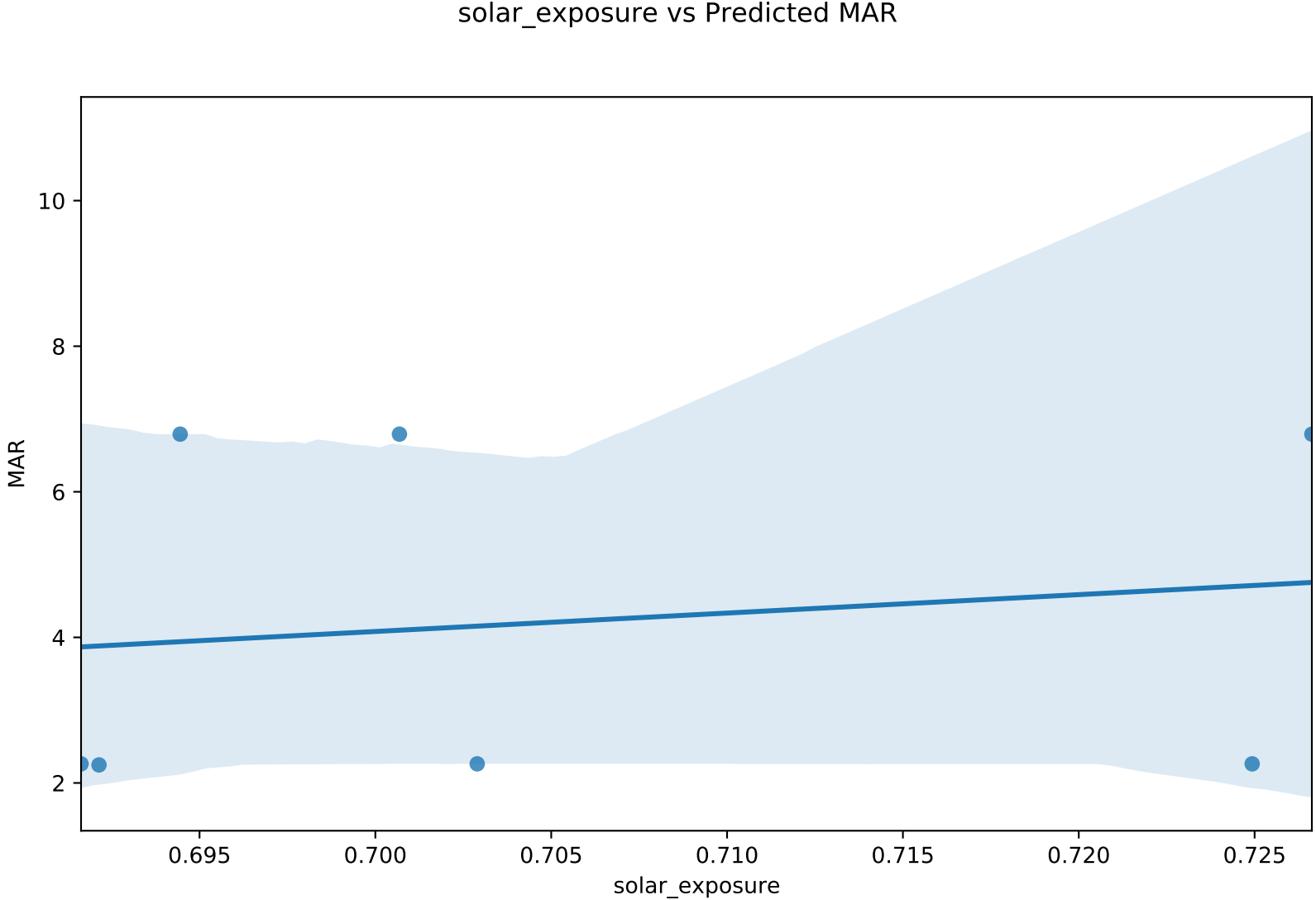

glacial_coverage vs Predicted MAR
MAR
7
6
5
4
3
−0.04
−0.02
0.00
0.02
0.04
glacial_coverage


potential_evapotranspiration_thornthwaite vs Predicted MAR
MAR
potential_evapotranspiration_thornthwaite
0
1
2
3
4
5
6
7
8
480
490
500
510
520


annual_precipitation vs Predicted MAR
MAR
12
10
8
6
4
2
675
700
725
750
775
800
825
850
annual_precipitation


median_elevation vs Predicted MAR
MAR
median_elevation
8
6
4
2
0
−2
−4
−6
1050
1100
1150
1200
1250
1300
1350
1400


aspect vs Predicted MAR
MAR
aspect
10
8
6
4
2
0
−2
−4
2.0
2.5
3.0
3.5
4.0
4.5
5.0


solar_exposure vs Predicted MAR
MAR
10
8
6
4
2
0.695
0.700
0.705
0.710
0.715
0.720
0.725
solar_exposure