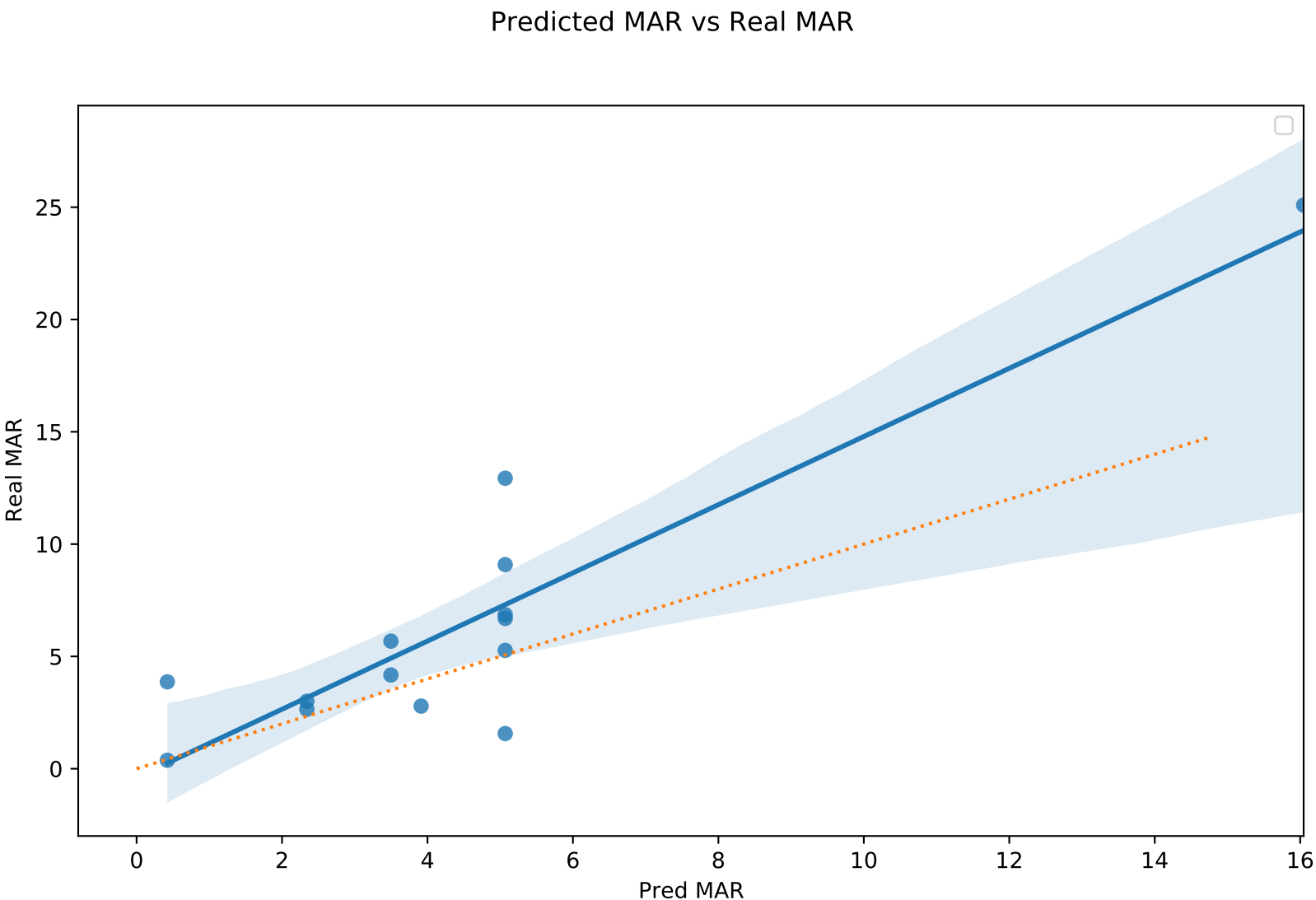
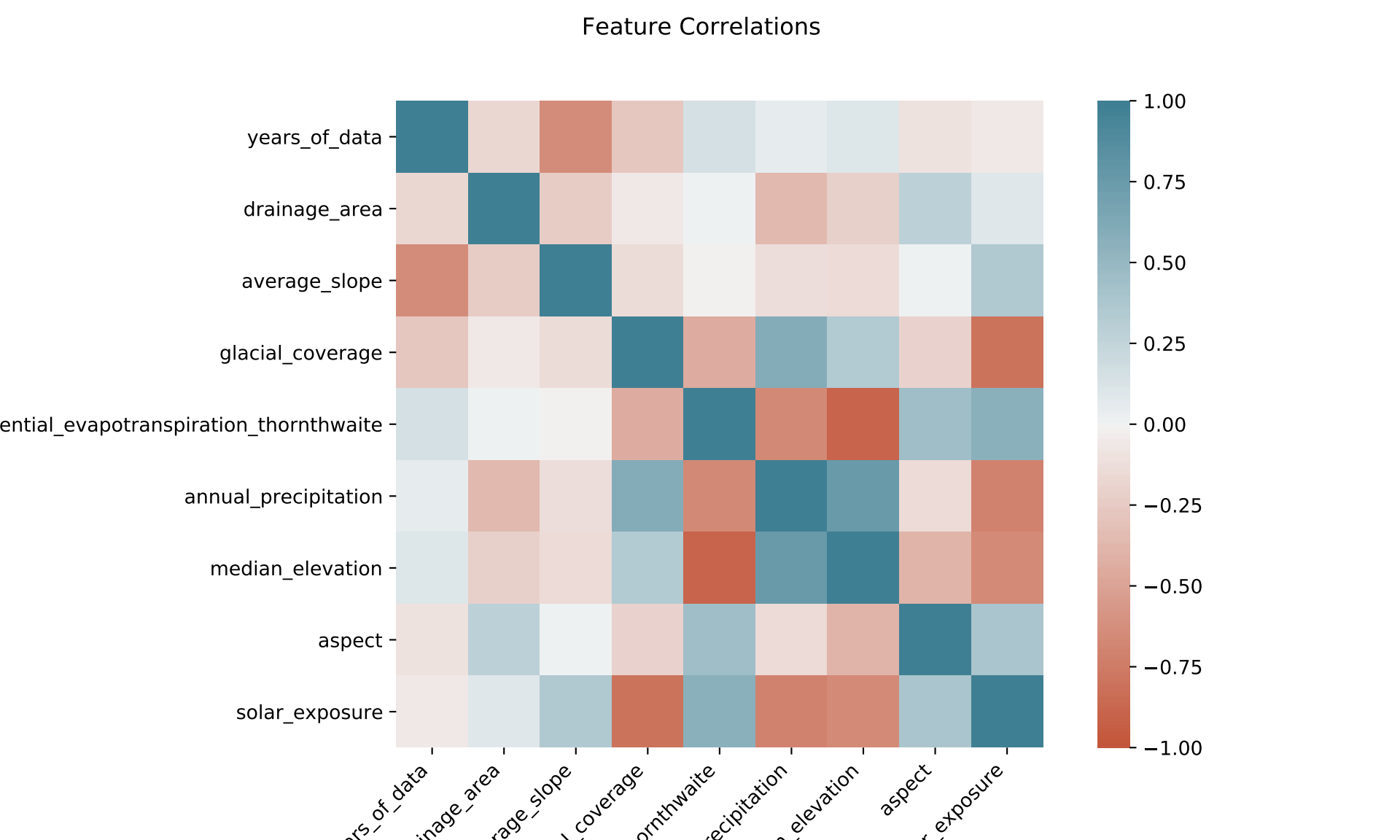
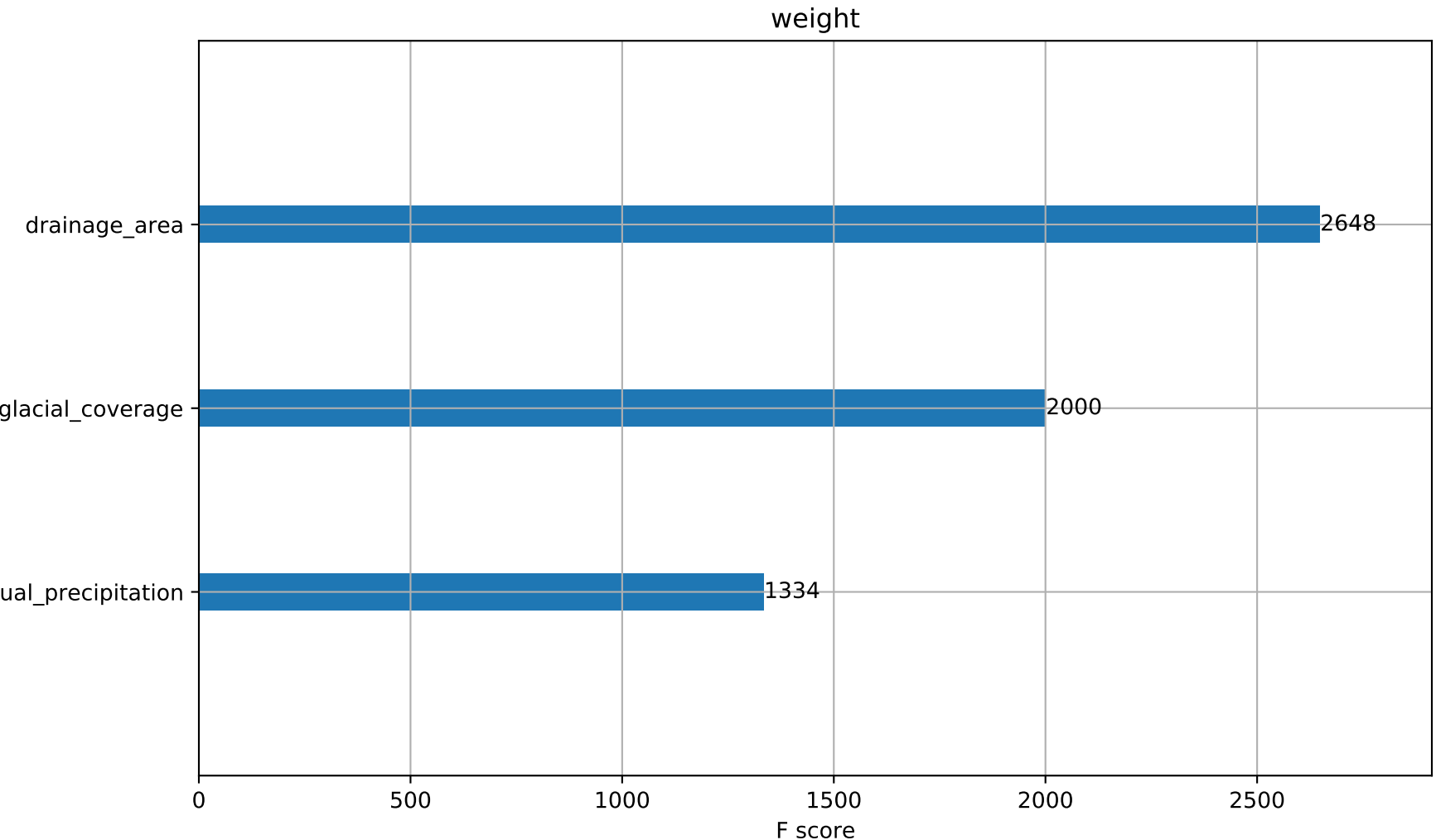
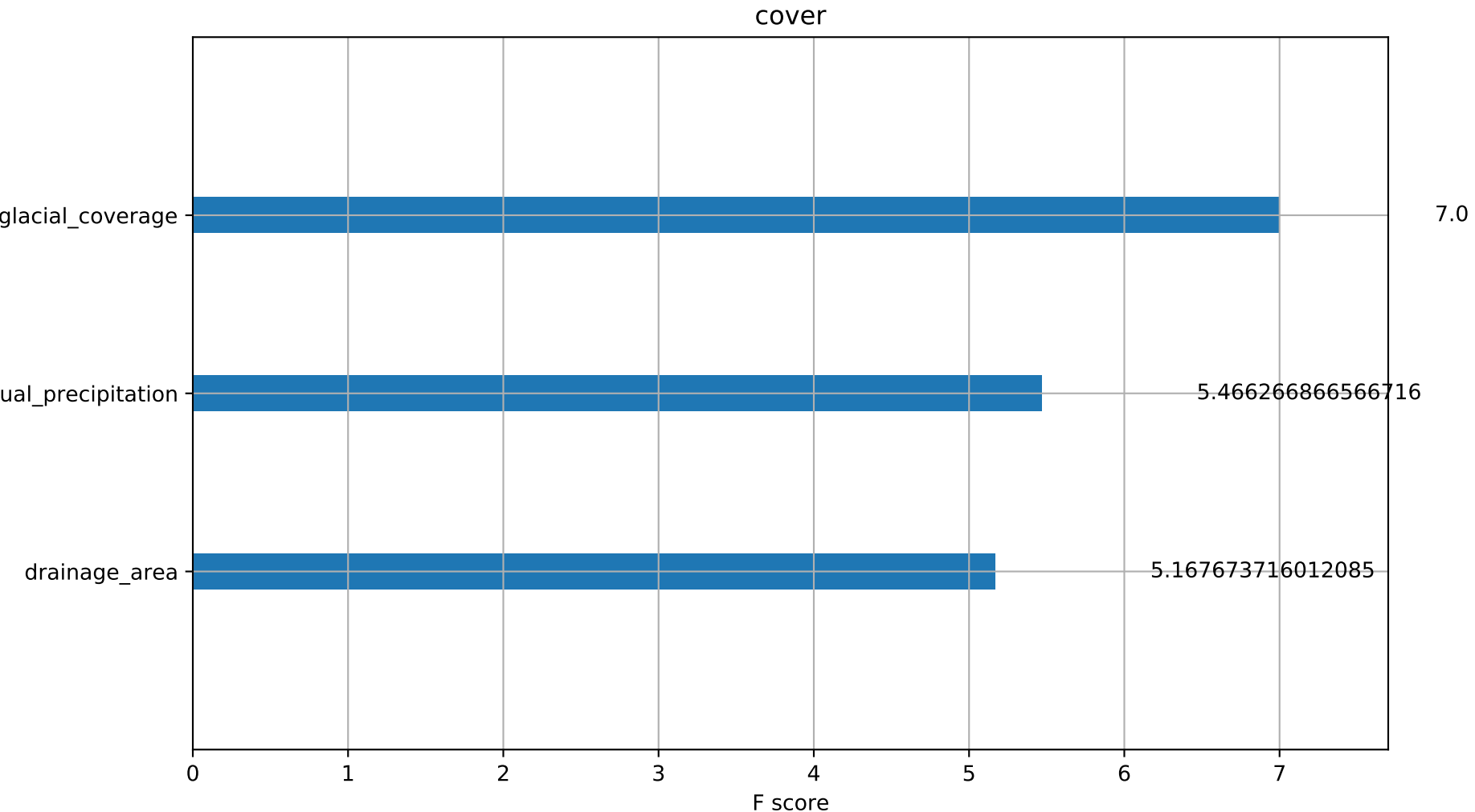
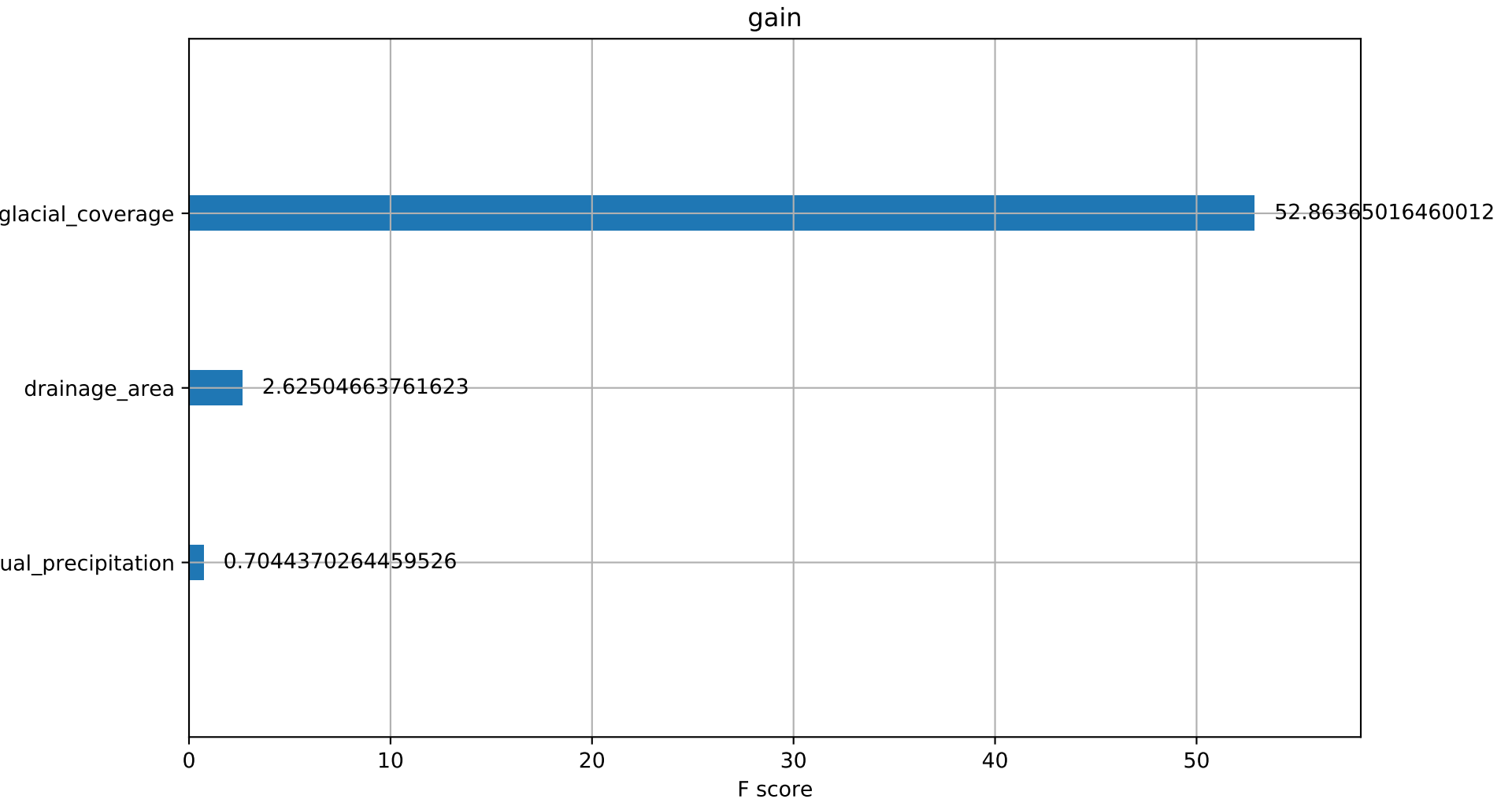
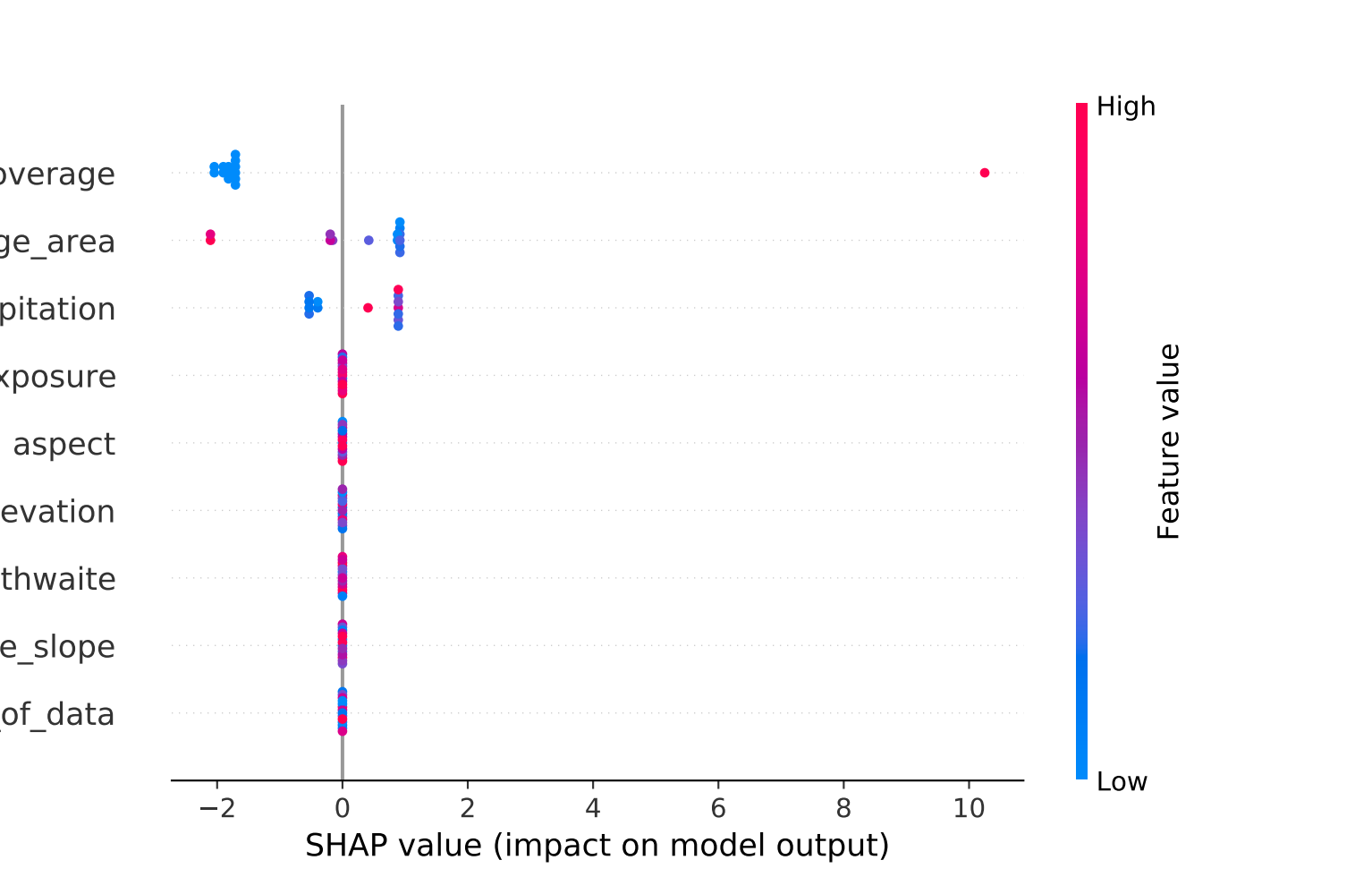

Predicted MAR vs Real MAR
Real MAR
Pred MAR
0
5
10
15
20
25
0
2
4
6
8
10
12
14
16


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

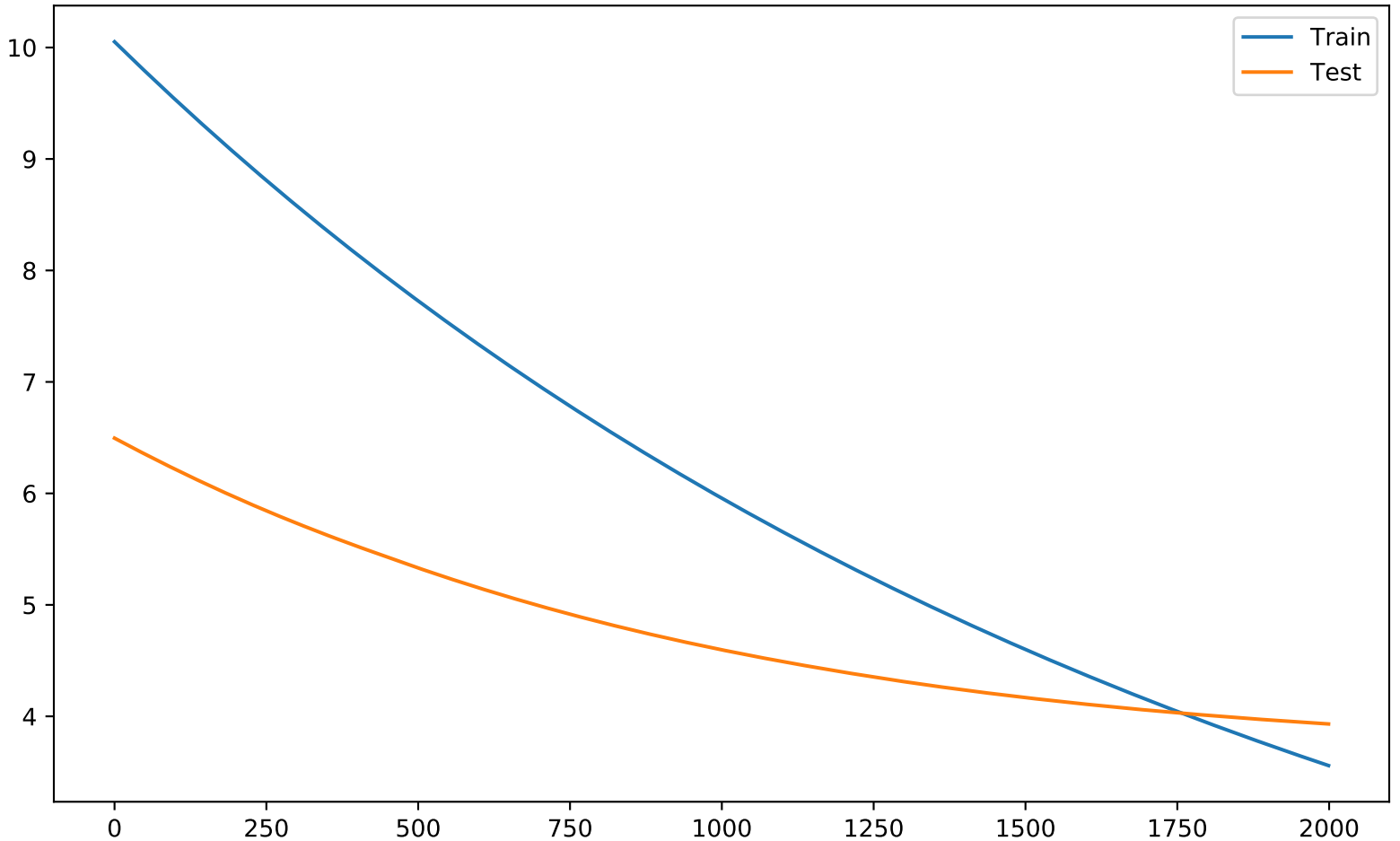

weight
drainage_area
glacial_coverage
ual_precipitation
2648
2000
1334
0
500
1000
1500
2000
2500
F score

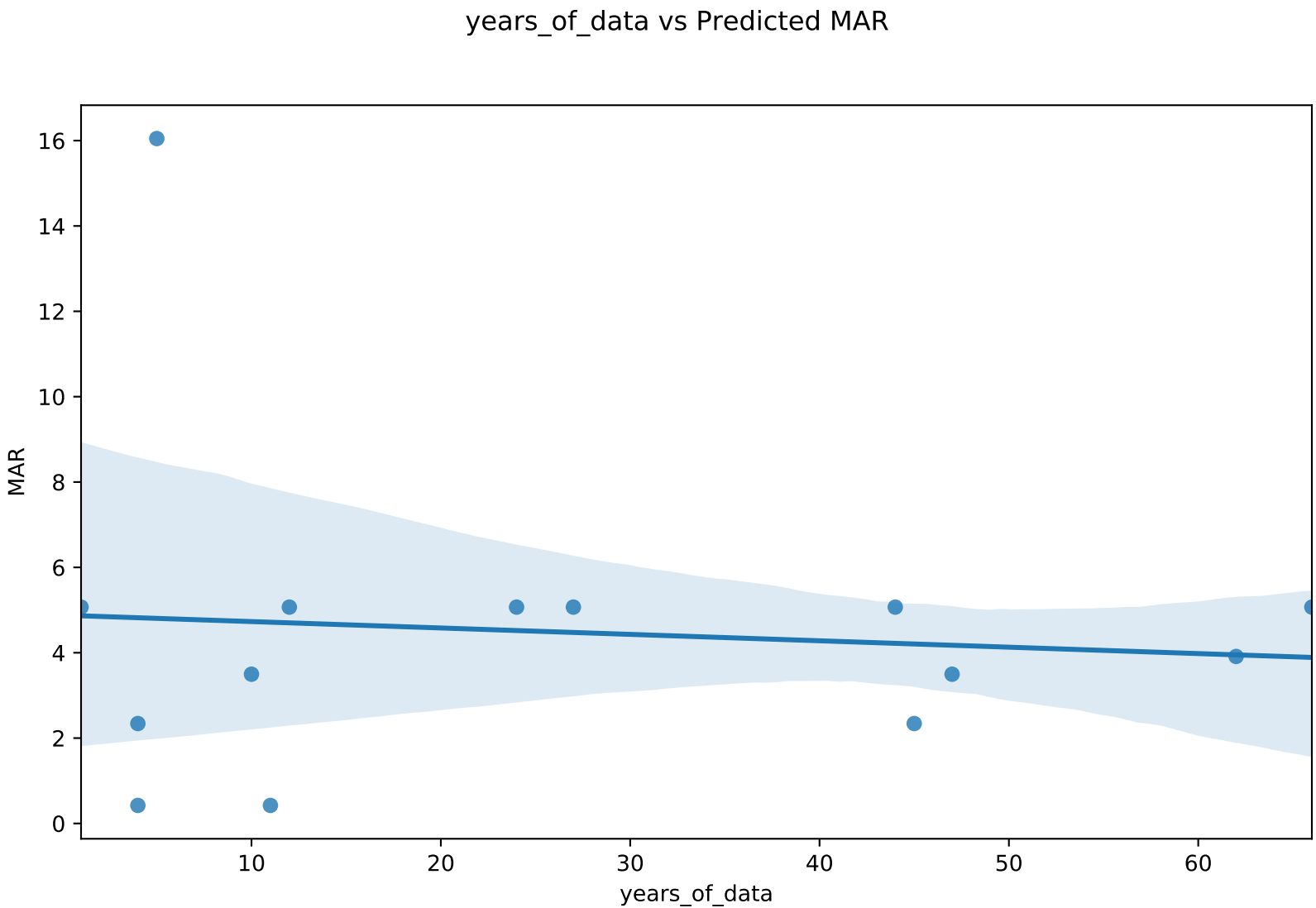

cover
glacial_coverage
ual_precipitation
drainage_area
7.0
5.466266866566716
5.167673716012085
0
1
2
3
4
5
6
7
F score

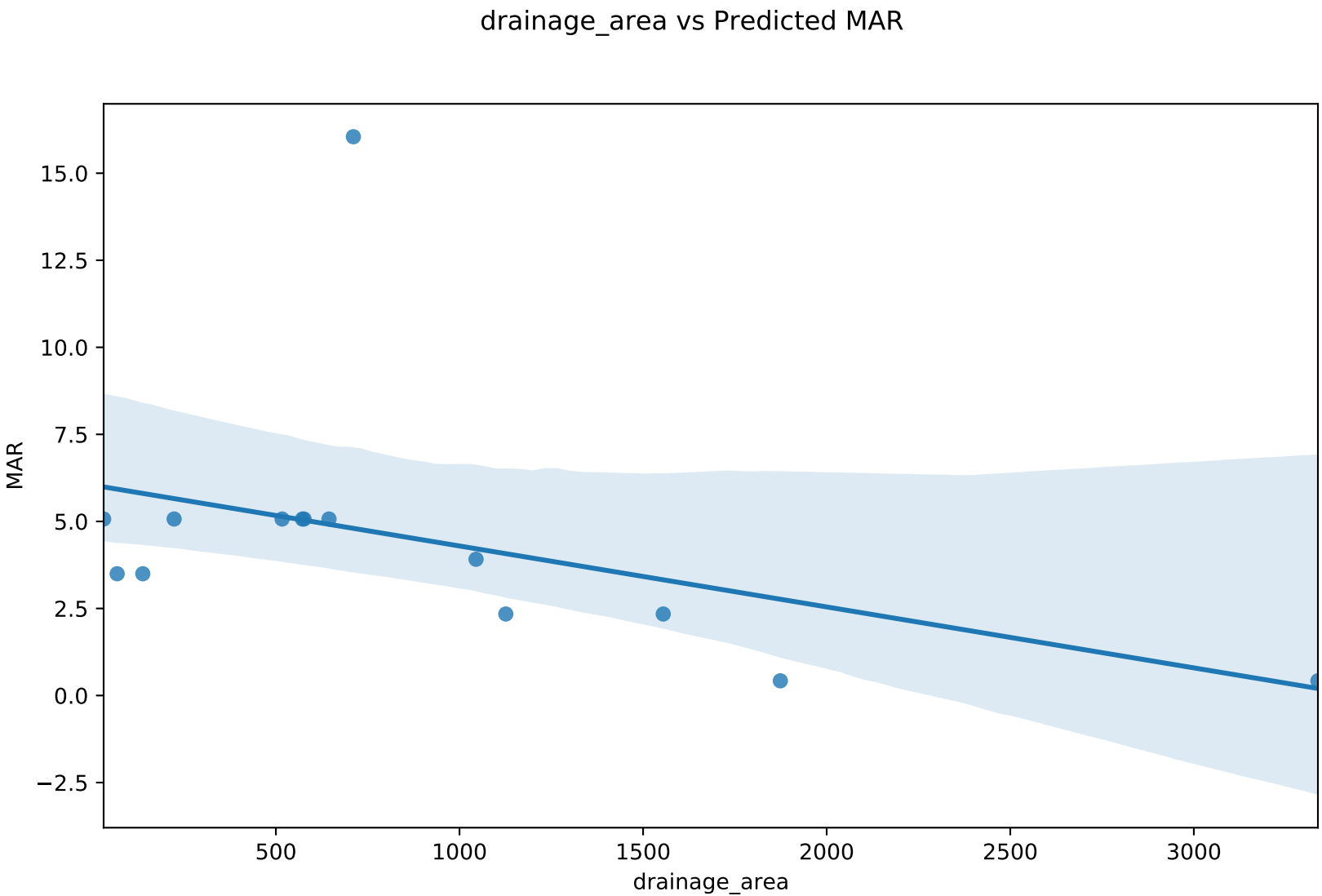

gain
glacial_coverage
52.86365016460012
drainage_area
2.62504663761623
ual_precipitation
0.7044370264459526
0
10
20
30
40
50
F score

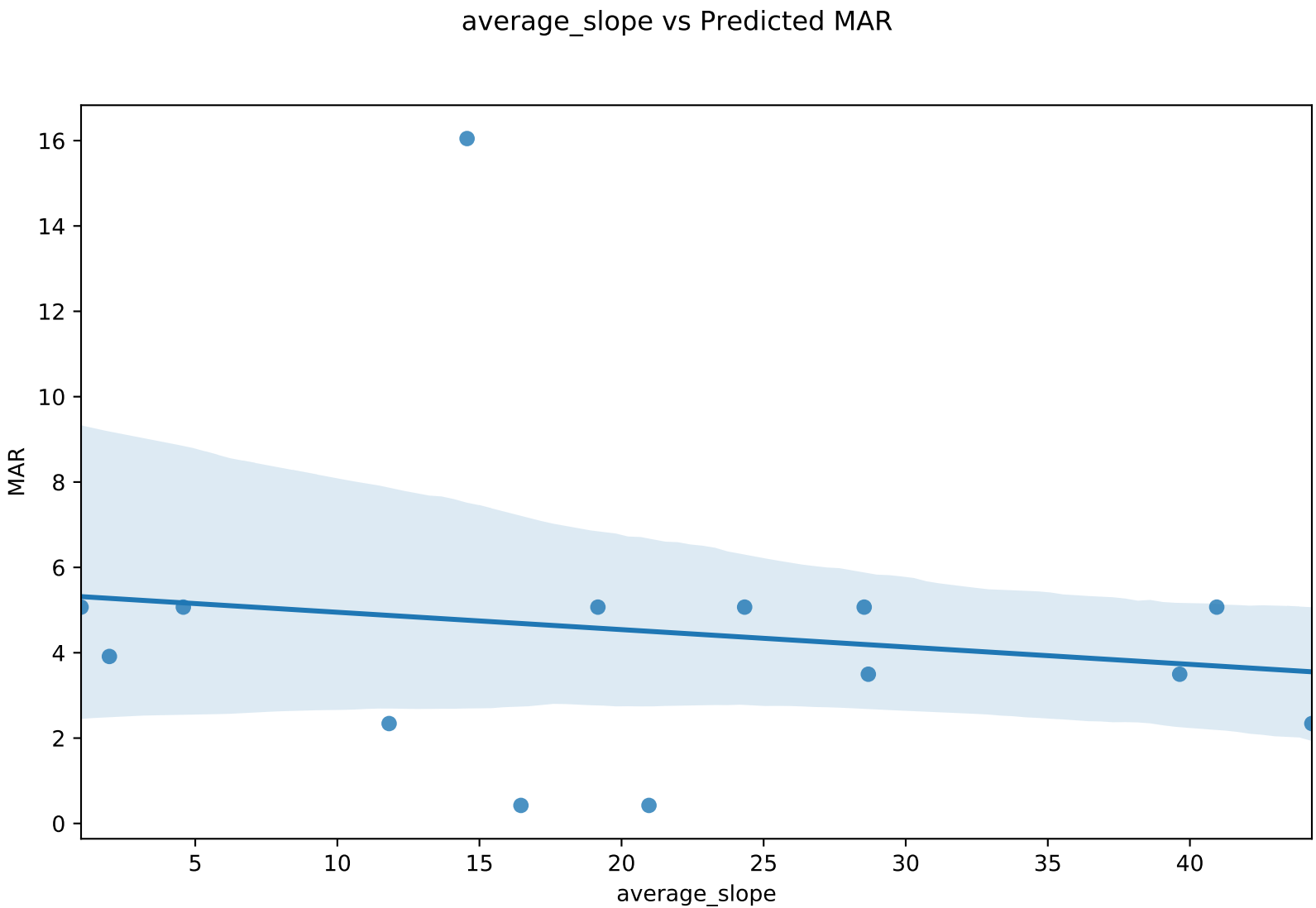

overage
ge_area
pitation
xposure
aspect
evation
thwaite
e_slope
of_data
−2
0
2
4
6
8
10
SHAP value (impact on model output)
High
Feature value
Low

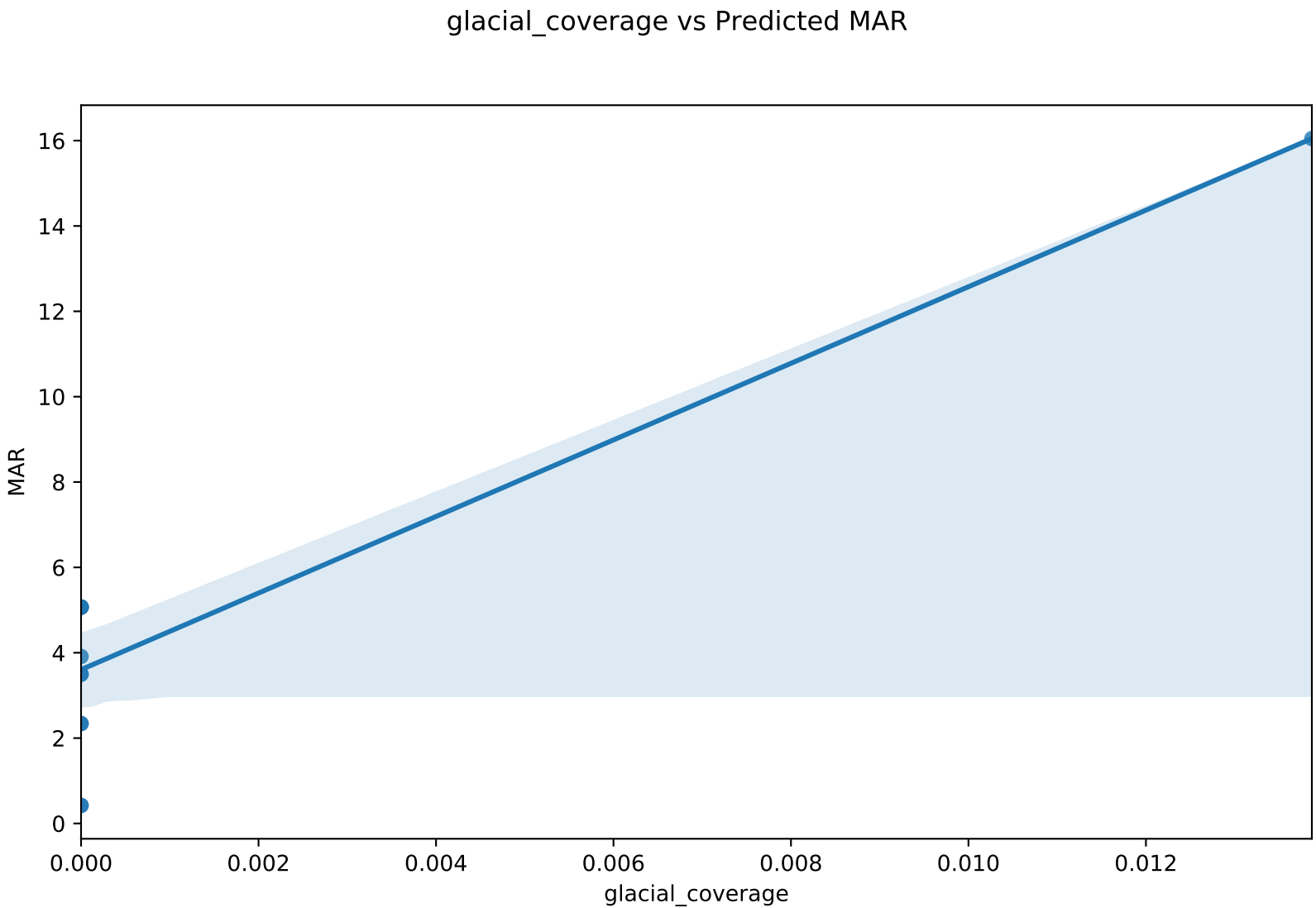
RMSE: 3.7495931376417673 R2: 0.6148433961292322

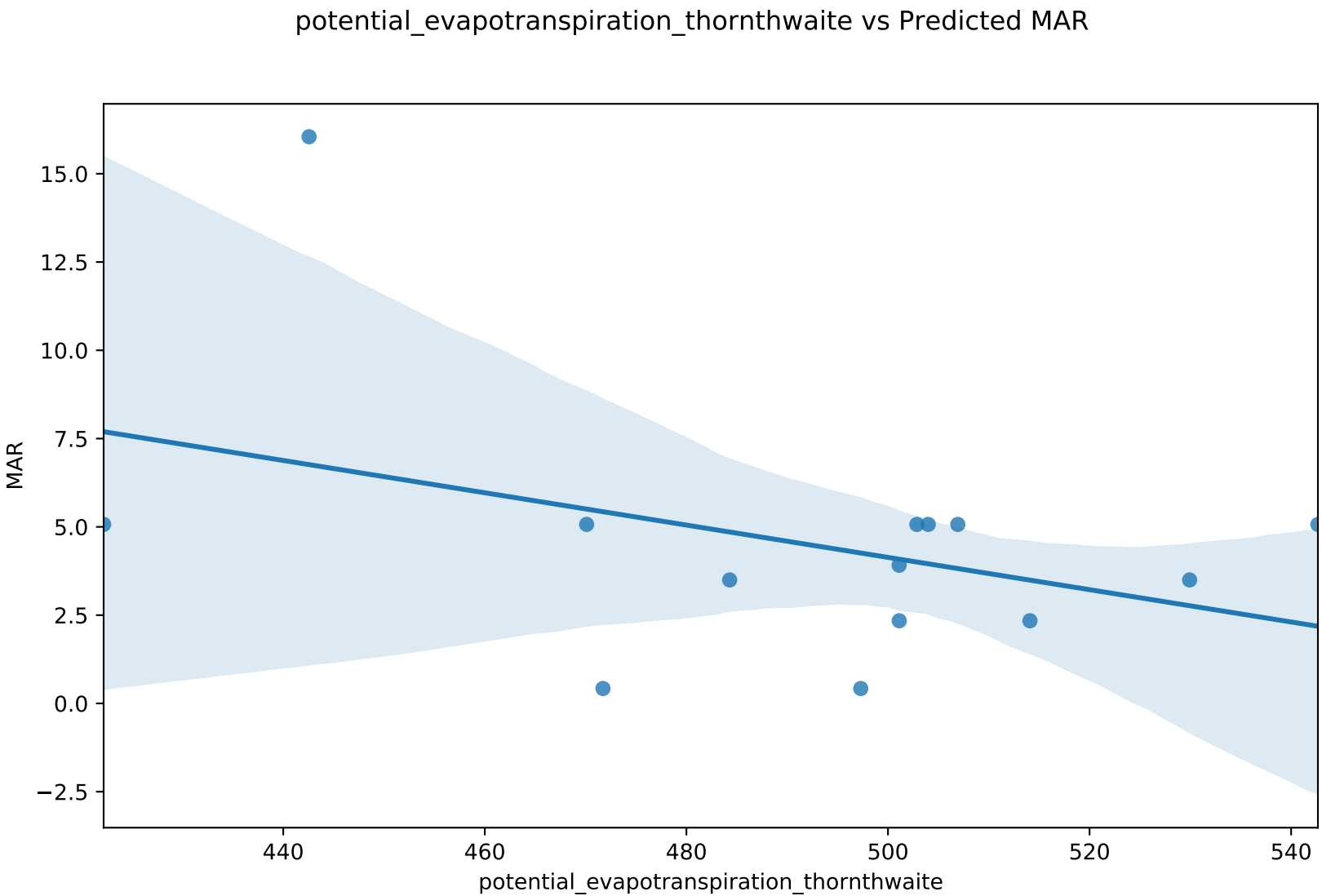


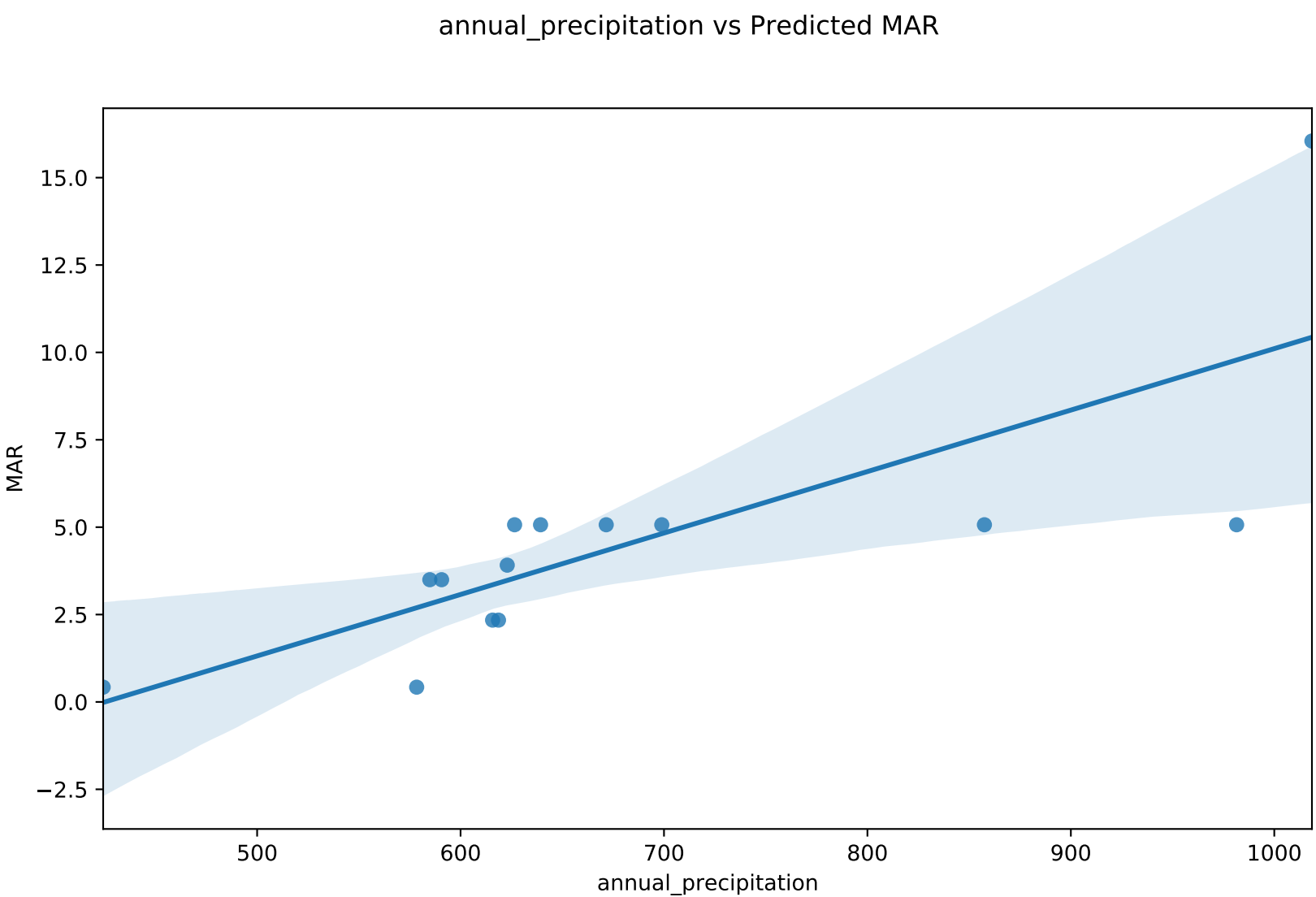

years_of_data vs Predicted MAR
MAR
years_of_data
0
2
4
6
8
10
12
14
16
10
20
30
40
50
60

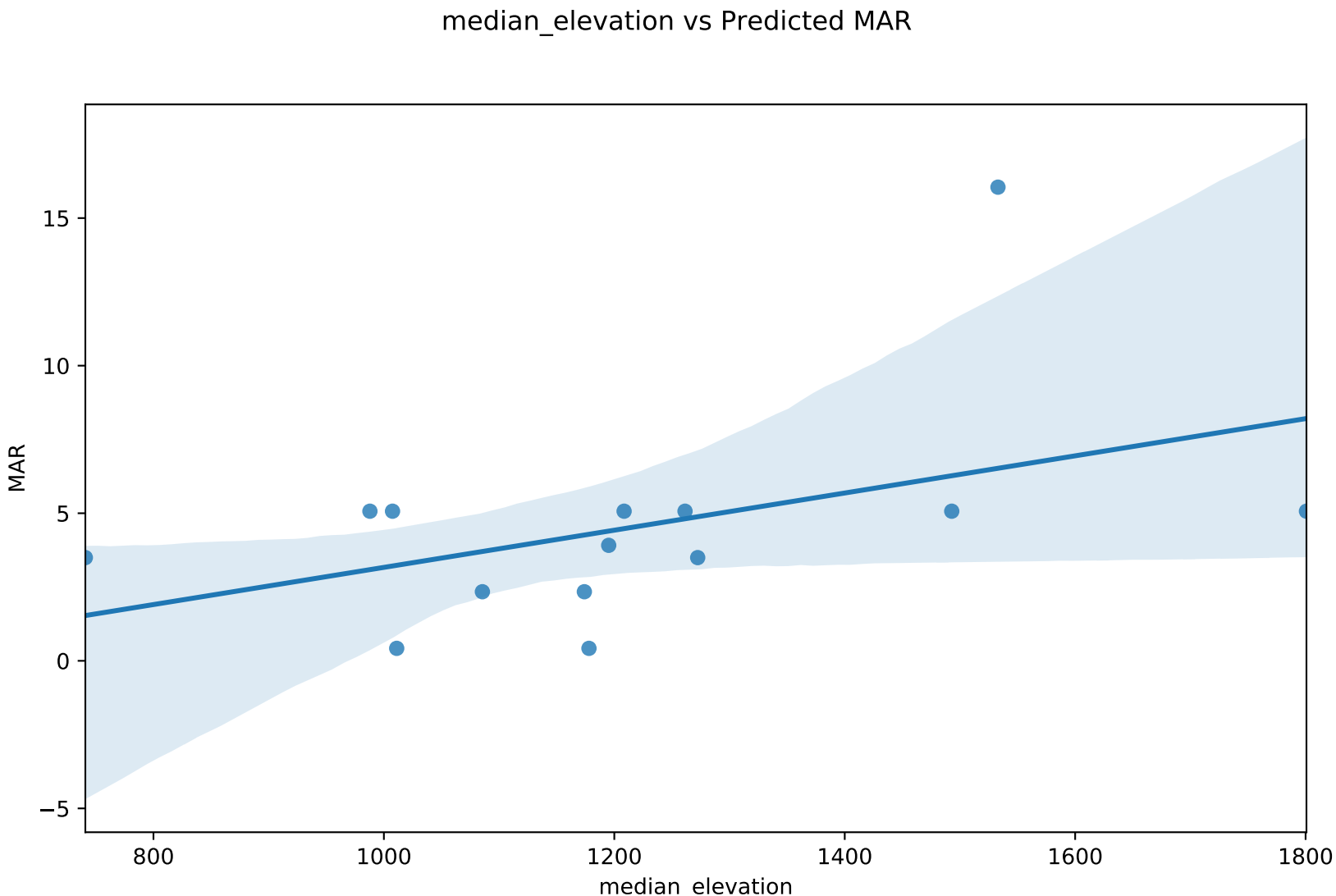

drainage_area vs Predicted MAR
MAR
15.0
12.5
10.0
7.5
5.0
2.5
0.0
−2.5
500
1000
1500
2000
2500
3000
drainage_area

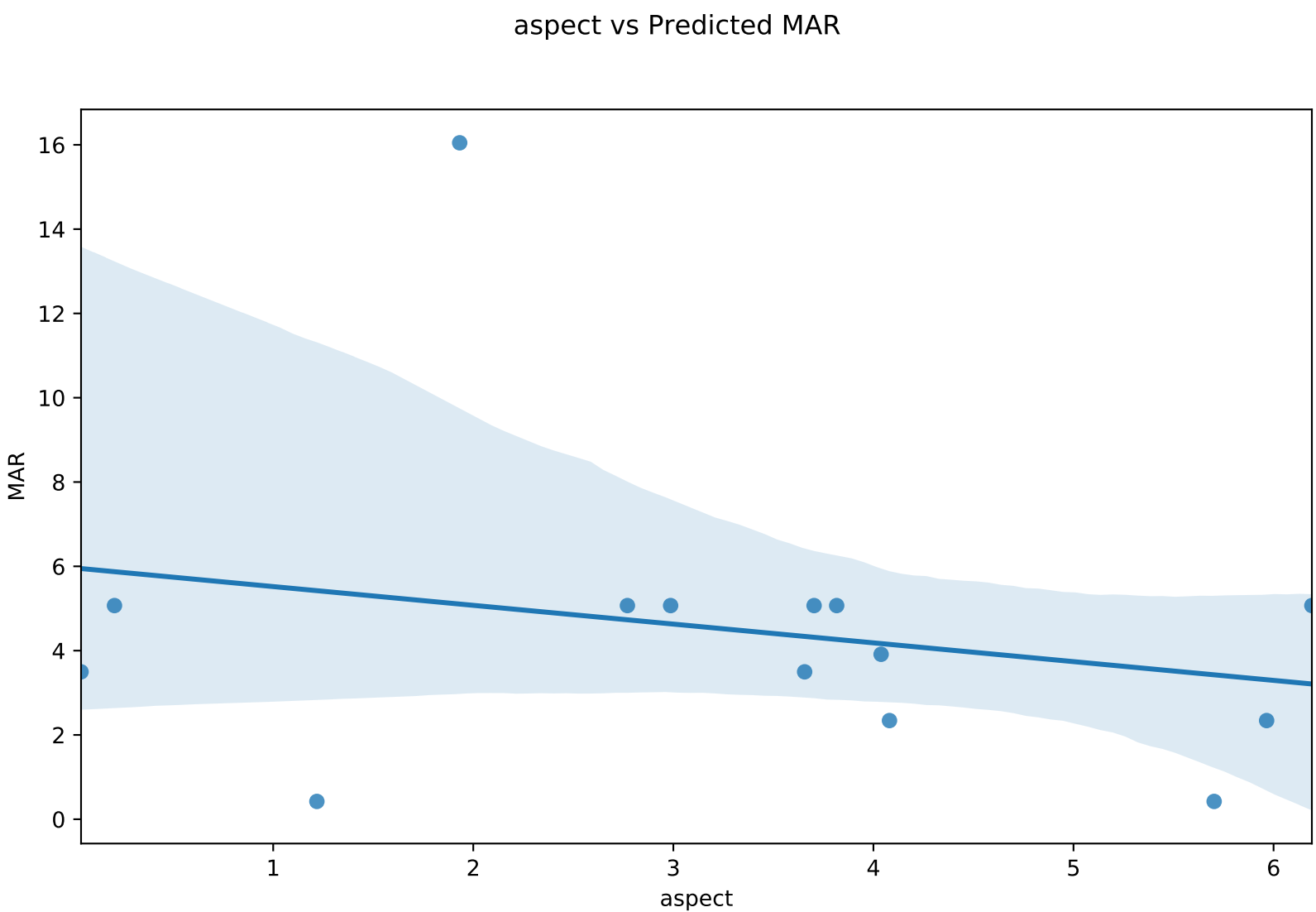

average_slope vs Predicted MAR
MAR
average_slope
0
2
4
6
8
10
12
14
16
5
10
15
20
25
30
35
40

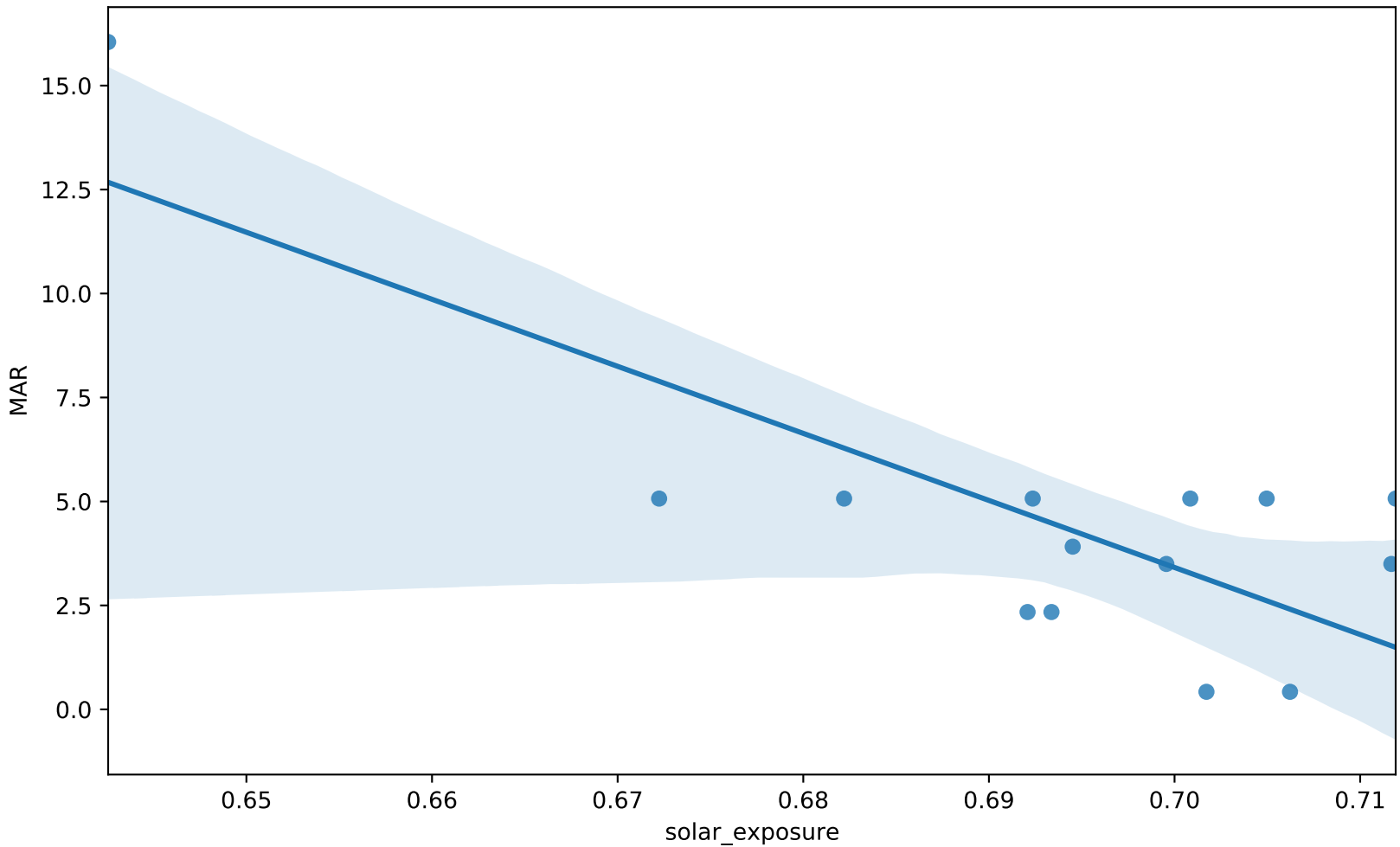

glacial_coverage vs Predicted MAR
MAR
glacial_coverage
0
2
4
6
8
10
12
14
16
0.000
0.002
0.004
0.006
0.008
0.010
0.012


potential_evapotranspiration_thornthwaite vs Predicted MAR
MAR
15.0
12.5
10.0
7.5
5.0
2.5
0.0
−2.5
440
460
480
500
520
540
potential_evapotranspiration_thornthwaite


annual_precipitation vs Predicted MAR
MAR
15.0
12.5
10.0
7.5
5.0
2.5
0.0
−2.5
500
600
700
800
900
1000
annual_precipitation


median_elevation vs Predicted MAR
MAR
15
10
5
0
−5
800
1000
1200
1400
1600
1800
median_elevation


aspect vs Predicted MAR
MAR
aspect
0
2
4
6
8
10
12
14
16
1
2
3
4
5
6


solar_exposure vs Predicted MAR
MAR
15.0
12.5
10.0
7.5
5.0
2.5
0.0
0.65
0.66
0.67
0.68
0.69
0.70
0.71
solar_exposure