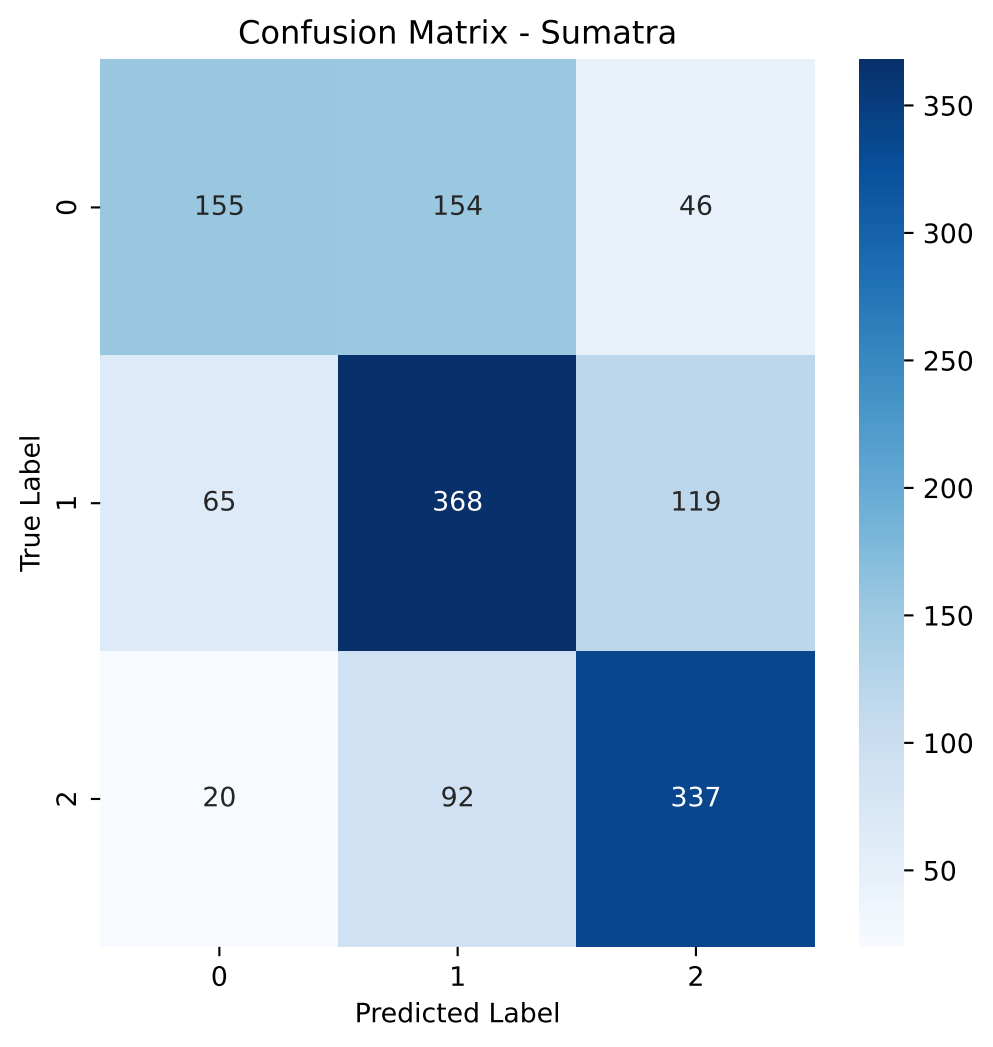
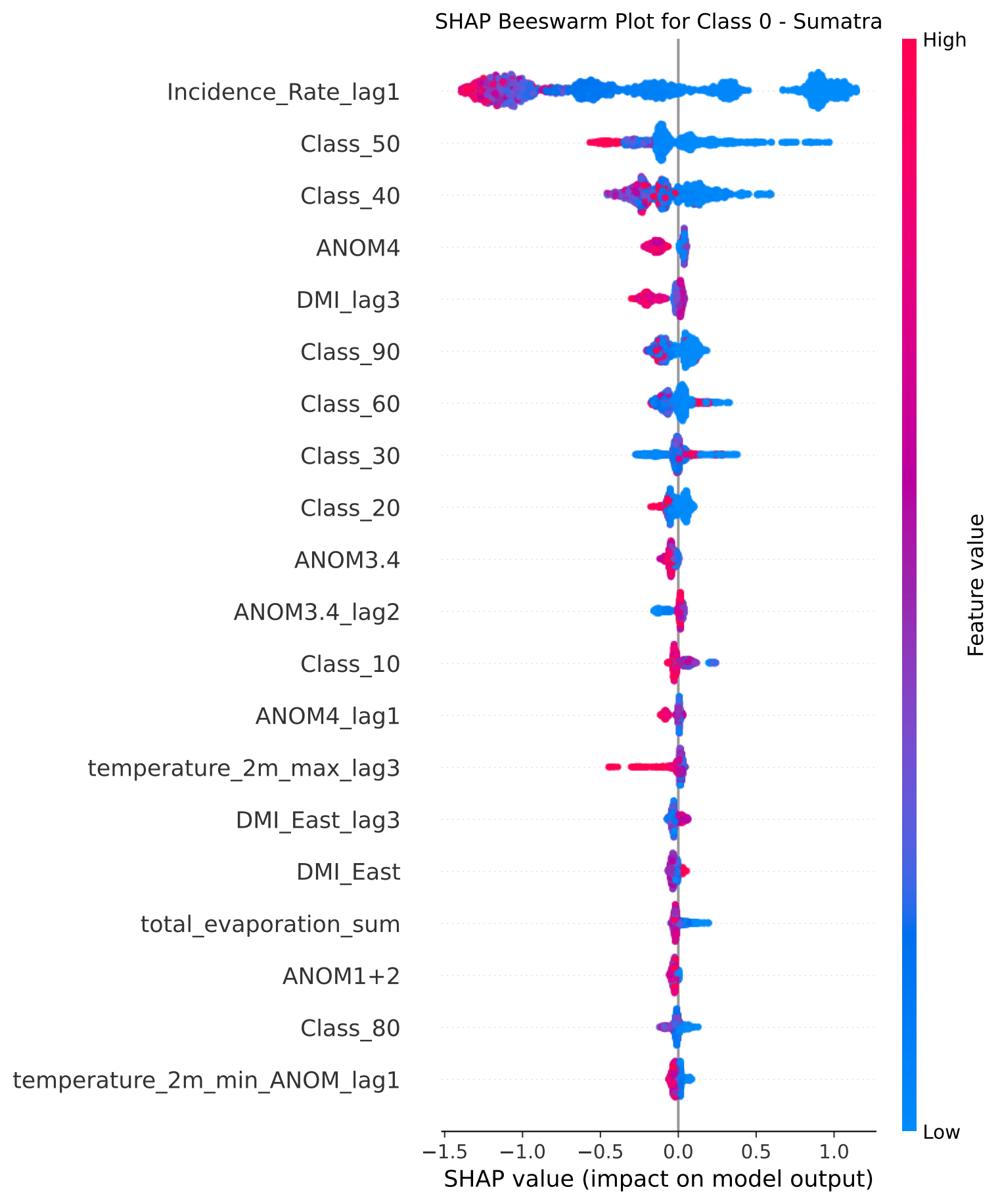
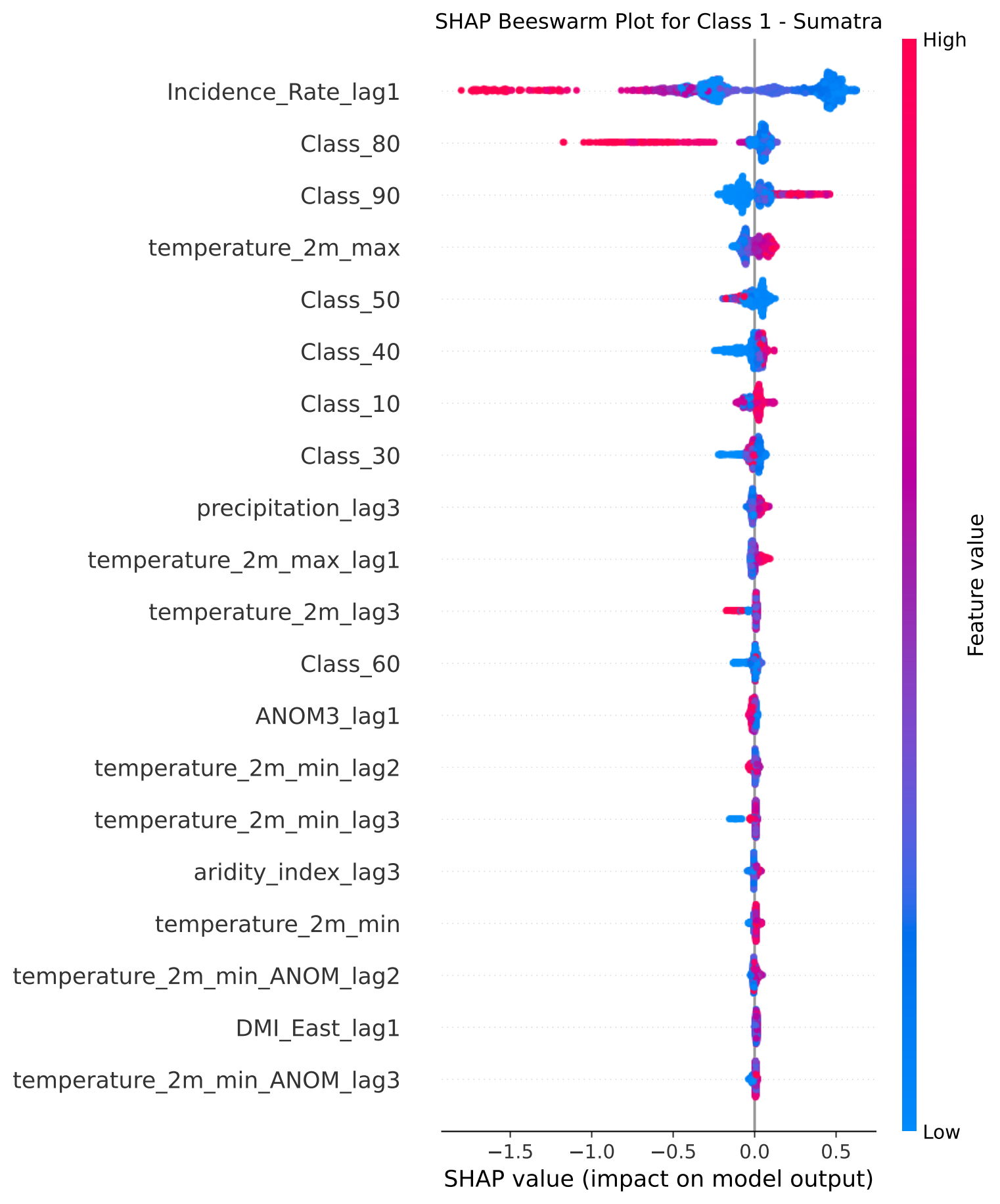
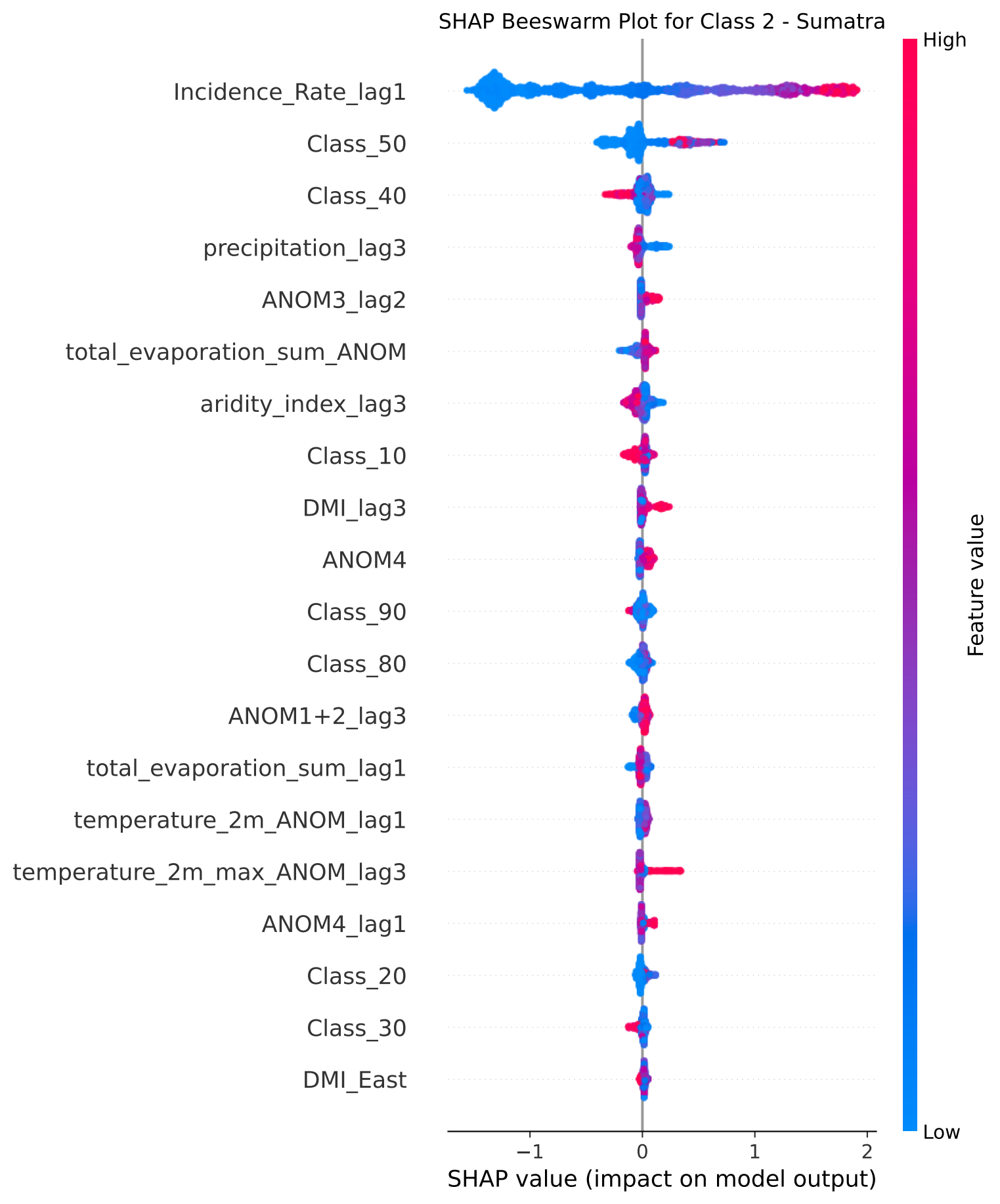
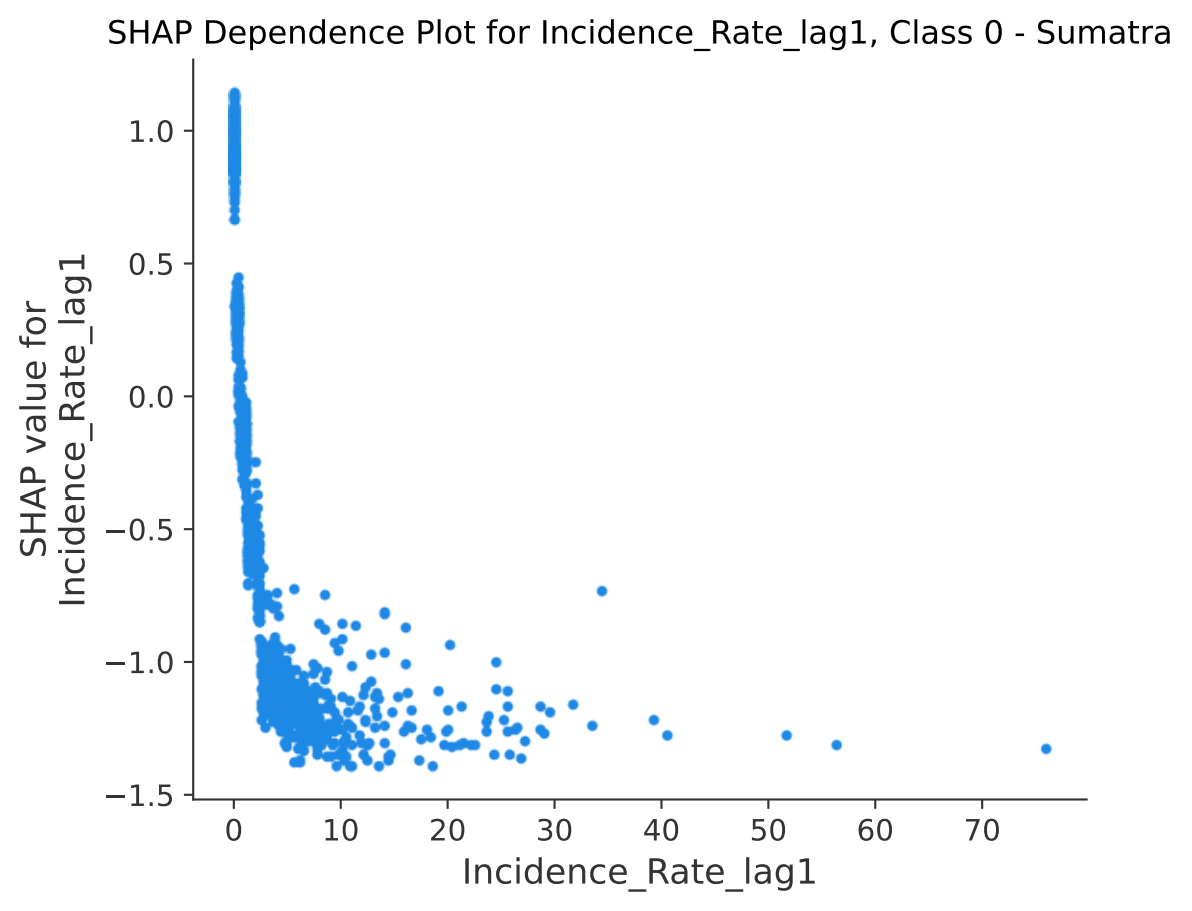
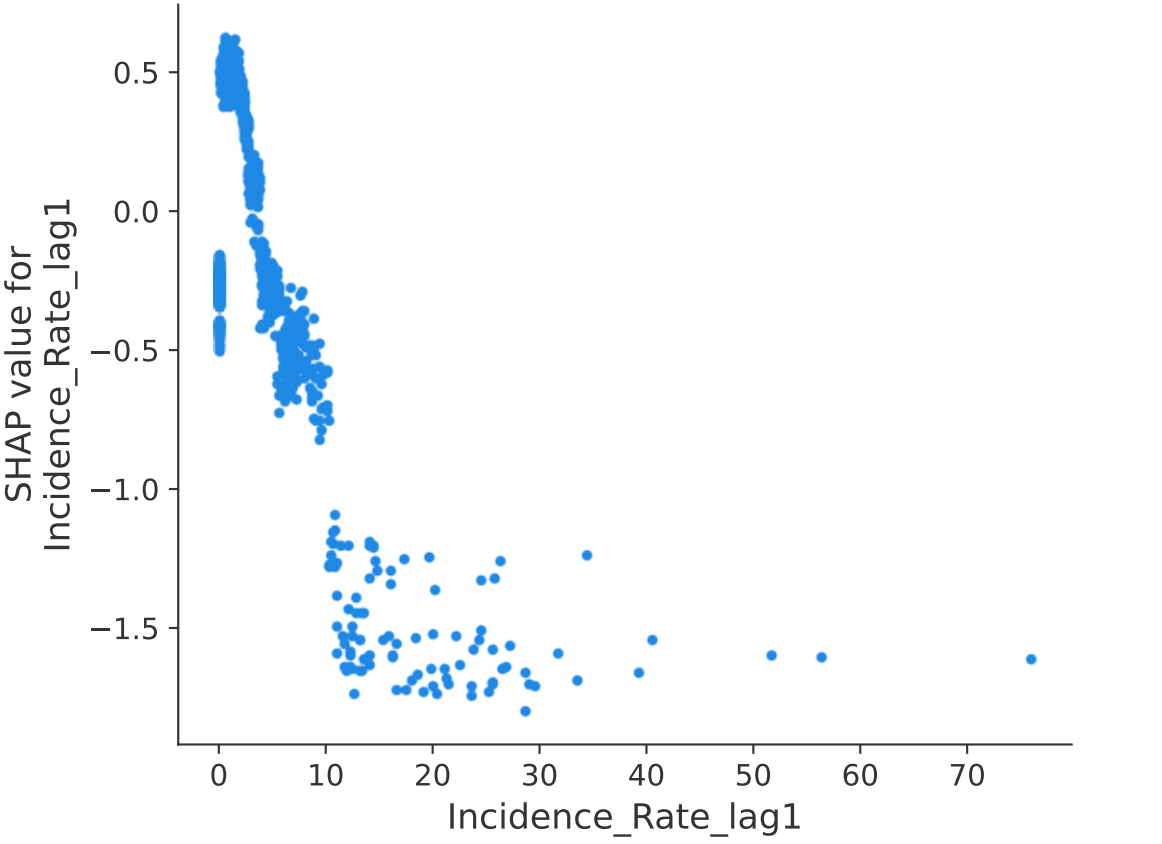

Confusion Matrix - Sumatra
155
154
46
65
368
119
20
92
337
0
1
2
True Label
0
1
2
Predicted Label
350
300
250
200
150
100
50

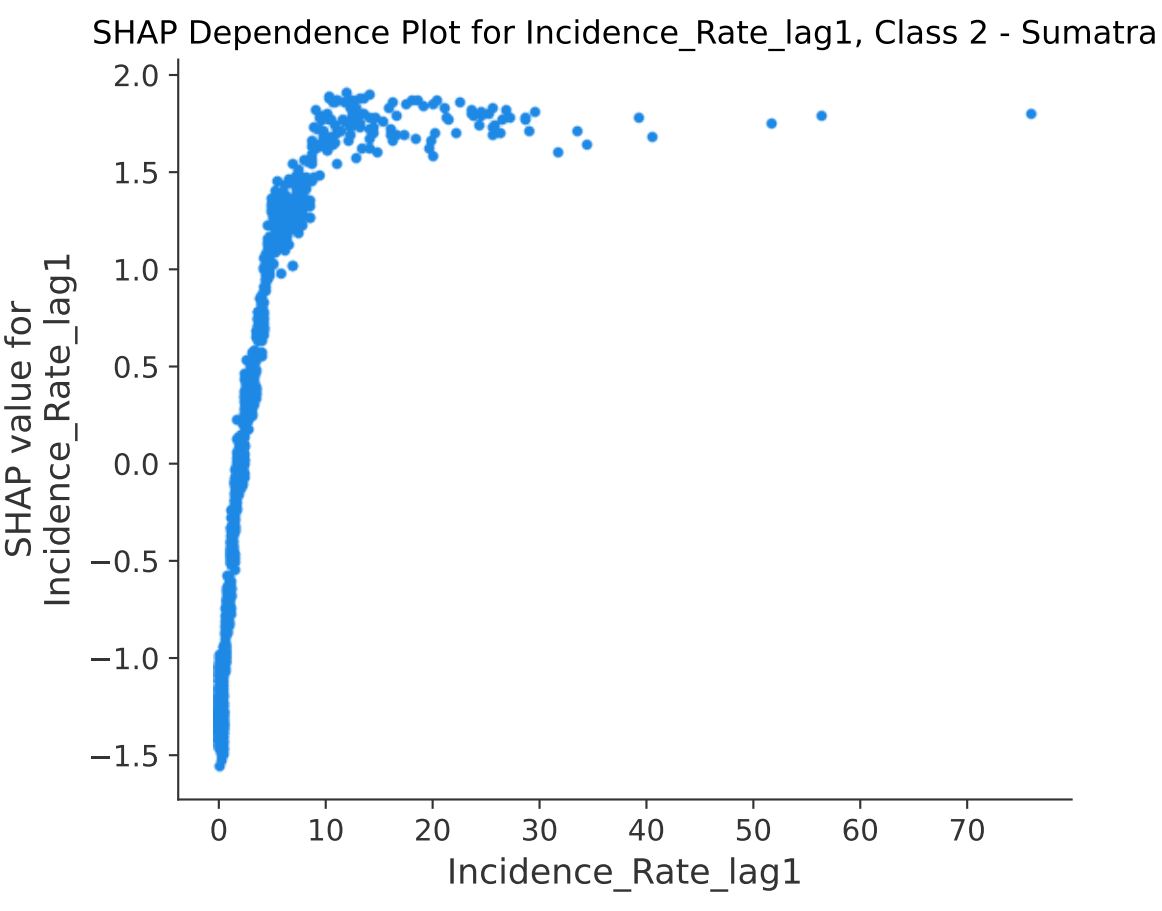

SHAP Beeswarm Plot for Class 0 - Sumatra
Incidence_Rate_lag1
Class_50
Class_40
ANOM4
DMI_lag3
Class_90
Class_60
Class_30
Class_20
ANOM3.4
ANOM3.4_lag2
Class_10
ANOM4_lag1
temperature_2m_max_lag3
DMI_East_lag3
DMI_East
total_evaporation_sum
ANOM1+2
Class_80
temperature_2m_min_ANOM_lag1
−1.5
−1.0
−0.5
0.0
0.5
1.0
SHAP value (impact on model output)
High
Feature value
Low

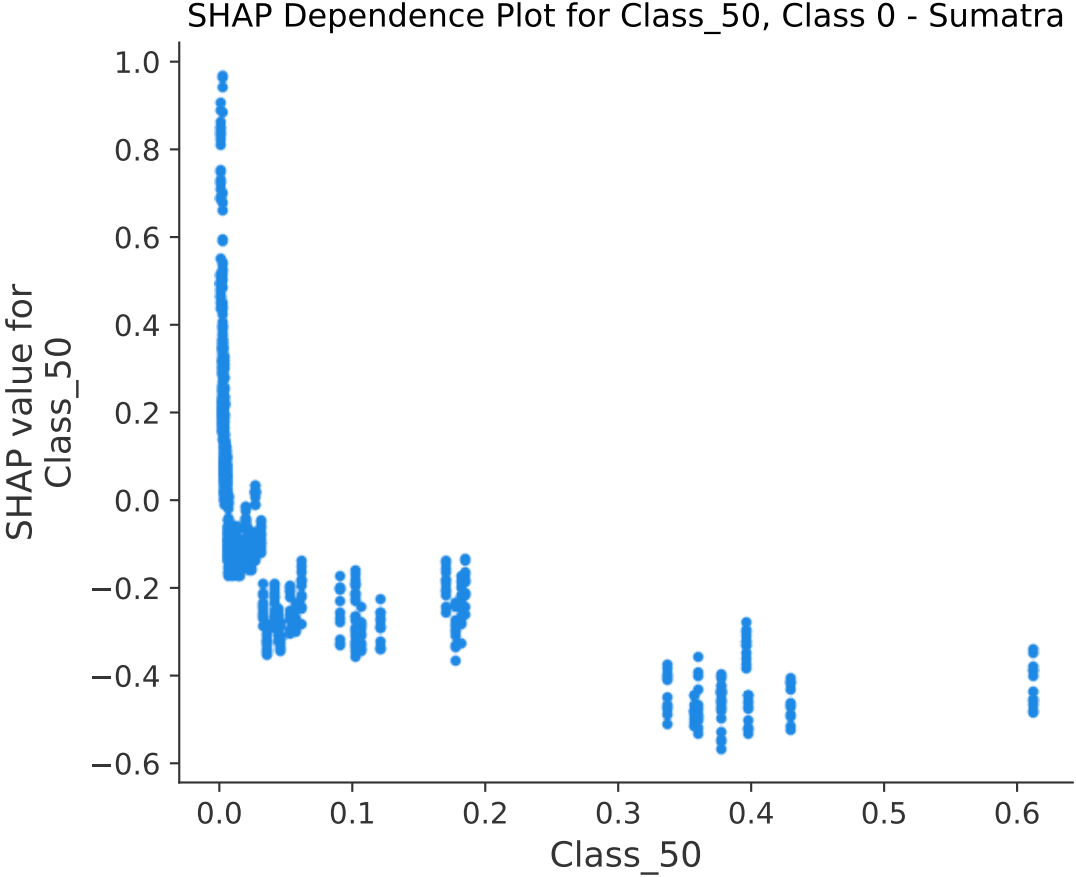

SHAP Beeswarm Plot for Class 1 - Sumatra
Incidence_Rate_lag1
Class_80
Class_90
temperature_2m_max
Class_50
Class_40
Class_10
Class_30
precipitation_lag3
temperature_2m_max_lag1
temperature_2m_lag3
Class_60
ANOM3_lag1
temperature_2m_min_lag2
temperature_2m_min_lag3
aridity_index_lag3
temperature_2m_min
temperature_2m_min_ANOM_lag2
DMI_East_lag1
temperature_2m_min_ANOM_lag3
−1.5
−1.0
−0.5
0.0
0.5
SHAP value (impact on model output)
High
Feature value
Low

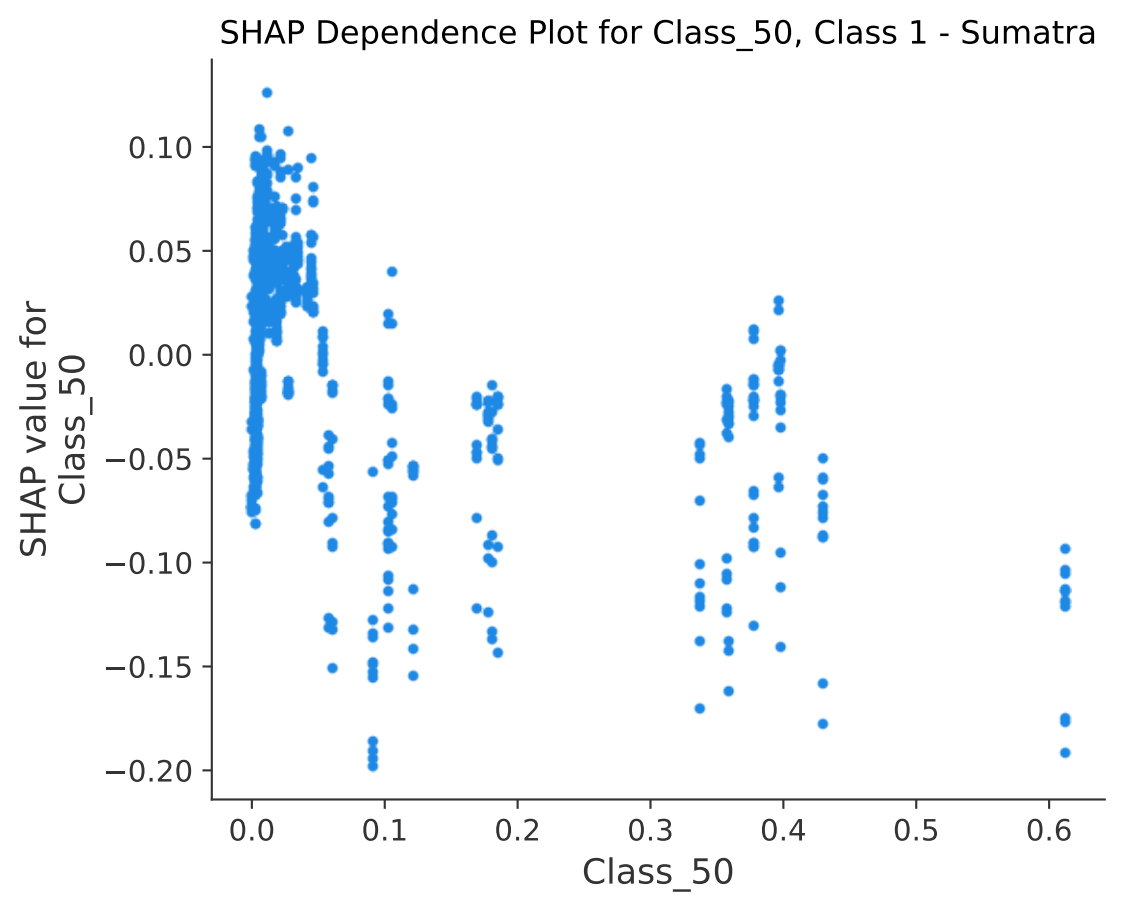

SHAP Beeswarm Plot for Class 2 - Sumatra
Incidence_Rate_lag1
Class_50
Class_40
precipitation_lag3
ANOM3_lag2
total_evaporation_sum_ANOM
aridity_index_lag3
Class_10
DMI_lag3
ANOM4
Class_90
Class_80
ANOM1+2_lag3
total_evaporation_sum_lag1
temperature_2m_ANOM_lag1
temperature_2m_max_ANOM_lag3
ANOM4_lag1
Class_20
Class_30
DMI_East
−1
0
1
2
SHAP value (impact on model output)
High
Feature value
Low

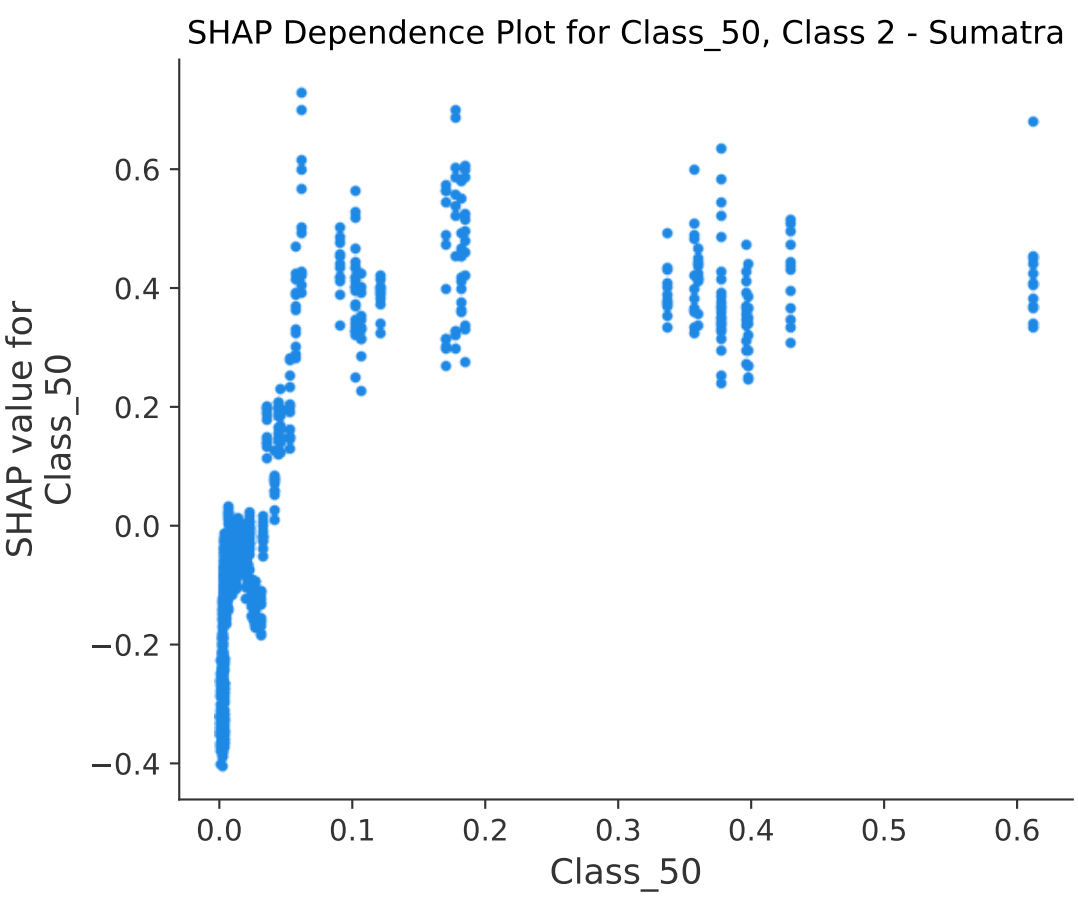

SHAP Dependence Plot for Incidence_Rate_lag1, Class 0 - Sumatra
SHAP value for Incidence_Rate_lag1
Incidence_Rate_lag1
1.0
0.5
0.0
−0.5
−1.0
−1.5
0
10
20
30
40
50
60
70

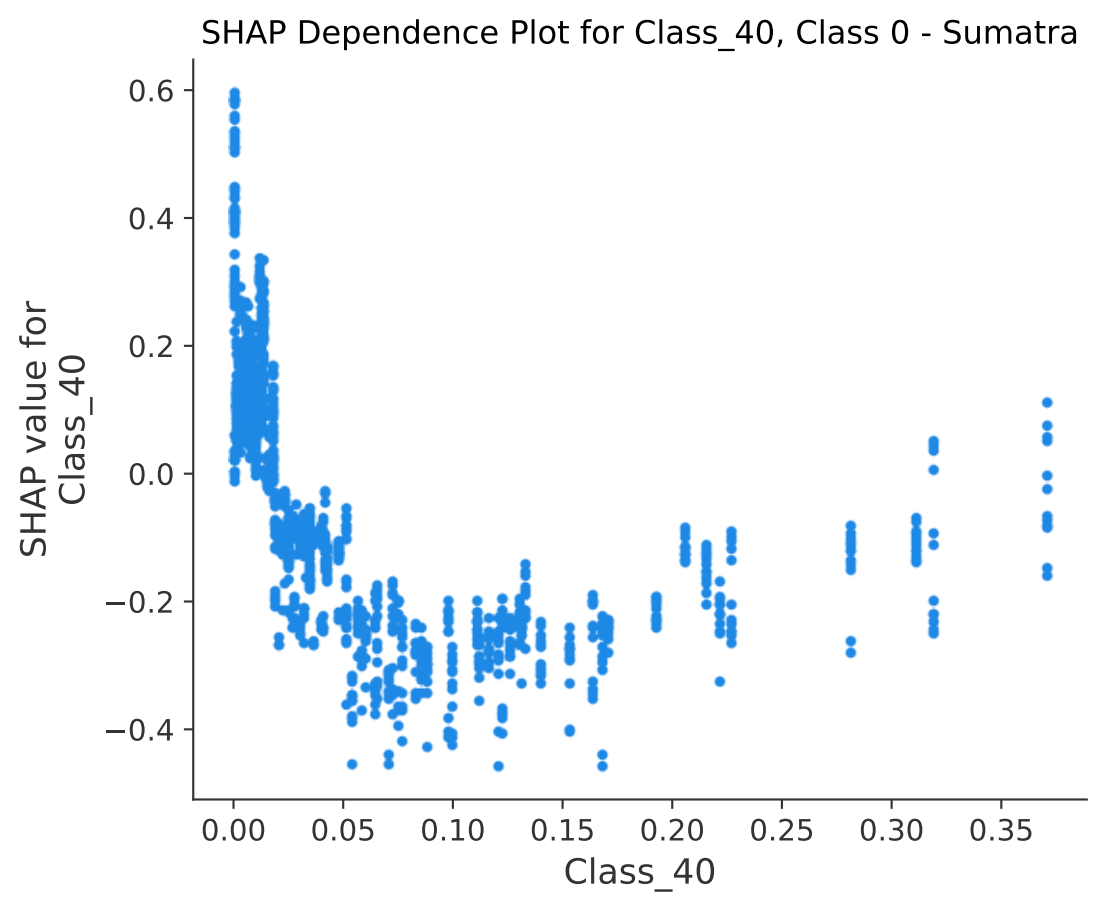

SHAP Dependence Plot for Incidence_Rate_lag1, Class 1 - Sumatra
SHAP value for Incidence_Rate_lag1
0.5
0.0
−0.5
−1.0
−1.5
0
10
20
30
40
50
60
70
Incidence_Rate_lag1

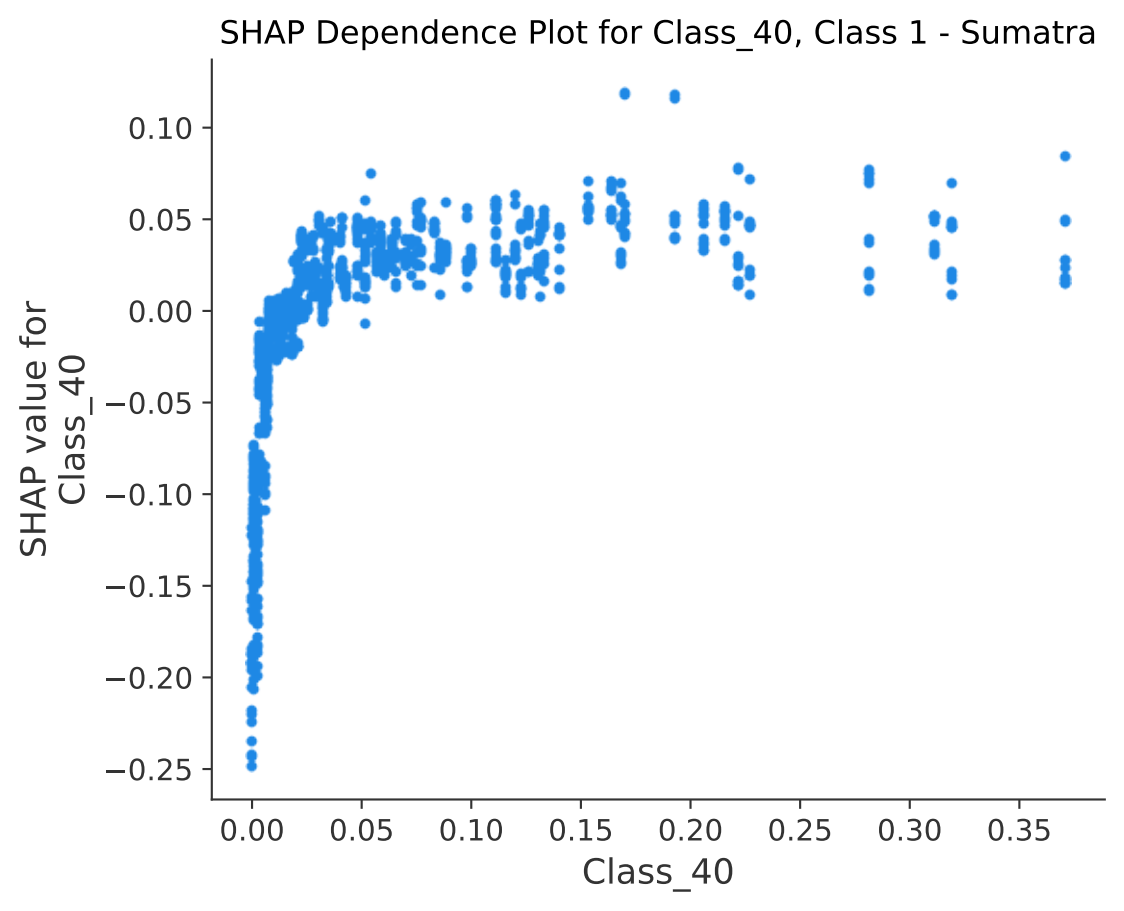

SHAP Dependence Plot for Incidence_Rate_lag1, Class 2 - Sumatra
SHAP value for Incidence_Rate_lag1
Incidence_Rate_lag1
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
0
10
20
30
40
50
60
70

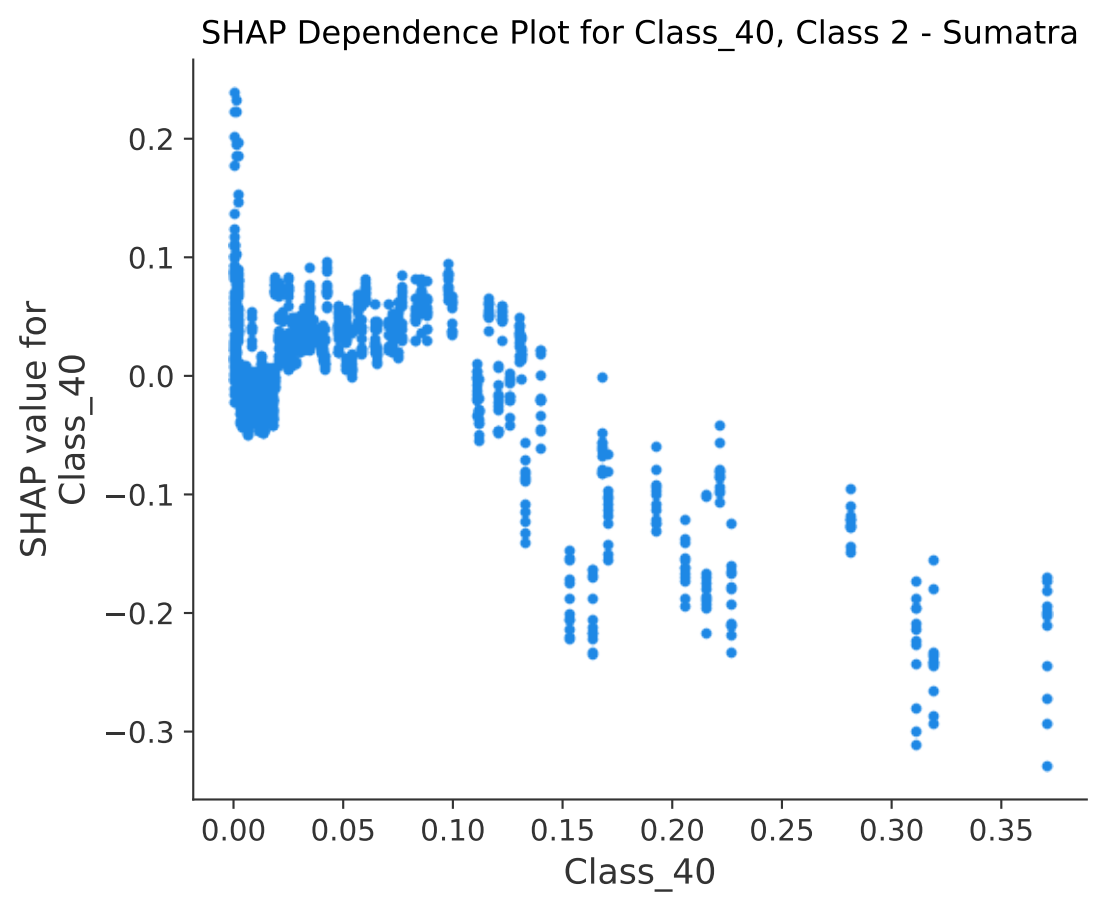

SHAP Dependence Plot for Class_50, Class 0 - Sumatra
SHAP value for Class_50
Class_50
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6
0.0
0.1
0.2
0.3
0.4
0.5
0.6

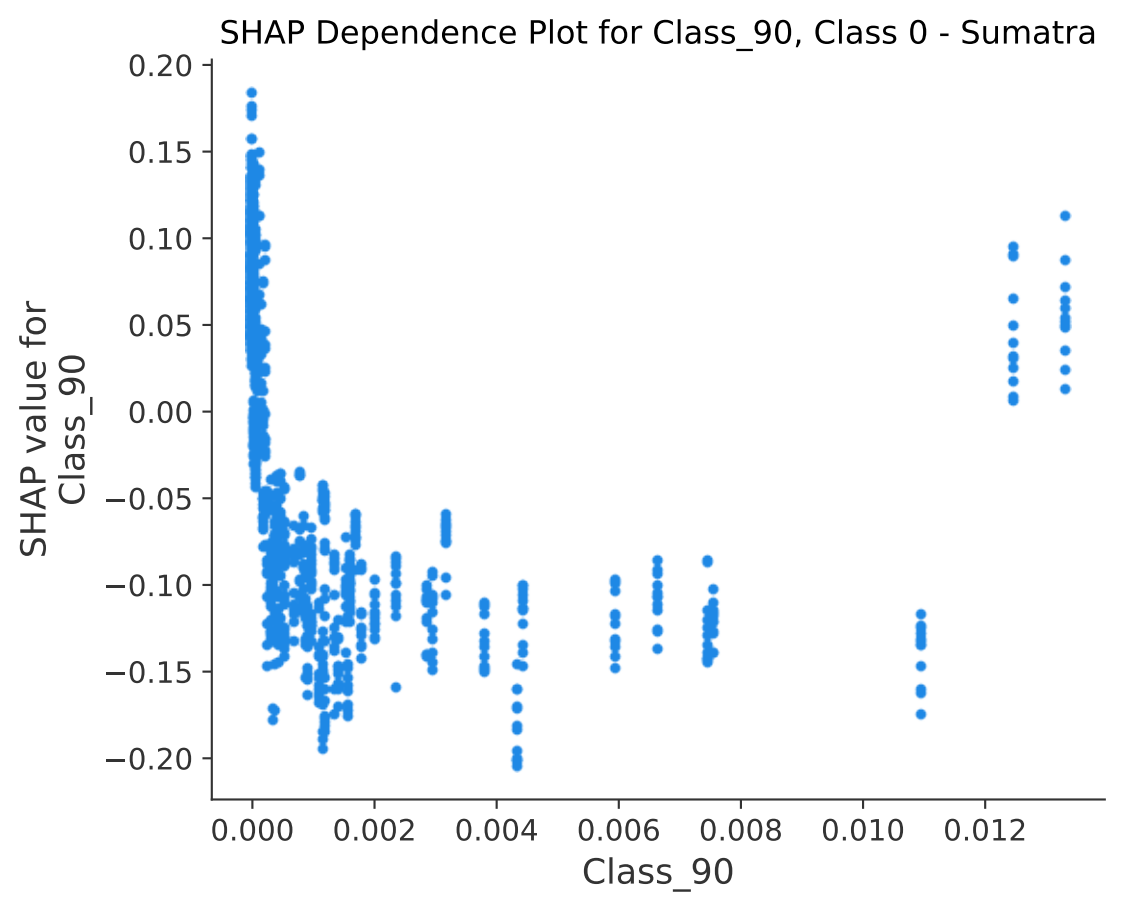

SHAP Dependence Plot for Class_50, Class 1 - Sumatra
SHAP value for Class_50
Class_50
0.10
0.05
0.00
−0.05
−0.10
−0.15
−0.20
0.0
0.1
0.2
0.3
0.4
0.5
0.6

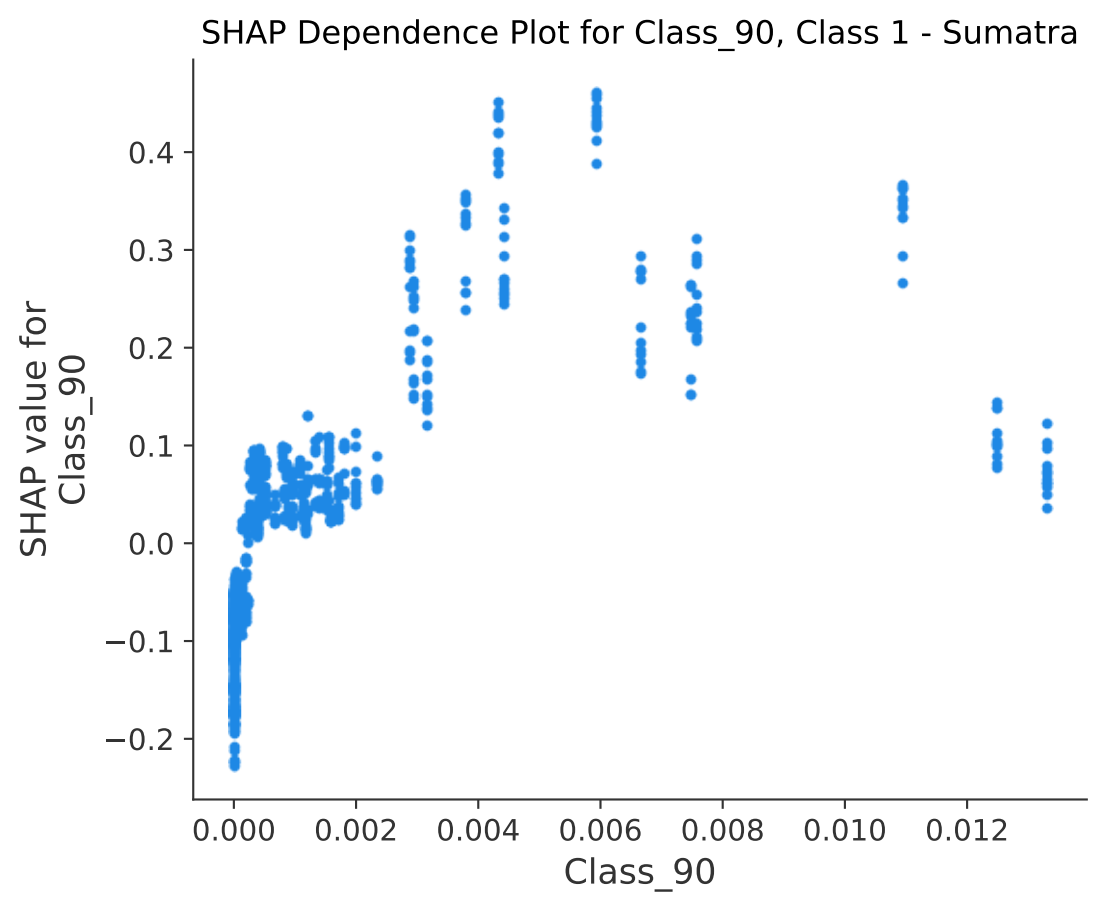

SHAP Dependence Plot for Class_50, Class 2 - Sumatra
SHAP value for Class_50
Class_50
0.6
0.4
0.2
0.0
−0.2
−0.4
0.0
0.1
0.2
0.3
0.4
0.5
0.6

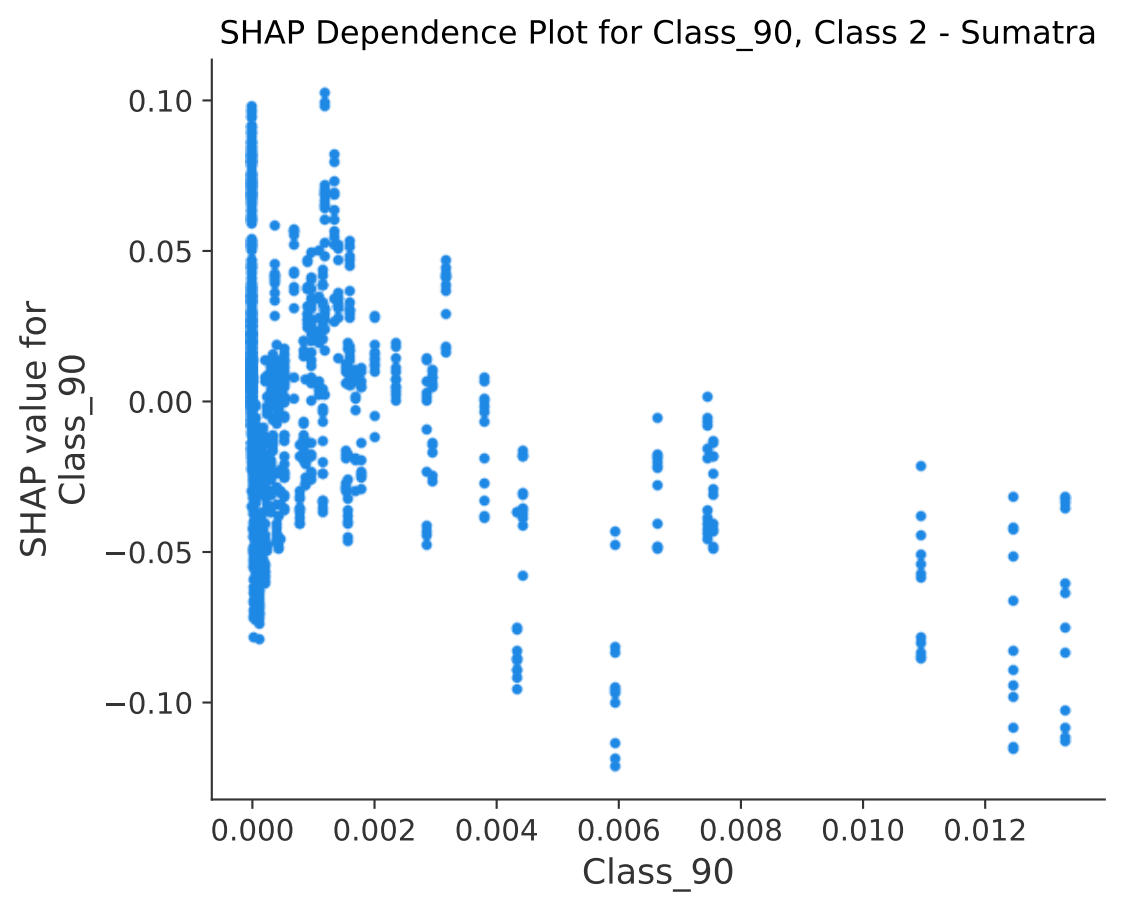

SHAP Dependence Plot for Class_40, Class 0 - Sumatra
SHAP value for Class_40
0.6
0.4
0.2
0.0
−0.2
−0.4
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35
Class_40

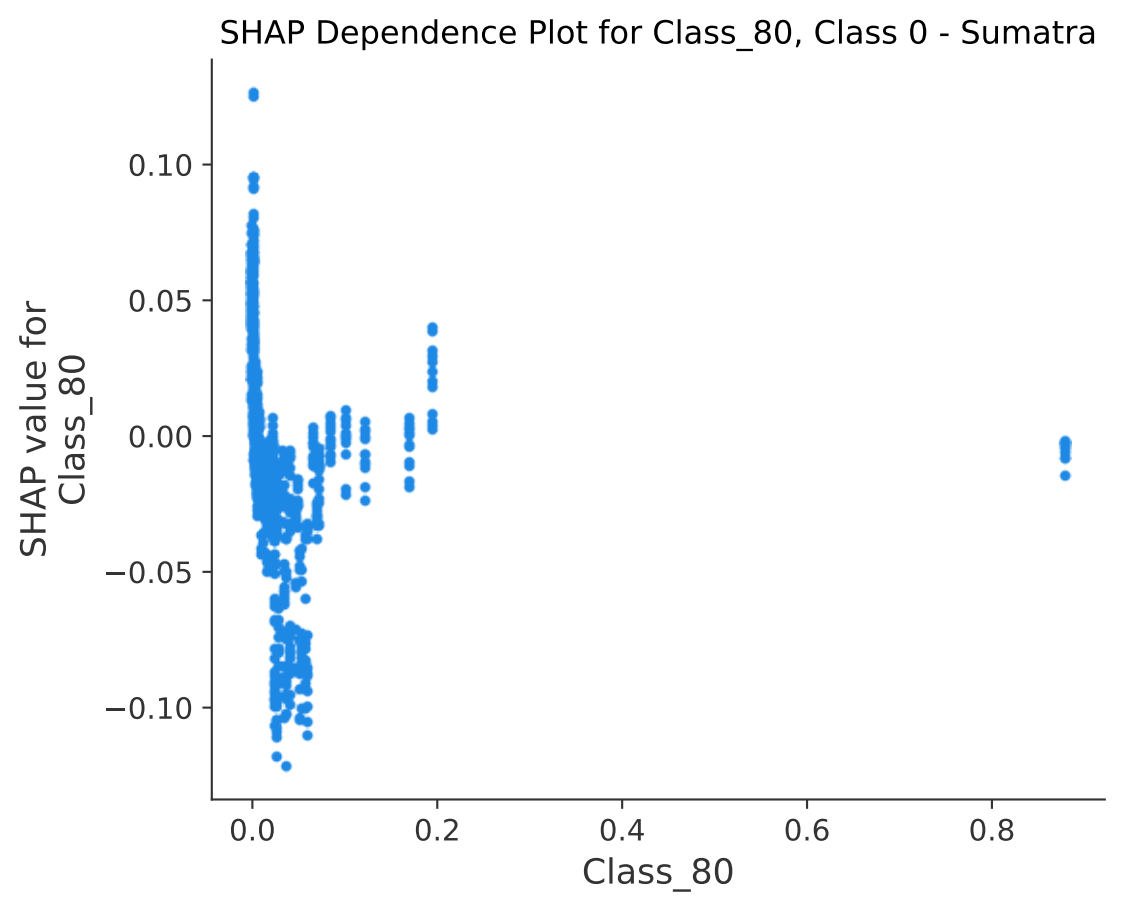

SHAP Dependence Plot for Class_40, Class 1 - Sumatra
SHAP value for Class_40
Class_40
0.10
0.05
0.00
−0.05
−0.10
−0.15
−0.20
−0.25
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35

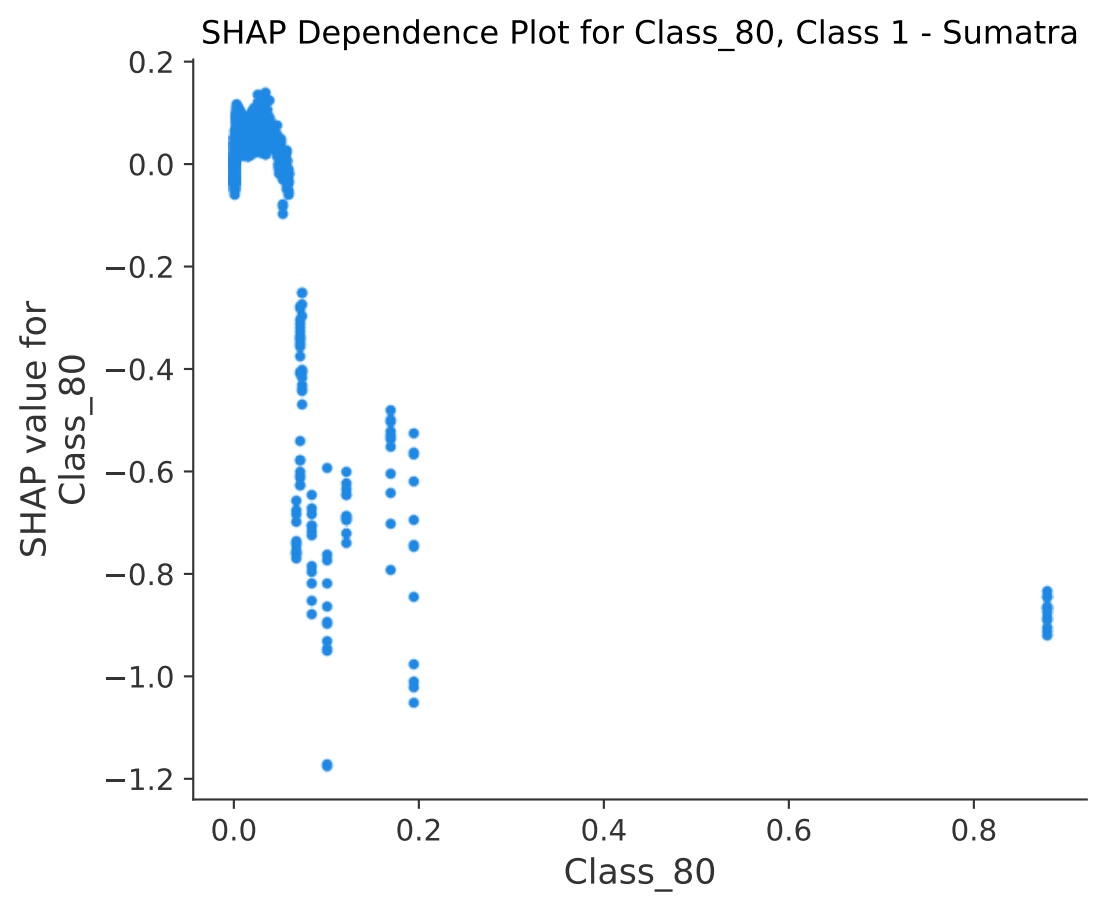

SHAP Dependence Plot for Class_40, Class 2 - Sumatra
SHAP value for Class_40
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35
Class_40

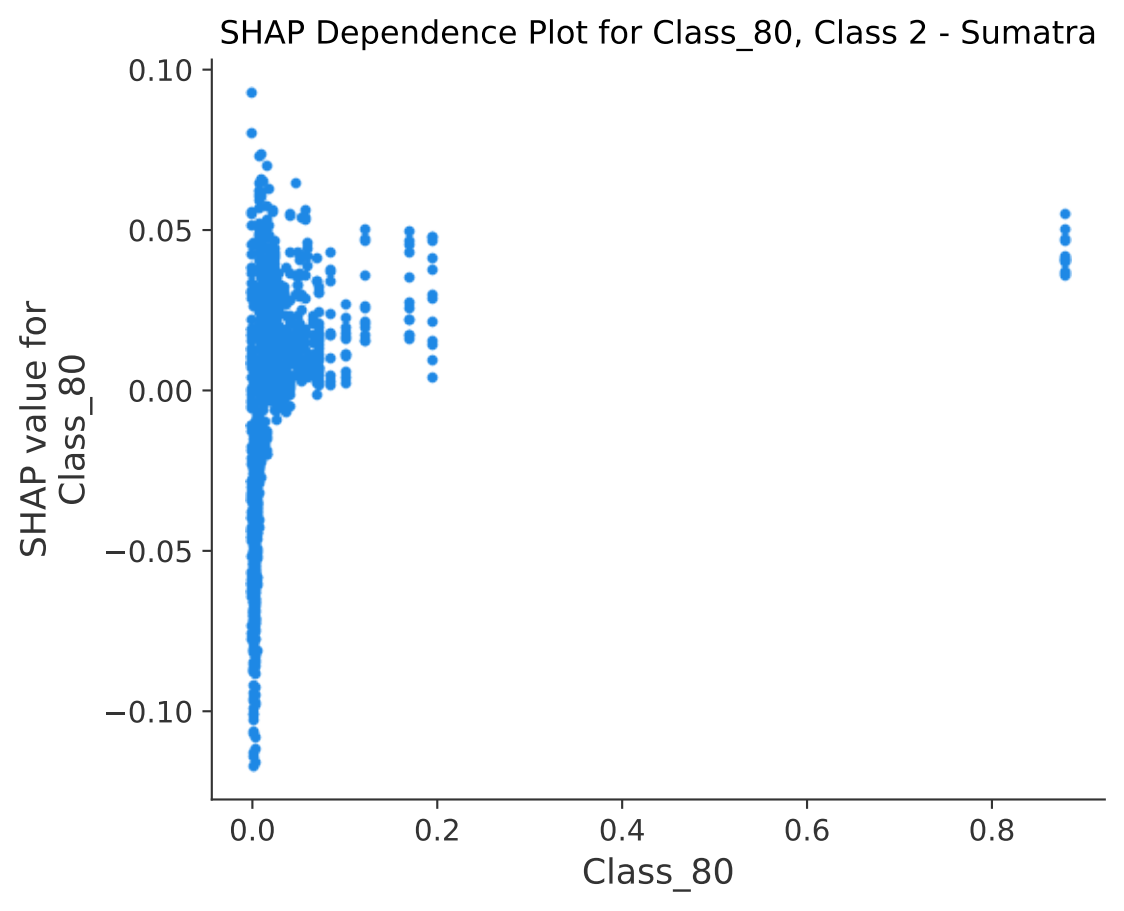

SHAP Dependence Plot for Class_90, Class 0 - Sumatra
SHAP value for Class_90
0.20
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
−0.20
0.000
0.002
0.004
0.006
0.008
0.010
0.012
Class_90

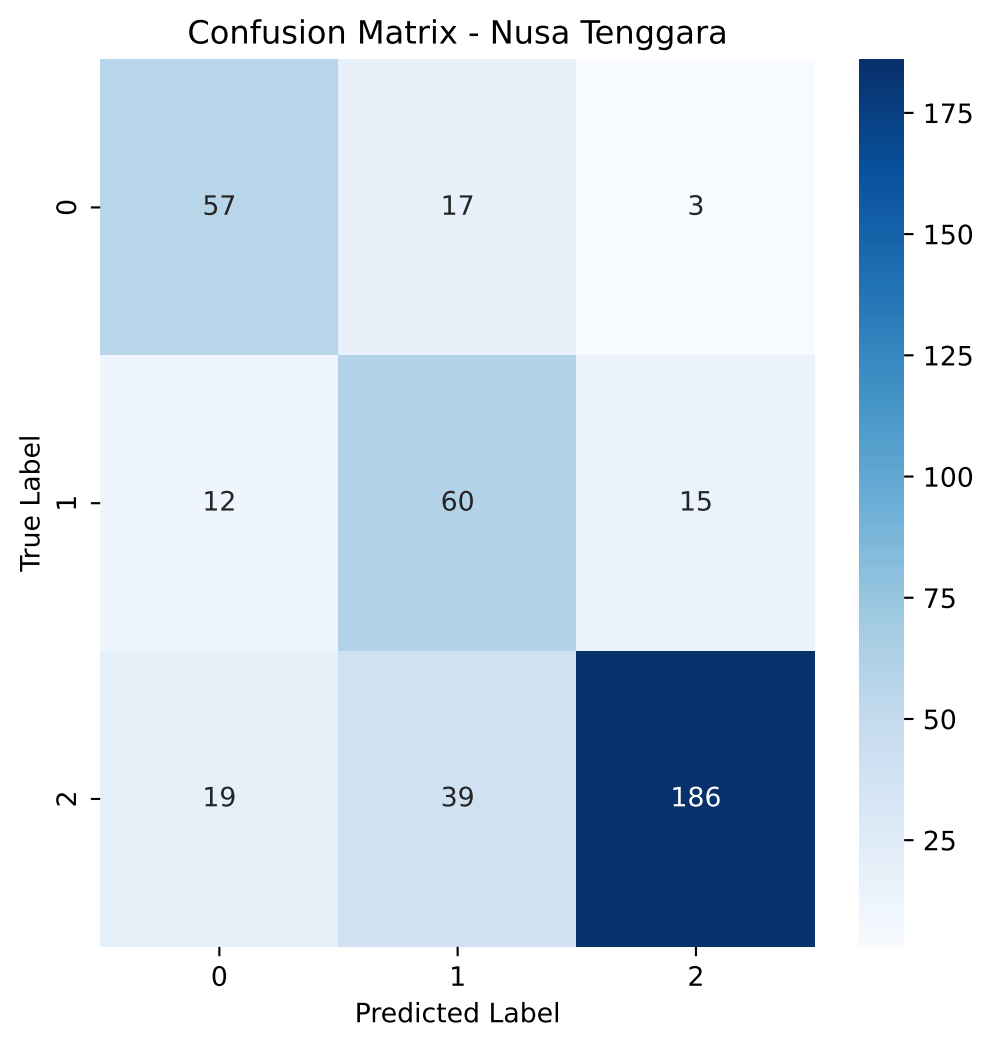

SHAP Dependence Plot for Class_90, Class 1 - Sumatra
SHAP value for Class_90
0.4
0.3
0.2
0.1
0.0
−0.1
−0.2
0.000
0.002
0.004
0.006
0.008
0.010
0.012
Class_90

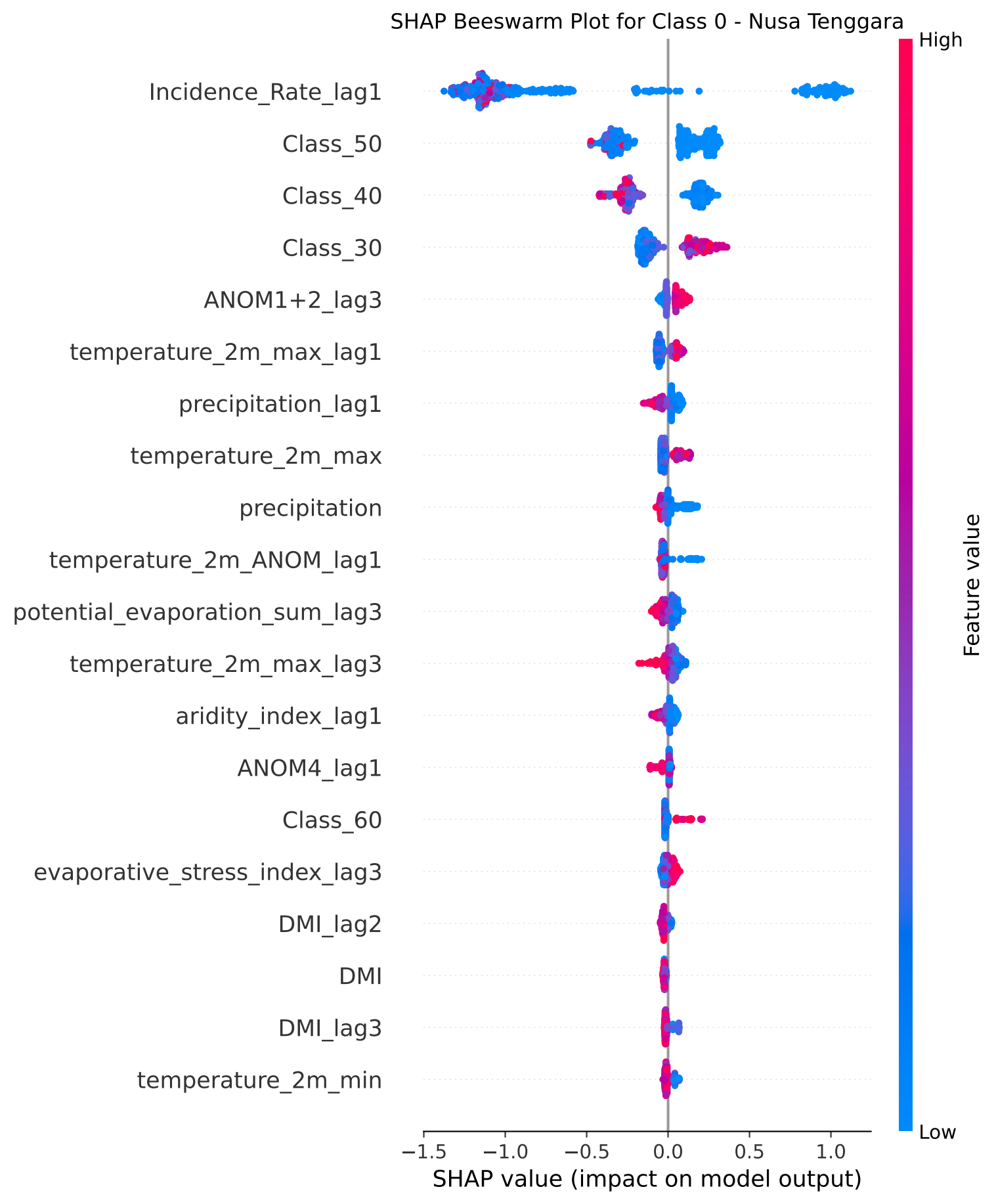

SHAP Dependence Plot for Class_90, Class 2 - Sumatra
SHAP value for Class_90
0.10
0.05
0.00
−0.05
−0.10
0.000
0.002
0.004
0.006
0.008
0.010
0.012
Class_90

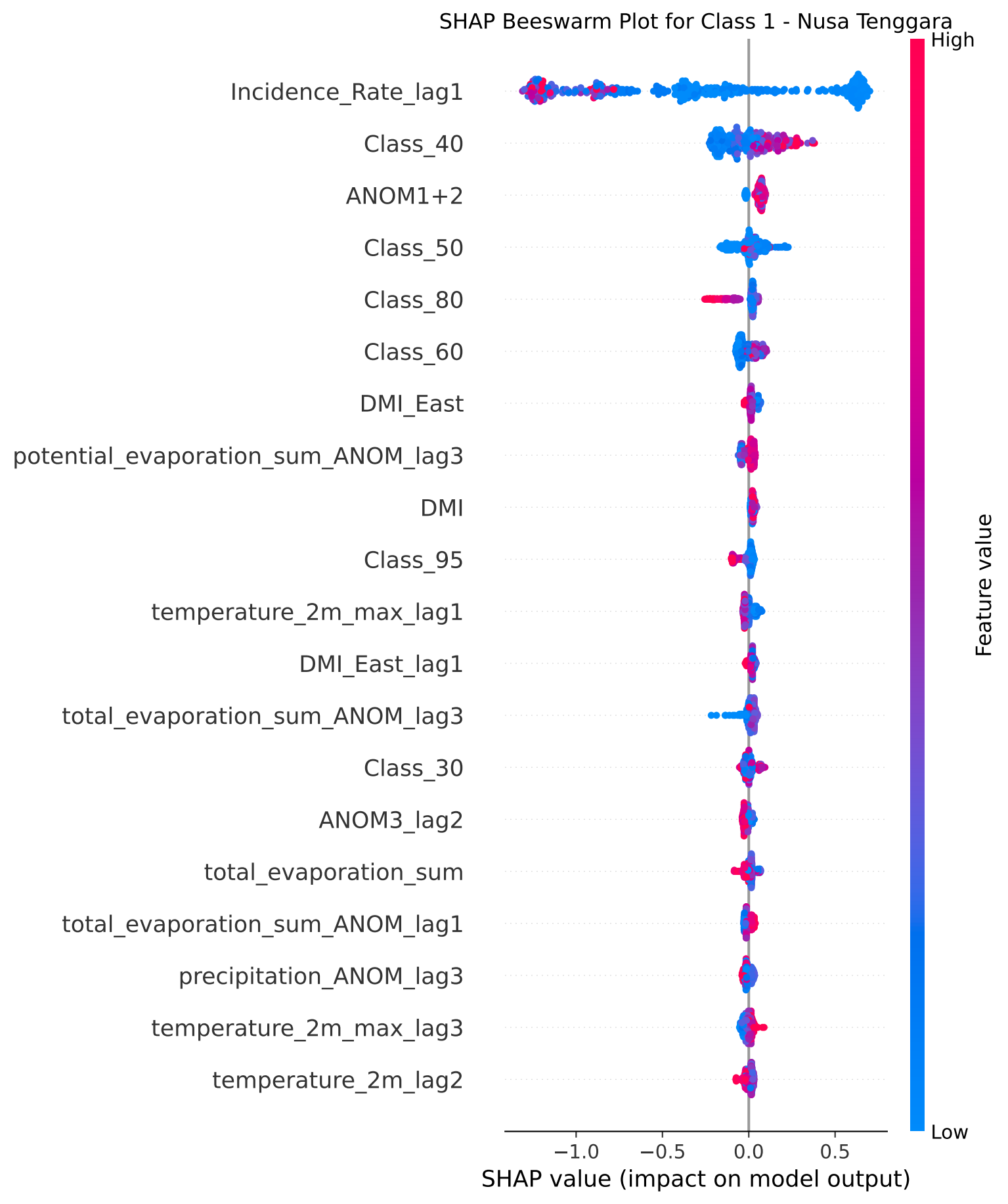

SHAP Dependence Plot for Class_80, Class 0 - Sumatra
SHAP value for Class_80
0.10
0.05
0.00
−0.05
−0.10
0.0
0.2
0.4
0.6
0.8
Class_80

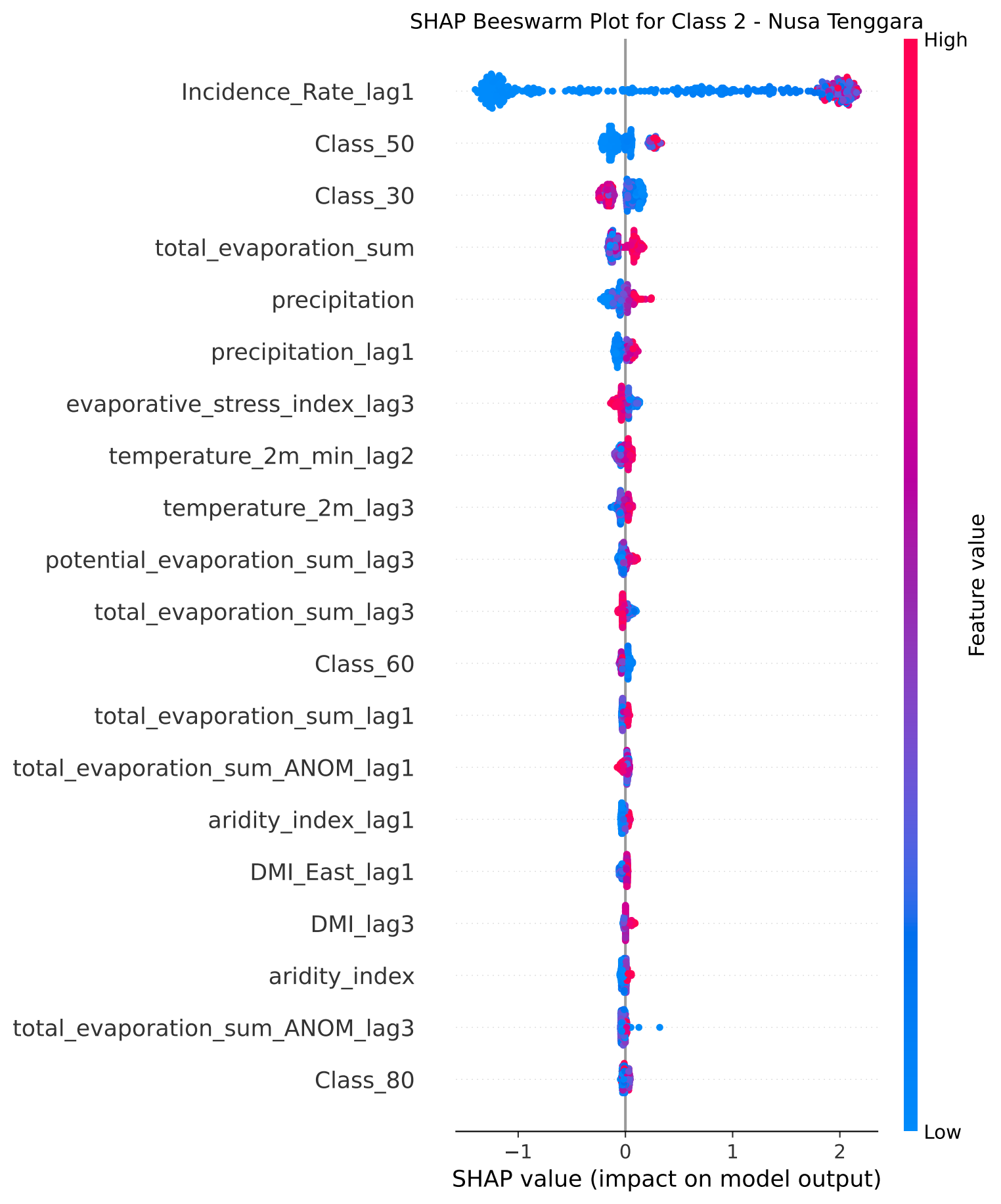

SHAP Dependence Plot for Class_80, Class 1 - Sumatra
SHAP value for Class_80
Class_80
0.2
0.0
−0.2
−0.4
−0.6
−0.8
−1.0
−1.2
0.0
0.2
0.4
0.6
0.8

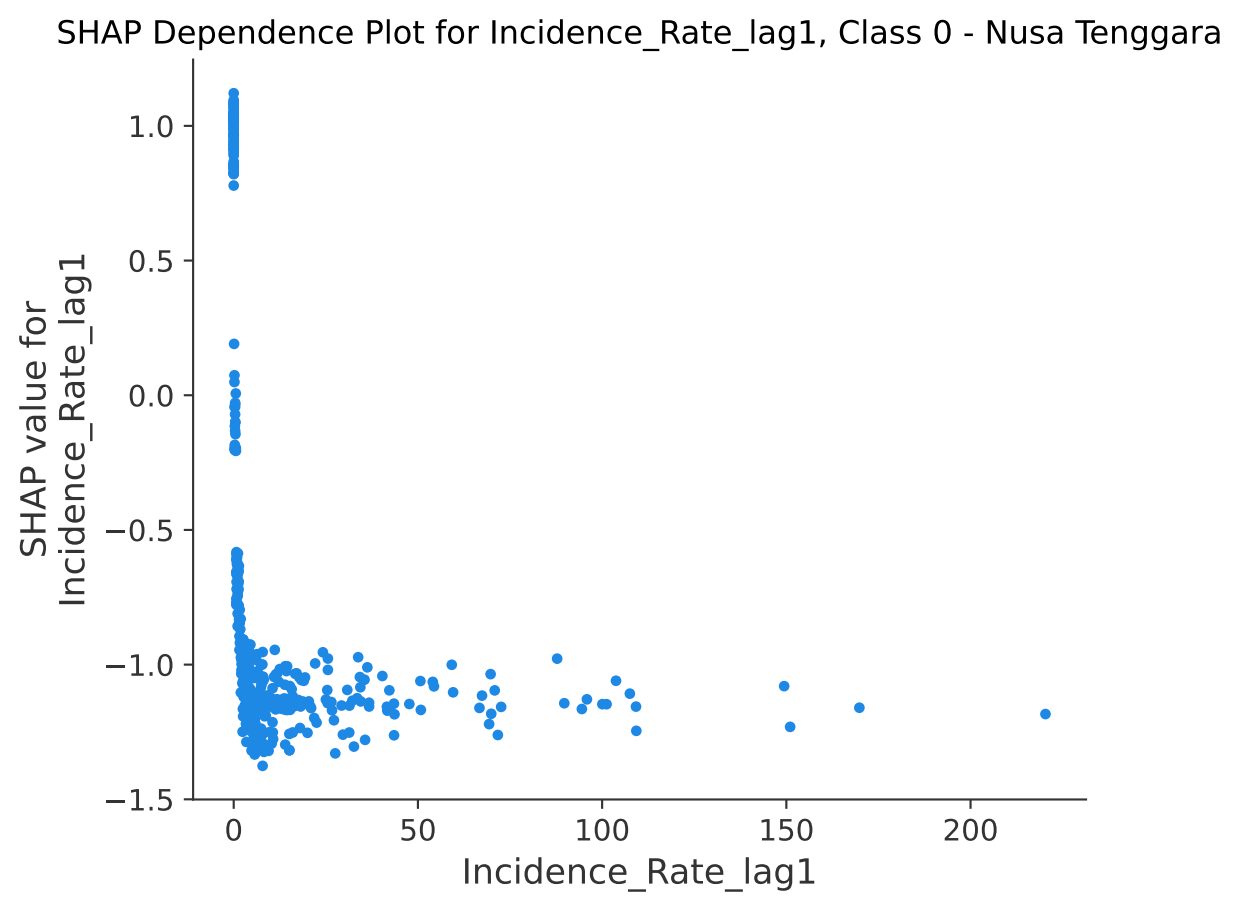

SHAP Dependence Plot for Class_80, Class 2 - Sumatra
SHAP value for Class_80
Class_80
0.10
0.05
0.00
−0.05
−0.10
0.0
0.2
0.4
0.6
0.8

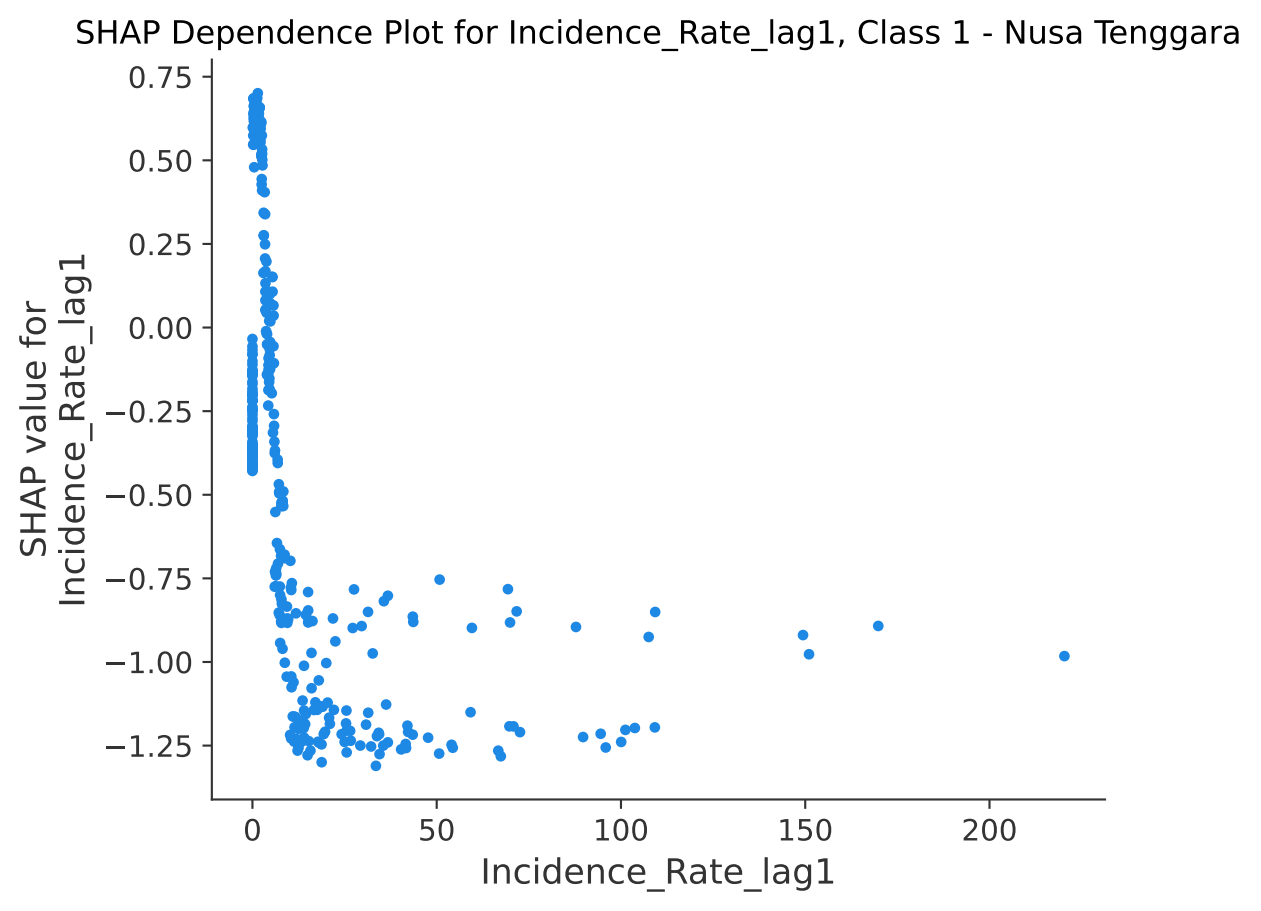

Confusion Matrix - Nusa Tenggara
True Label
Predicted Label
0
1
2
57
17
3
12
60
15
19
39
186
175
150
125
100
75
50
25

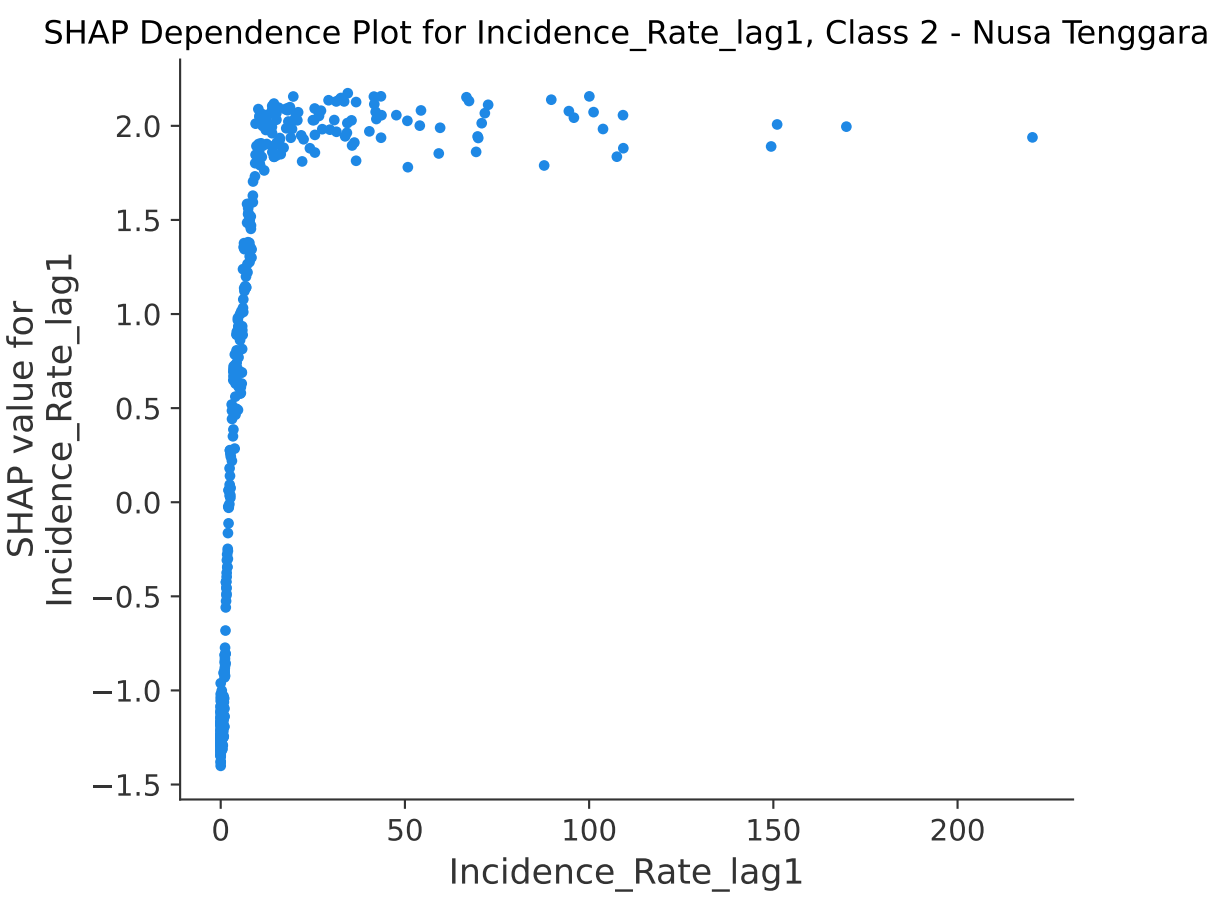

SHAP Beeswarm Plot for Class 0 - Nusa Tenggara
Incidence_Rate_lag1
Class_50
Class_40
Class_30
ANOM1+2_lag3
temperature_2m_max_lag1
precipitation_lag1
temperature_2m_max
precipitation
temperature_2m_ANOM_lag1
potential_evaporation_sum_lag3
temperature_2m_max_lag3
aridity_index_lag1
ANOM4_lag1
Class_60
evaporative_stress_index_lag3
DMI_lag2
DMI
DMI_lag3
temperature_2m_min
−1.5
−1.0
−0.5
0.0
0.5
1.0
SHAP value (impact on model output)
High
Feature value
Low

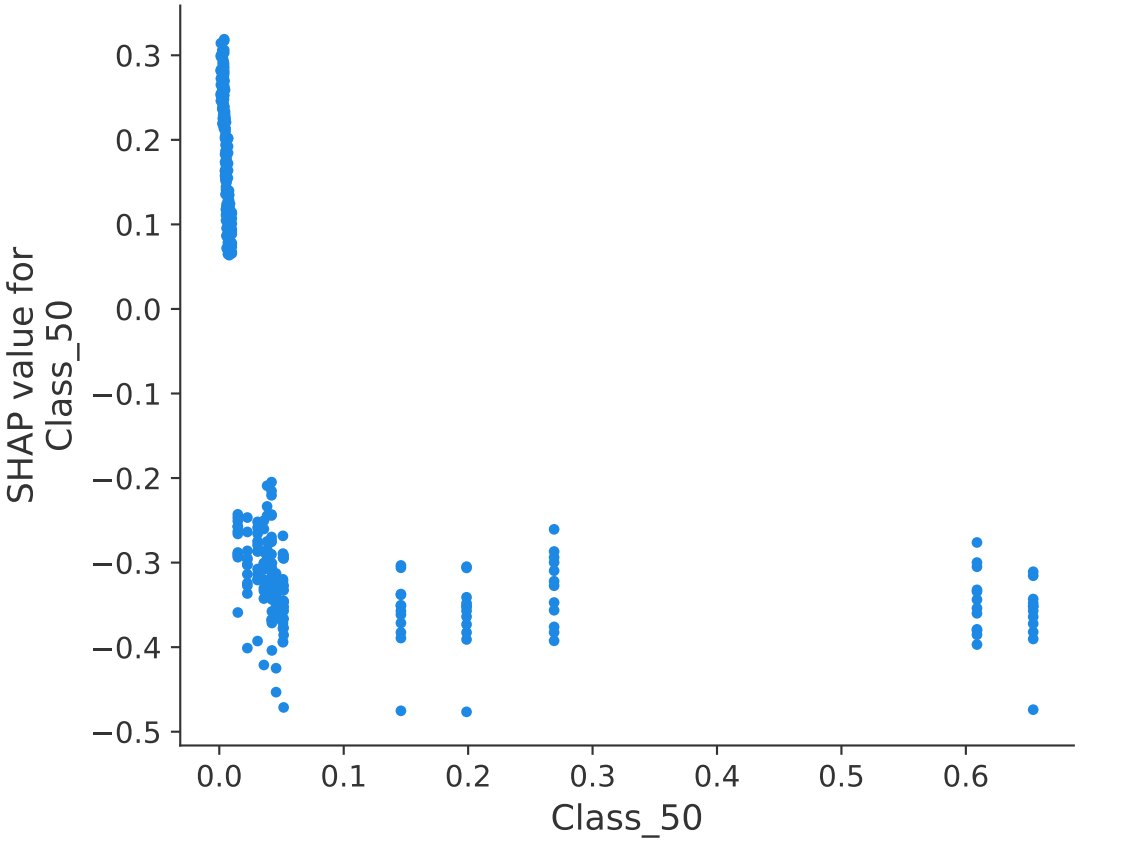

SHAP Beeswarm Plot for Class 1 - Nusa Tenggara
Incidence_Rate_lag1
Class_40
ANOM1+2
Class_50
Class_80
Class_60
DMI_East
potential_evaporation_sum_ANOM_lag3
DMI
Class_95
temperature_2m_max_lag1
DMI_East_lag1
total_evaporation_sum_ANOM_lag3
Class_30
ANOM3_lag2
total_evaporation_sum
total_evaporation_sum_ANOM_lag1
precipitation_ANOM_lag3
temperature_2m_max_lag3
temperature_2m_lag2
−1.0
−0.5
0.0
0.5
SHAP value (impact on model output)
High
Feature value
Low

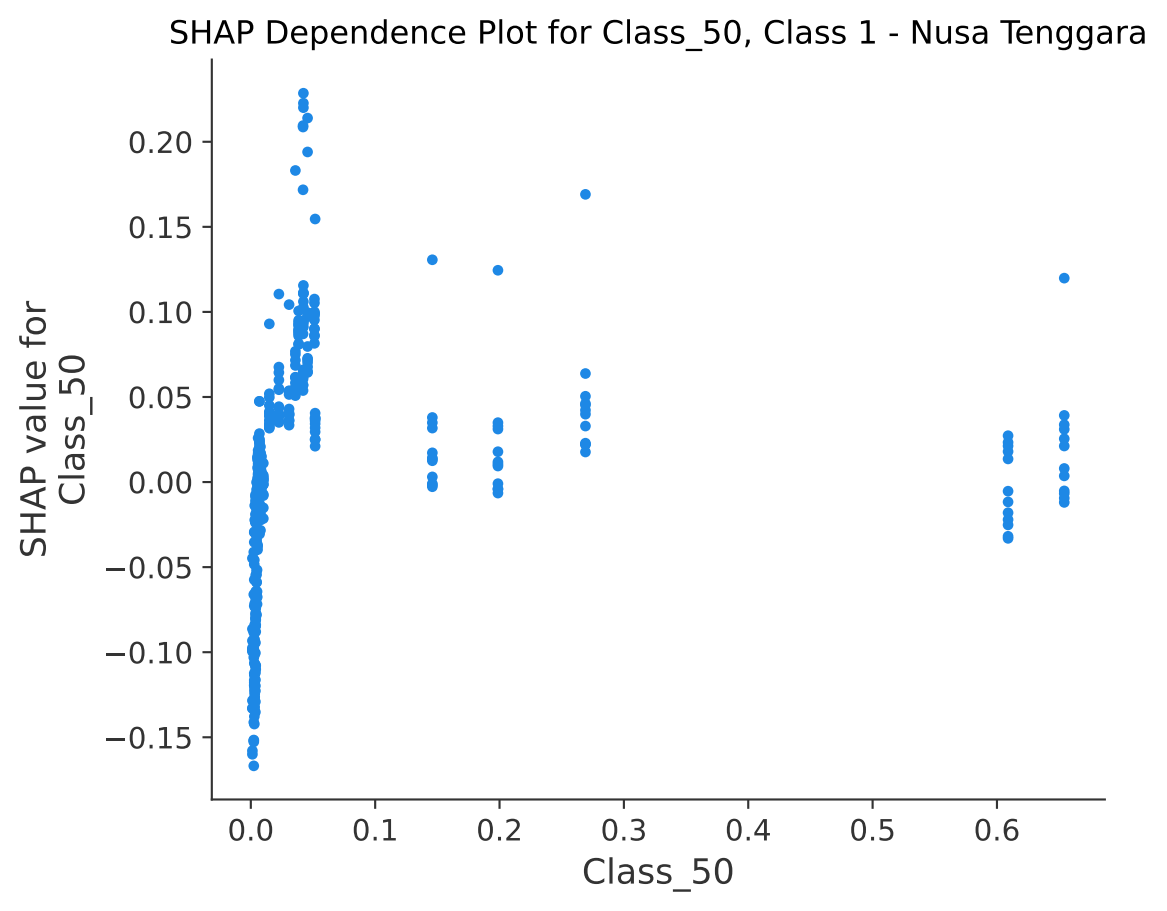

SHAP Beeswarm Plot for Class 2 - Nusa Tenggara
Incidence_Rate_lag1
Class_50
Class_30
total_evaporation_sum
precipitation
precipitation_lag1
evaporative_stress_index_lag3
temperature_2m_min_lag2
temperature_2m_lag3
potential_evaporation_sum_lag3
total_evaporation_sum_lag3
Class_60
total_evaporation_sum_lag1
total_evaporation_sum_ANOM_lag1
aridity_index_lag1
DMI_East_lag1
DMI_lag3
aridity_index
total_evaporation_sum_ANOM_lag3
Class_80
−1
0
1
2
SHAP value (impact on model output)
High
Feature value
Low

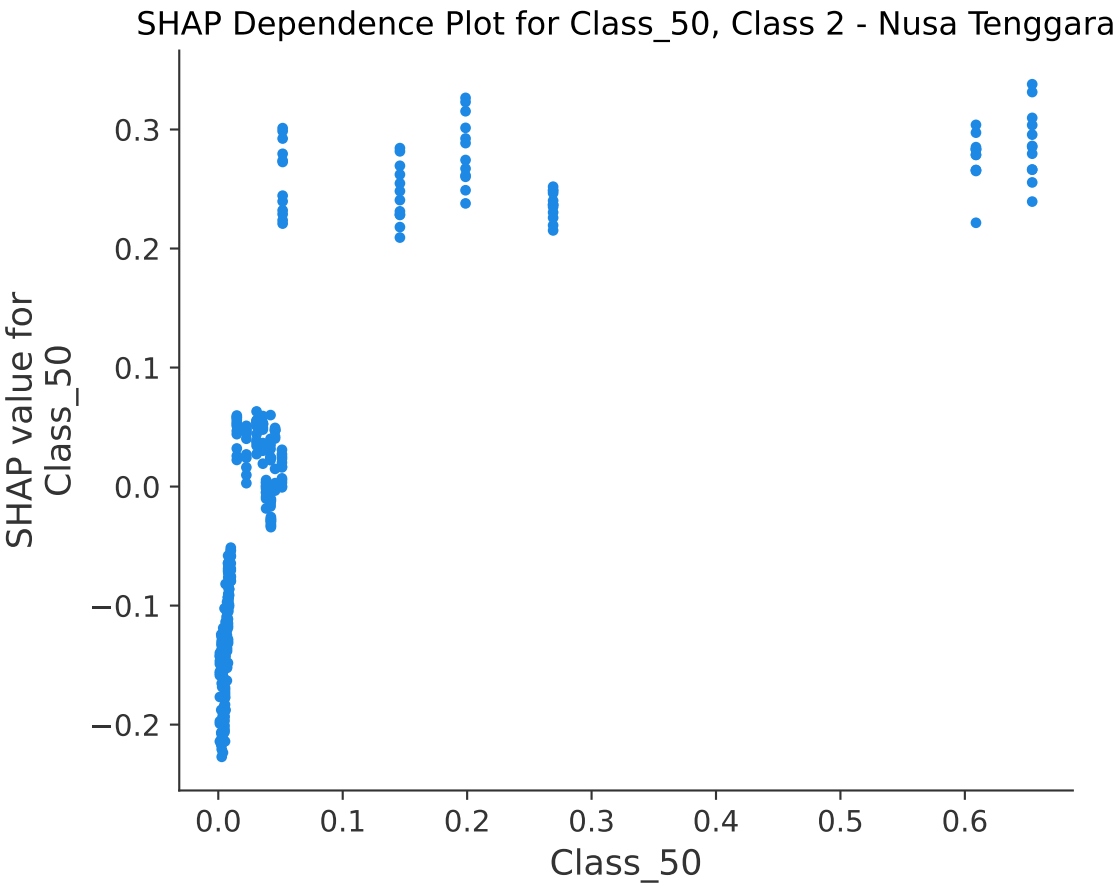

SHAP Dependence Plot for Incidence_Rate_lag1, Class 0 - Nusa Tenggara
SHAP value for Incidence_Rate_lag1
1.0
0.5
0.0
−0.5
−1.0
−1.5
0
50
100
150
200
Incidence_Rate_lag1

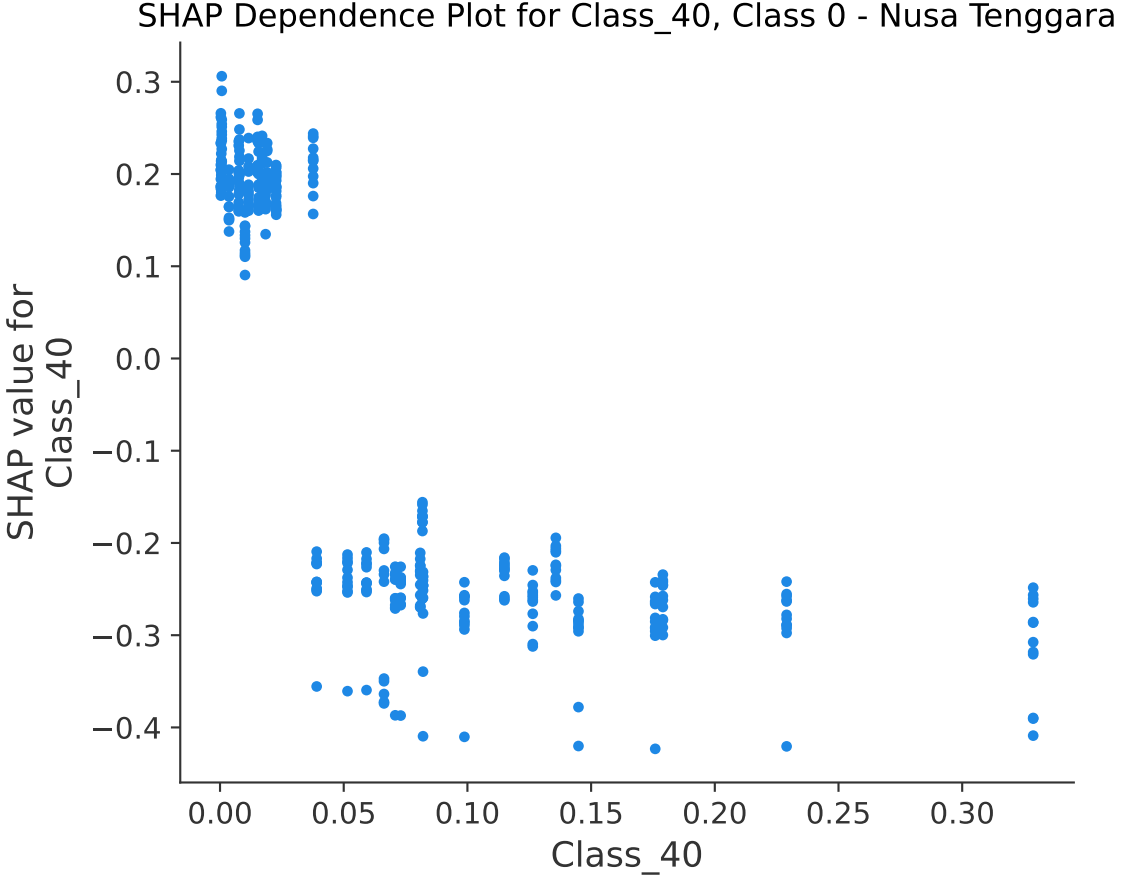

SHAP Dependence Plot for Incidence_Rate_lag1, Class 1 - Nusa Tenggara
SHAP value for Incidence_Rate_lag1
Incidence_Rate_lag1
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
−1.25
0
50
100
150
200

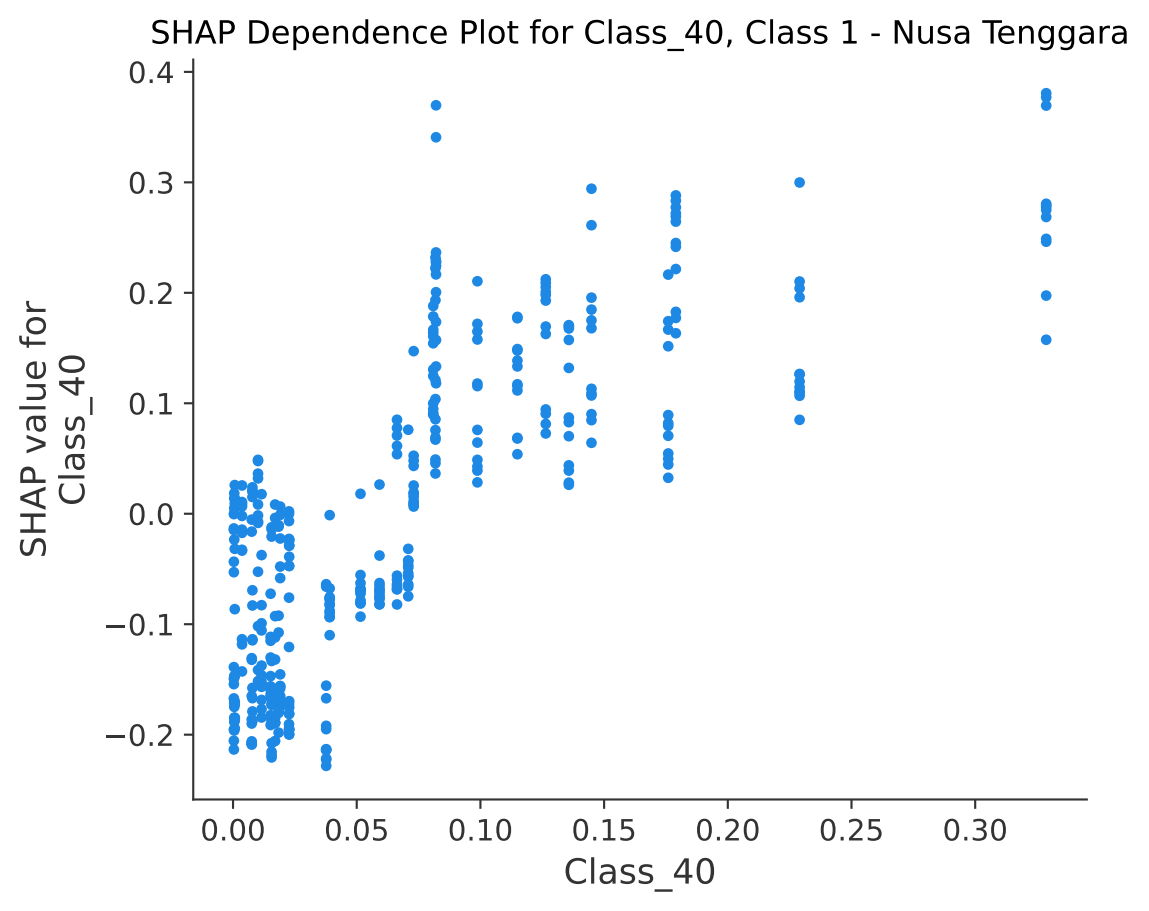

SHAP Dependence Plot for Incidence_Rate_lag1, Class 2 - Nusa Tenggara
SHAP value for Incidence_Rate_lag1
Incidence_Rate_lag1
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
0
50
100
150
200

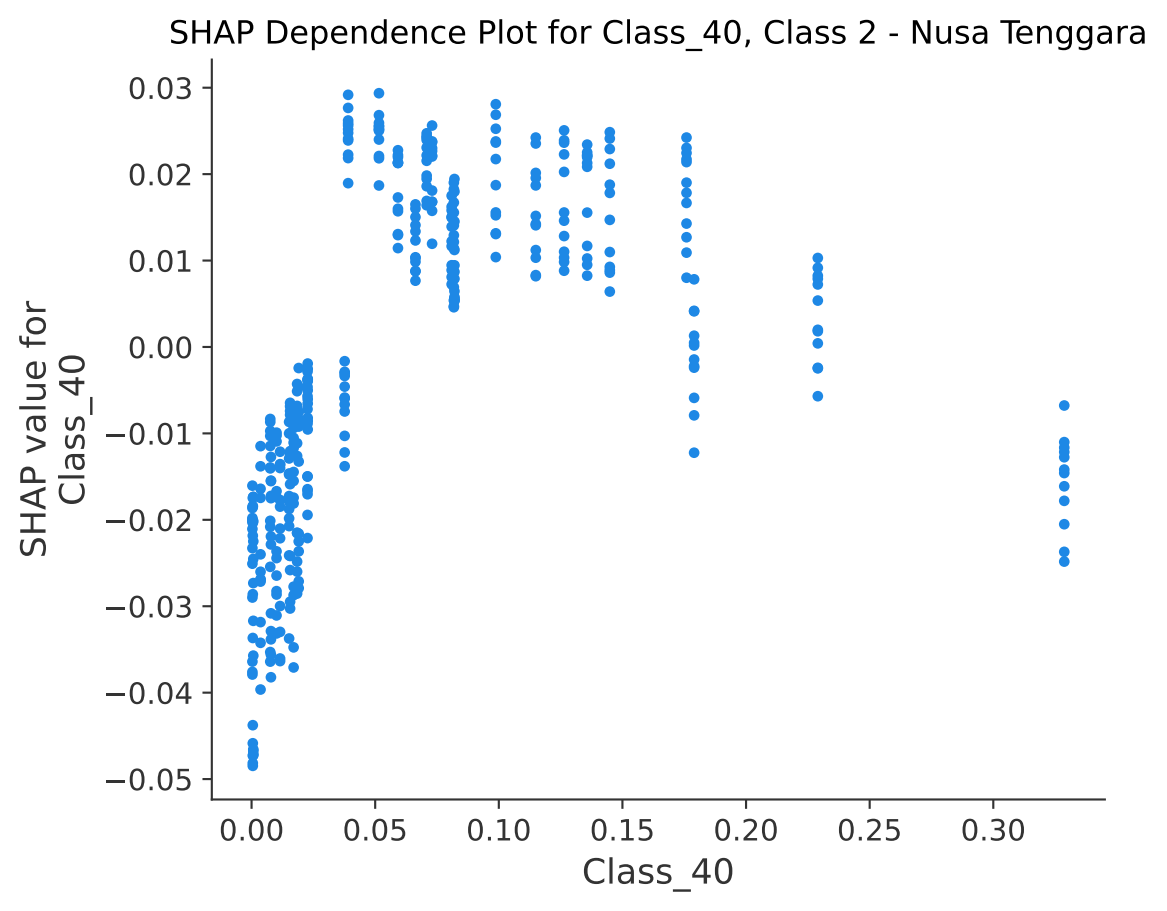

SHAP Dependence Plot for Class_50, Class 0 - Nusa Tenggara
SHAP value for Class_50
Class_50
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0.0
0.1
0.2
0.3
0.4
0.5
0.6

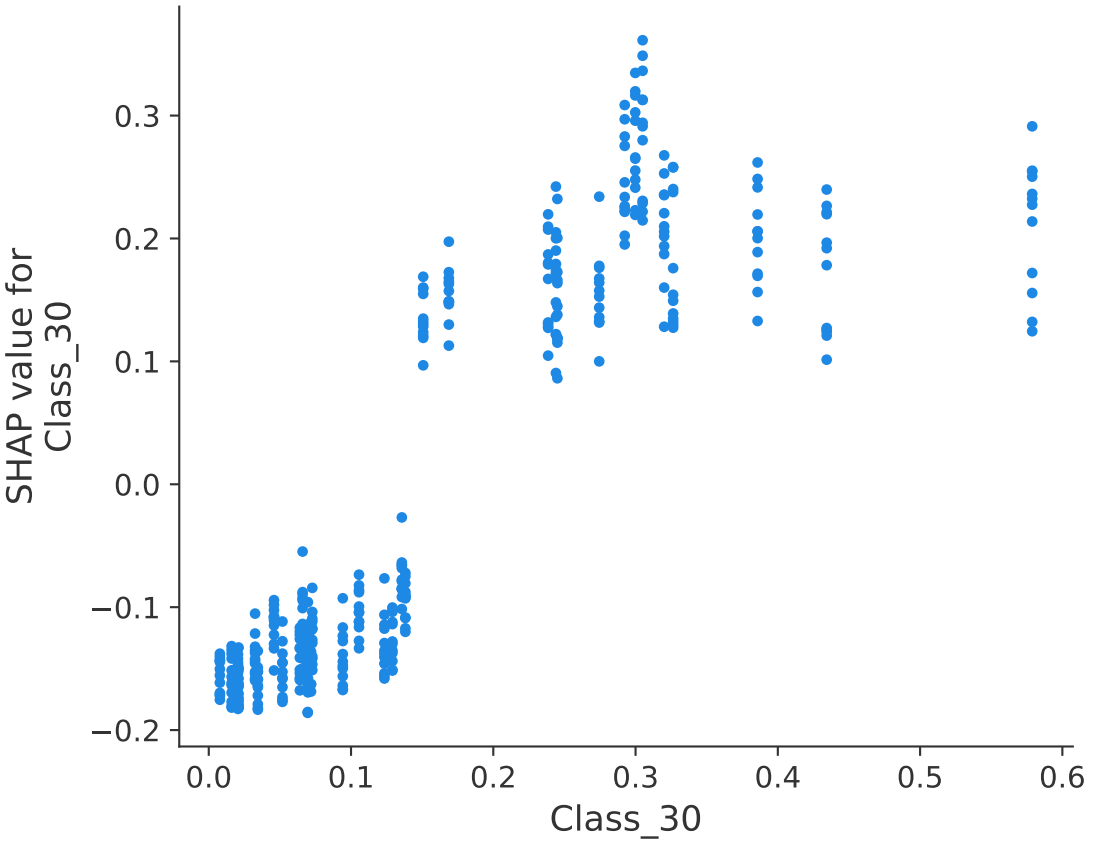

SHAP Dependence Plot for Class_50, Class 1 - Nusa Tenggara
SHAP value for Class_50
0.20
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
0.0
0.1
0.2
0.3
0.4
0.5
0.6
Class_50

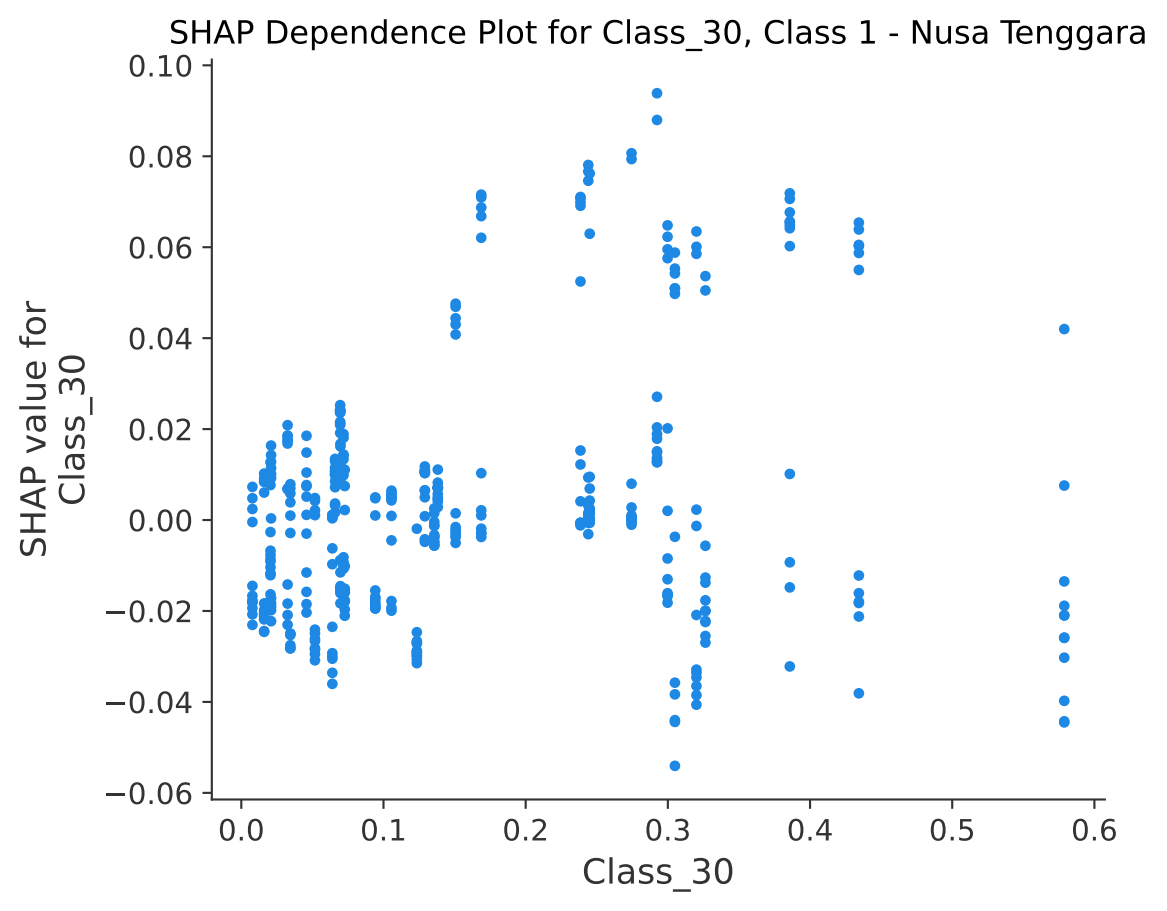

SHAP Dependence Plot for Class_50, Class 2 - Nusa Tenggara
SHAP value for Class_50
Class_50
0.3
0.2
0.1
0.0
−0.1
−0.2
0.0
0.1
0.2
0.3
0.4
0.5
0.6

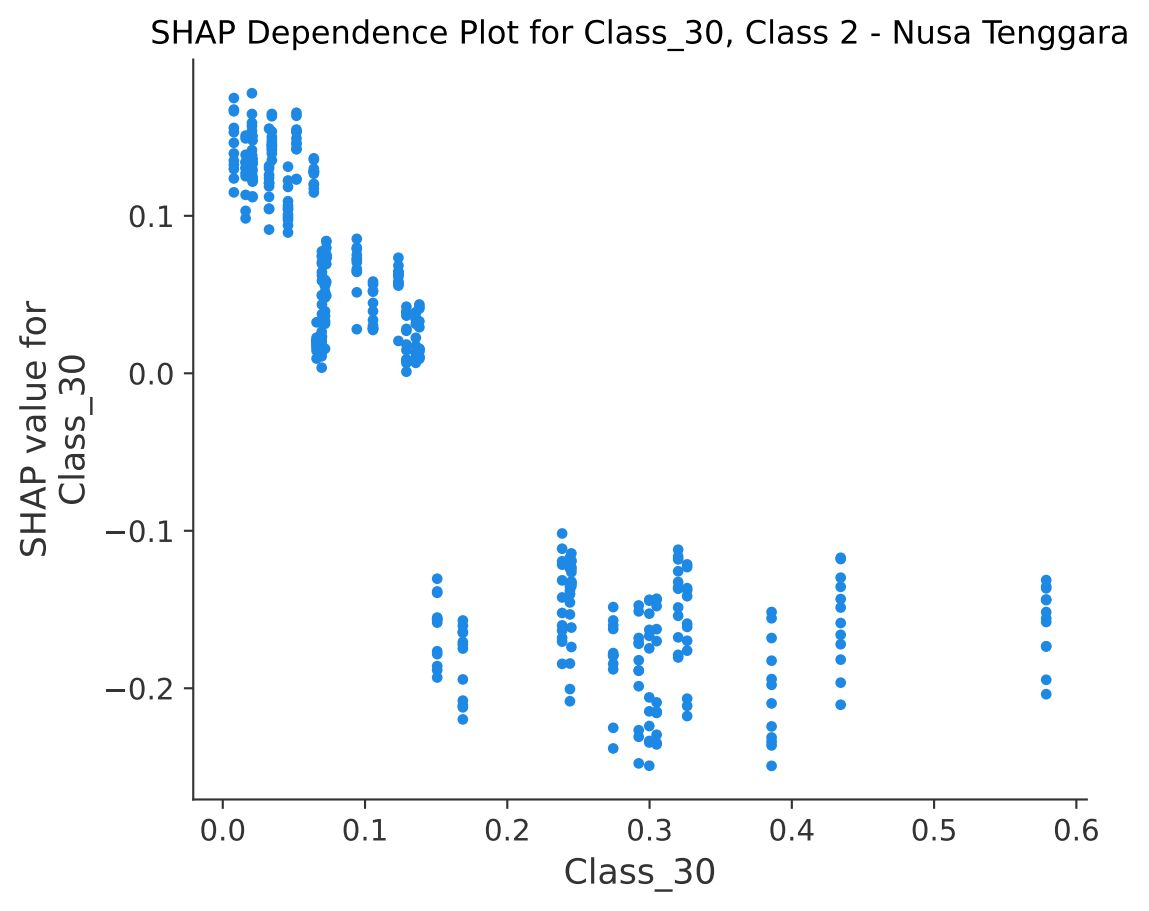

SHAP Dependence Plot for Class_40, Class 0 - Nusa Tenggara
SHAP value for Class_40
Class_40
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0.00
0.05
0.10
0.15
0.20
0.25
0.30

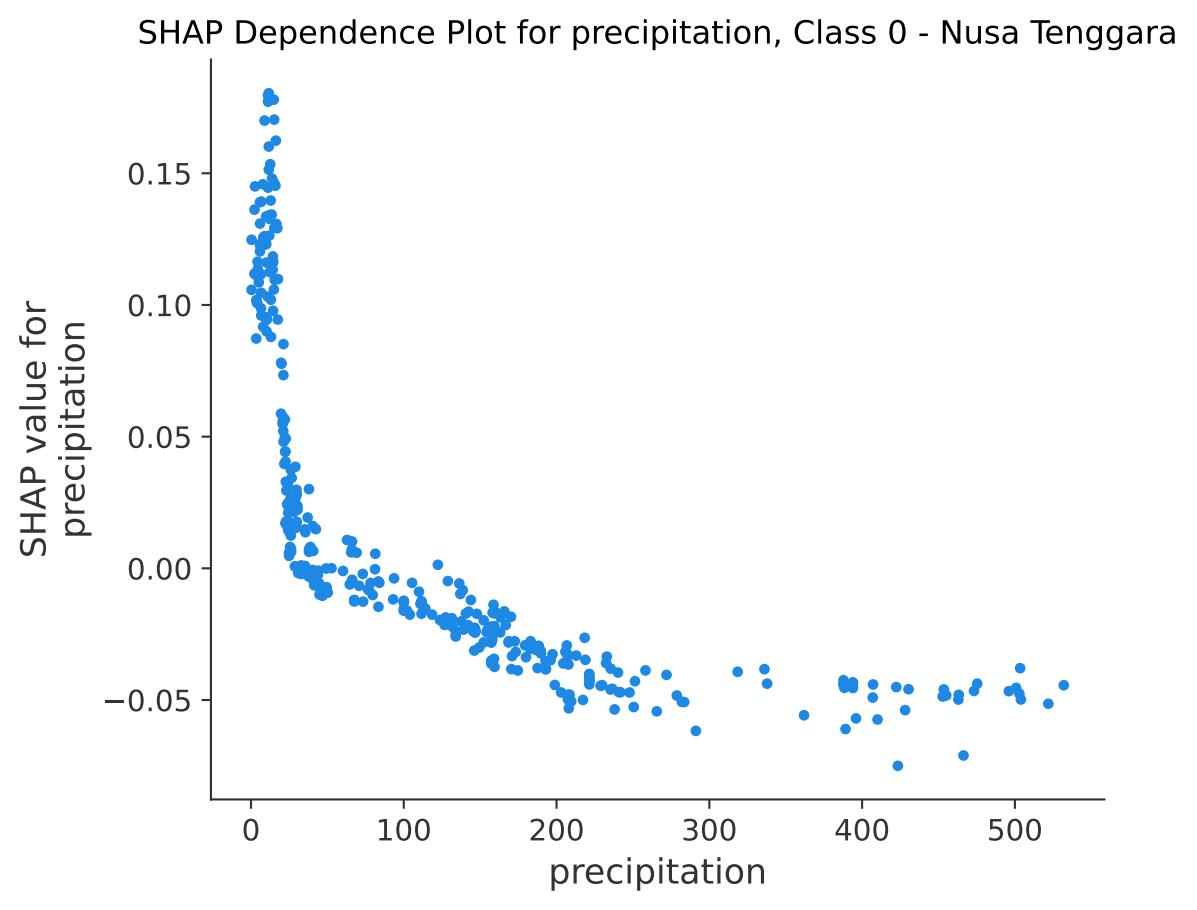

SHAP Dependence Plot for Class_40, Class 1 - Nusa Tenggara
SHAP value for Class_40
Class_40
0.4
0.3
0.2
0.1
0.0
−0.1
−0.2
0.00
0.05
0.10
0.15
0.20
0.25
0.30

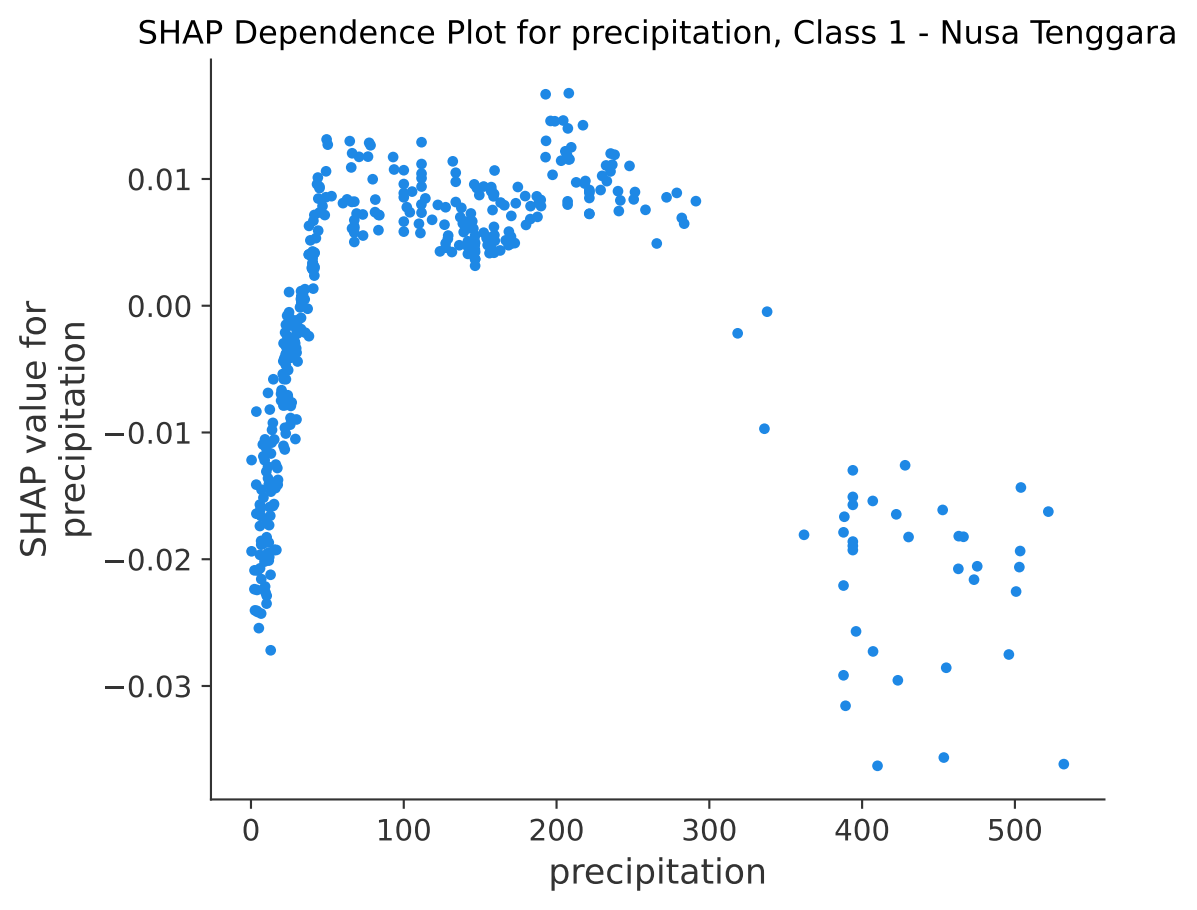

SHAP Dependence Plot for Class_40, Class 2 - Nusa Tenggara
SHAP value for Class_40
Class_40
0.03
0.02
0.01
0.00
−0.01
−0.02
−0.03
−0.04
−0.05
0.00
0.05
0.10
0.15
0.20
0.25
0.30

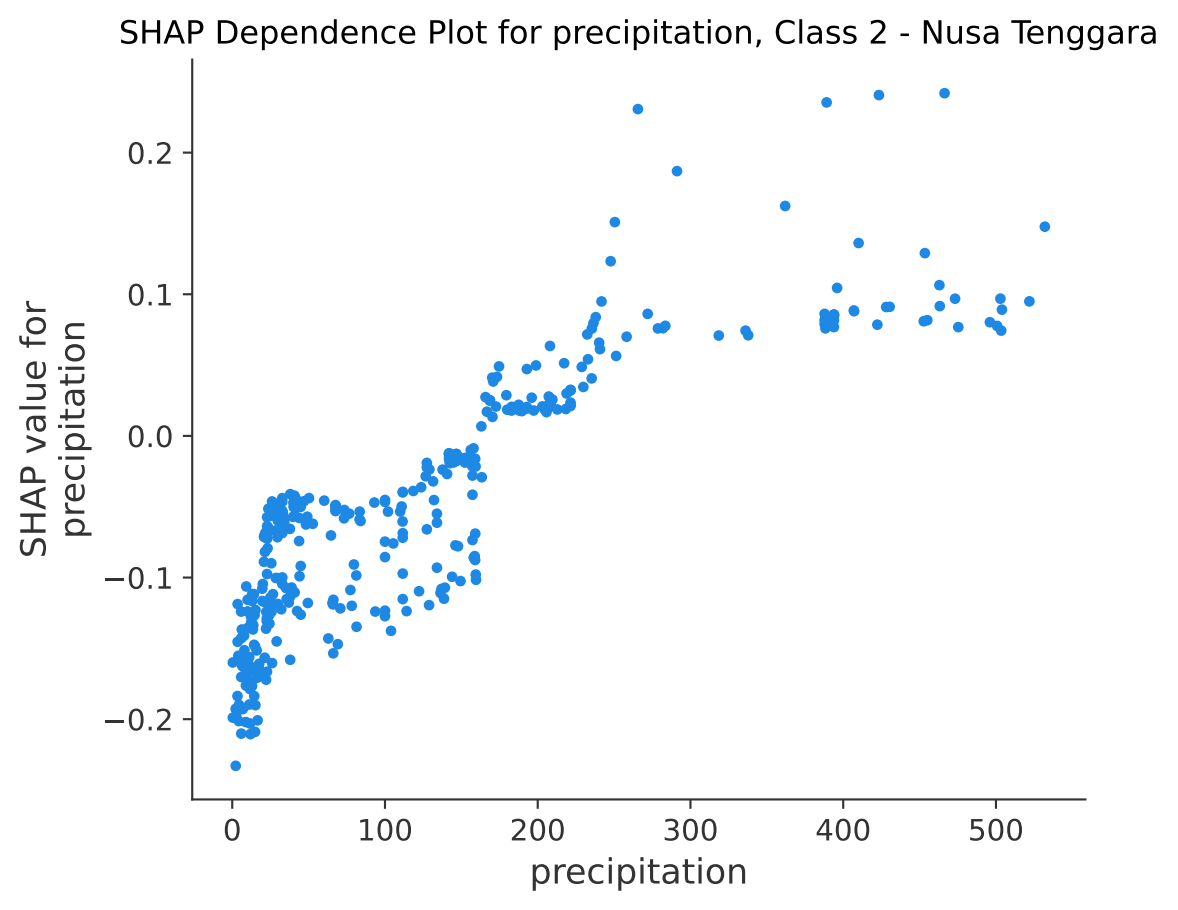

SHAP Dependence Plot for Class_30, Class 0 - Nusa Tenggara
SHAP value for Class_30
Class_30
0.3
0.2
0.1
0.0
−0.1
−0.2
0.0
0.1
0.2
0.3
0.4
0.5
0.6

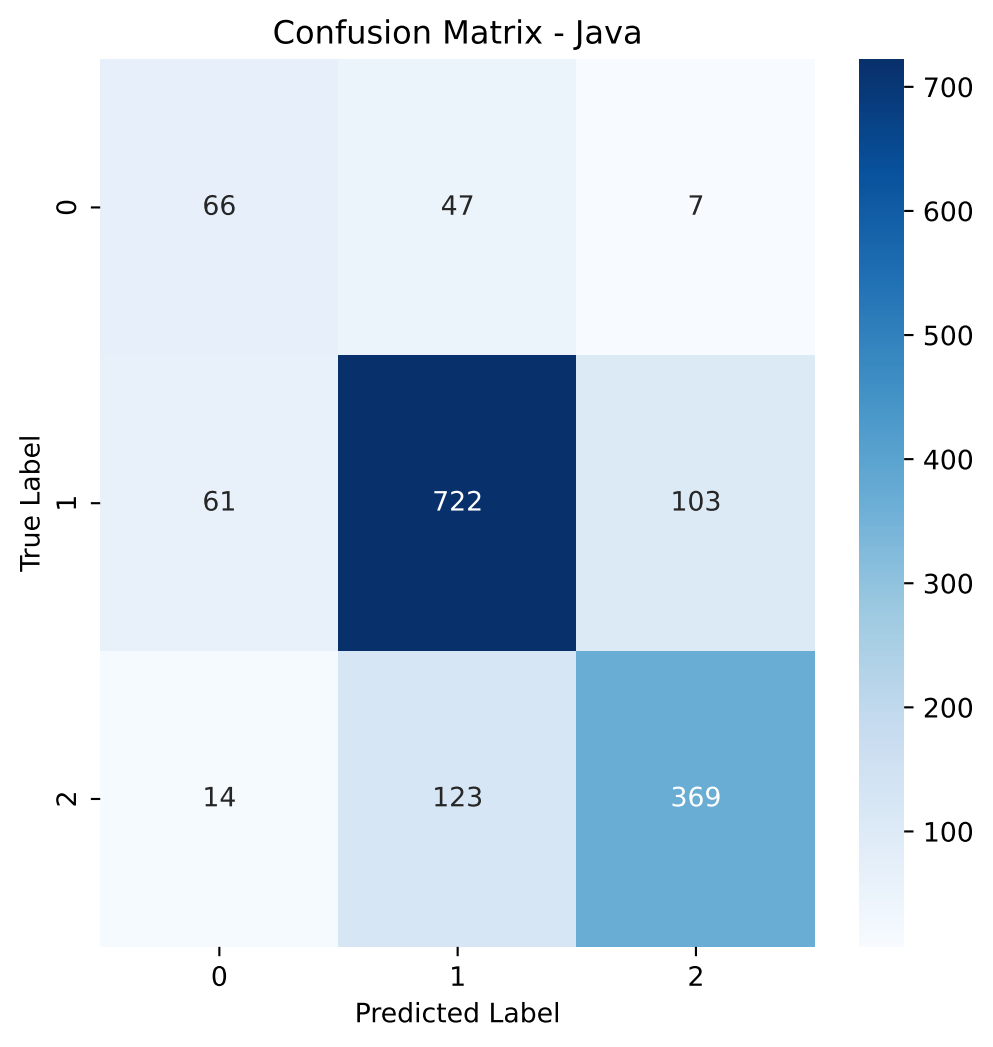

SHAP Dependence Plot for Class_30, Class 1 - Nusa Tenggara
SHAP value for Class_30
Class_30
0.10
0.08
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
0.0
0.1
0.2
0.3
0.4
0.5
0.6

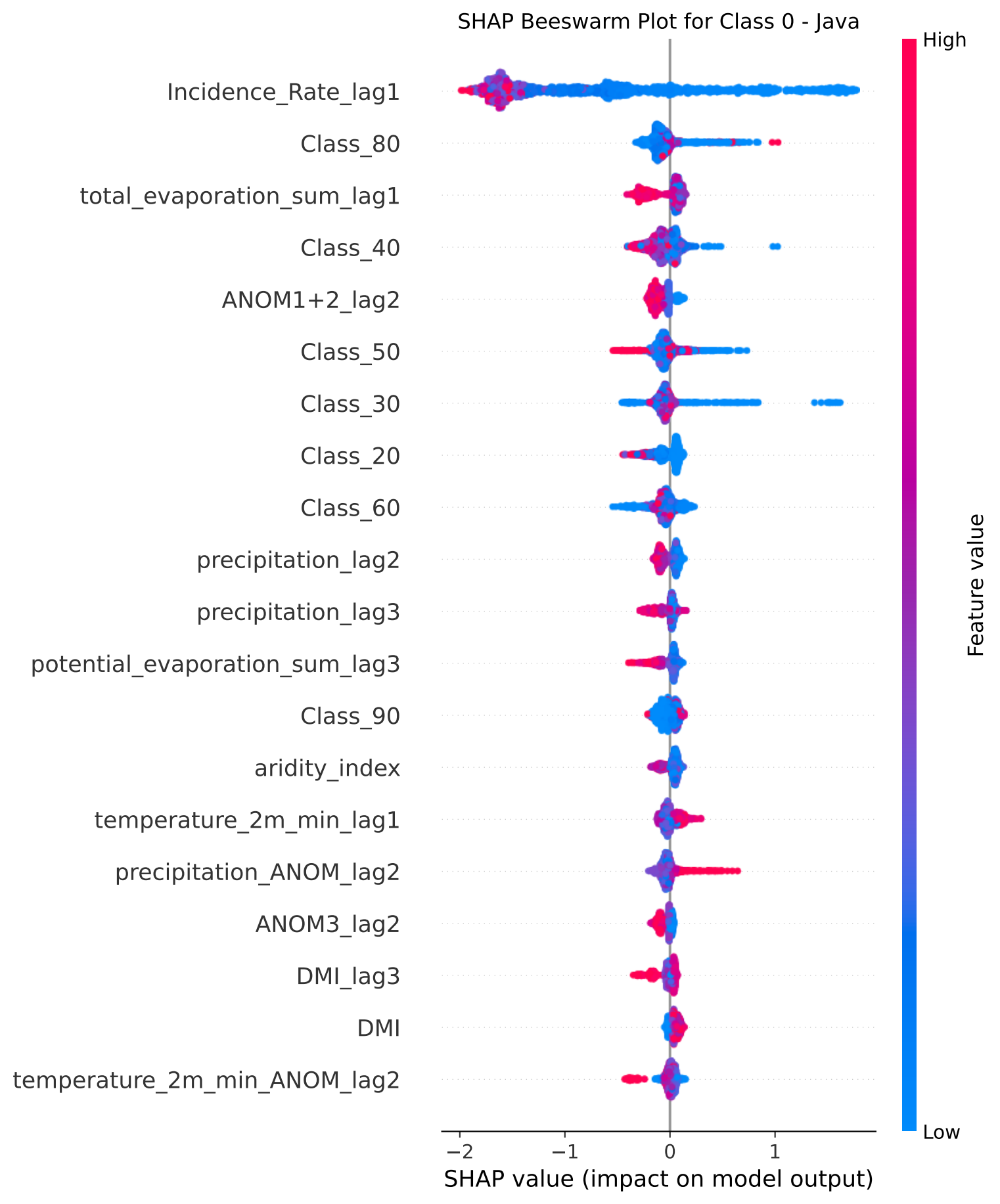

SHAP Dependence Plot for Class_30, Class 2 - Nusa Tenggara
SHAP value for Class_30
0.1
0.0
−0.1
−0.2
0.0
0.1
0.2
0.3
0.4
0.5
0.6
Class_30

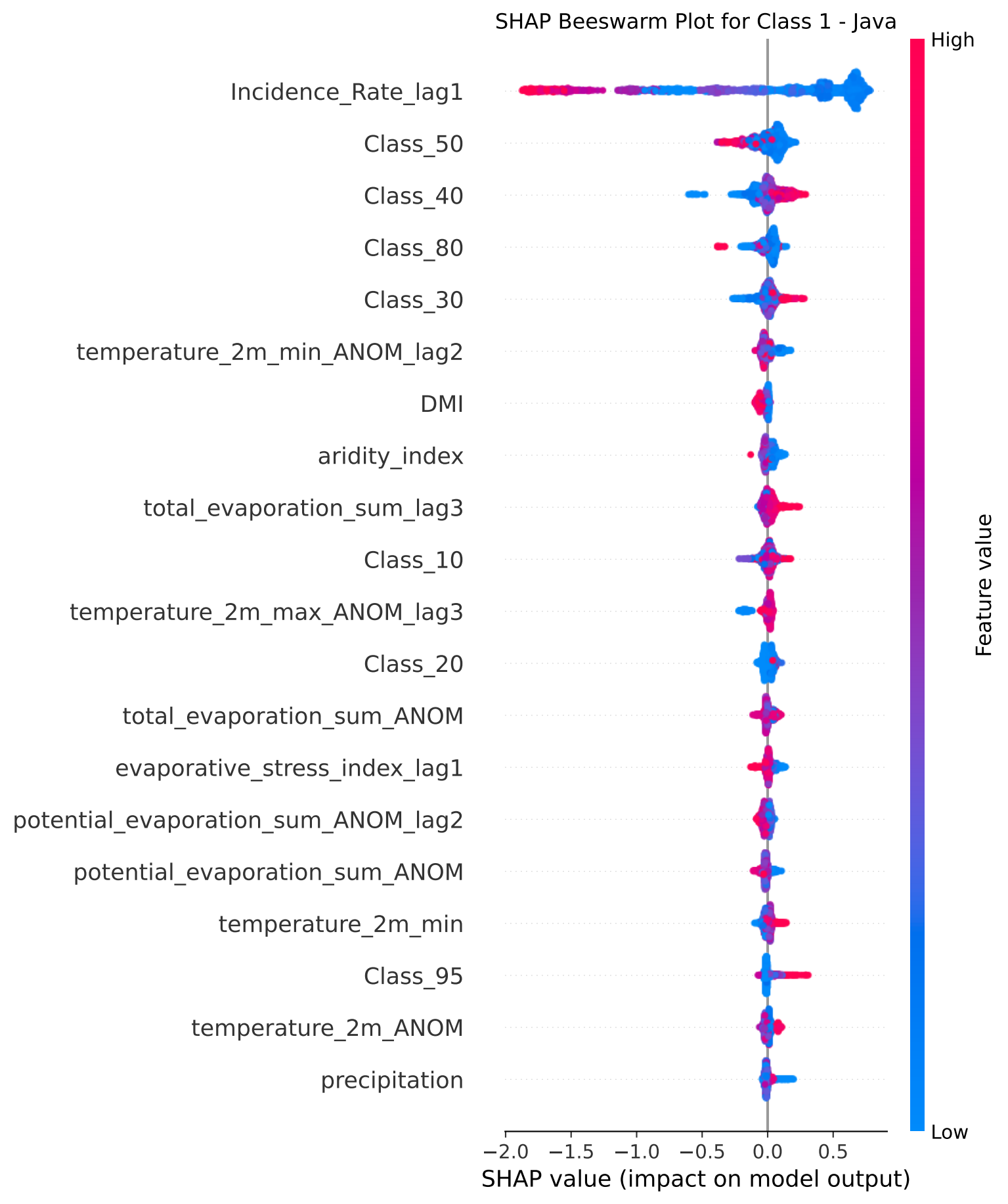

SHAP Dependence Plot for precipitation, Class 0 - Nusa Tenggara
SHAP value for precipitation
0.15
0.10
0.05
0.00
−0.05
0
100
200
300
400
500
precipitation

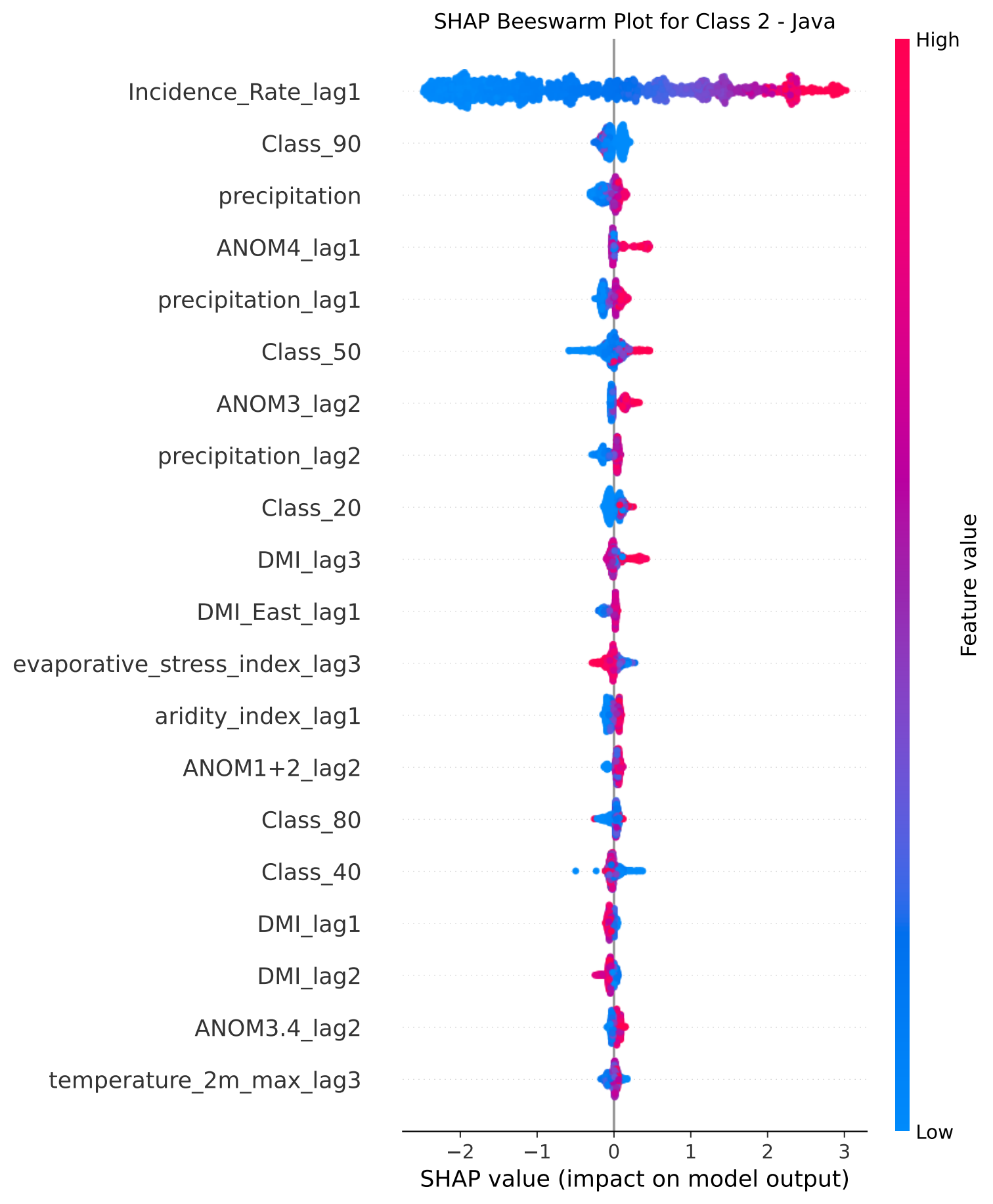

SHAP Dependence Plot for precipitation, Class 1 - Nusa Tenggara
SHAP value for precipitation
0.01
0.00
−0.01
−0.02
−0.03
0
100
200
300
400
500
precipitation

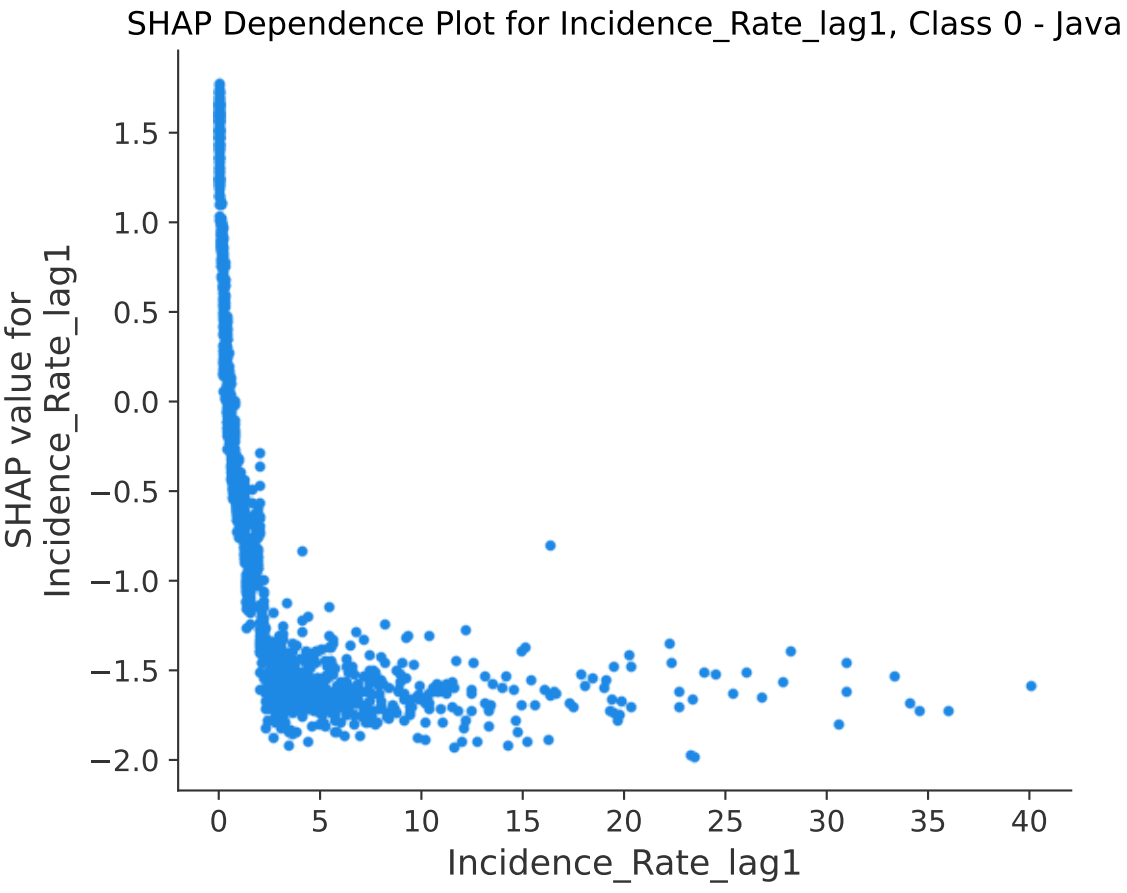

SHAP Dependence Plot for precipitation, Class 2 - Nusa Tenggara
SHAP value for precipitation
0.2
0.1
0.0
−0.1
−0.2
0
100
200
300
400
500
precipitation

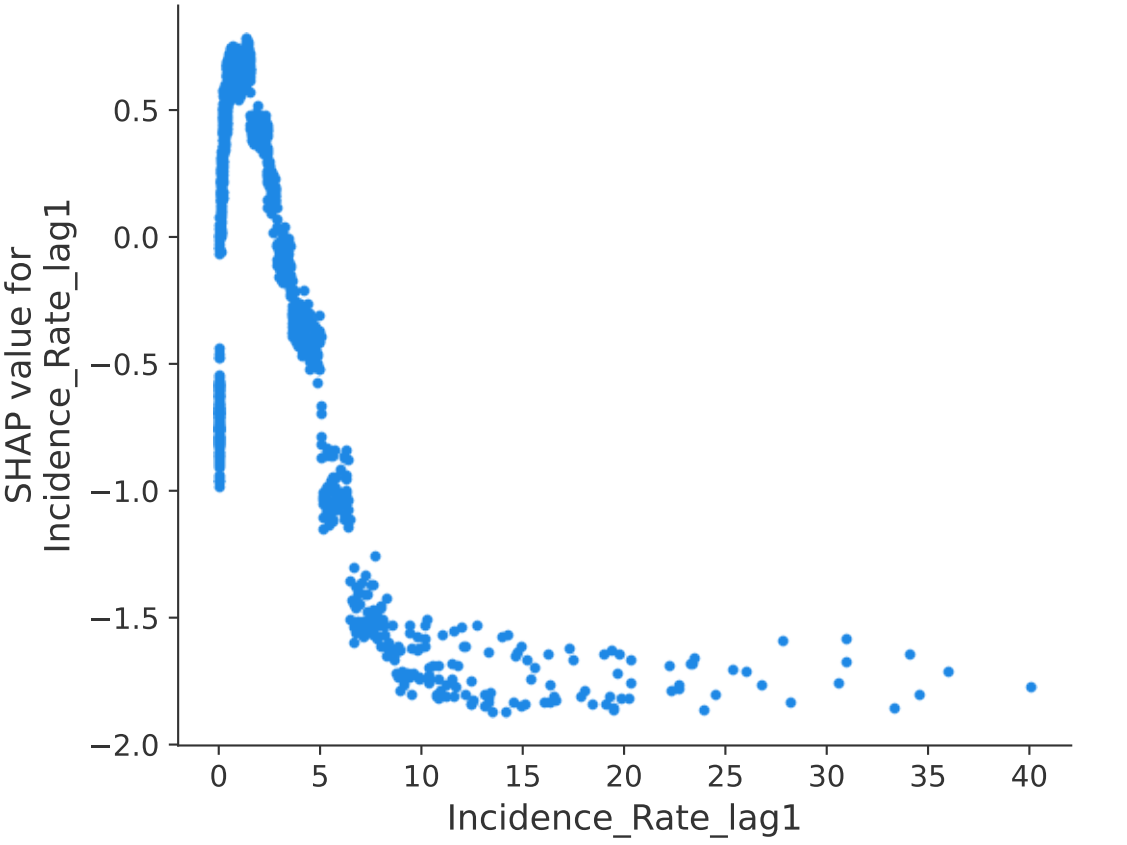

Confusion Matrix - Java
True Label
Predicted Label
0
1
2
66
47
7
61
722
103
14
123
369
700
600
500
400
300
200
100

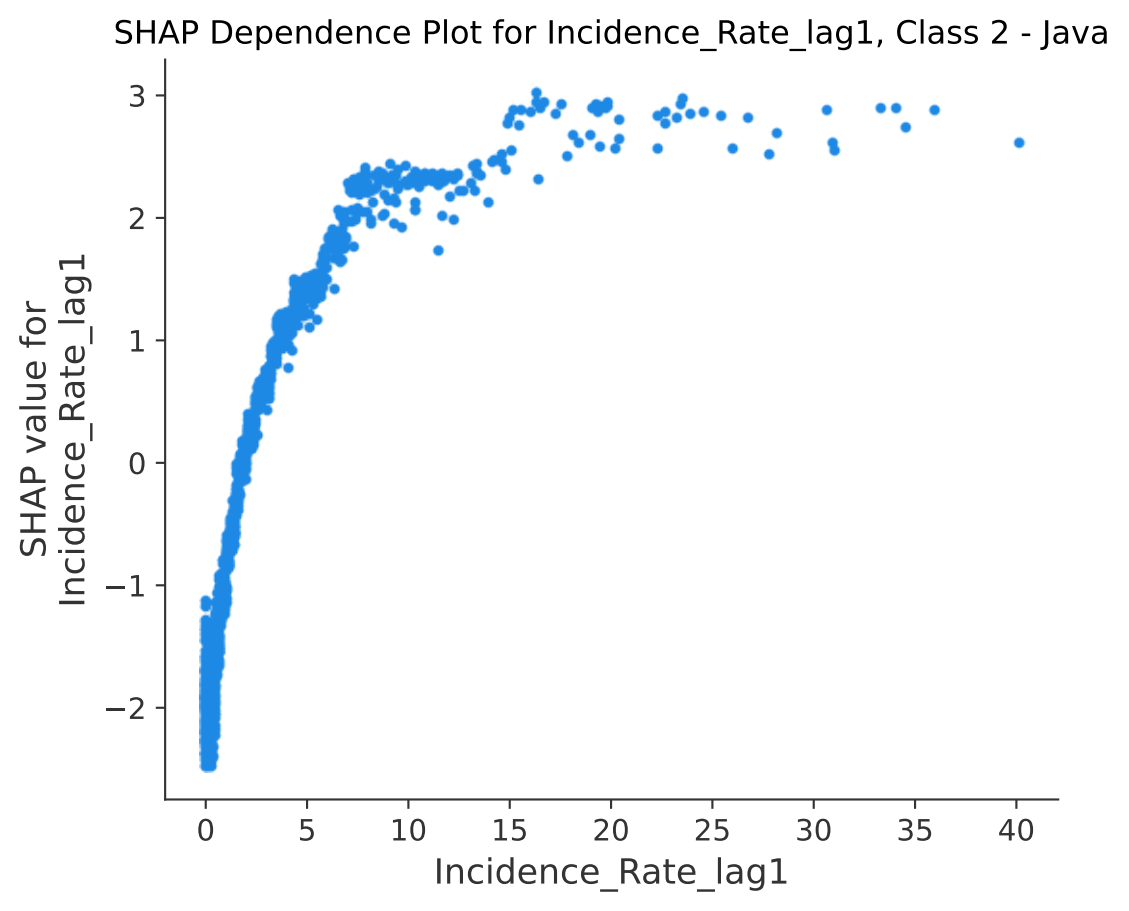

SHAP Beeswarm Plot for Class 0 - Java
Incidence_Rate_lag1
Class_80
total_evaporation_sum_lag1
Class_40
ANOM1+2_lag2
Class_50
Class_30
Class_20
Class_60
precipitation_lag2
precipitation_lag3
potential_evaporation_sum_lag3
Class_90
aridity_index
temperature_2m_min_lag1
precipitation_ANOM_lag2
ANOM3_lag2
DMI_lag3
DMI
temperature_2m_min_ANOM_lag2
−2
−1
0
1
SHAP value (impact on model output)
High
Feature value
Low

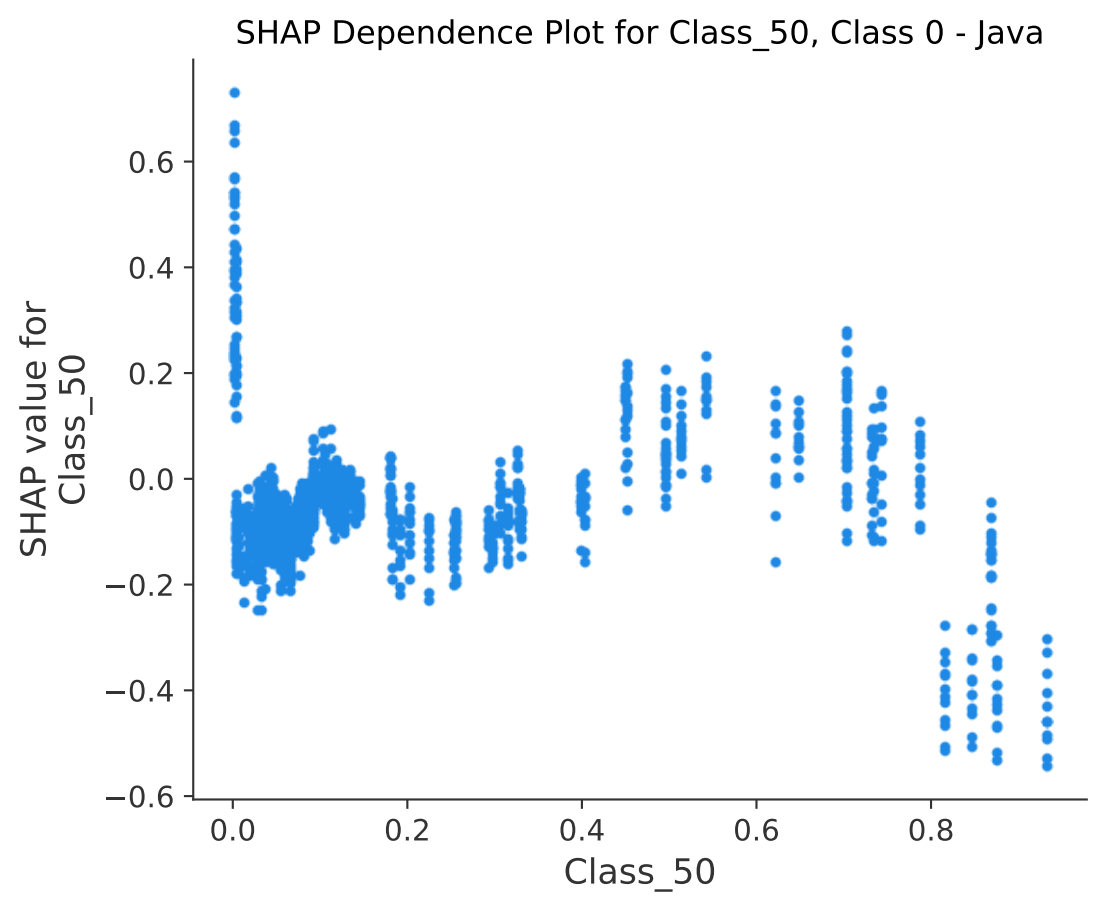

SHAP Beeswarm Plot for Class 1 - Java
Incidence_Rate_lag1
Class_50
Class_40
Class_80
Class_30
temperature_2m_min_ANOM_lag2
DMI
aridity_index
total_evaporation_sum_lag3
Class_10
temperature_2m_max_ANOM_lag3
Class_20
total_evaporation_sum_ANOM
evaporative_stress_index_lag1
potential_evaporation_sum_ANOM_lag2
potential_evaporation_sum_ANOM
temperature_2m_min
Class_95
temperature_2m_ANOM
precipitation
−2.0
−1.5
−1.0
−0.5
0.0
0.5
SHAP value (impact on model output)
High
Feature value
Low

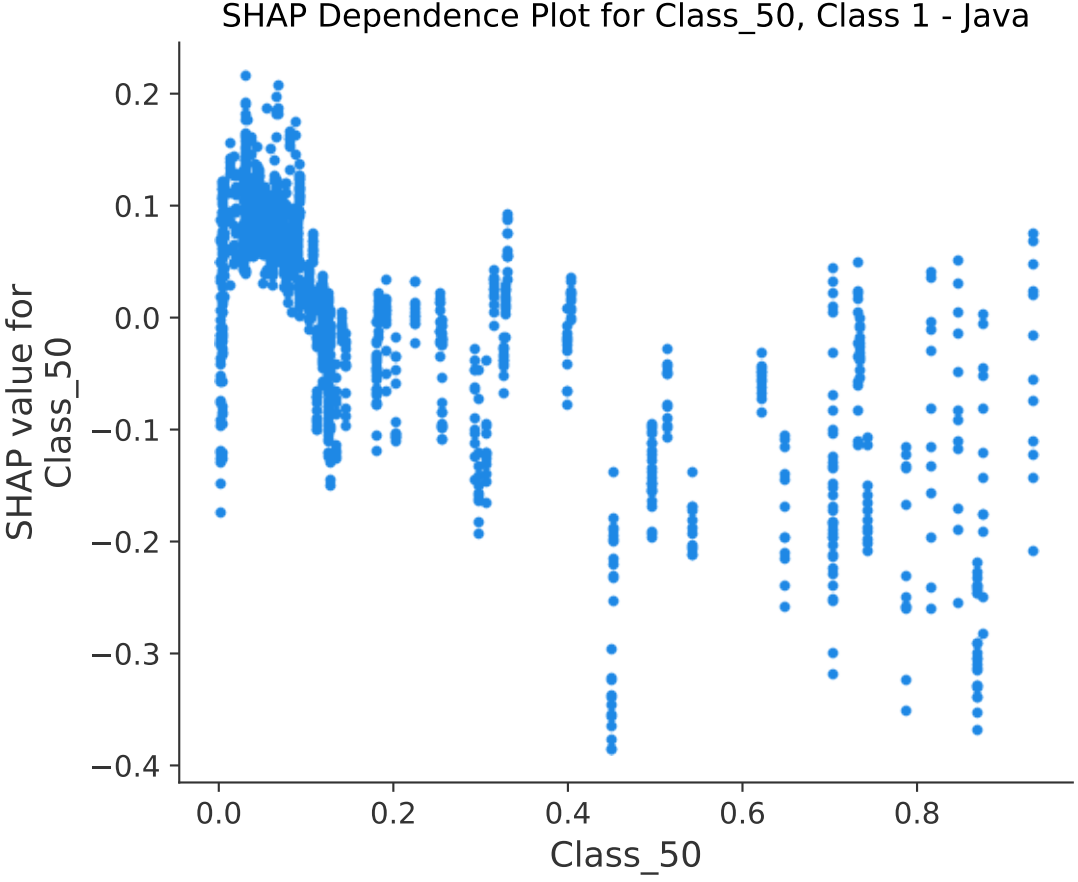

SHAP Beeswarm Plot for Class 2 - Java
Incidence_Rate_lag1
Class_90
precipitation
ANOM4_lag1
precipitation_lag1
Class_50
ANOM3_lag2
precipitation_lag2
Class_20
DMI_lag3
DMI_East_lag1
evaporative_stress_index_lag3
aridity_index_lag1
ANOM1+2_lag2
Class_80
Class_40
DMI_lag1
DMI_lag2
ANOM3.4_lag2
temperature_2m_max_lag3
−2
−1
0
1
2
3
SHAP value (impact on model output)
High
Feature value
Low

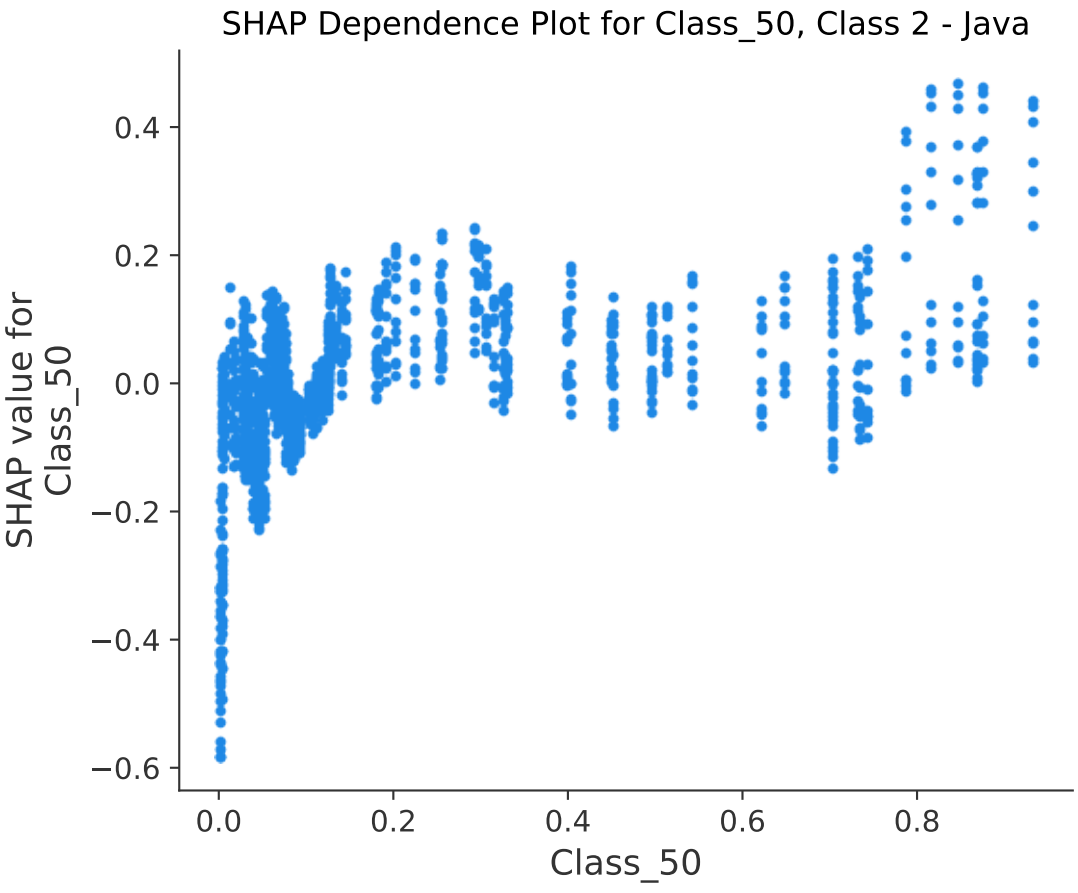

SHAP Dependence Plot for Incidence_Rate_lag1, Class 0 - Java
SHAP value for Incidence_Rate_lag1
Incidence_Rate_lag1
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
−2.0
0
5
10
15
20
25
30
35
40

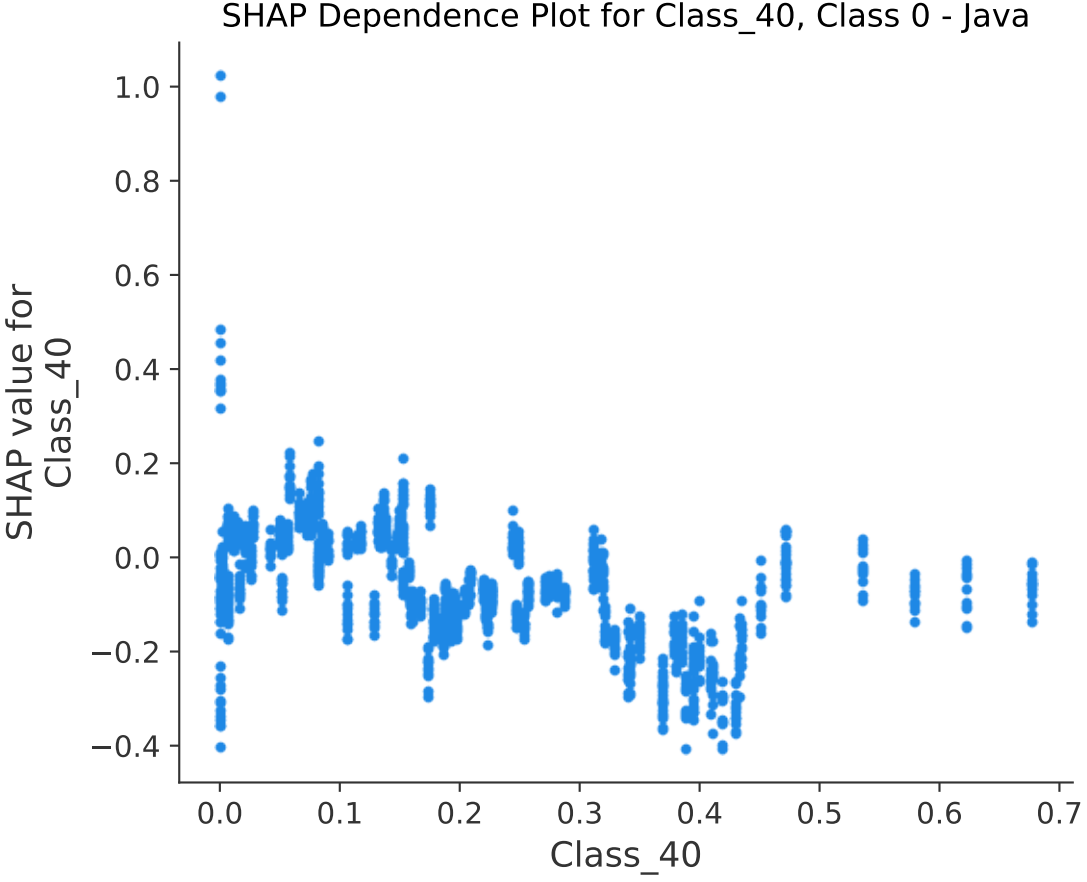

SHAP Dependence Plot for Incidence_Rate_lag1, Class 1 - Java
SHAP value for Incidence_Rate_lag1
Incidence_Rate_lag1
0.5
0.0
−0.5
−1.0
−1.5
−2.0
0
5
10
15
20
25
30
35
40

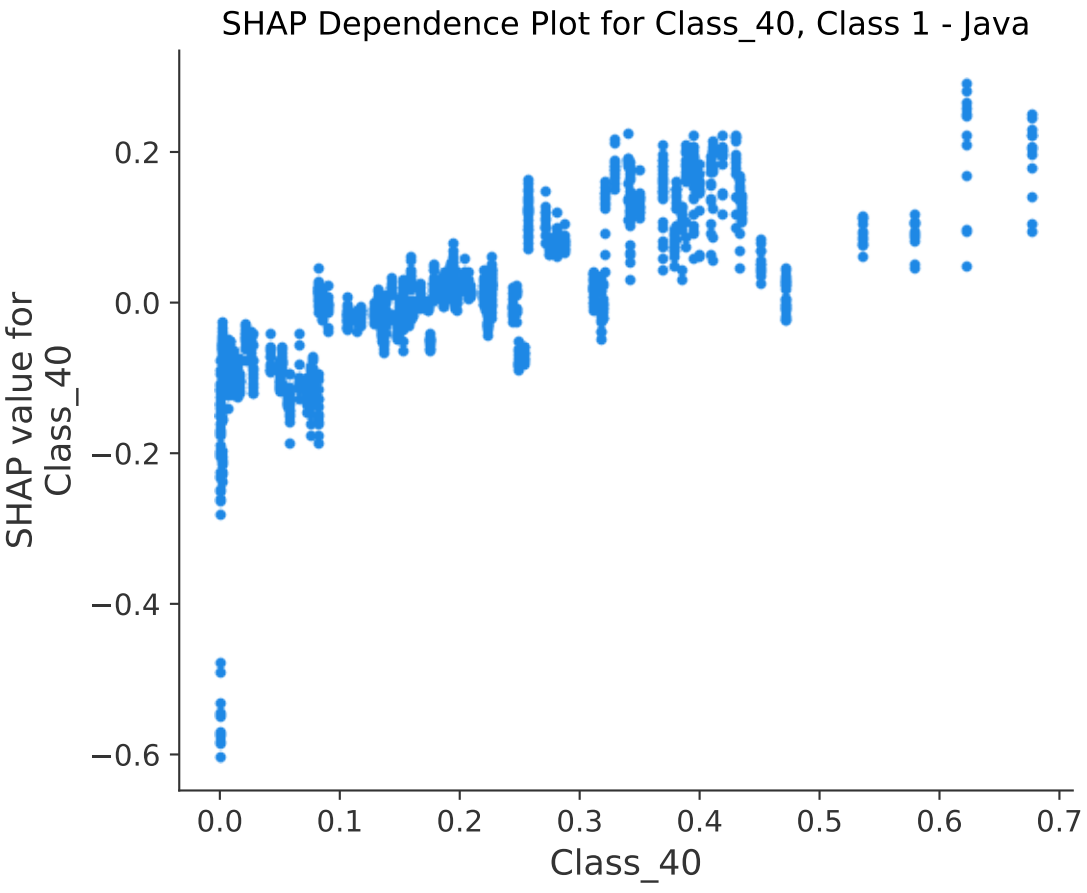

SHAP Dependence Plot for Incidence_Rate_lag1, Class 2 - Java
SHAP value for Incidence_Rate_lag1
Incidence_Rate_lag1
3
2
1
0
−1
−2
0
5
10
15
20
25
30
35
40

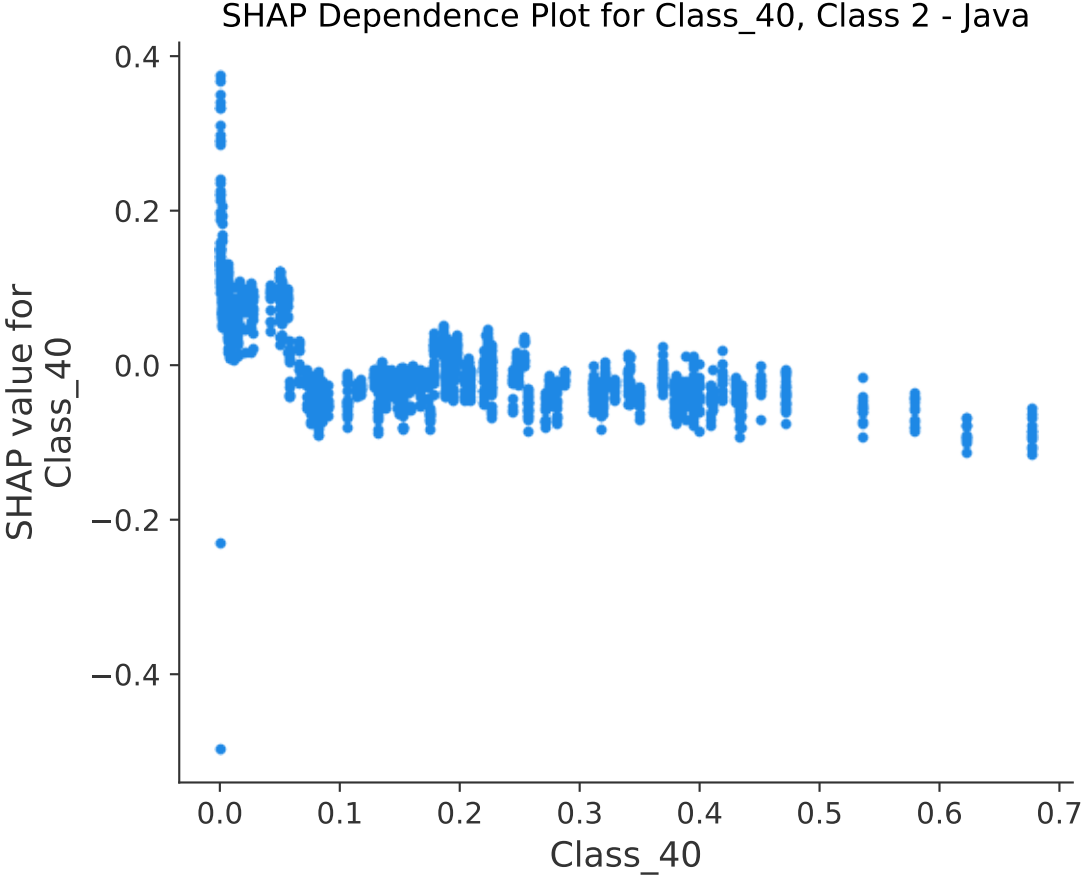

SHAP Dependence Plot for Class_50, Class 0 - Java
SHAP value for Class_50
Class_50
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6
0.0
0.2
0.4
0.6
0.8

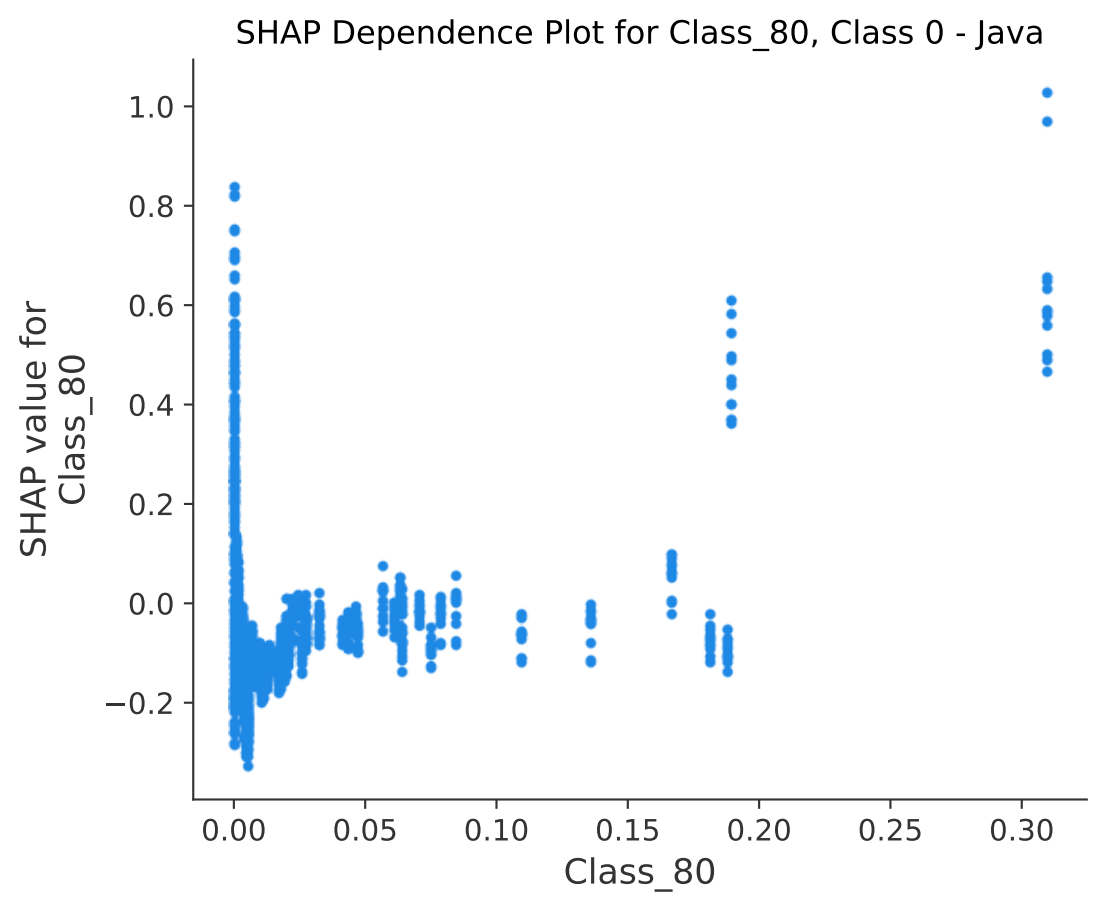

SHAP Dependence Plot for Class_50, Class 1 - Java
SHAP value for Class_50
Class_50
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0.0
0.2
0.4
0.6
0.8

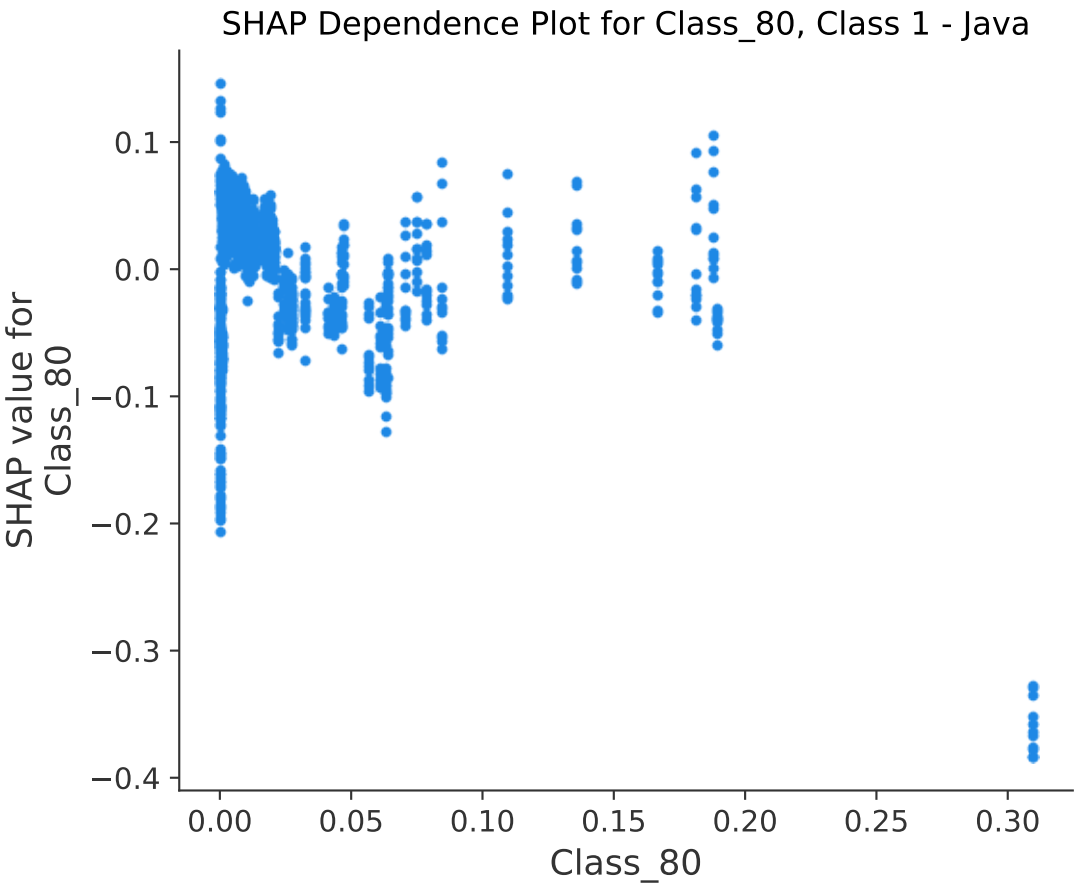

SHAP Dependence Plot for Class_50, Class 2 - Java
SHAP value for Class_50
Class_50
0.4
0.2
0.0
−0.2
−0.4
−0.6
0.0
0.2
0.4
0.6
0.8

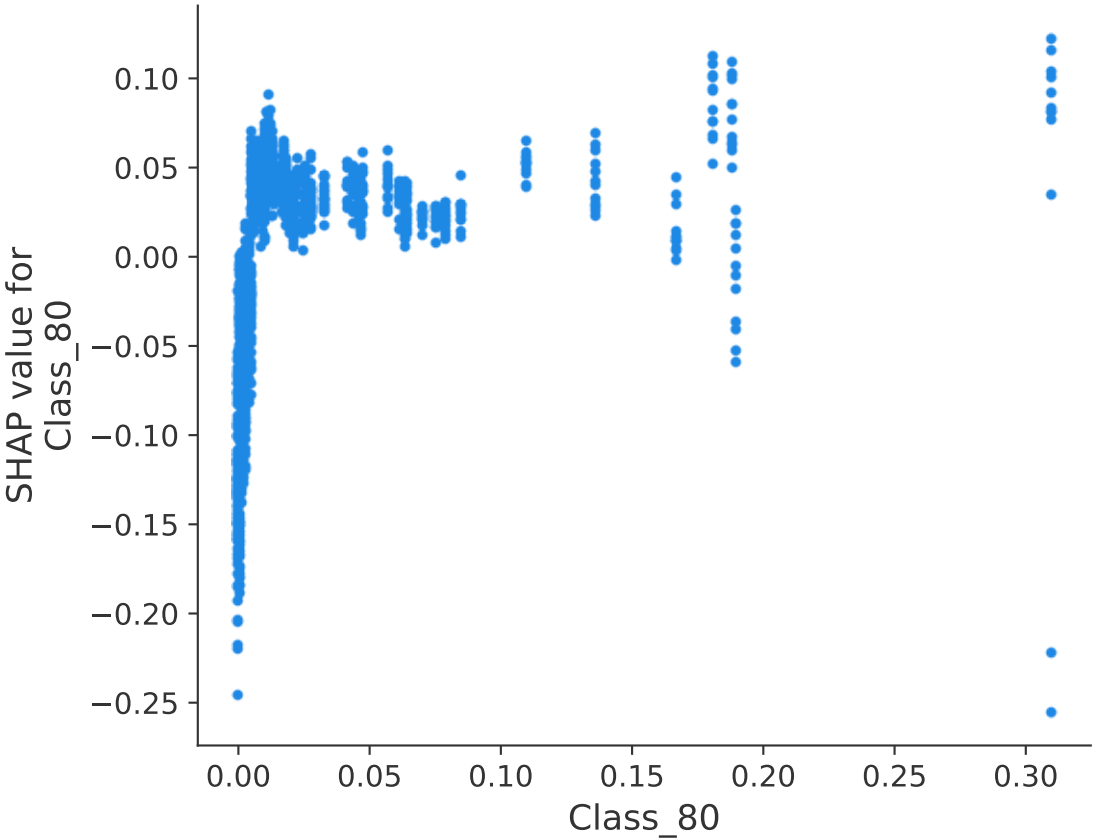

SHAP Dependence Plot for Class_40, Class 0 - Java
SHAP value for Class_40
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
Class_40

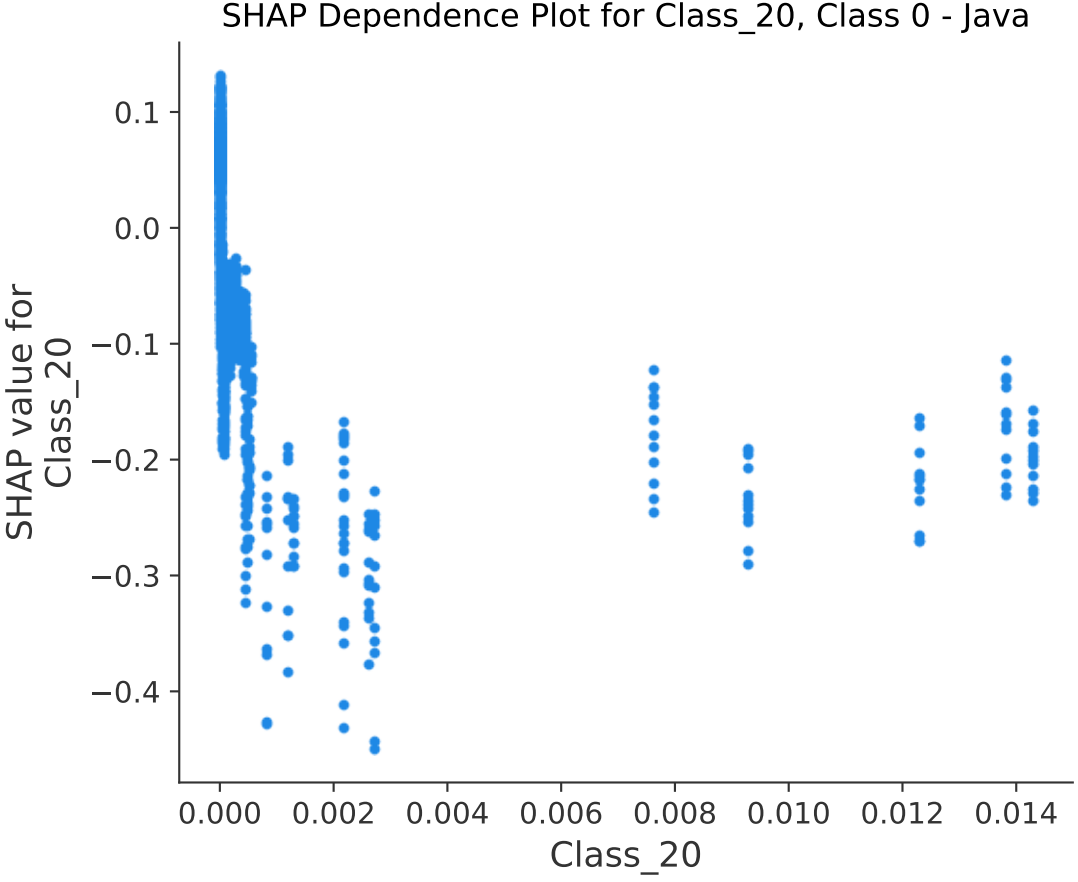

SHAP Dependence Plot for Class_40, Class 1 - Java
SHAP value for Class_40
0.2
0.0
−0.2
−0.4
−0.6
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
Class_40

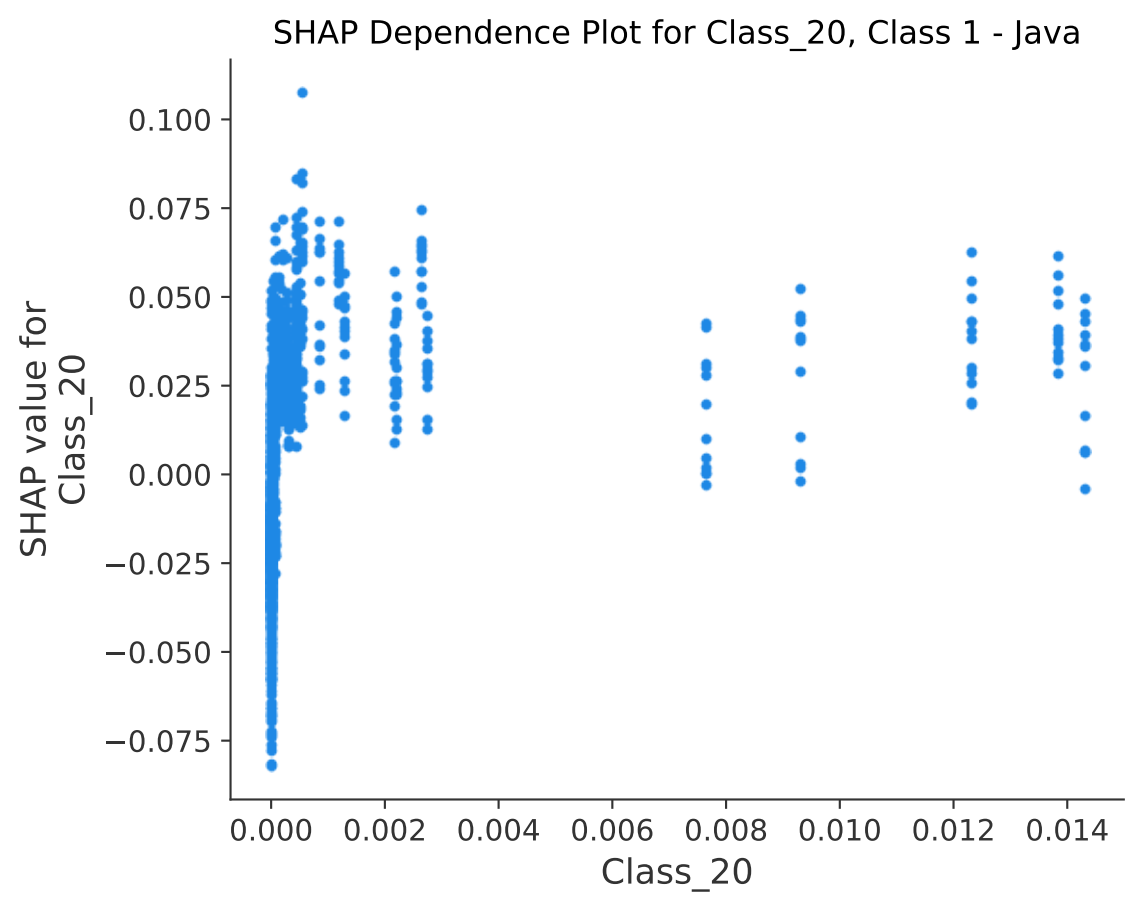

SHAP Dependence Plot for Class_40, Class 2 - Java
SHAP value for Class_40
Class_40
0.4
0.2
0.0
−0.2
−0.4
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7

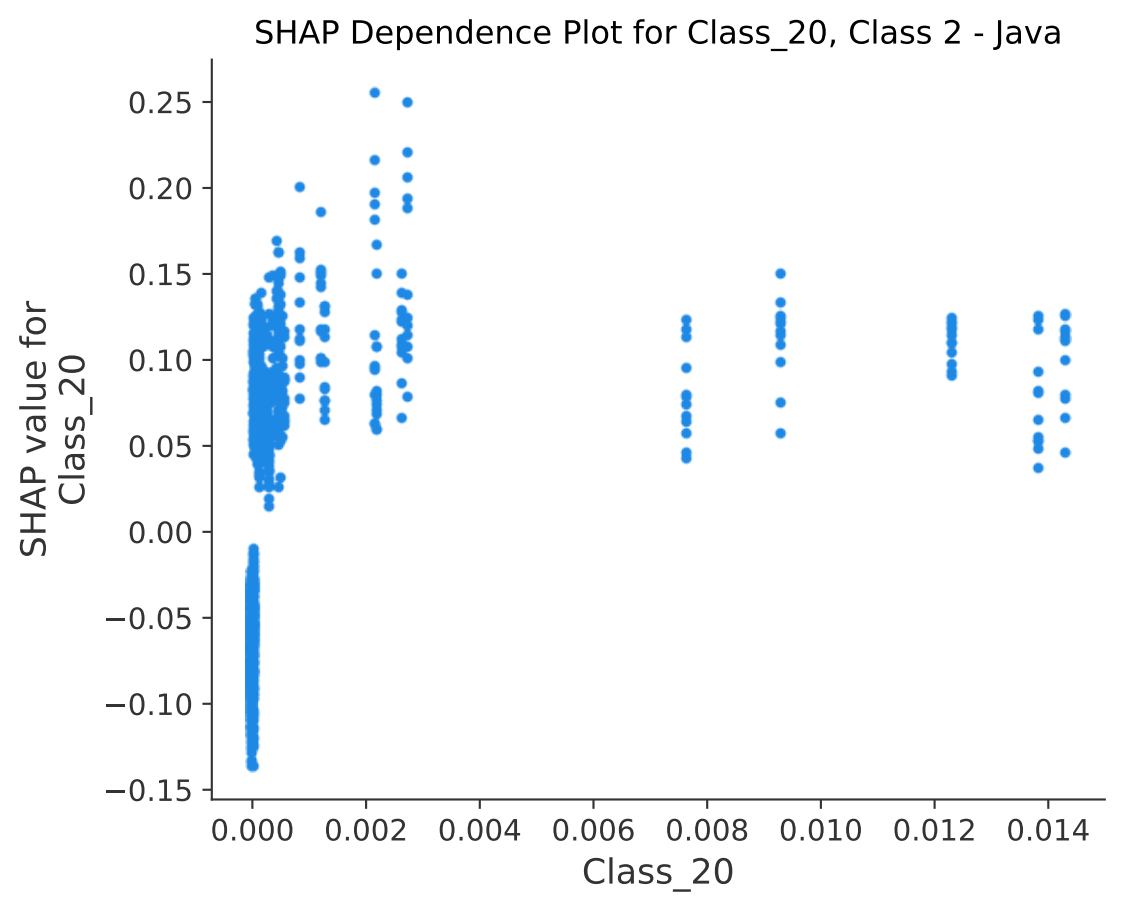

SHAP Dependence Plot for Class_80, Class 0 - Java
SHAP value for Class_80
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
0.00
0.05
0.10
0.15
0.20
0.25
0.30
Class_80

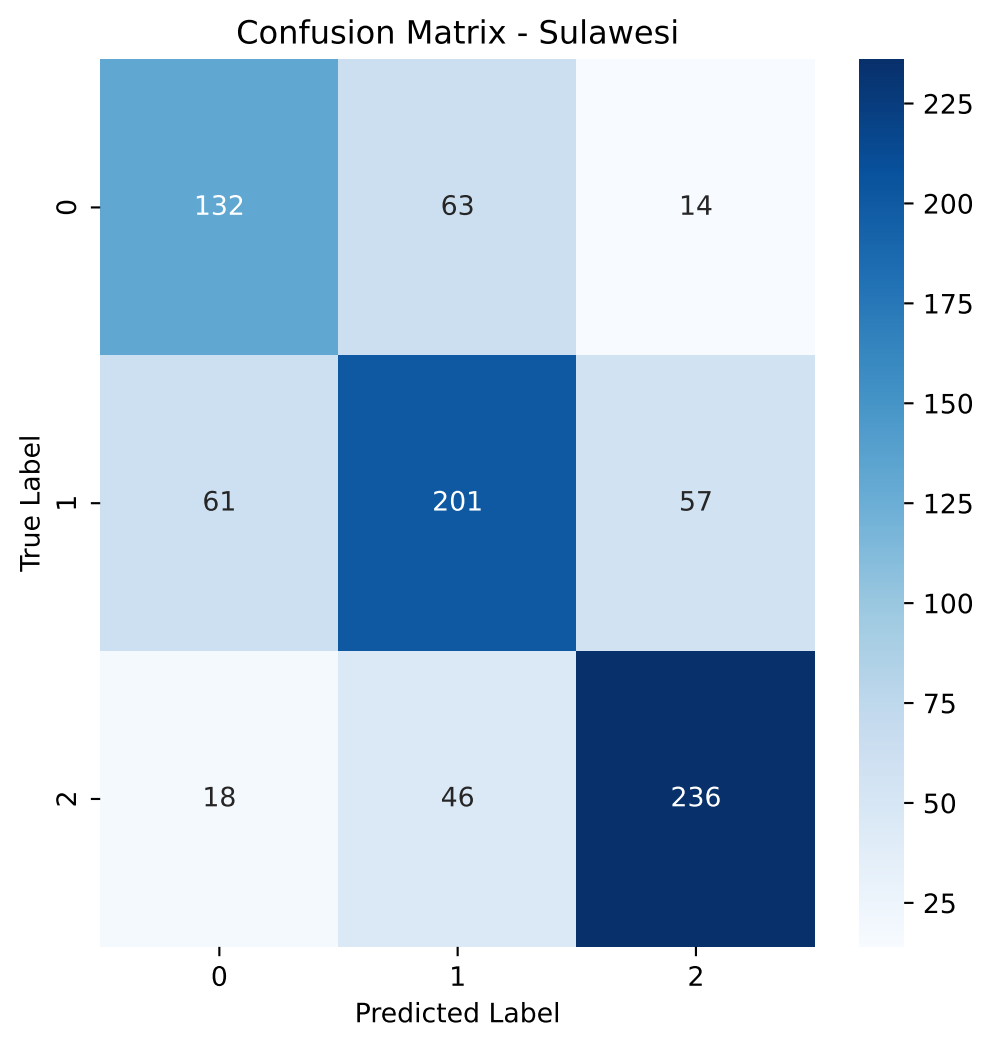

SHAP Dependence Plot for Class_80, Class 1 - Java
SHAP value for Class_80
Class_80
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0.00
0.05
0.10
0.15
0.20
0.25
0.30

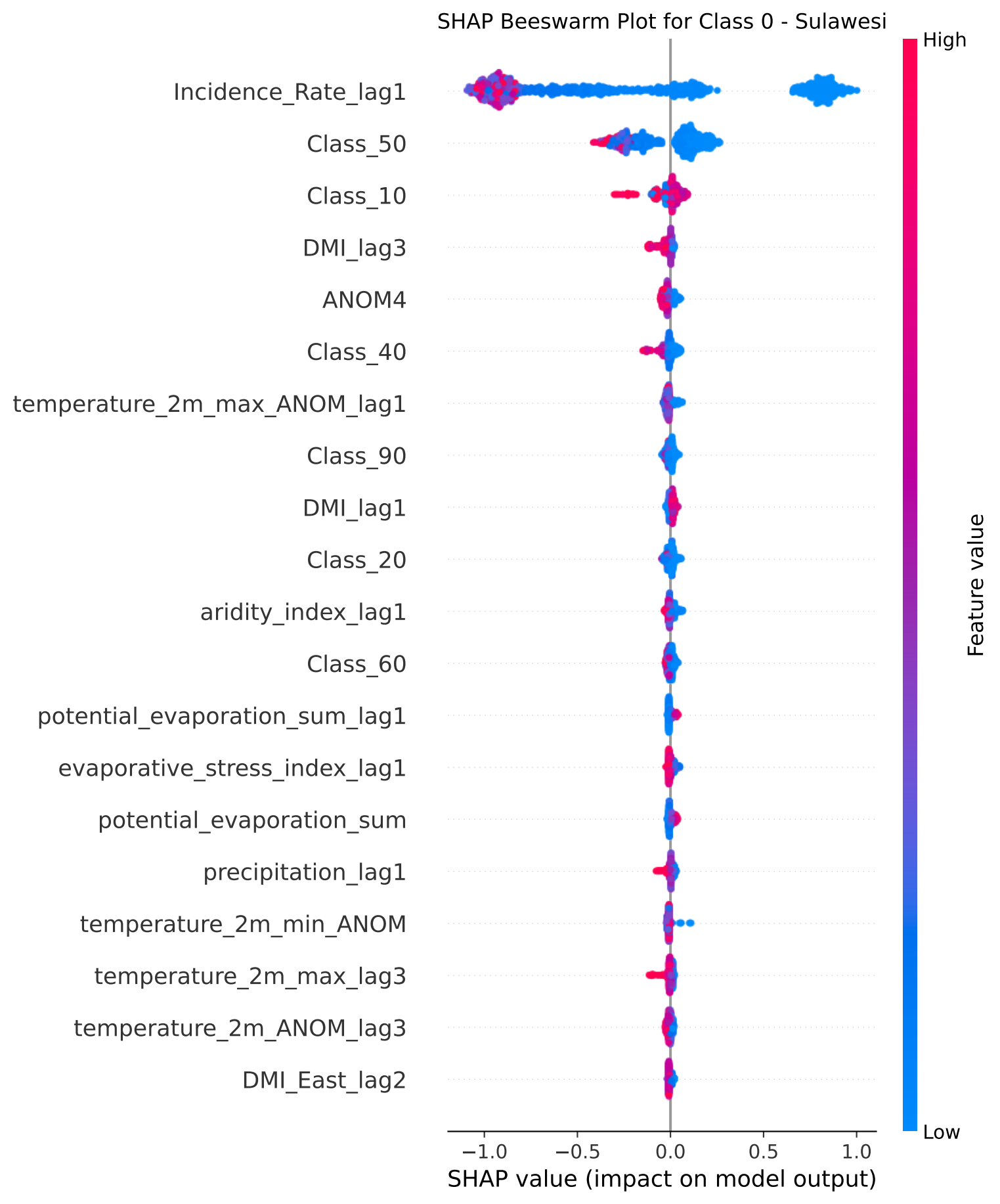

SHAP Dependence Plot for Class_80, Class 2 - Java
SHAP value for Class_80
Class_80
0.10
0.05
0.00
−0.05
−0.10
−0.15
−0.20
−0.25
0.00
0.05
0.10
0.15
0.20
0.25
0.30

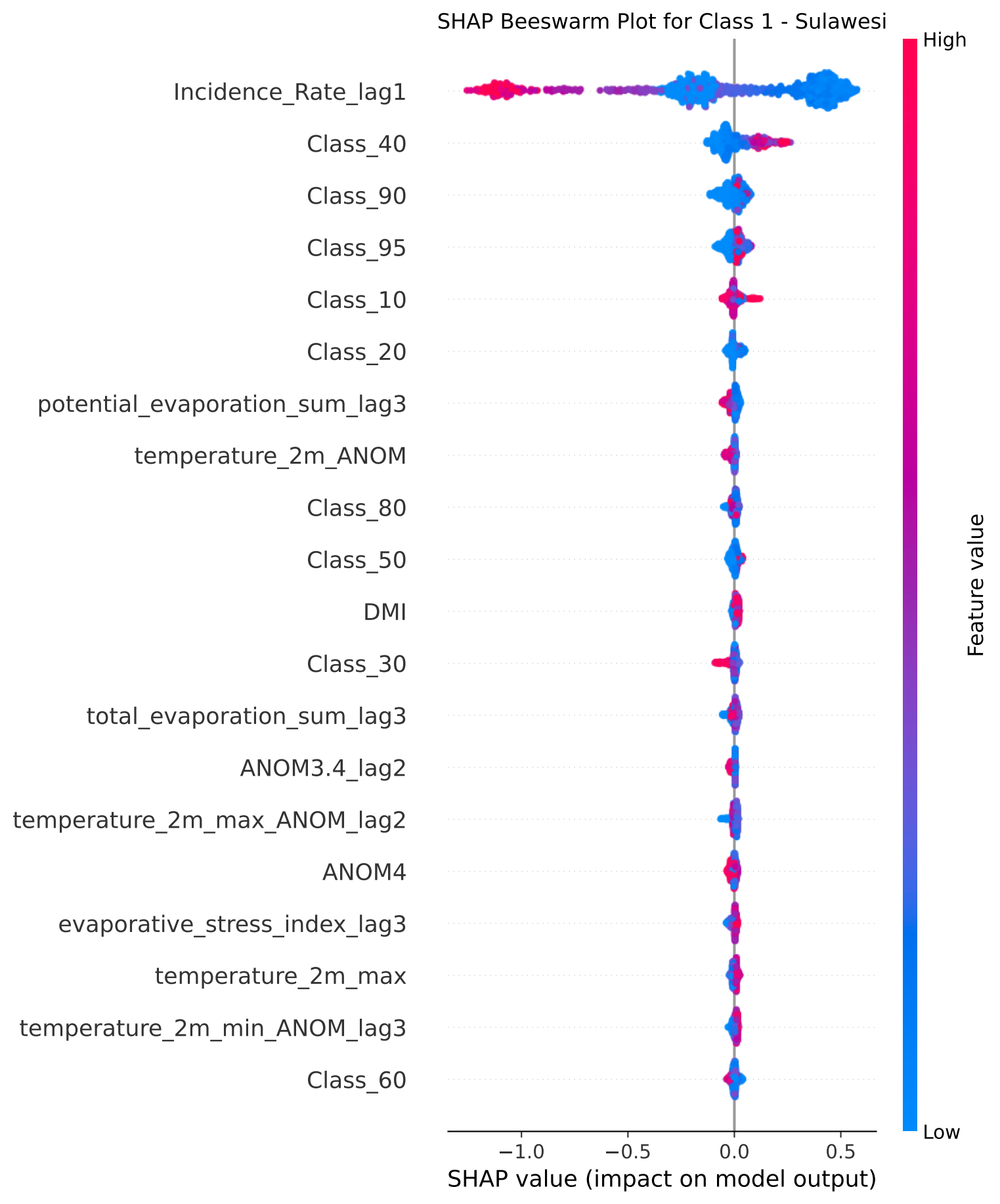

SHAP Dependence Plot for Class_20, Class 0 - Java
SHAP value for Class_20
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0.000
0.002
0.004
0.006
0.008
0.010
0.012
0.014
Class_20

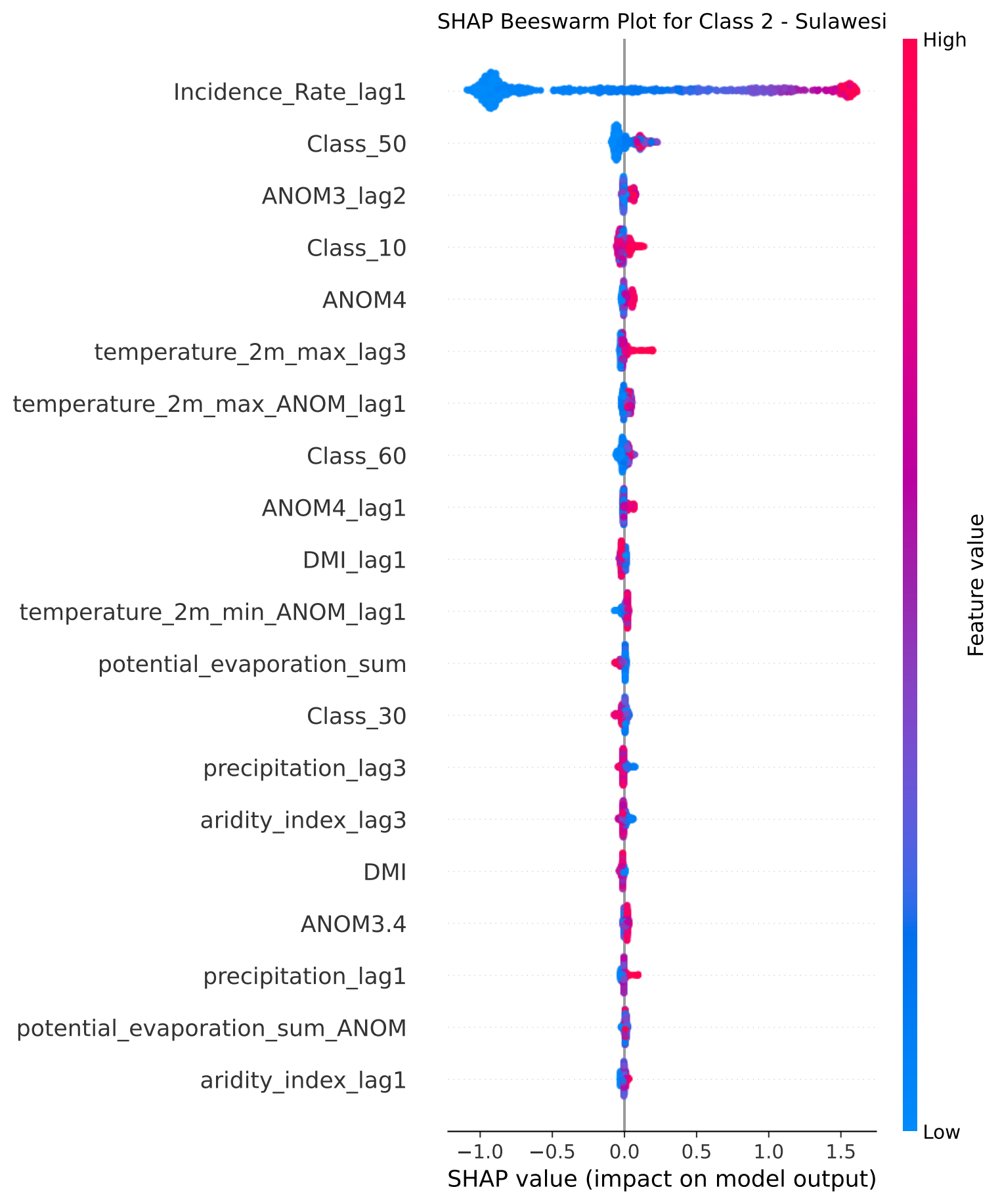

SHAP Dependence Plot for Class_20, Class 1 - Java
SHAP value for Class_20
0.100
0.075
0.050
0.025
0.000
−0.025
−0.050
−0.075
0.000
0.002
0.004
0.006
0.008
0.010
0.012
0.014
Class_20

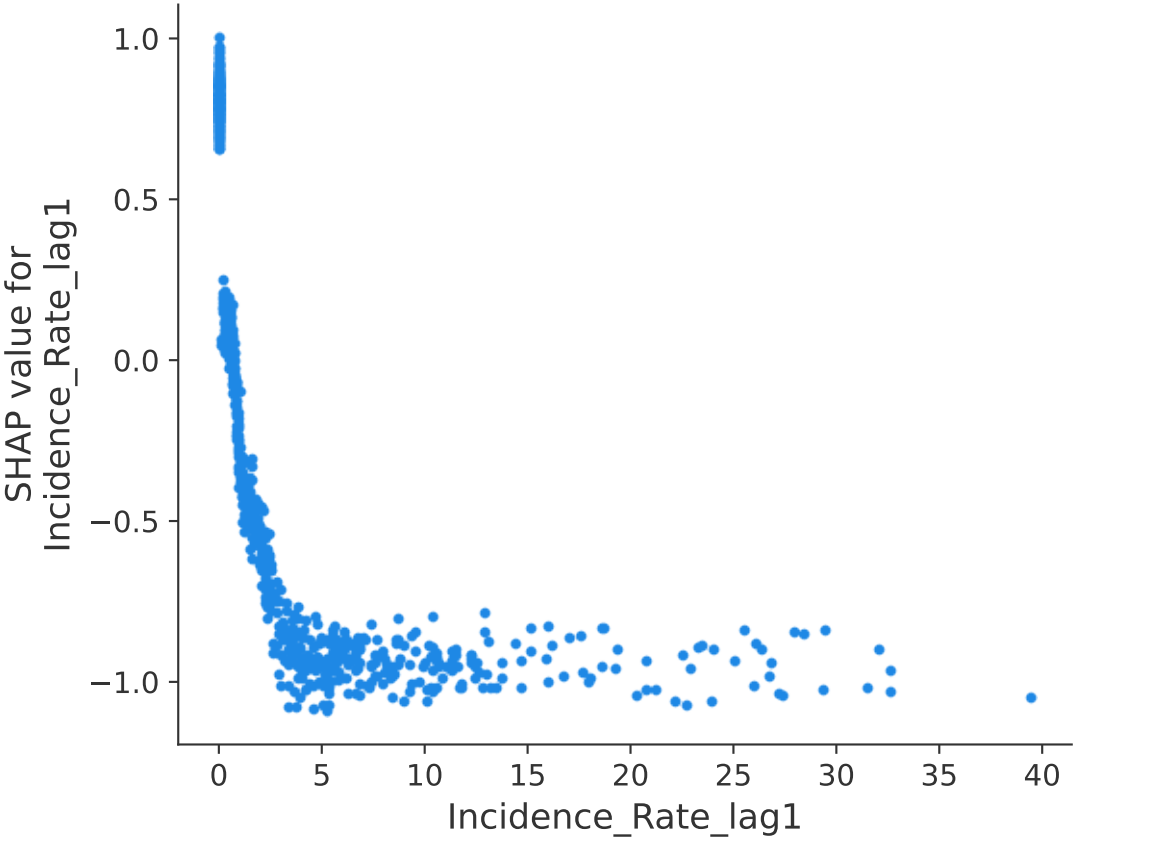

SHAP Dependence Plot for Class_20, Class 2 - Java
SHAP value for Class_20
Class_20
0.25
0.20
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
0.000
0.002
0.004
0.006
0.008
0.010
0.012
0.014

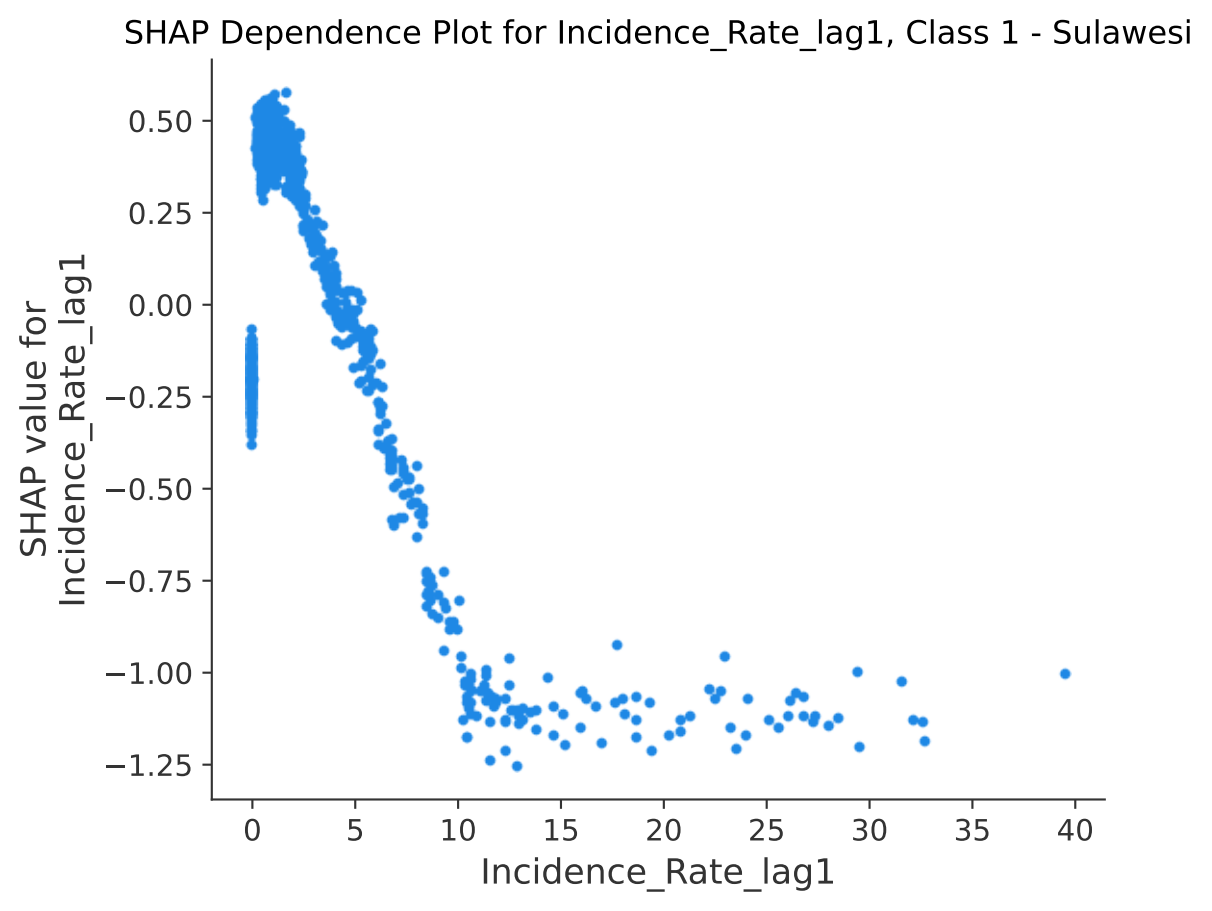

Confusion Matrix - Sulawesi
True Label
Predicted Label
0
1
2
132
63
14
61
201
57
18
46
236
225
200
175
150
125
100
75
50
25

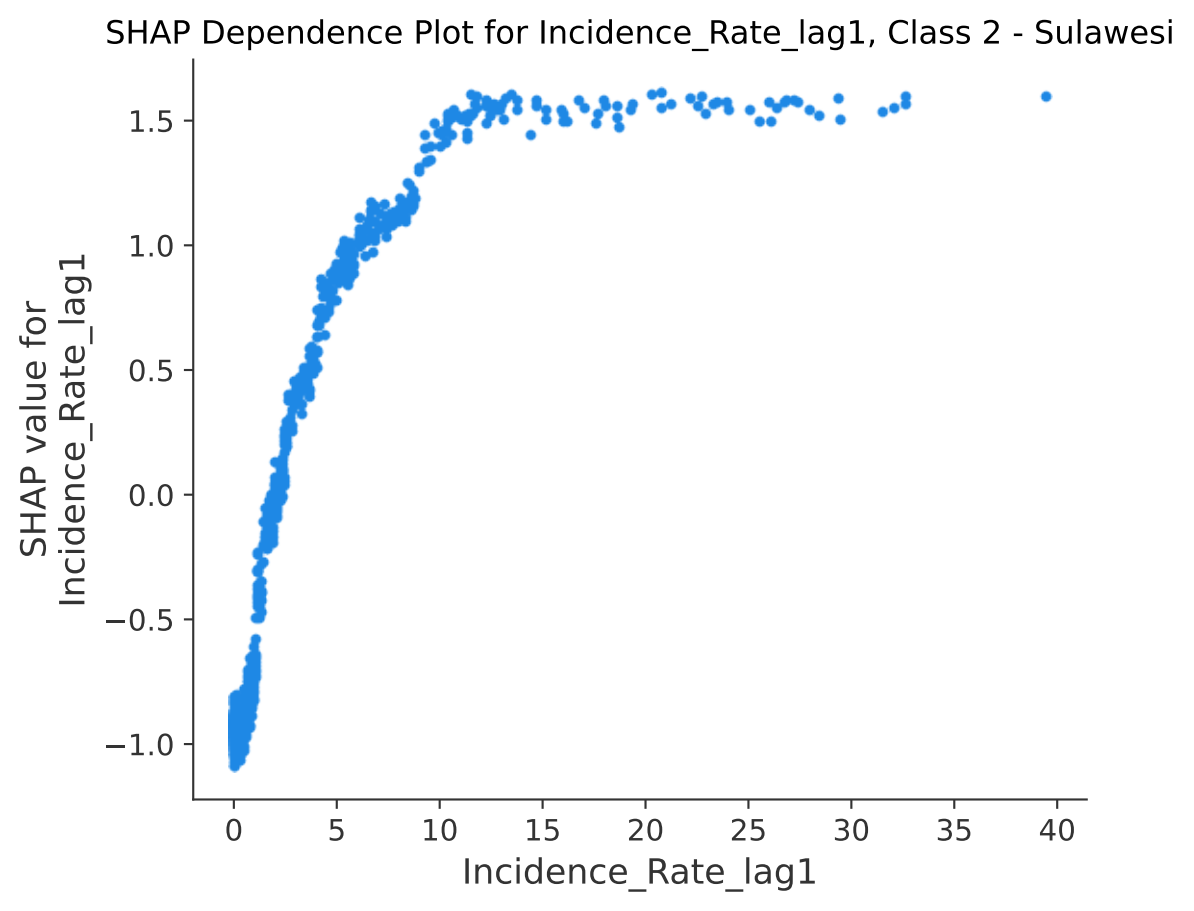

SHAP Beeswarm Plot for Class 0 - Sulawesi
Incidence_Rate_lag1
Class_50
Class_10
DMI_lag3
ANOM4
Class_40
temperature_2m_max_ANOM_lag1
Class_90
DMI_lag1
Class_20
aridity_index_lag1
Class_60
potential_evaporation_sum_lag1
evaporative_stress_index_lag1
potential_evaporation_sum
precipitation_lag1
temperature_2m_min_ANOM
temperature_2m_max_lag3
temperature_2m_ANOM_lag3
DMI_East_lag2
−1.0
−0.5
0.0
0.5
1.0
SHAP value (impact on model output)
High
Feature value
Low

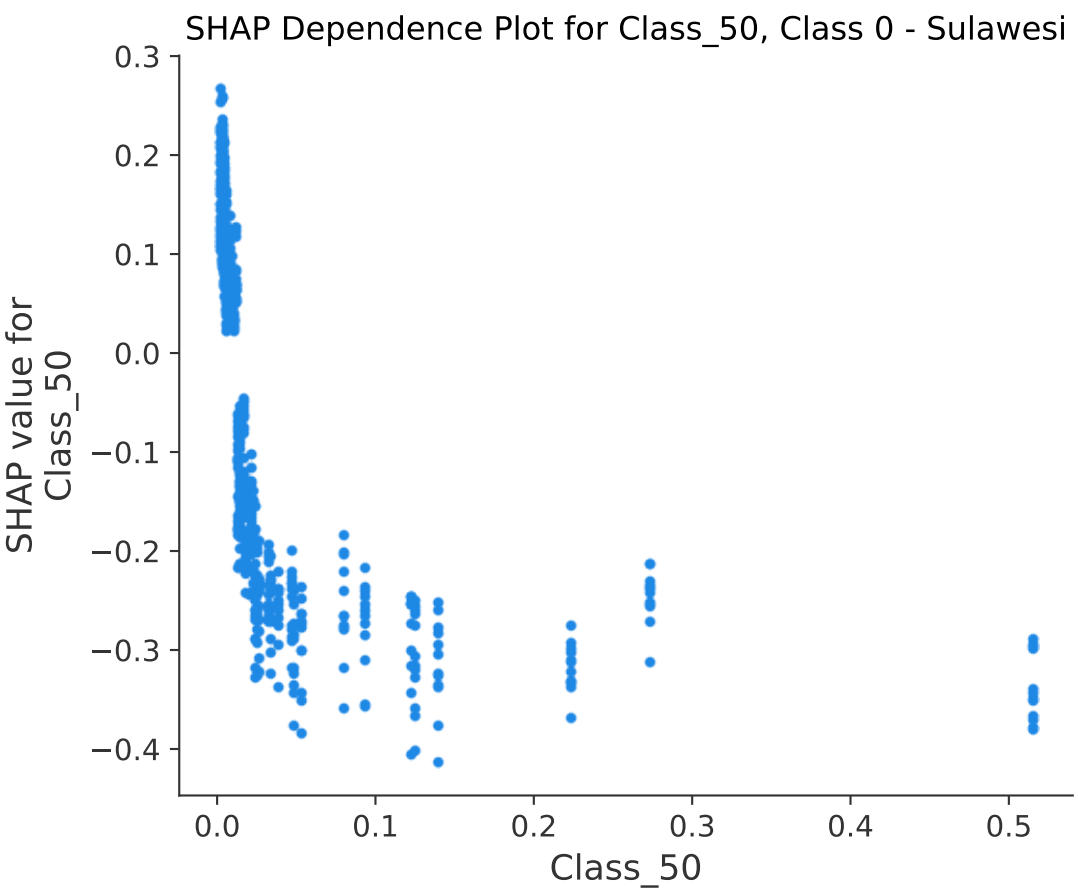

SHAP Beeswarm Plot for Class 1 - Sulawesi
Incidence_Rate_lag1
Class_40
Class_90
Class_95
Class_10
Class_20
potential_evaporation_sum_lag3
temperature_2m_ANOM
Class_80
Class_50
DMI
Class_30
total_evaporation_sum_lag3
ANOM3.4_lag2
temperature_2m_max_ANOM_lag2
ANOM4
evaporative_stress_index_lag3
temperature_2m_max
temperature_2m_min_ANOM_lag3
Class_60
−1.0
−0.5
0.0
0.5
SHAP value (impact on model output)
High
Feature value
Low

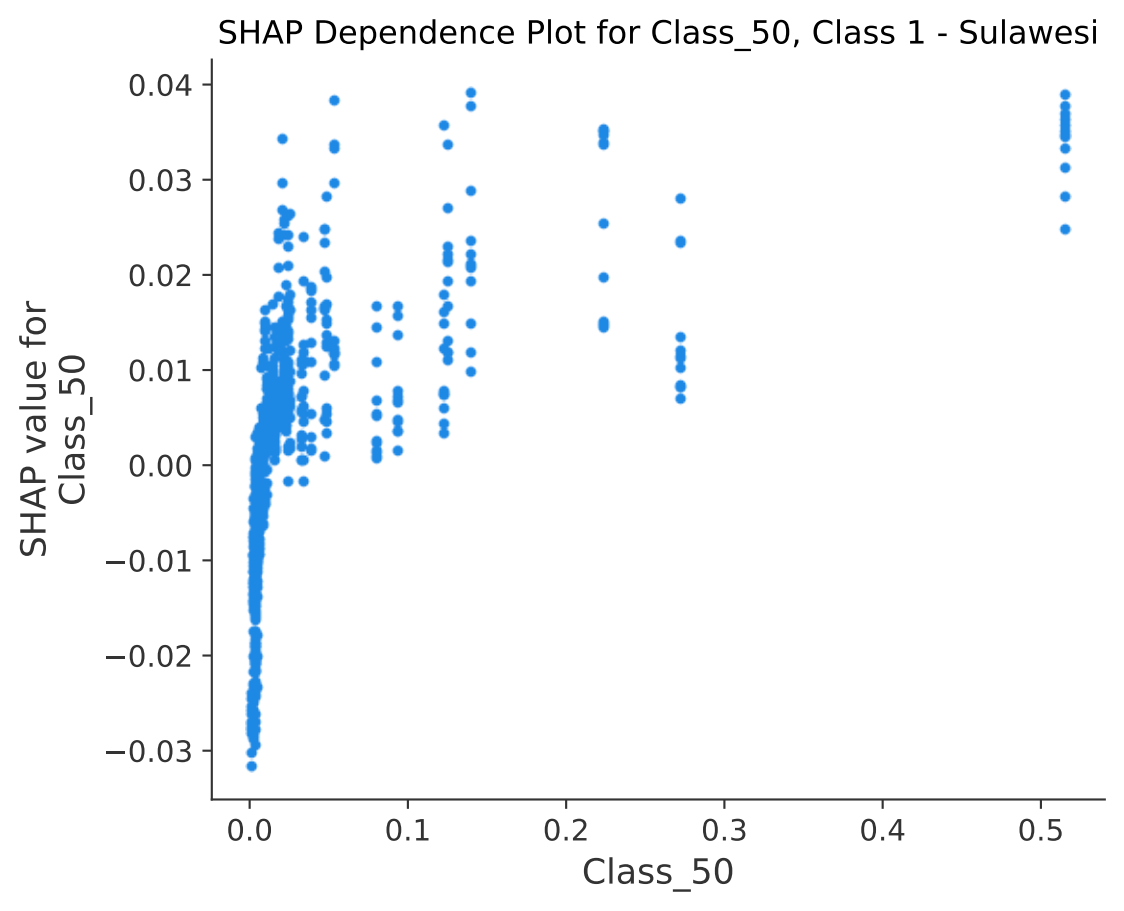

SHAP Beeswarm Plot for Class 2 - Sulawesi
Incidence_Rate_lag1
Class_50
ANOM3_lag2
Class_10
ANOM4
temperature_2m_max_lag3
temperature_2m_max_ANOM_lag1
Class_60
ANOM4_lag1
DMI_lag1
temperature_2m_min_ANOM_lag1
potential_evaporation_sum
Class_30
precipitation_lag3
aridity_index_lag3
DMI
ANOM3.4
precipitation_lag1
potential_evaporation_sum_ANOM
aridity_index_lag1
−1.0
−0.5
0.0
0.5
1.0
1.5
SHAP value (impact on model output)
High
Feature value
Low

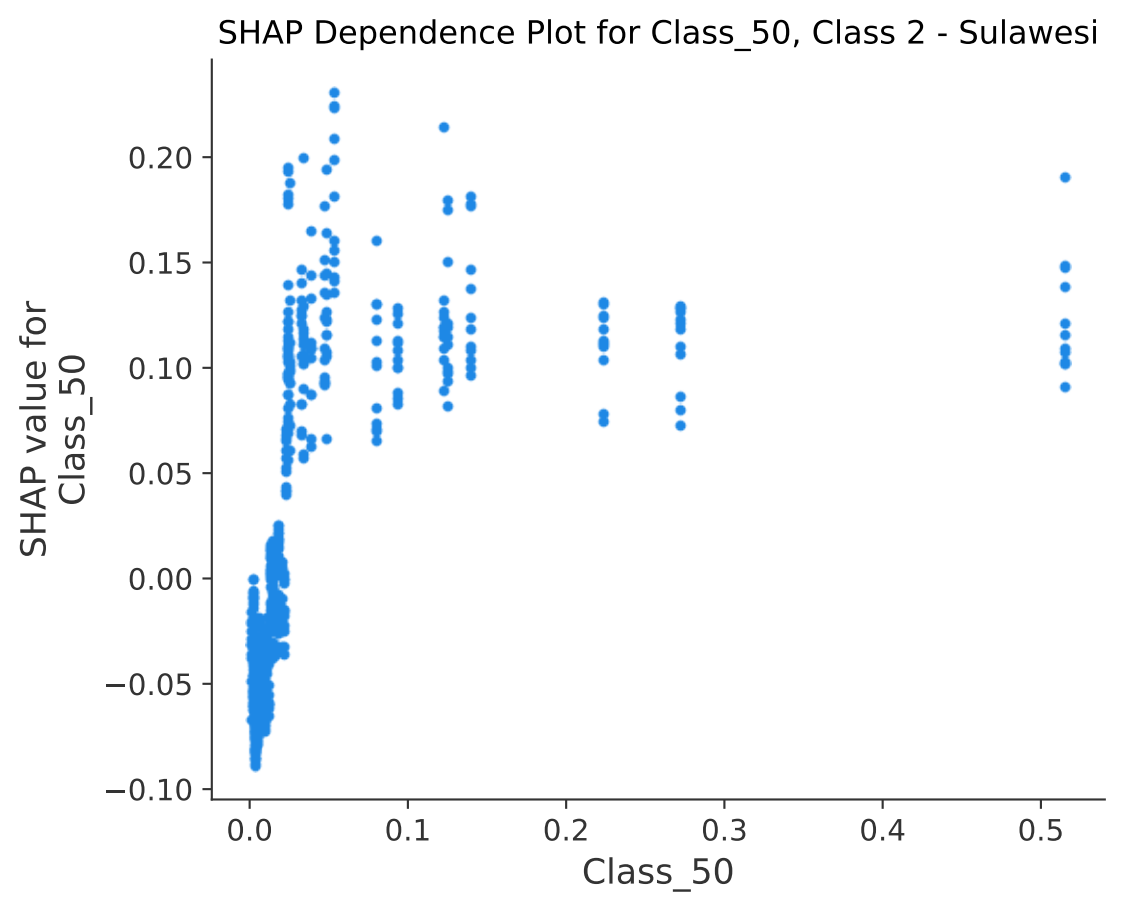

SHAP Dependence Plot for Incidence_Rate_lag1, Class 0 - Sulawesi
SHAP value for Incidence_Rate_lag1
Incidence_Rate_lag1
1.0
0.5
0.0
−0.5
−1.0
0
5
10
15
20
25
30
35
40

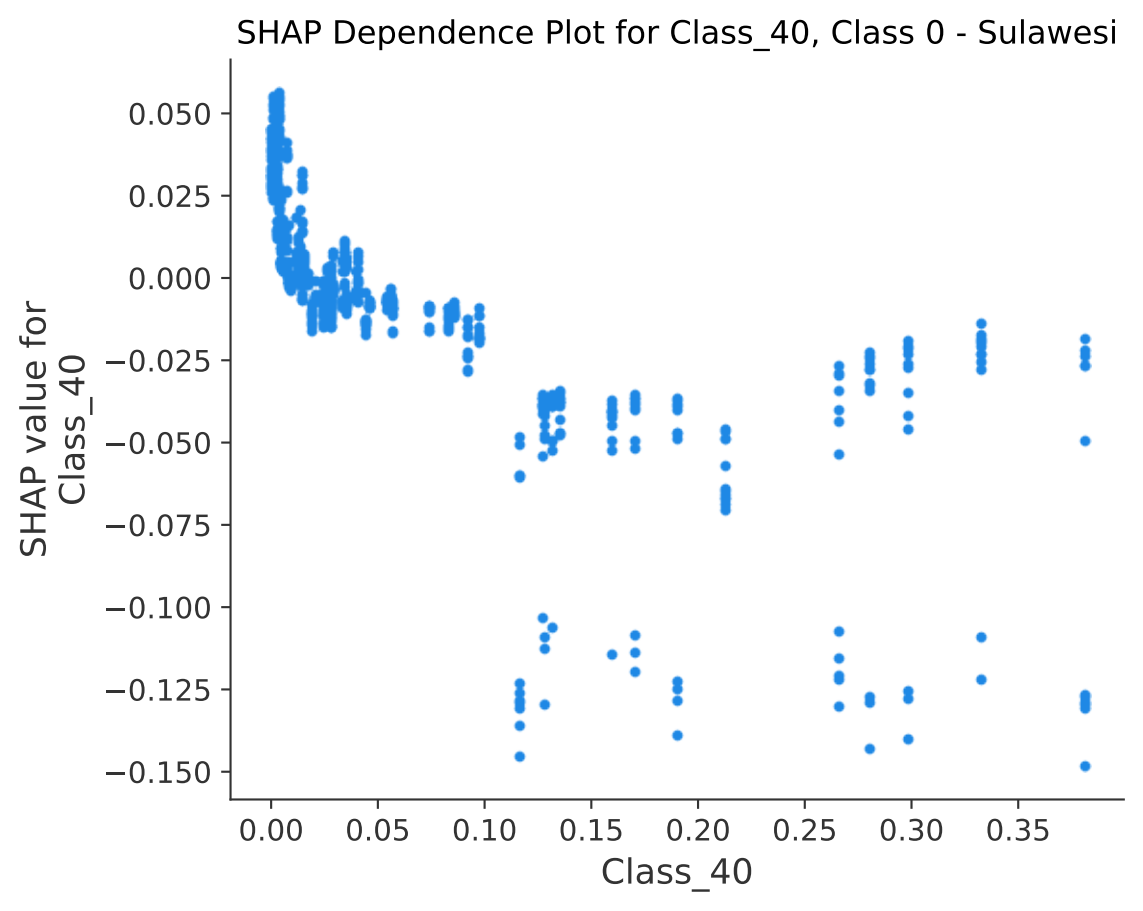

SHAP Dependence Plot for Incidence_Rate_lag1, Class 1 - Sulawesi
SHAP value for Incidence_Rate_lag1
Incidence_Rate_lag1
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
−1.25
0
5
10
15
20
25
30
35
40

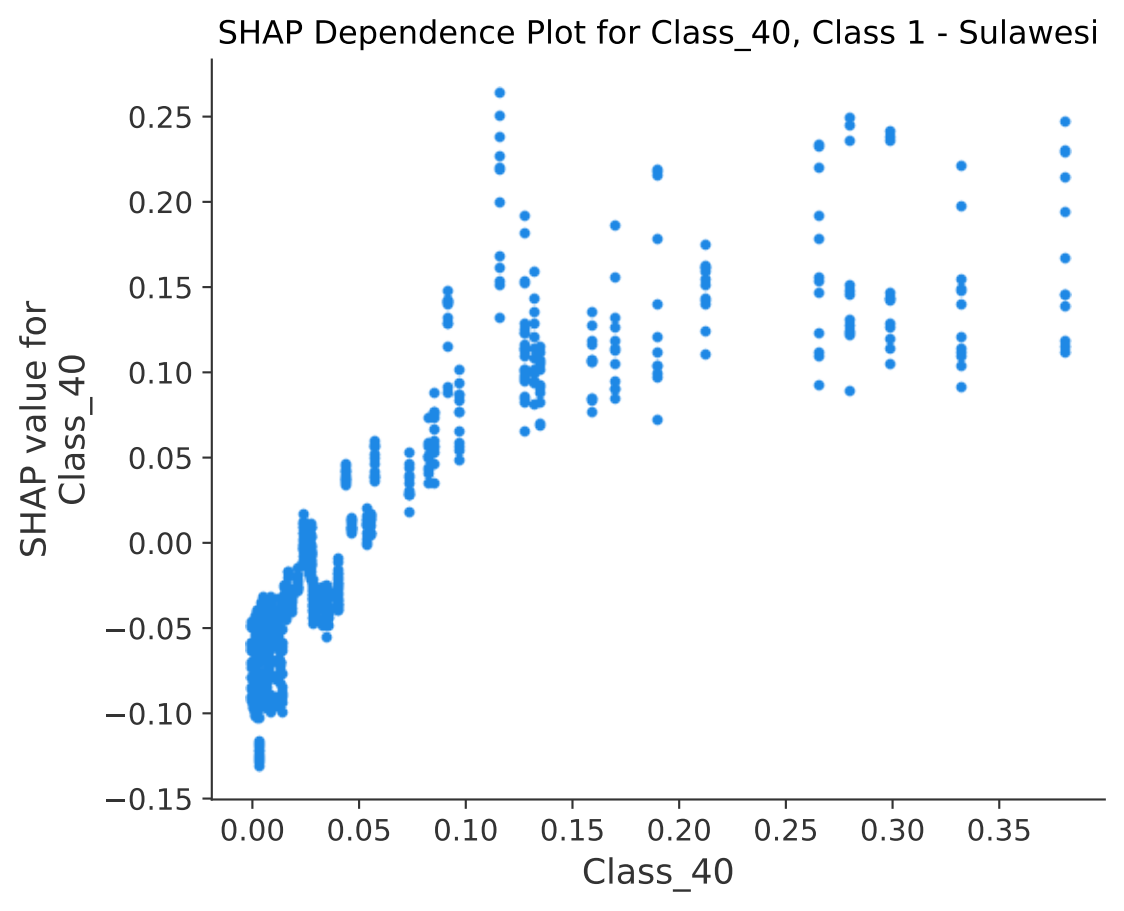

SHAP Dependence Plot for Incidence_Rate_lag1, Class 2 - Sulawesi
SHAP value for Incidence_Rate_lag1
Incidence_Rate_lag1
1.5
1.0
0.5
0.0
−0.5
−1.0
0
5
10
15
20
25
30
35
40

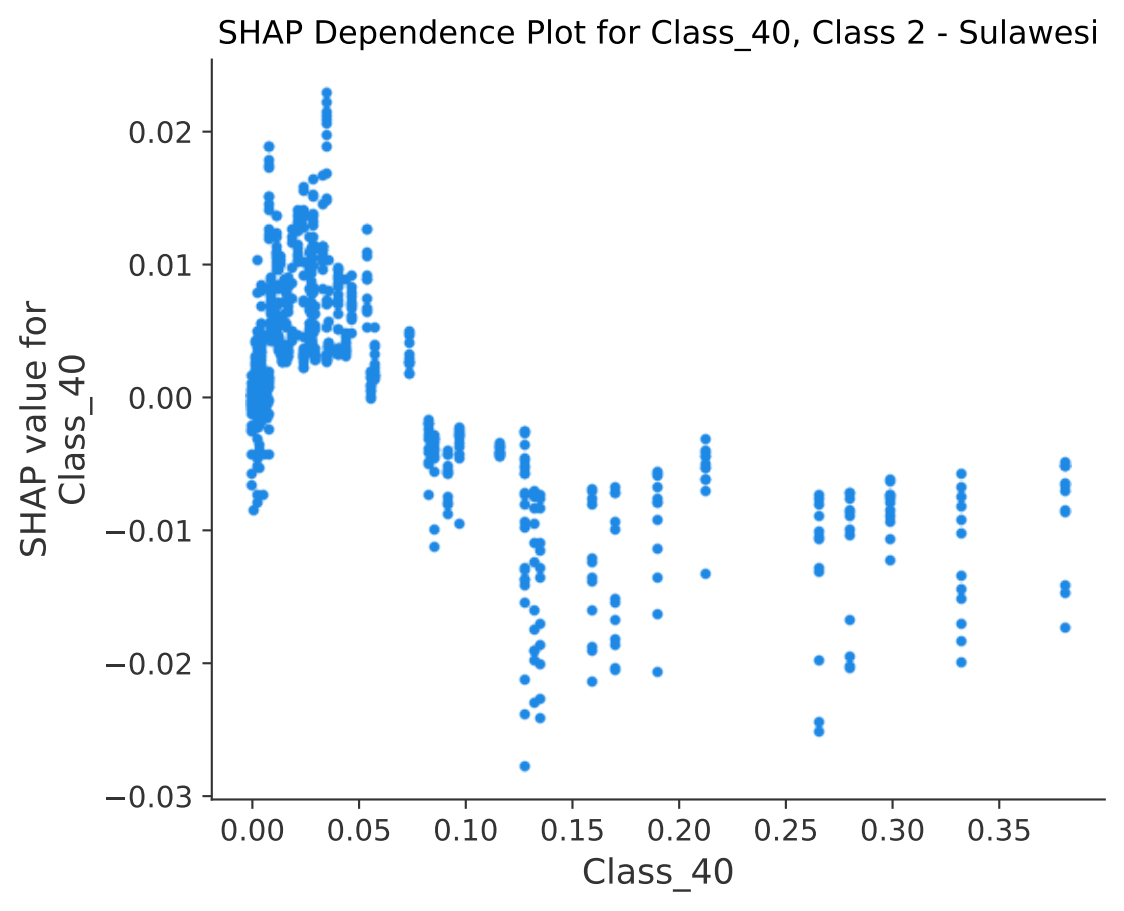

SHAP Dependence Plot for Class_50, Class 0 - Sulawesi
SHAP value for Class_50
Class_50
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.4
0.0
0.1
0.2
0.3
0.4
0.5

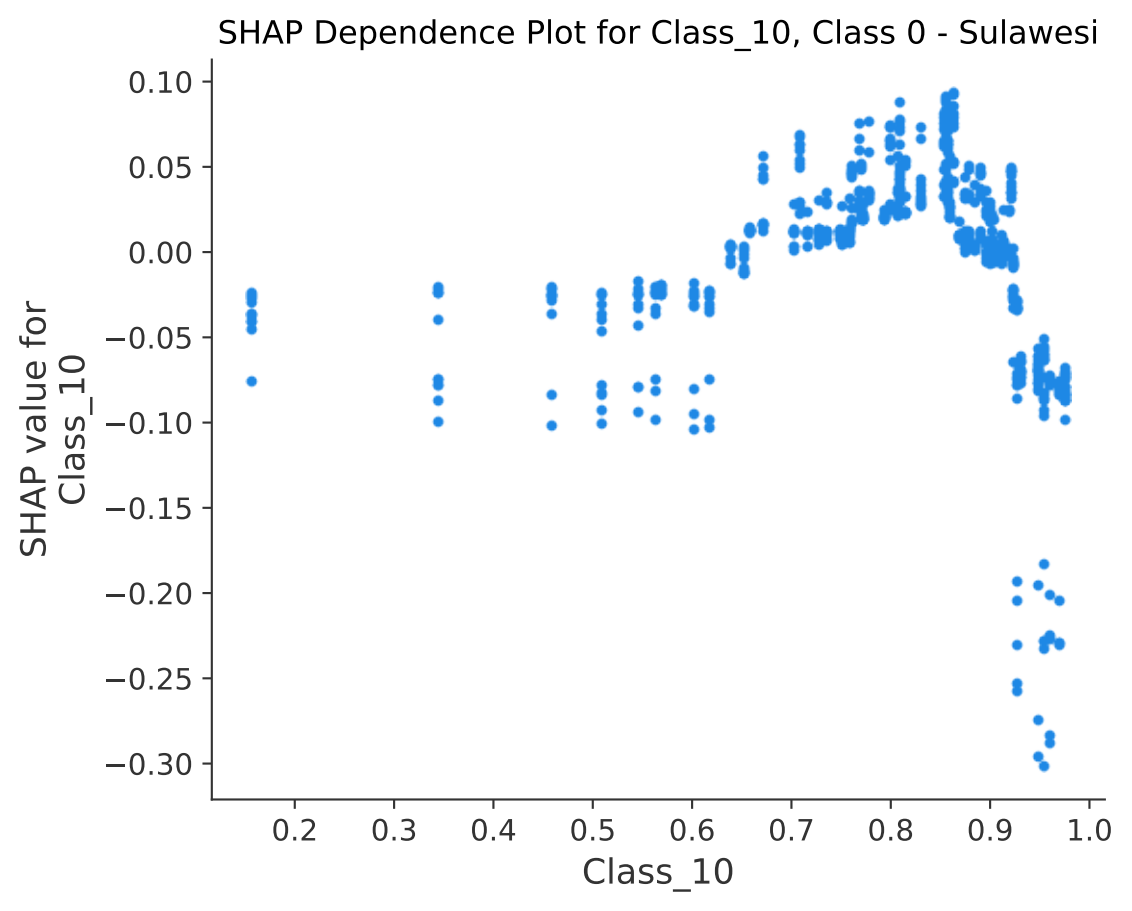

SHAP Dependence Plot for Class_50, Class 1 - Sulawesi
SHAP value for Class_50
Class_50
0.04
0.03
0.02
0.01
0.00
−0.01
−0.02
−0.03
0.0
0.1
0.2
0.3
0.4
0.5

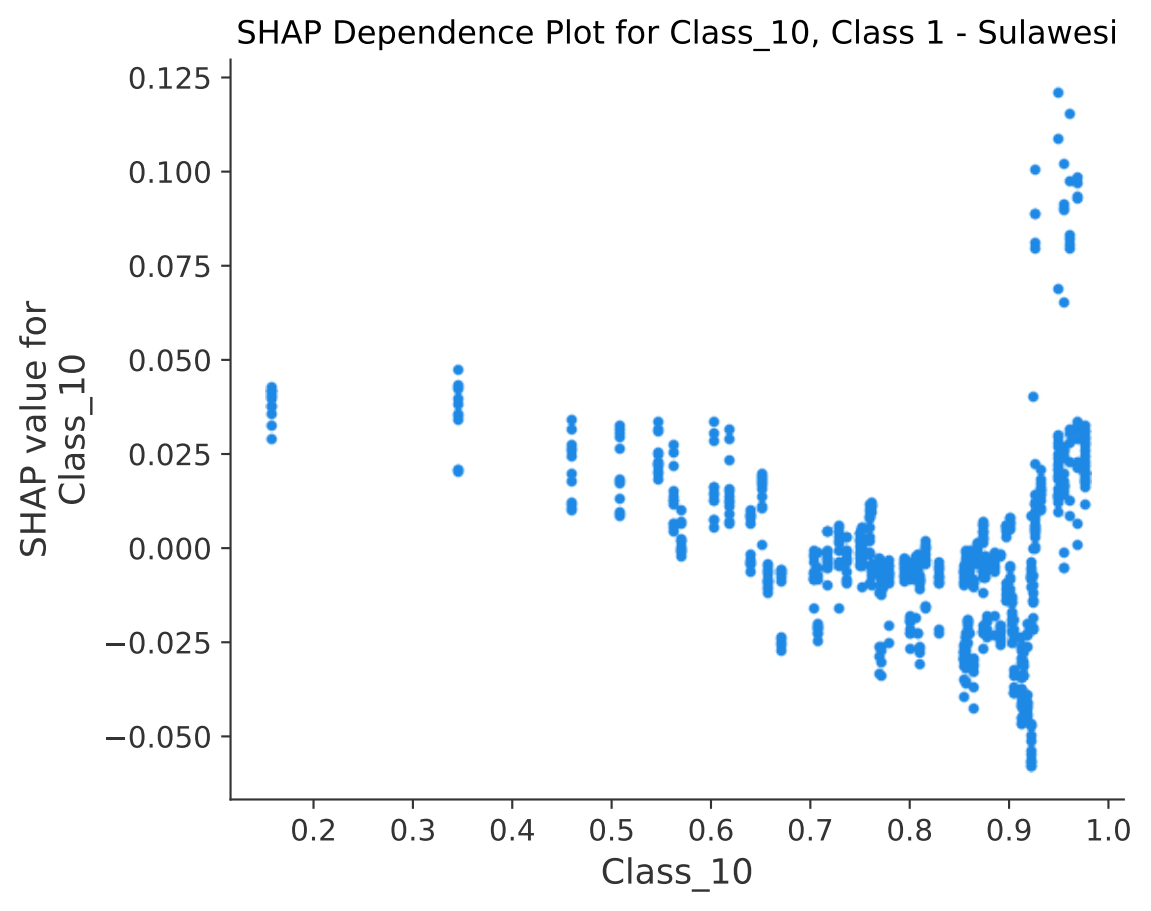

SHAP Dependence Plot for Class_50, Class 2 - Sulawesi
SHAP value for Class_50
Class_50
0.20
0.15
0.10
0.05
0.00
−0.05
−0.10
0.0
0.1
0.2
0.3
0.4
0.5

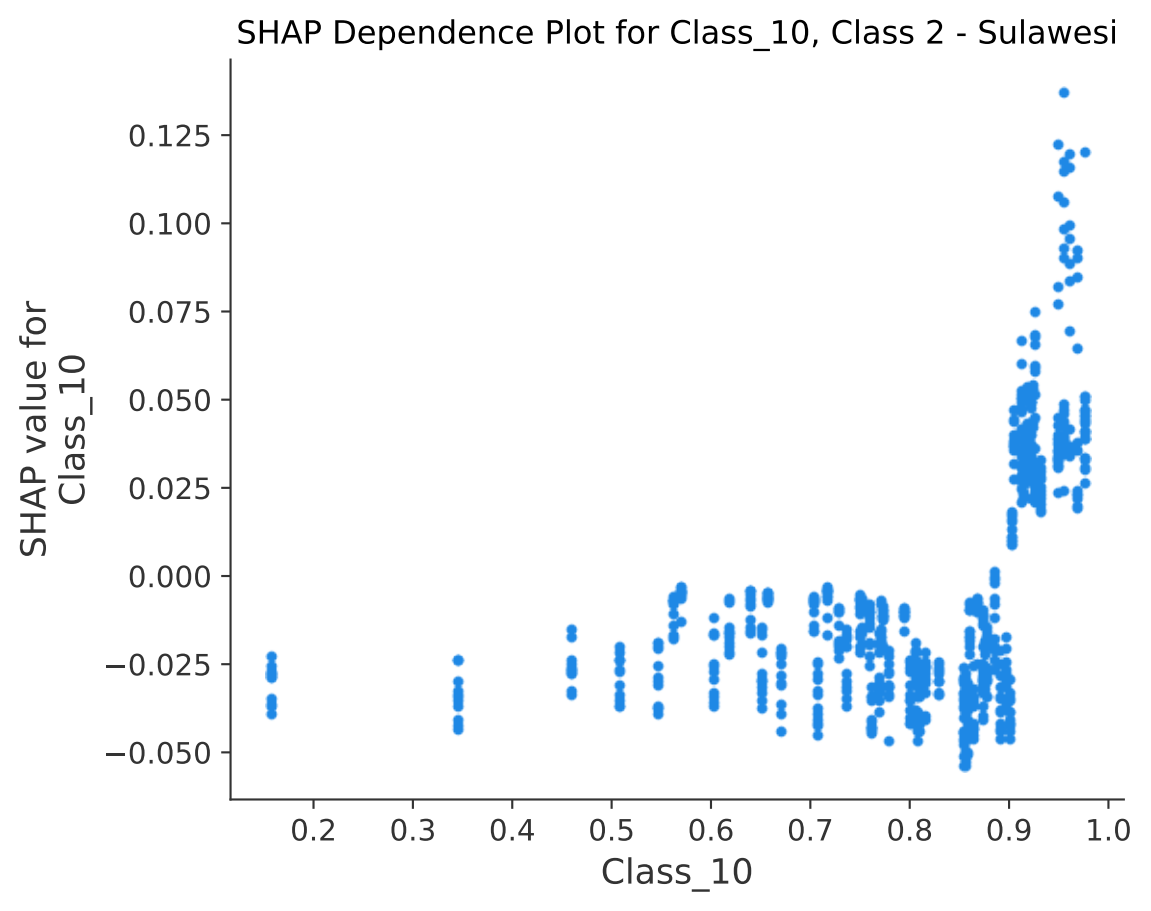

SHAP Dependence Plot for Class_40, Class 0 - Sulawesi
SHAP value for Class_40
0.050
0.025
0.000
−0.025
−0.050
−0.075
−0.100
−0.125
−0.150
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35
Class_40

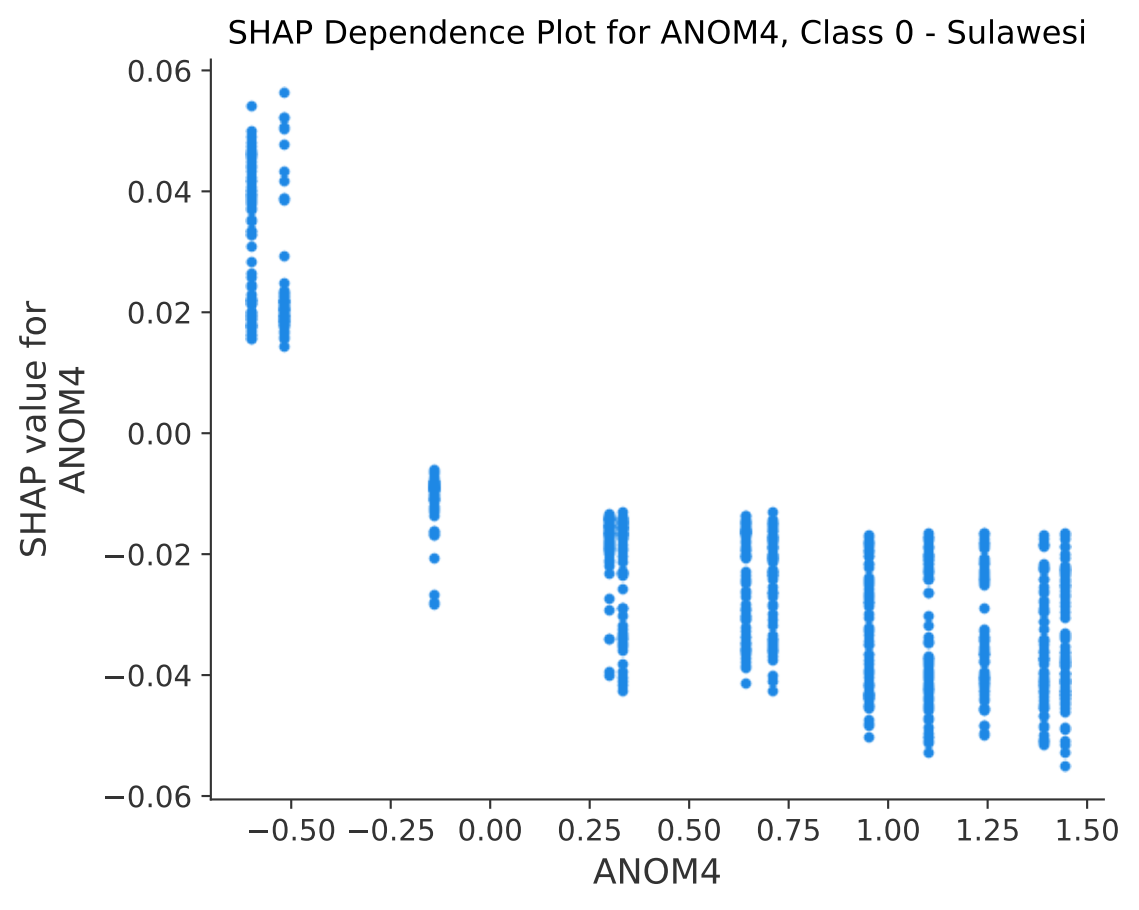

SHAP Dependence Plot for Class_40, Class 1 - Sulawesi
SHAP value for Class_40
Class_40
0.25
0.20
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35

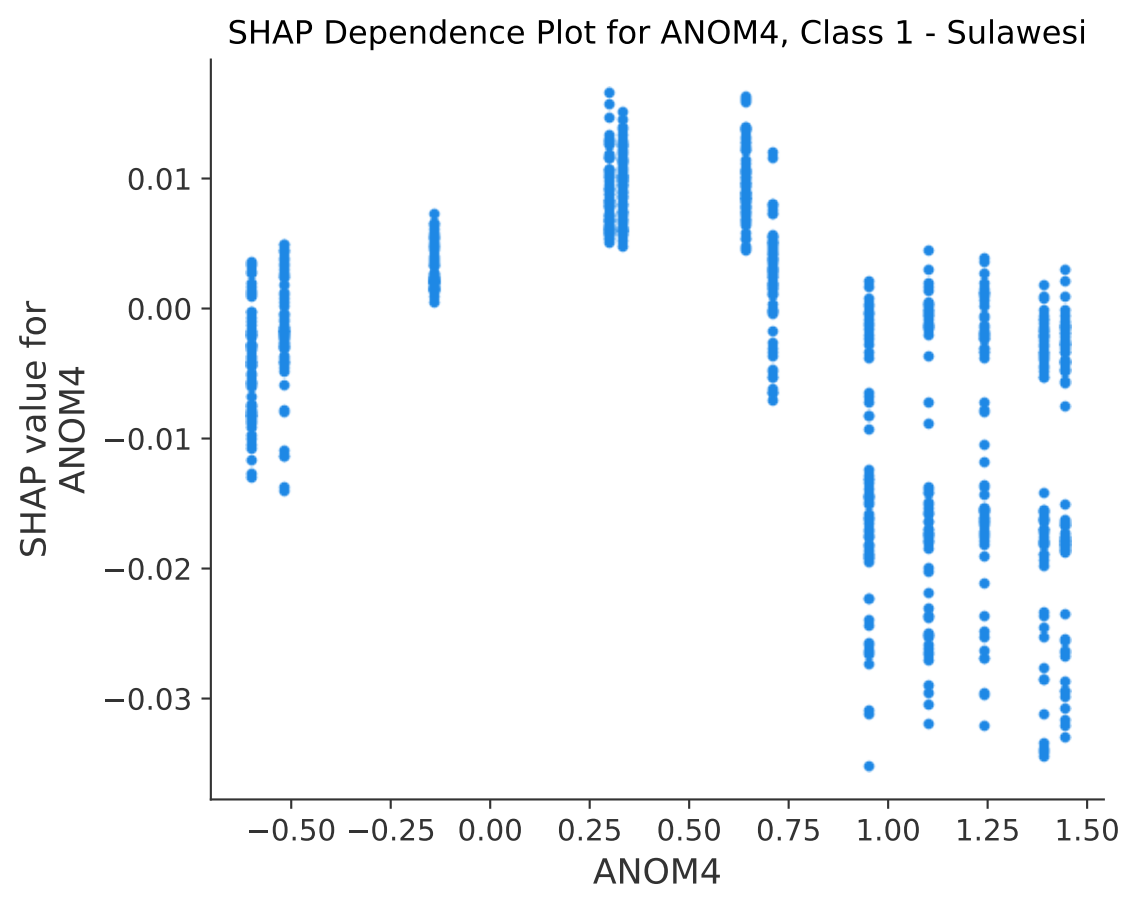

SHAP Dependence Plot for Class_40, Class 2 - Sulawesi
SHAP value for Class_40
Class_40
0.02
0.01
0.00
−0.01
−0.02
−0.03
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35

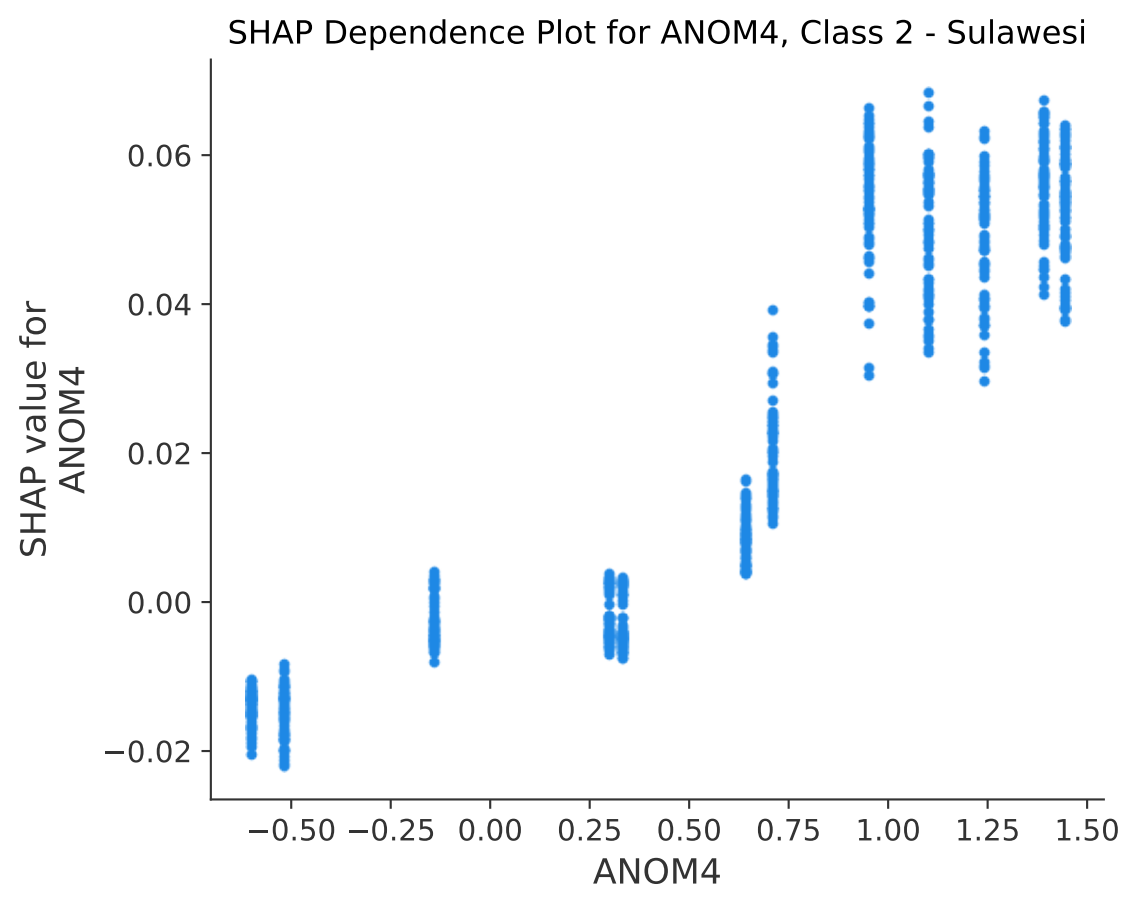

SHAP Dependence Plot for Class_10, Class 0 - Sulawesi
SHAP value for Class_10
Class_10
0.10
0.05
0.00
−0.05
−0.10
−0.15
−0.20
−0.25
−0.30
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0

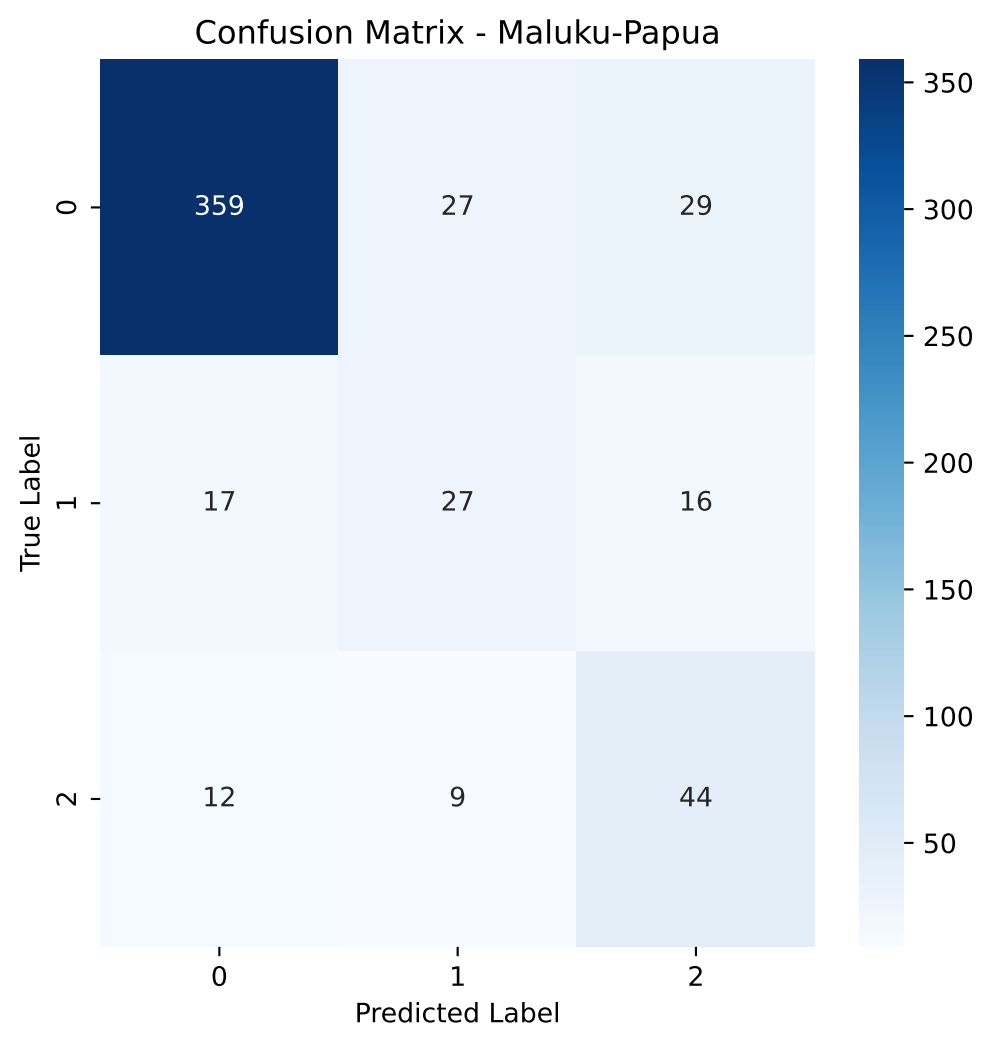

SHAP Dependence Plot for Class_10, Class 1 - Sulawesi
SHAP value for Class_10
Class_10
0.125
0.100
0.075
0.050
0.025
0.000
−0.025
−0.050
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0

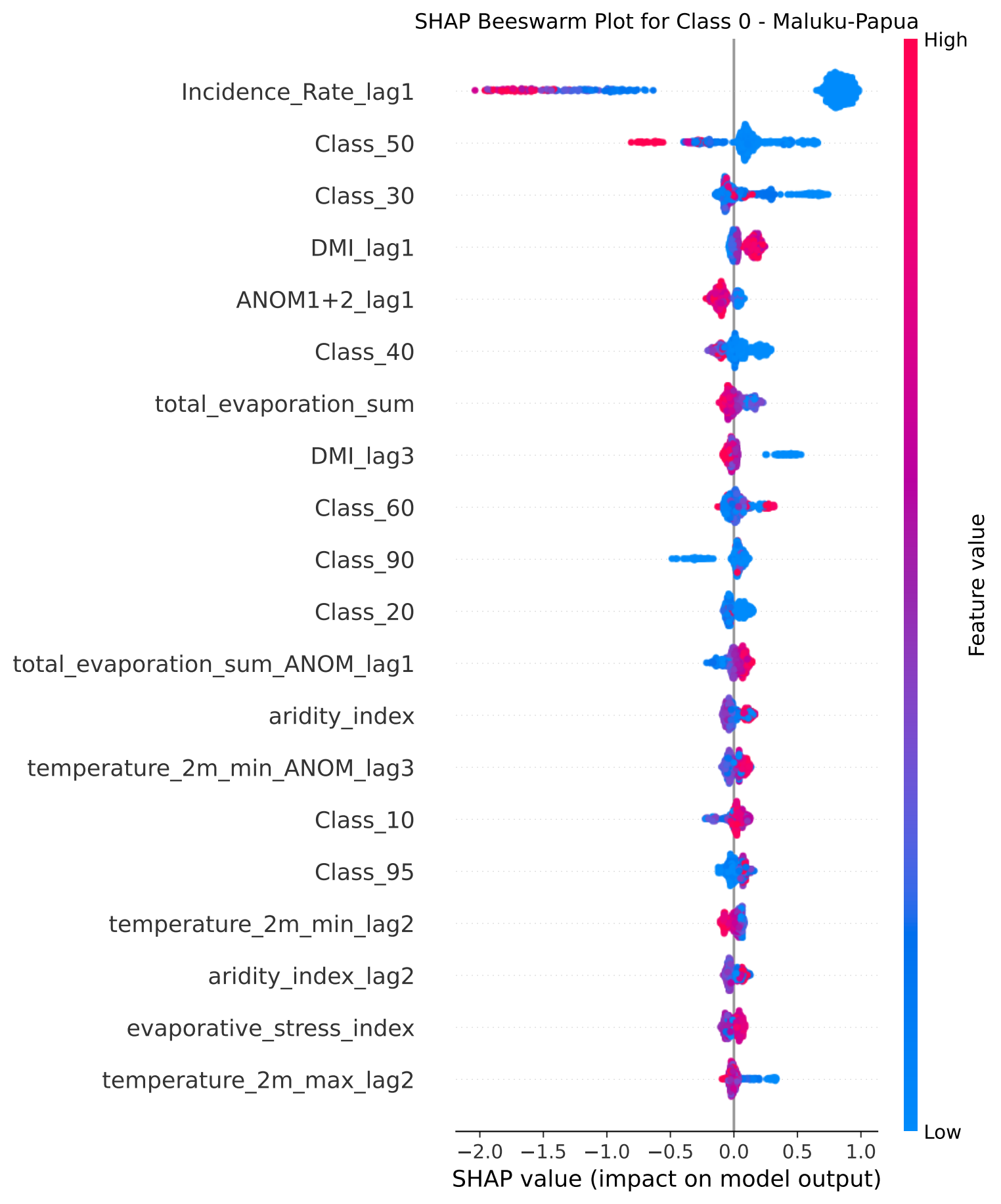

SHAP Dependence Plot for Class_10, Class 2 - Sulawesi
SHAP value for Class_10
0.125
0.100
0.075
0.050
0.025
0.000
−0.025
−0.050
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Class_10

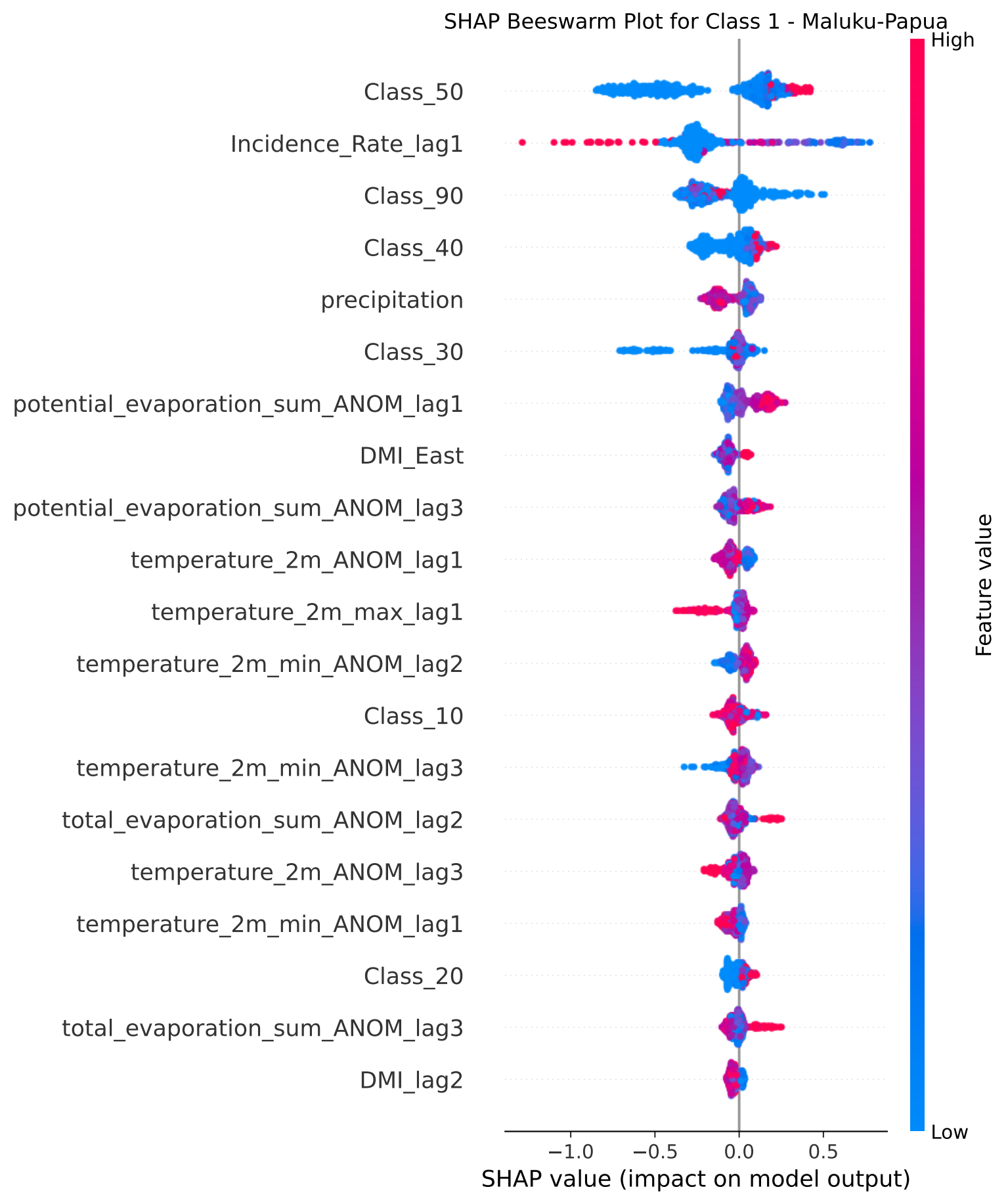

SHAP Dependence Plot for ANOM4, Class 0 - Sulawesi
SHAP value for ANOM4
ANOM4
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
−0.50
−0.25
0.00
0.25
0.50
0.75
1.00
1.25
1.50

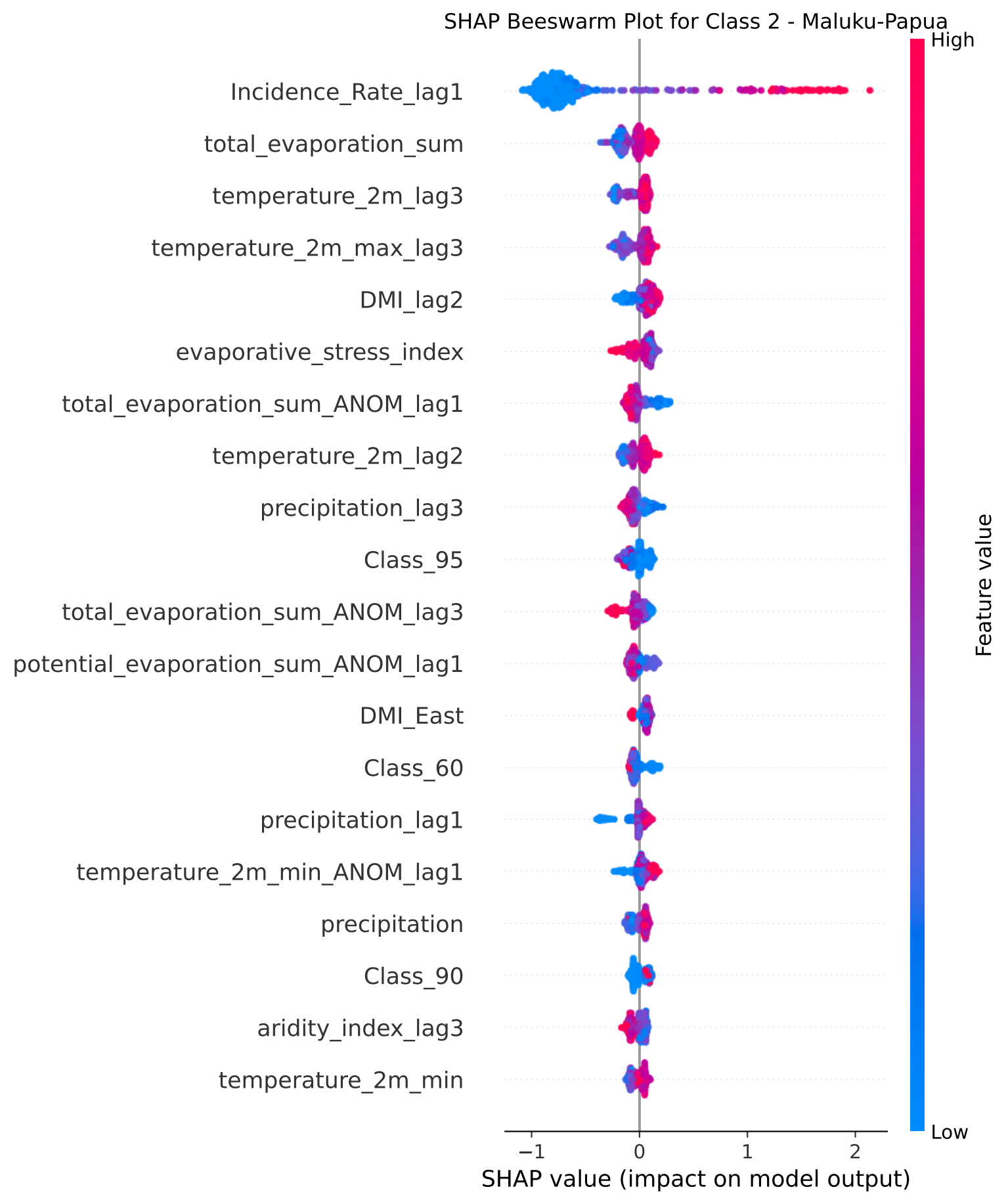

SHAP Dependence Plot for ANOM4, Class 1 - Sulawesi
SHAP value for ANOM4
0.01
0.00
−0.01
−0.02
−0.03
−0.50
−0.25
0.00
0.25
0.50
0.75
1.00
1.25
1.50
ANOM4

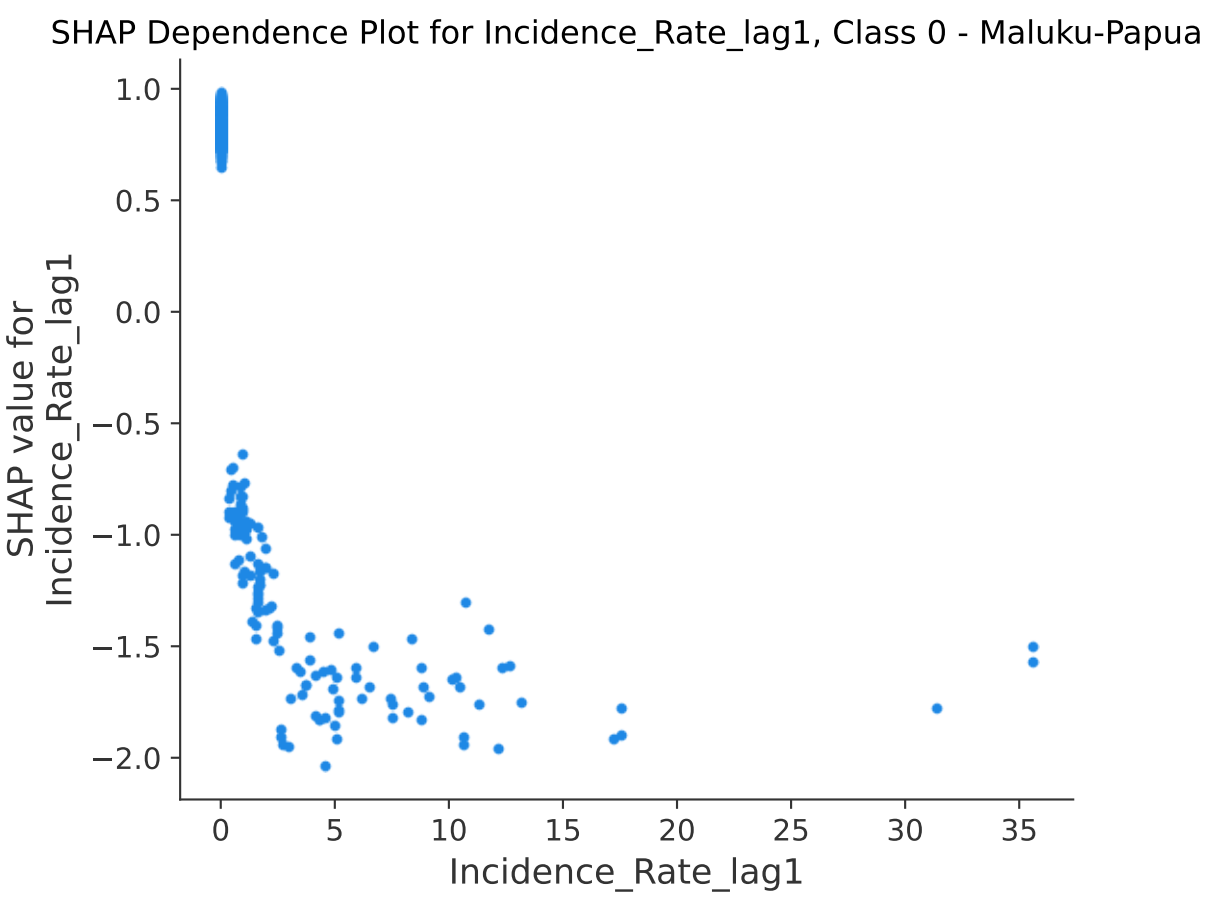

SHAP Dependence Plot for ANOM4, Class 2 - Sulawesi
SHAP value for ANOM4
0.06
0.04
0.02
0.00
−0.02
−0.50
−0.25
0.00
0.25
0.50
0.75
1.00
1.25
1.50
ANOM4

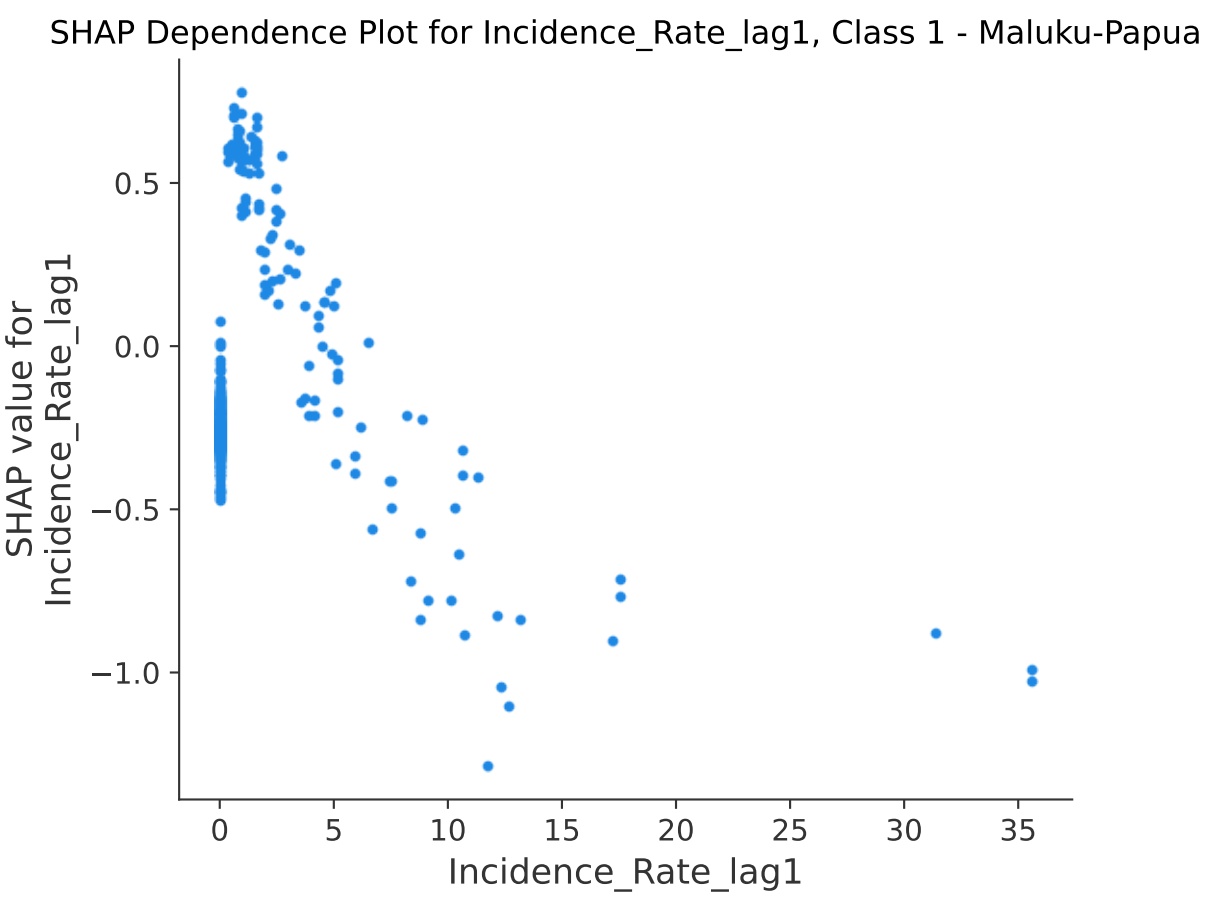

Confusion Matrix - Maluku-Papua
359
27
29
17
27
16
12
9
44
0
1
2
True Label
Predicted Label
350
300
250
200
150
100
50

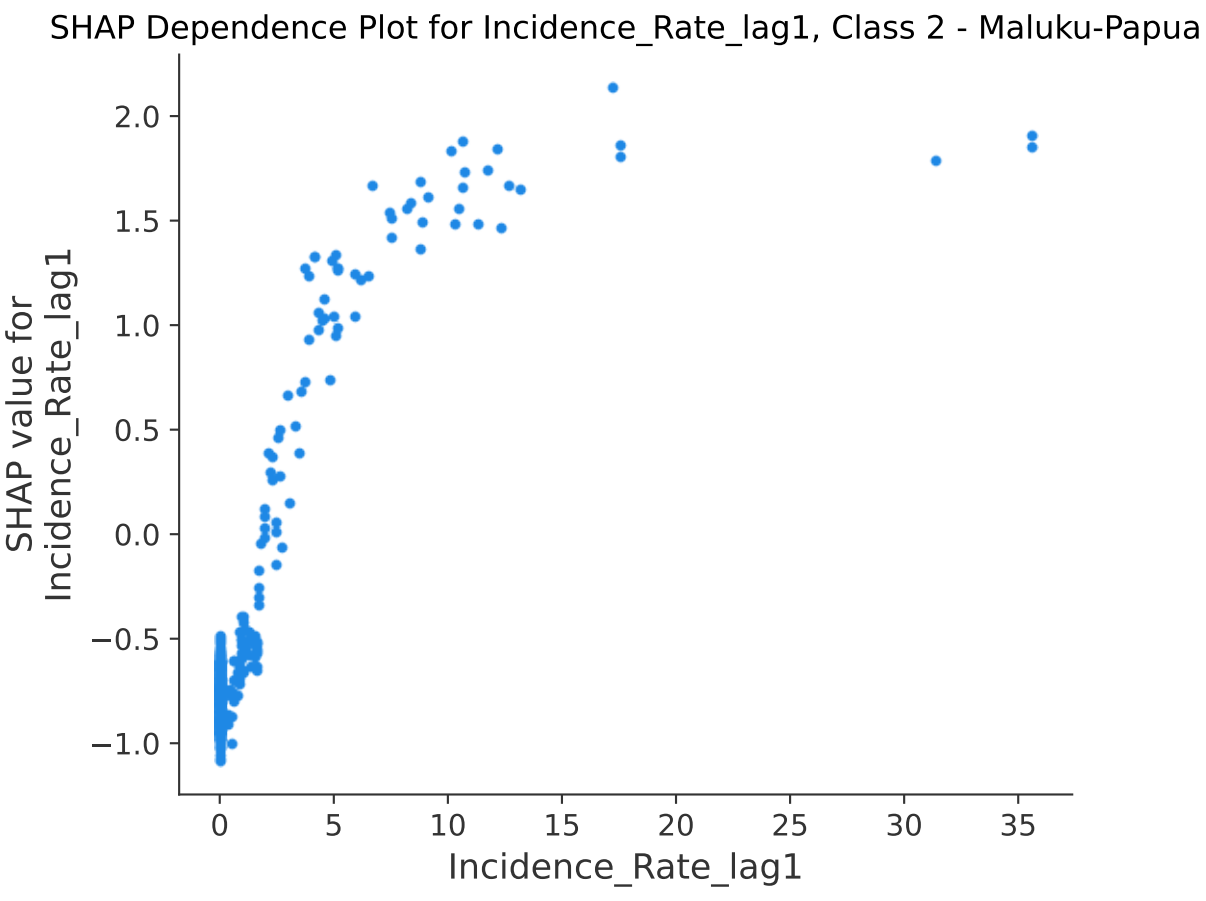

SHAP Beeswarm Plot for Class 0 - Maluku-Papua
Incidence_Rate_lag1
Class_50
Class_30
DMI_lag1
ANOM1+2_lag1
Class_40
total_evaporation_sum
DMI_lag3
Class_60
Class_90
Class_20
total_evaporation_sum_ANOM_lag1
aridity_index
temperature_2m_min_ANOM_lag3
Class_10
Class_95
temperature_2m_min_lag2
aridity_index_lag2
evaporative_stress_index
temperature_2m_max_lag2
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
SHAP value (impact on model output)
High
Feature value
Low

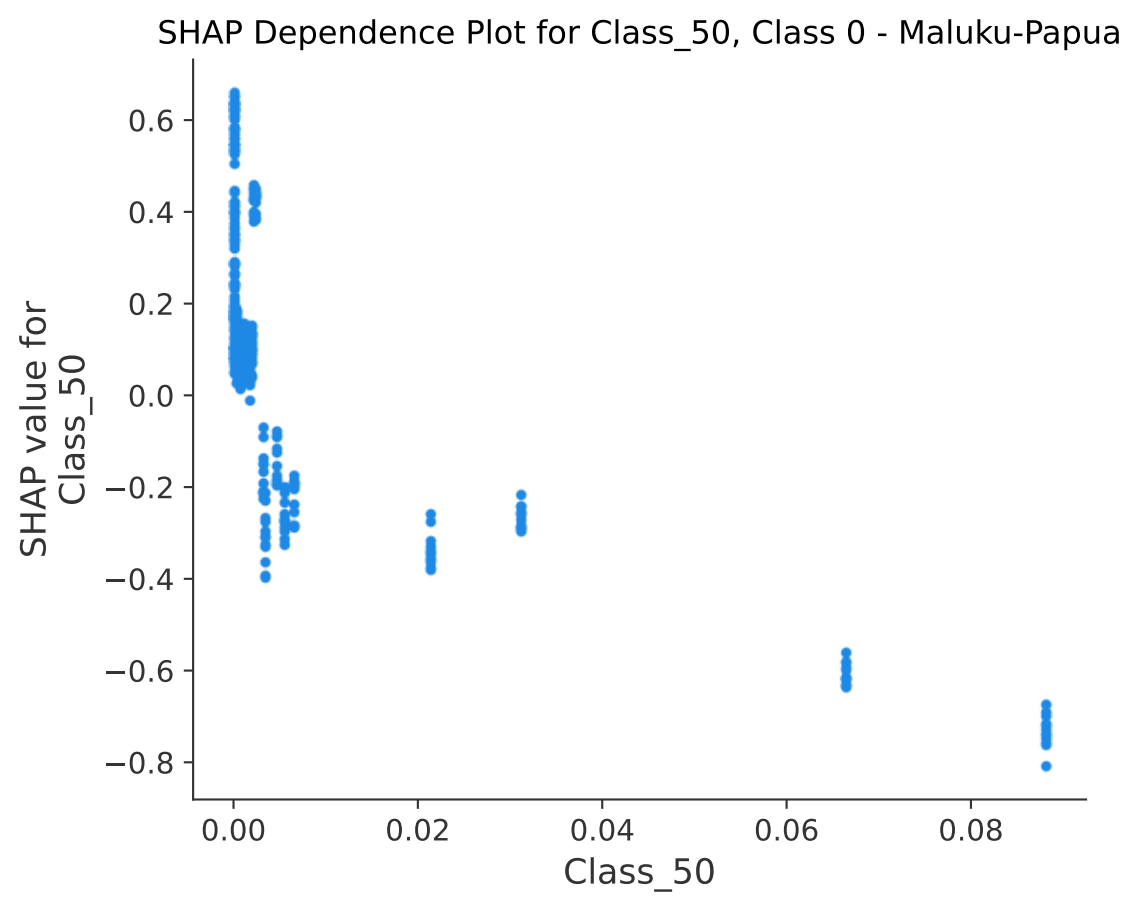

SHAP Beeswarm Plot for Class 1 - Maluku-Papua
Class_50
Incidence_Rate_lag1
Class_90
Class_40
precipitation
Class_30
potential_evaporation_sum_ANOM_lag1
DMI_East
potential_evaporation_sum_ANOM_lag3
temperature_2m_ANOM_lag1
temperature_2m_max_lag1
temperature_2m_min_ANOM_lag2
Class_10
temperature_2m_min_ANOM_lag3
total_evaporation_sum_ANOM_lag2
temperature_2m_ANOM_lag3
temperature_2m_min_ANOM_lag1
Class_20
total_evaporation_sum_ANOM_lag3
DMI_lag2
−1.0
−0.5
0.0
0.5
SHAP value (impact on model output)
High
Feature value
Low

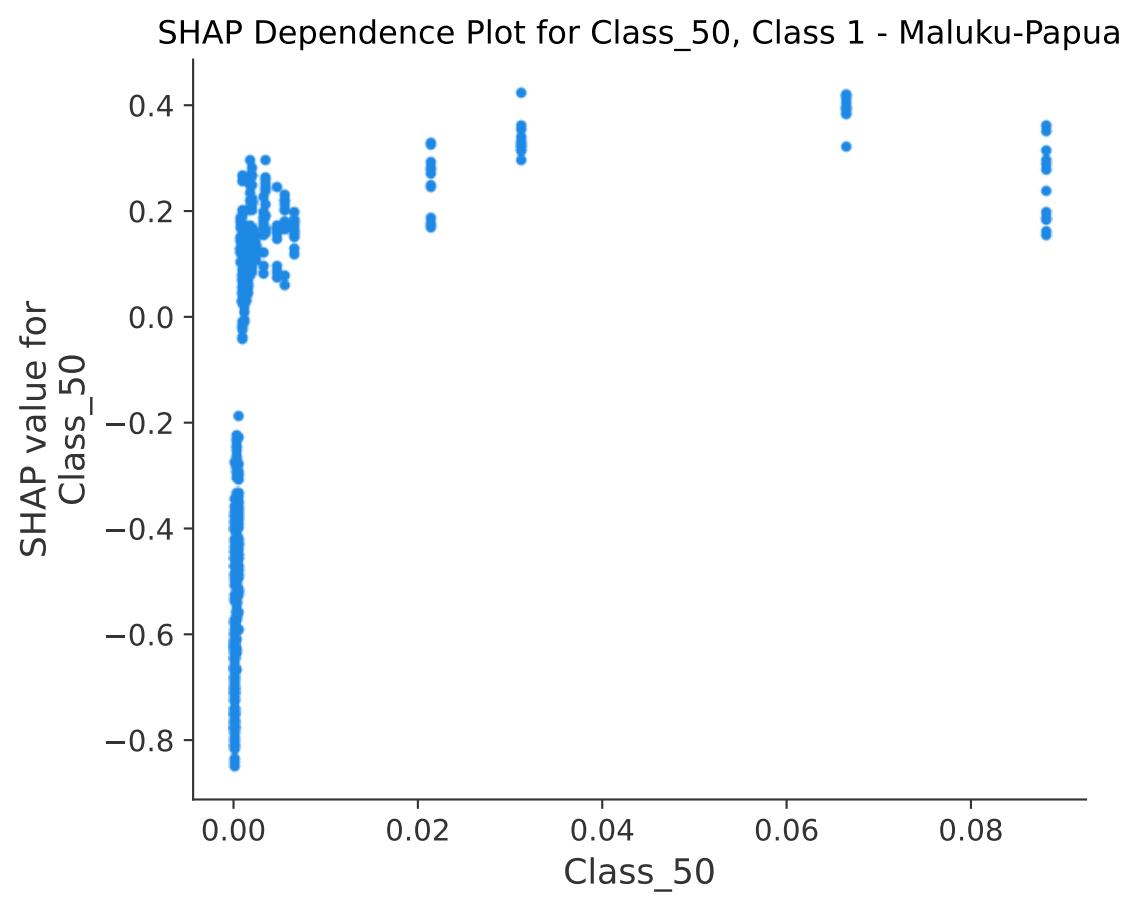

SHAP Beeswarm Plot for Class 2 - Maluku-Papua
Incidence_Rate_lag1
total_evaporation_sum
temperature_2m_lag3
temperature_2m_max_lag3
DMI_lag2
evaporative_stress_index
total_evaporation_sum_ANOM_lag1
temperature_2m_lag2
precipitation_lag3
Class_95
total_evaporation_sum_ANOM_lag3
potential_evaporation_sum_ANOM_lag1
DMI_East
Class_60
precipitation_lag1
temperature_2m_min_ANOM_lag1
precipitation
Class_90
aridity_index_lag3
temperature_2m_min
−1
0
1
2
SHAP value (impact on model output)
High
Feature value
Low

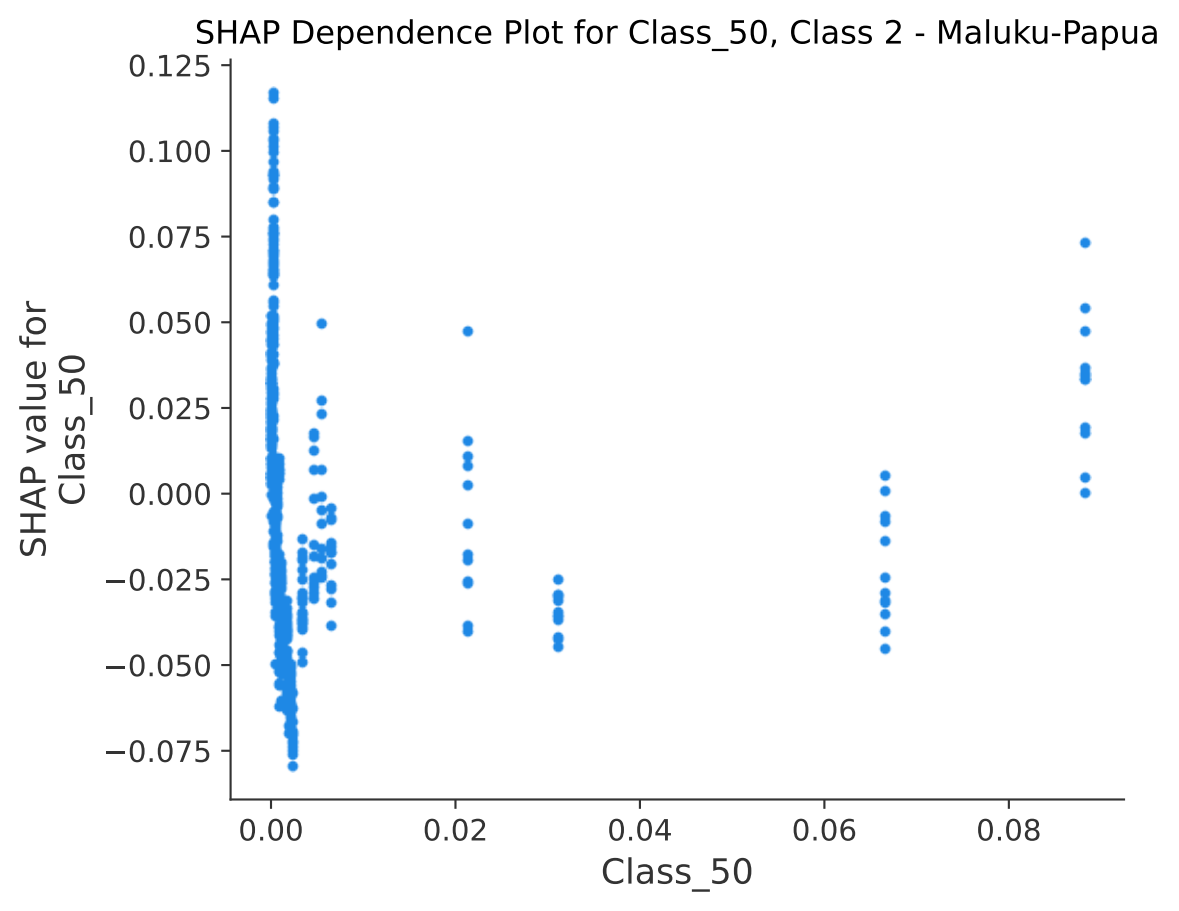

SHAP Dependence Plot for Incidence_Rate_lag1, Class 0 - Maluku-Papua
SHAP value for Incidence_Rate_lag1
Incidence_Rate_lag1
1.0
0.5
0.0
−0.5
−1.0
−1.5
−2.0
0
5
10
15
20
25
30
35

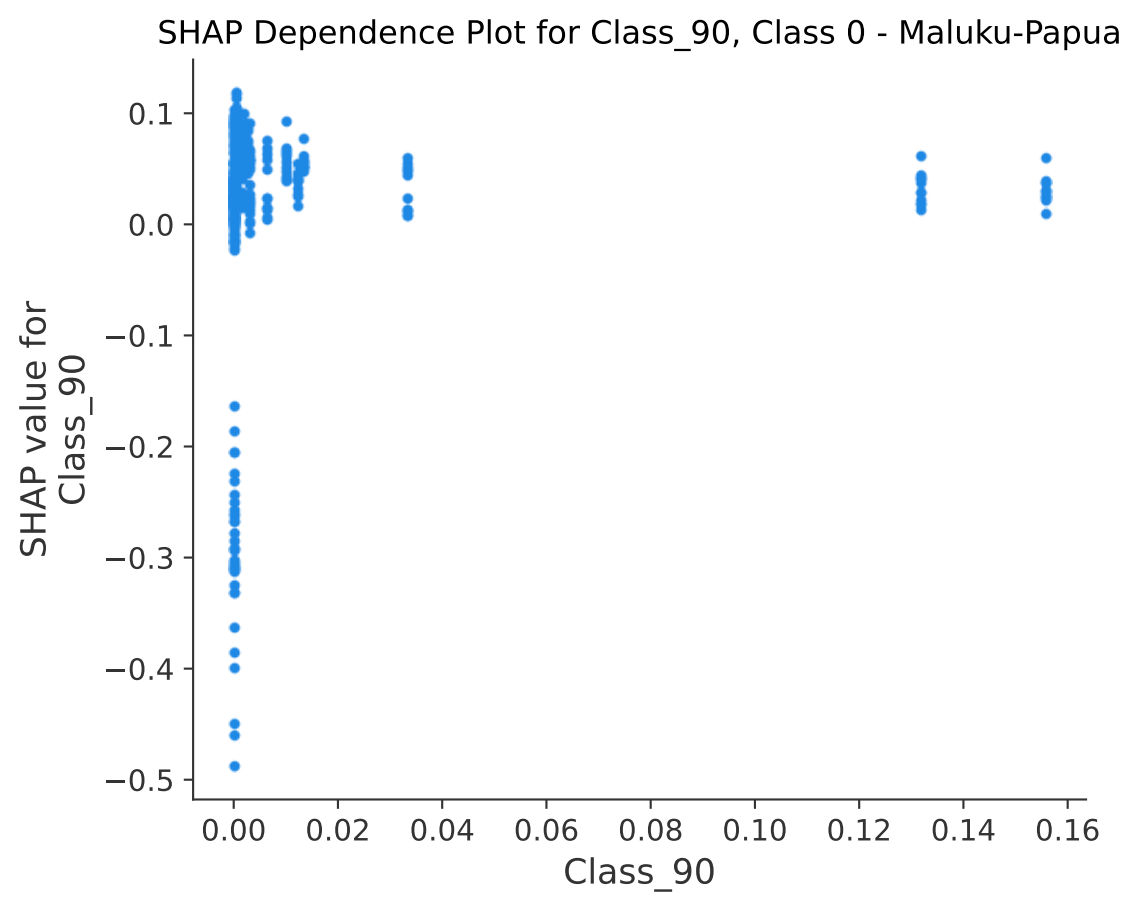

SHAP Dependence Plot for Incidence_Rate_lag1, Class 1 - Maluku-Papua
SHAP value for Incidence_Rate_lag1
0.5
0.0
−0.5
−1.0
0
5
10
15
20
25
30
35
Incidence_Rate_lag1

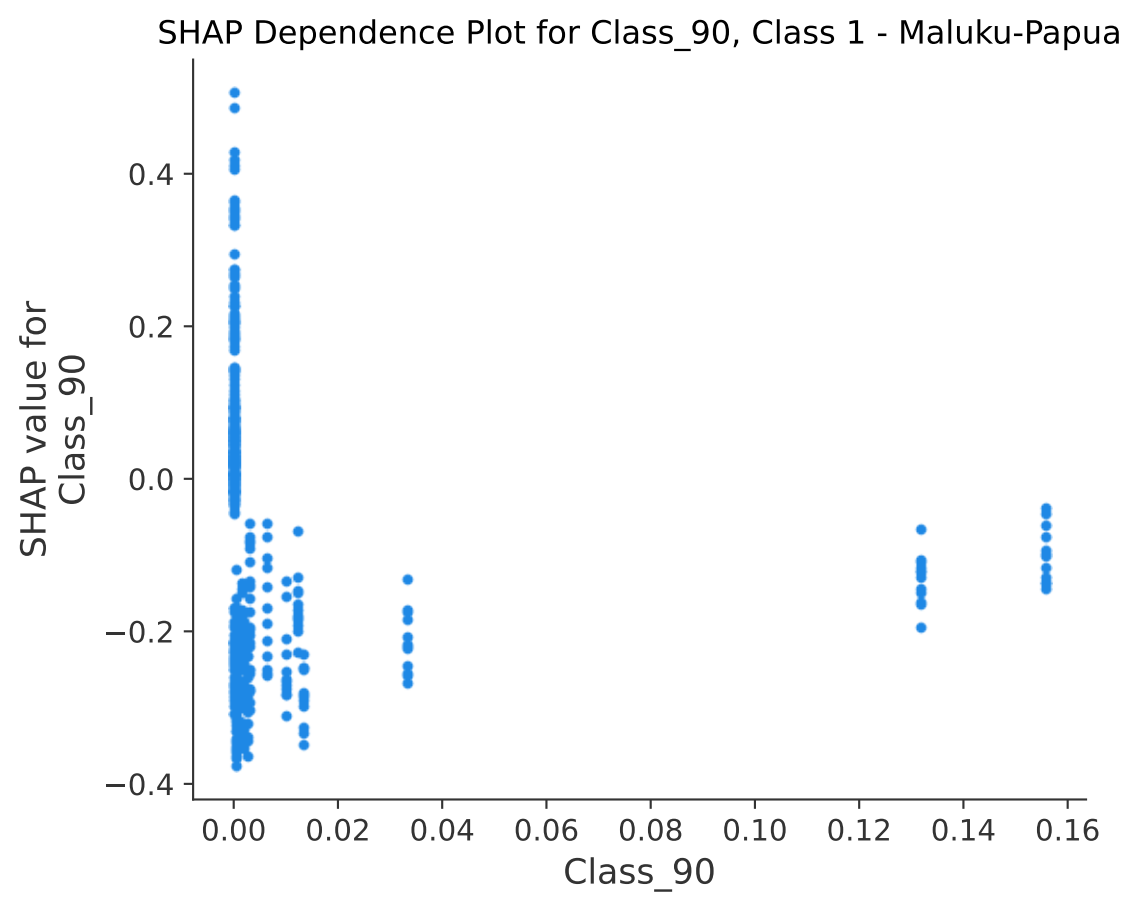

SHAP Dependence Plot for Incidence_Rate_lag1, Class 2 - Maluku-Papua
SHAP value for Incidence_Rate_lag1
Incidence_Rate_lag1
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
0
5
10
15
20
25
30
35

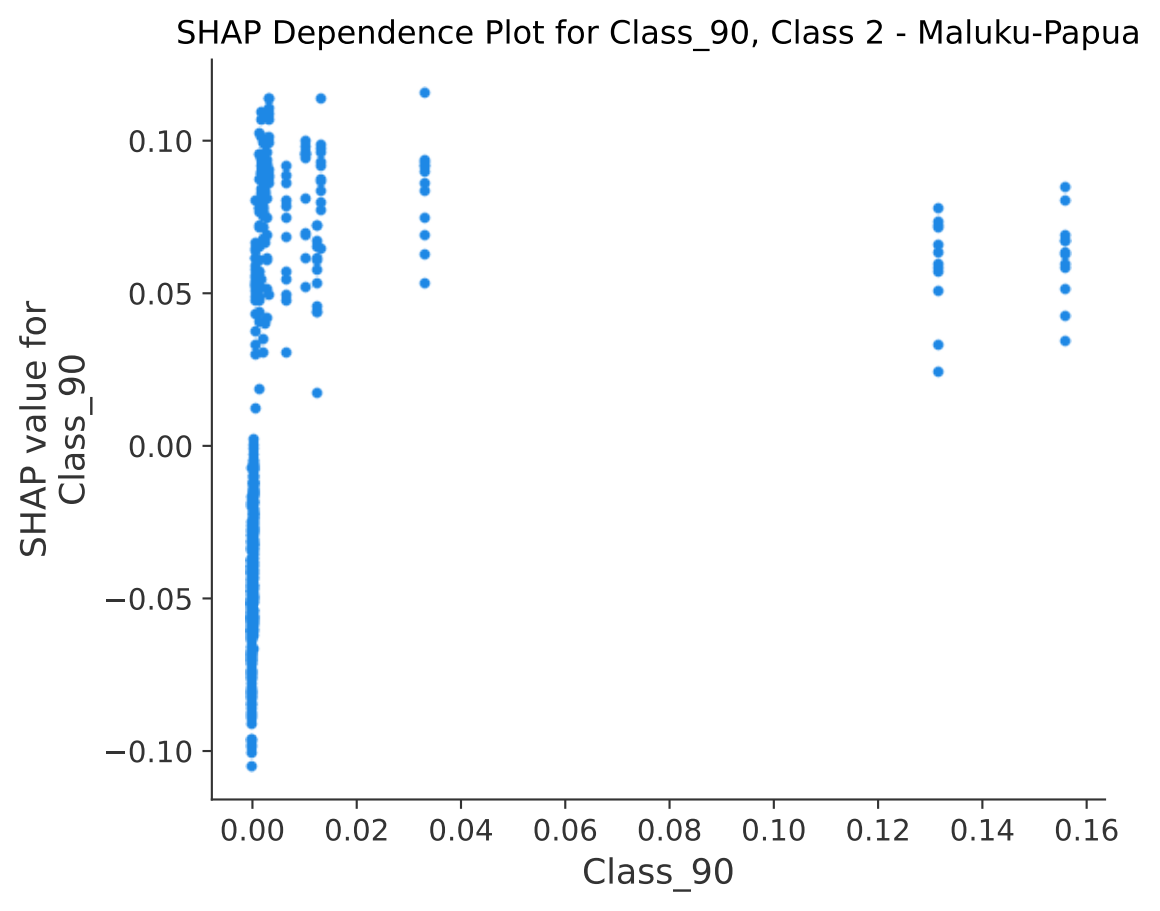

SHAP Dependence Plot for Class_50, Class 0 - Maluku-Papua
SHAP value for Class_50
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6
−0.8
0.00
0.02
0.04
0.06
0.08
Class_50

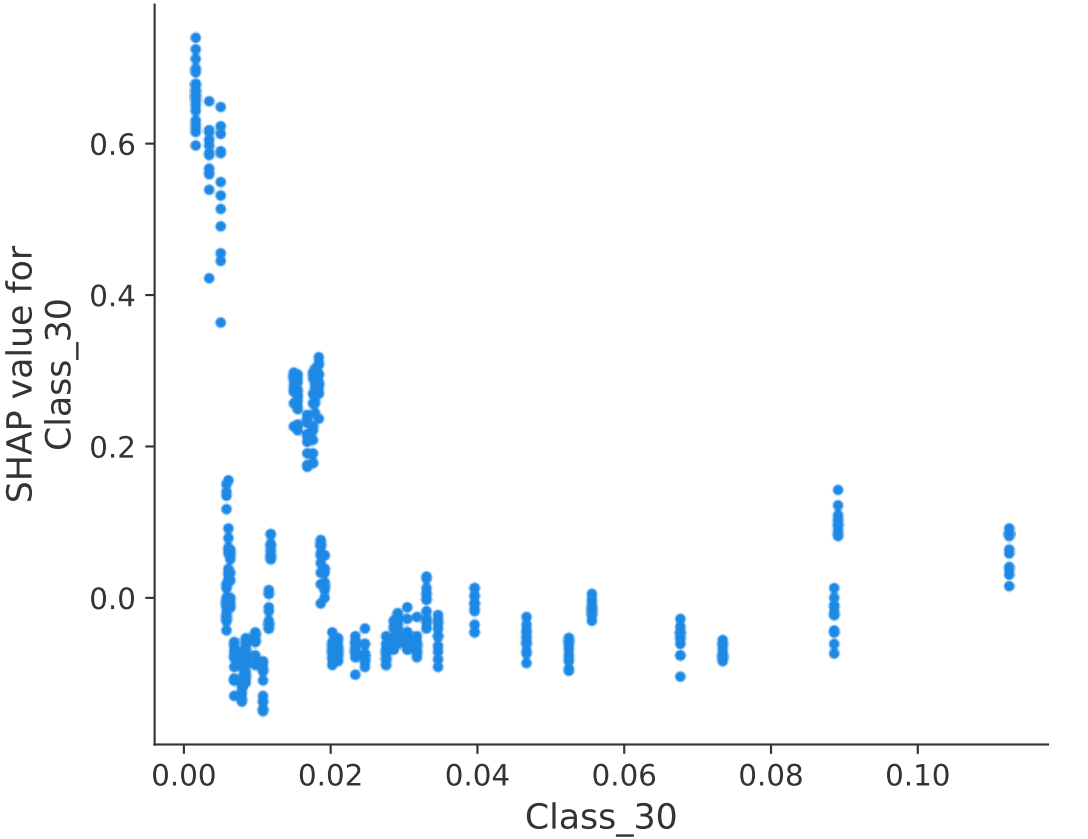

SHAP Dependence Plot for Class_50, Class 1 - Maluku-Papua
SHAP value for Class_50
Class_50
0.4
0.2
0.0
−0.2
−0.4
−0.6
−0.8
0.00
0.02
0.04
0.06
0.08

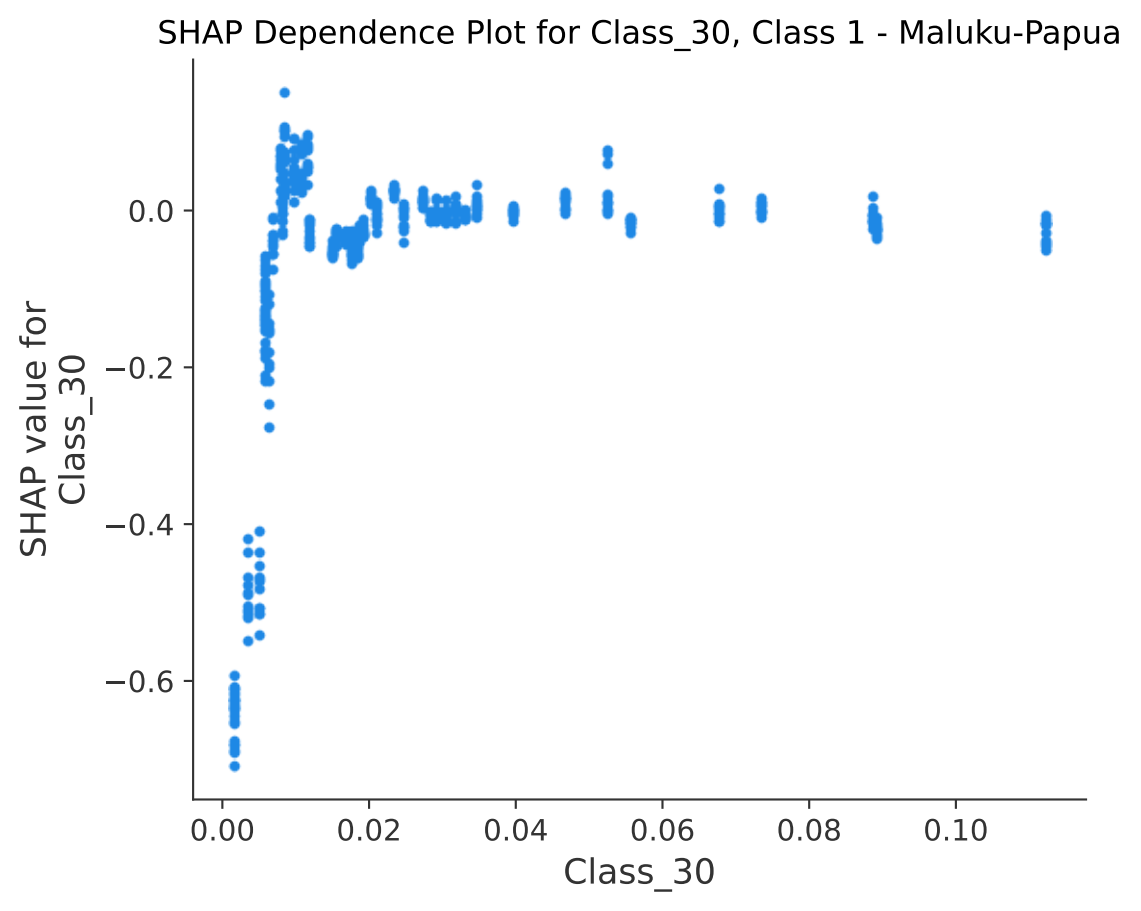

SHAP Dependence Plot for Class_50, Class 2 - Maluku-Papua
SHAP value for Class_50
0.125
0.100
0.075
0.050
0.025
0.000
−0.025
−0.050
−0.075
0.00
0.02
0.04
0.06
0.08
Class_50

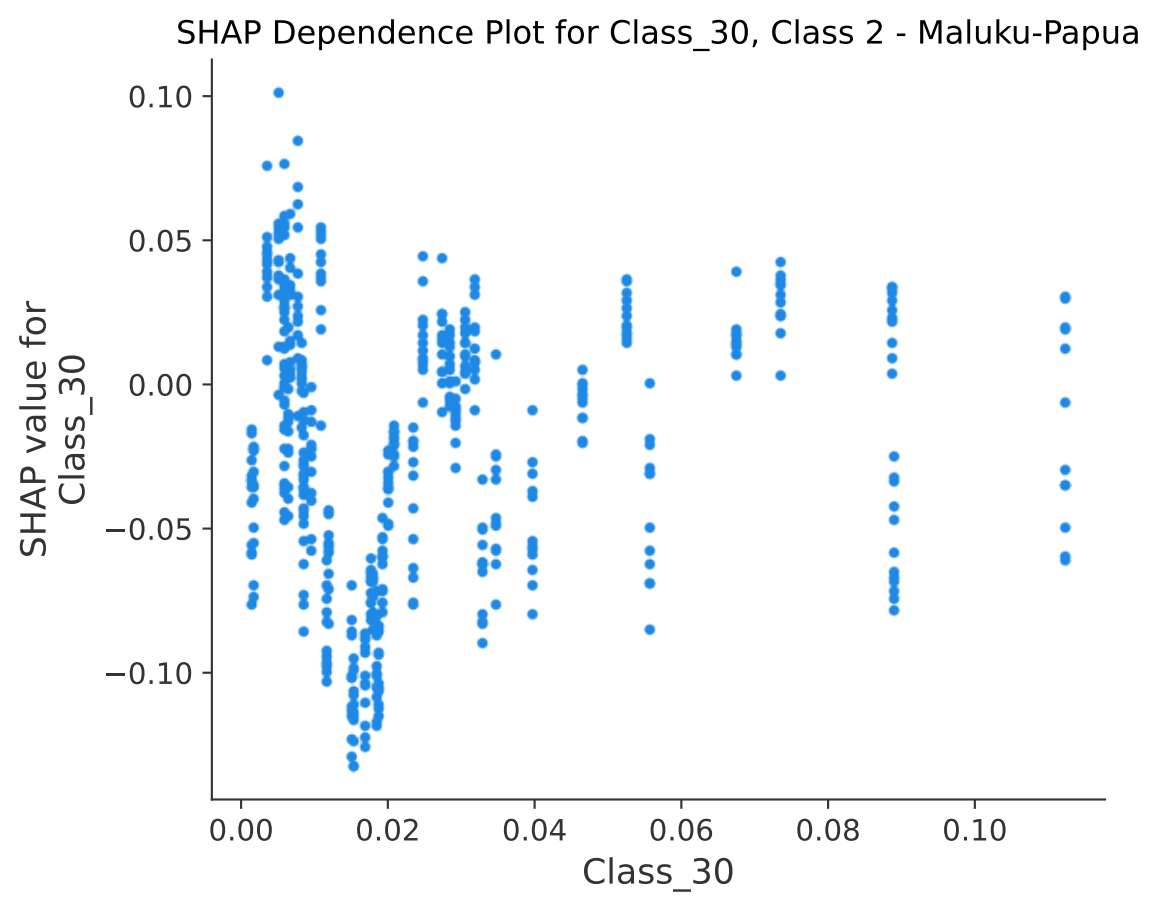

SHAP Dependence Plot for Class_90, Class 0 - Maluku-Papua
SHAP value for Class_90
0.1
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
0.16
Class_90

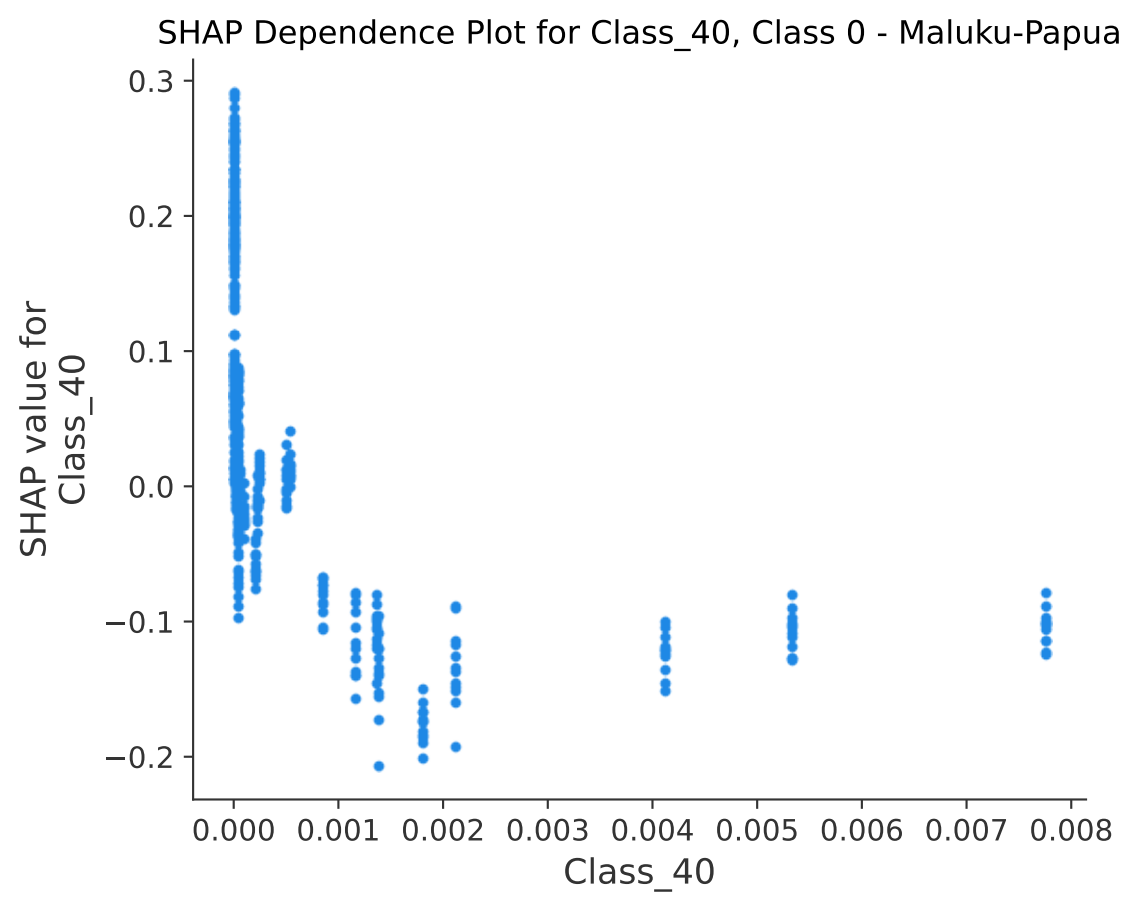

SHAP Dependence Plot for Class_90, Class 1 - Maluku-Papua
SHAP value for Class_90
0.4
0.2
0.0
−0.2
−0.4
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
0.16
Class_90

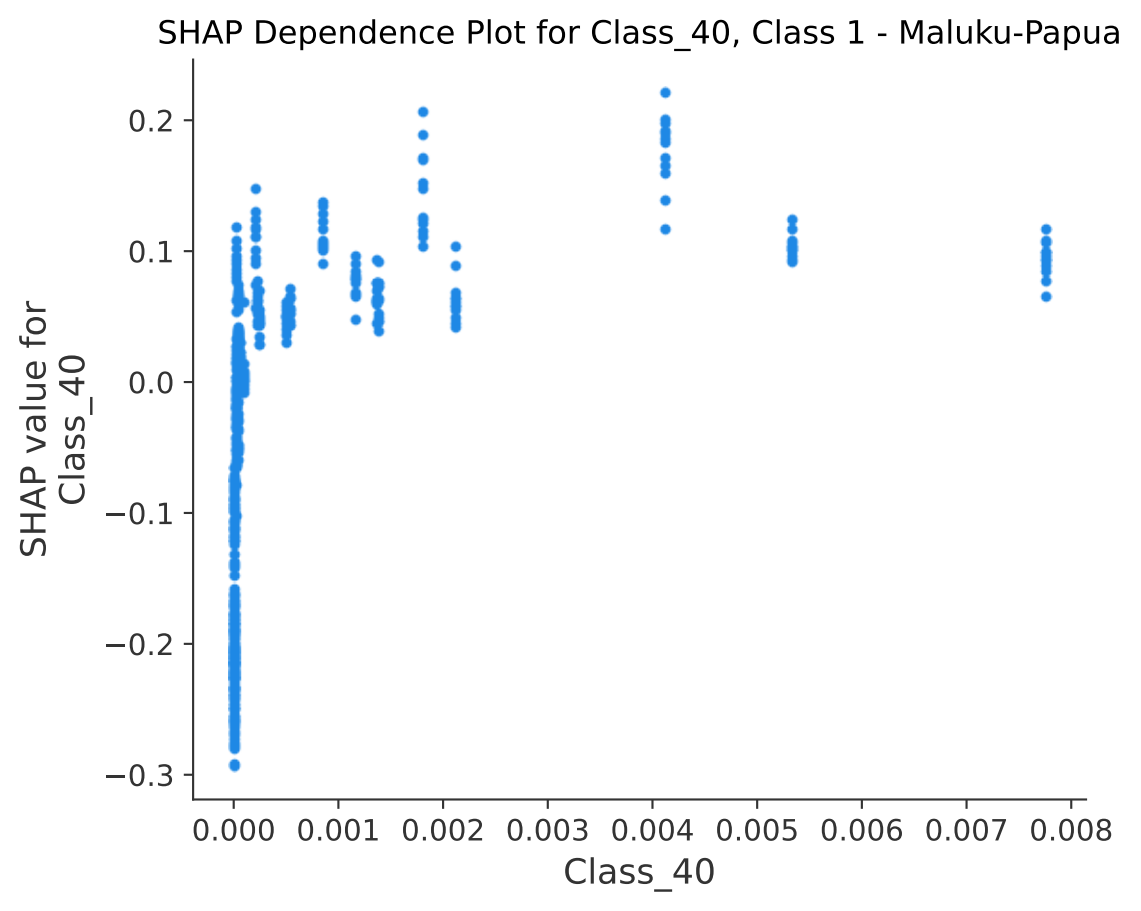

SHAP Dependence Plot for Class_90, Class 2 - Maluku-Papua
SHAP value for Class_90
0.10
0.05
0.00
−0.05
−0.10
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
0.16
Class_90

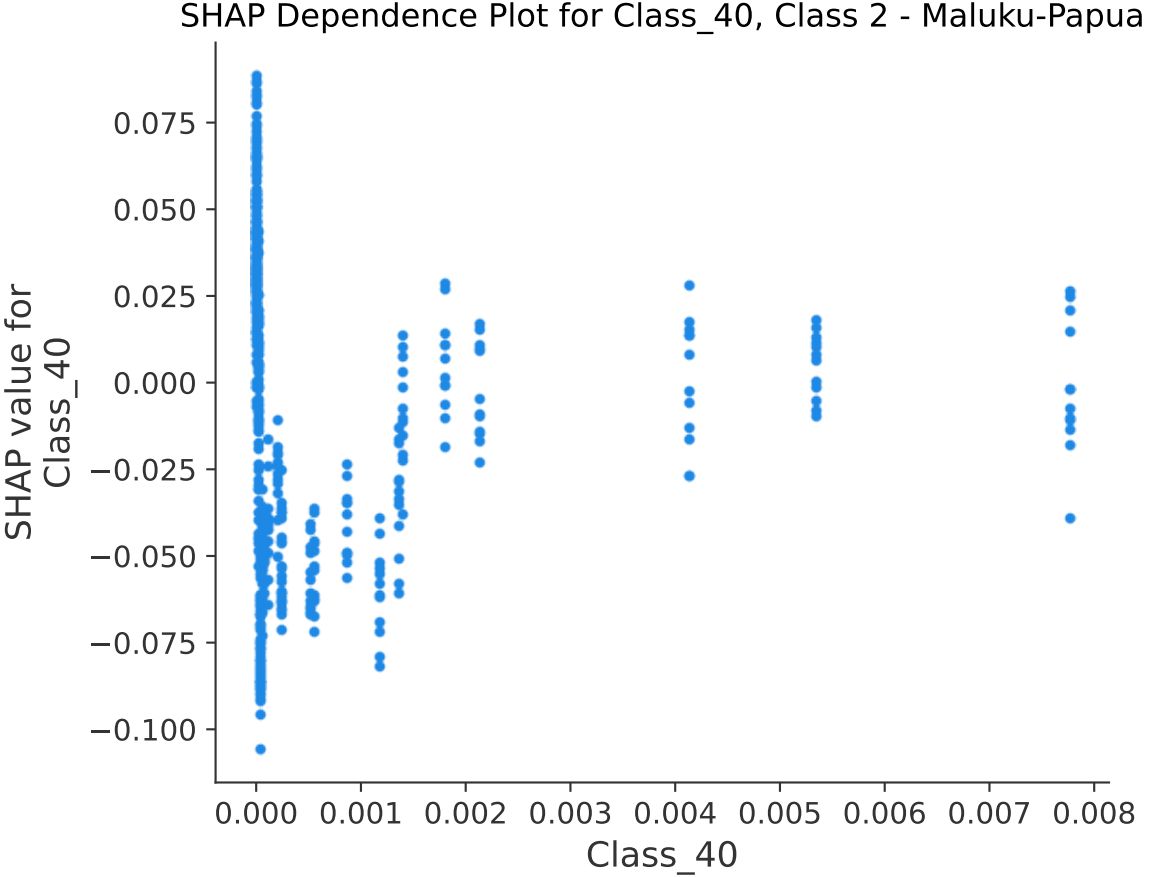

SHAP Dependence Plot for Class_30, Class 0 - Maluku-Papua
SHAP value for Class_30
0.6
0.4
0.2
0.0
0.00
0.02
0.04
0.06
0.08
0.10
Class_30

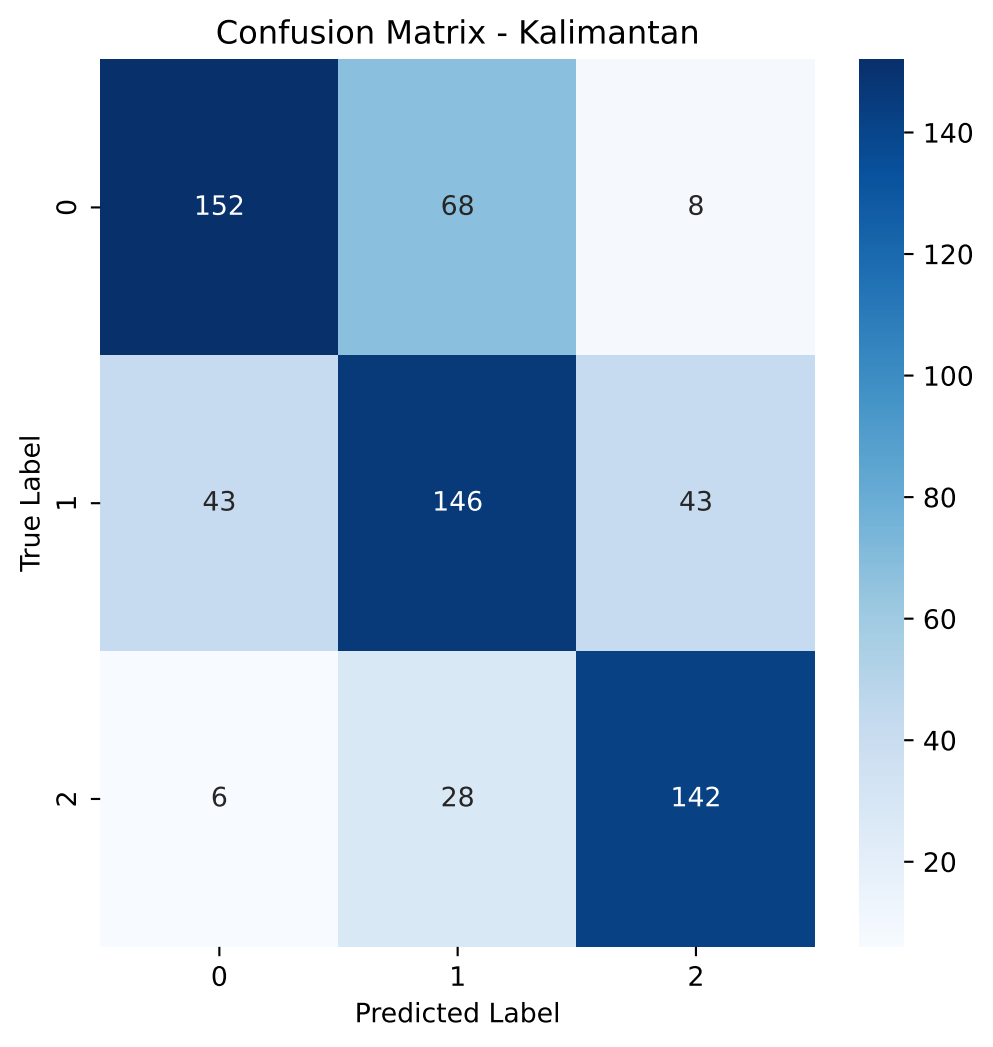

SHAP Dependence Plot for Class_30, Class 1 - Maluku-Papua
SHAP value for Class_30
0.0
−0.2
−0.4
−0.6
0.00
0.02
0.04
0.06
0.08
0.10
Class_30

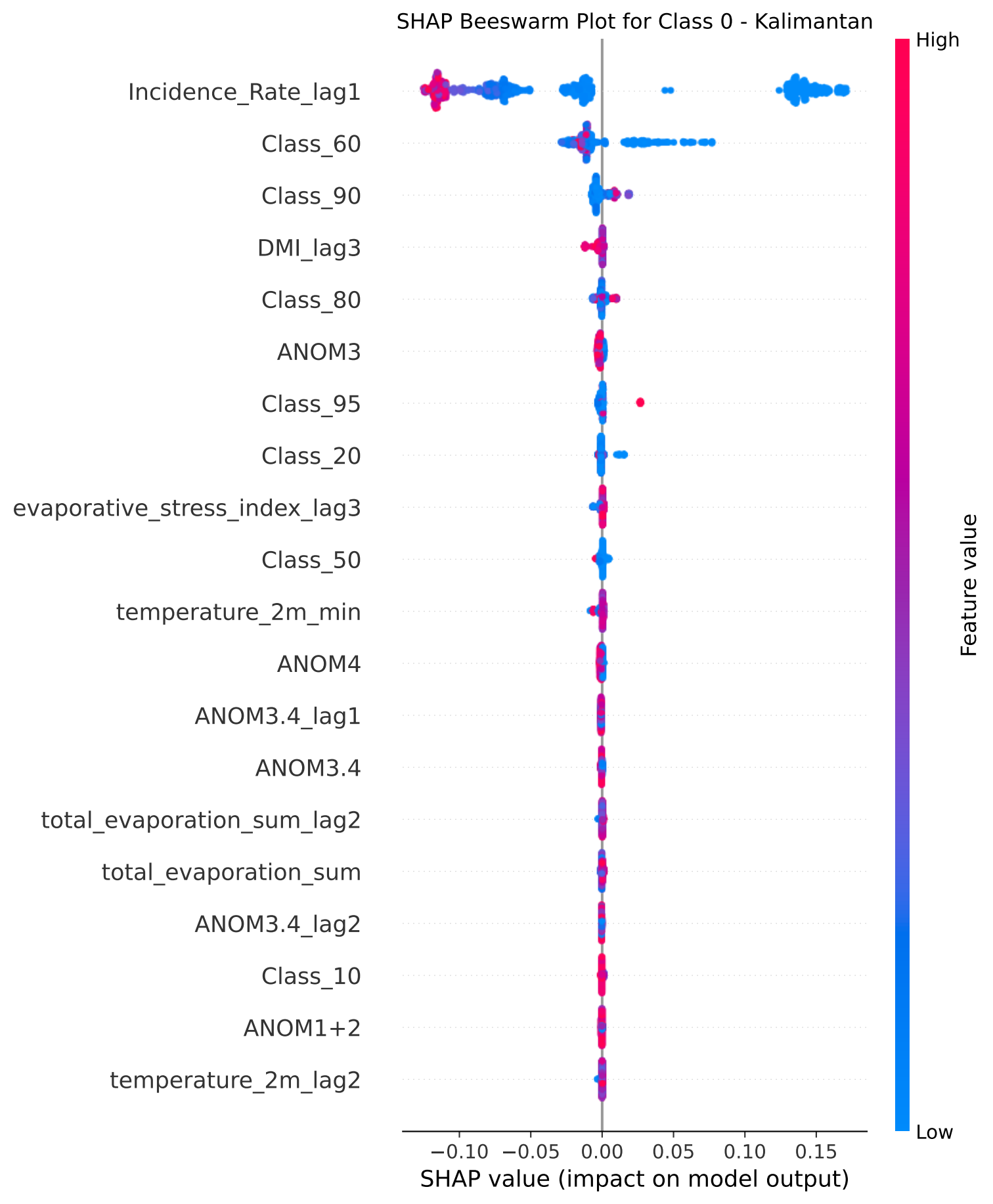

SHAP Dependence Plot for Class_30, Class 2 - Maluku-Papua
SHAP value for Class_30
0.10
0.05
0.00
−0.05
−0.10
0.00
0.02
0.04
0.06
0.08
0.10
Class_30

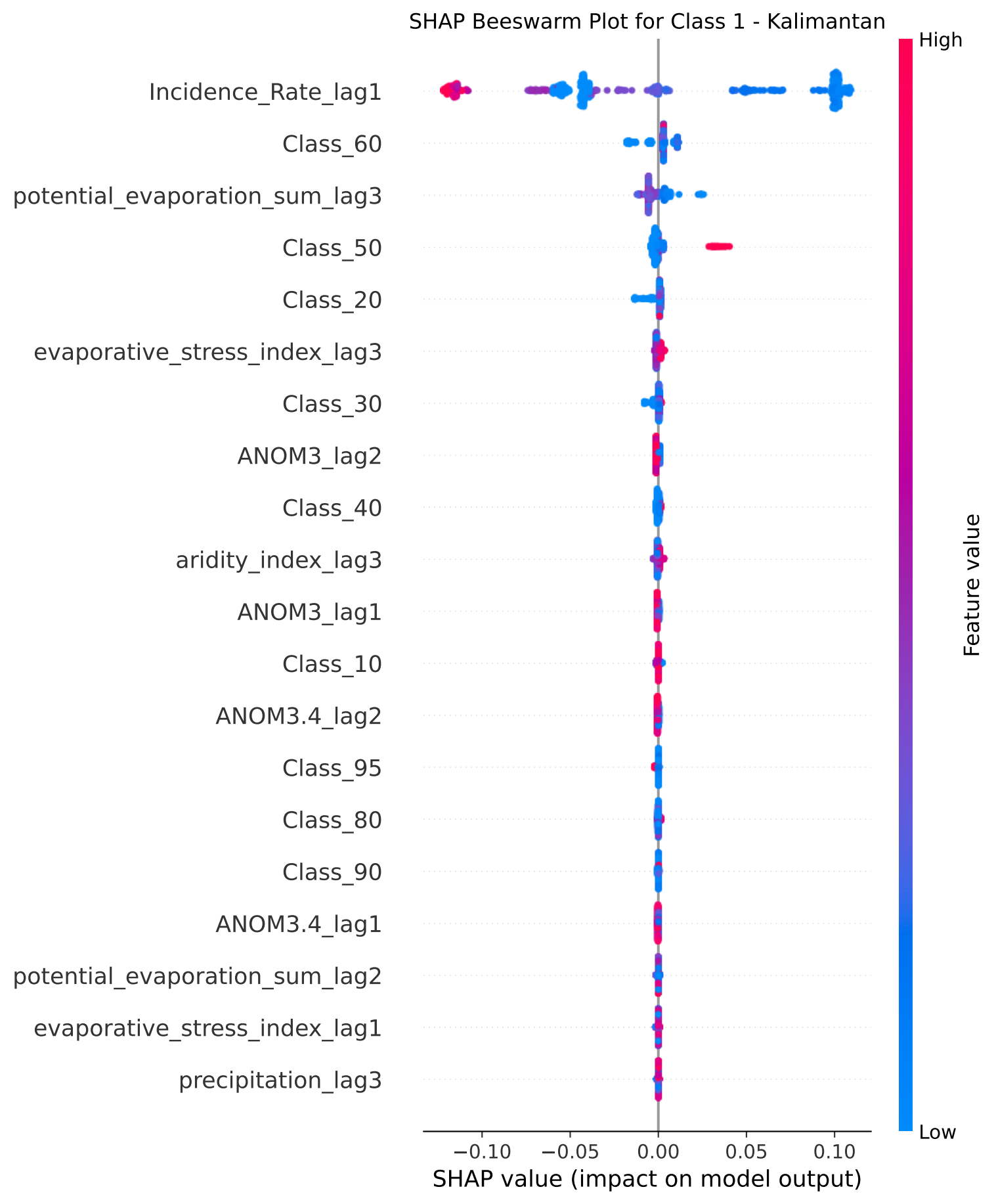

SHAP Dependence Plot for Class_40, Class 0 - Maluku-Papua
SHAP value for Class_40
0.3
0.2
0.1
0.0
−0.1
−0.2
0.000
0.001
0.002
0.003
0.004
0.005
0.006
0.007
0.008
Class_40

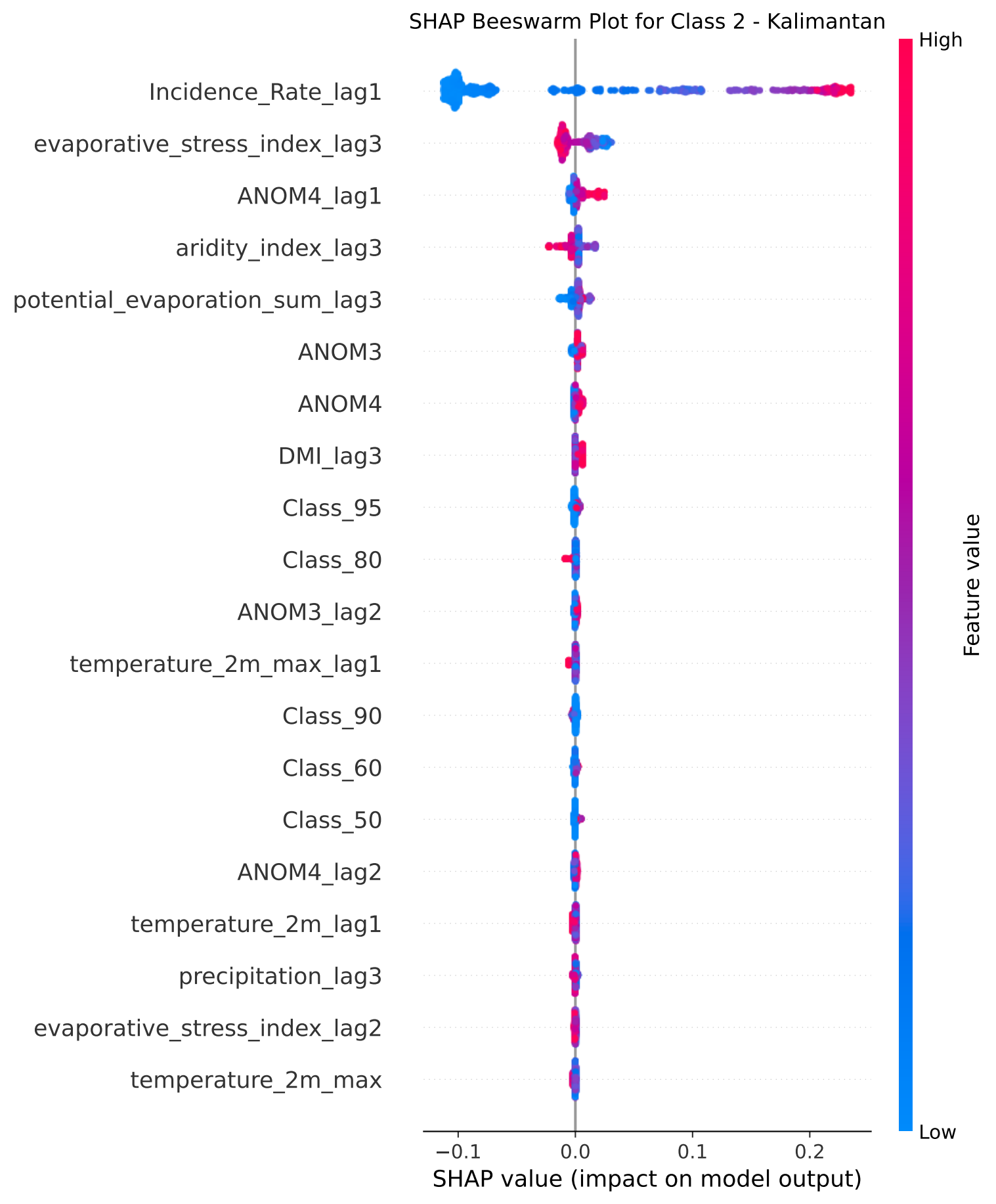

SHAP Dependence Plot for Class_40, Class 1 - Maluku-Papua
SHAP value for Class_40
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.000
0.001
0.002
0.003
0.004
0.005
0.006
0.007
0.008
Class_40

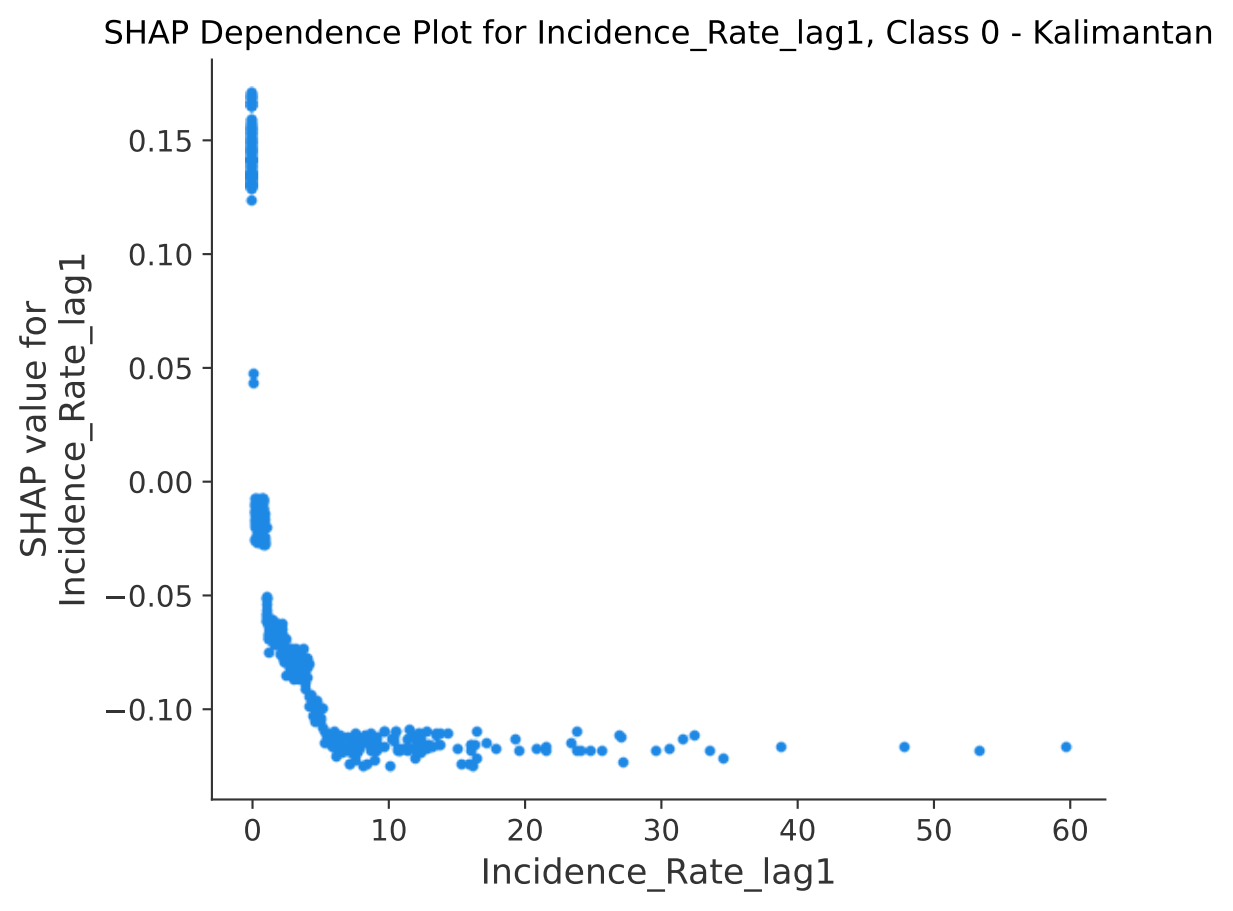

SHAP Dependence Plot for Class_40, Class 2 - Maluku-Papua
SHAP value for Class_40
0.075
0.050
0.025
0.000
−0.025
−0.050
−0.075
−0.100
0.000
0.001
0.002
0.003
0.004
0.005
0.006
0.007
0.008
Class_40

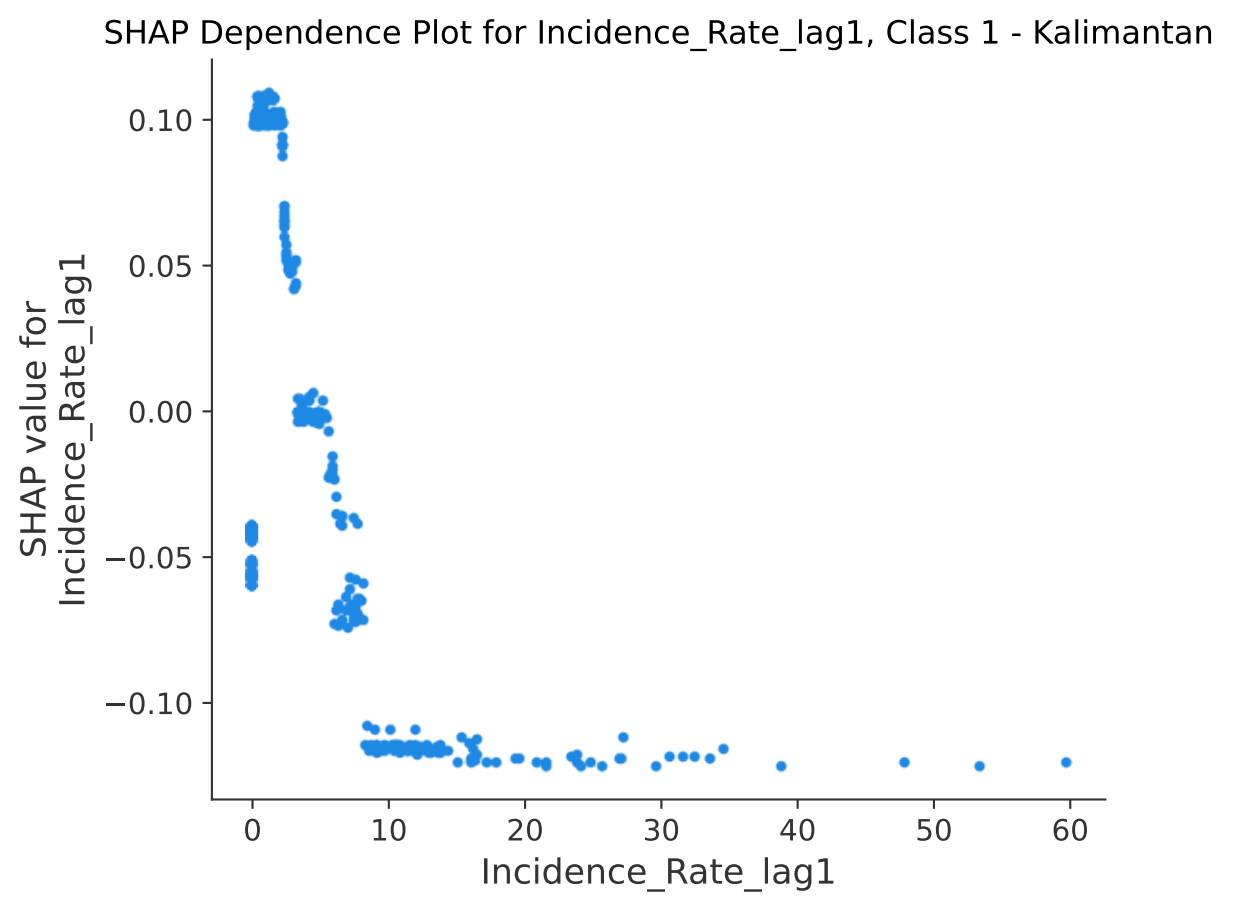

Confusion Matrix - Kalimantan
True Label
Predicted Label
0
1
2
152
68
8
43
146
43
6
28
142
140
120
100
80
60
40
20

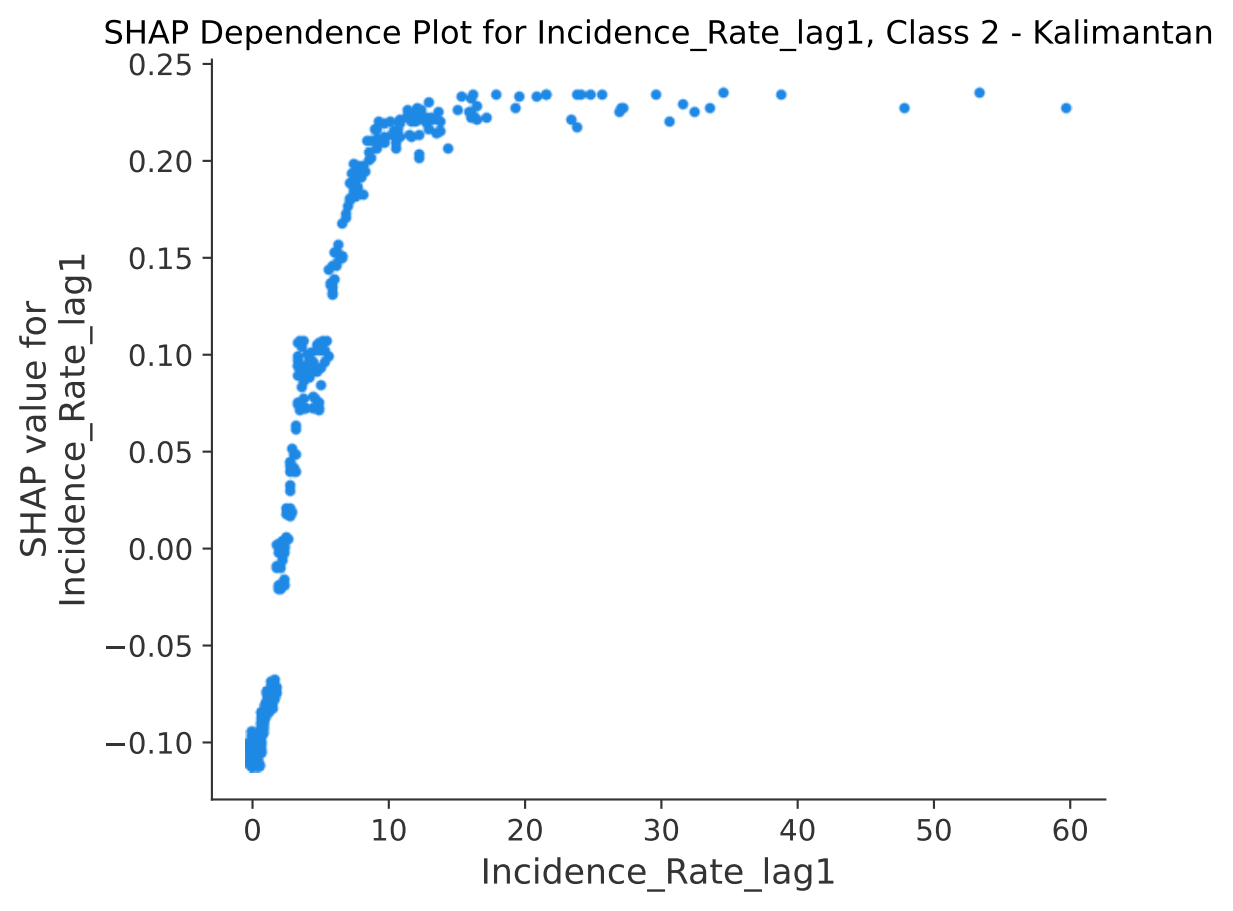

SHAP Beeswarm Plot for Class 0 - Kalimantan
Incidence_Rate_lag1
Class_60
Class_90
DMI_lag3
Class_80
ANOM3
Class_95
Class_20
evaporative_stress_index_lag3
Class_50
temperature_2m_min
ANOM4
ANOM3.4_lag1
ANOM3.4
total_evaporation_sum_lag2
total_evaporation_sum
ANOM3.4_lag2
Class_10
ANOM1+2
temperature_2m_lag2
−0.10
−0.05
0.00
0.05
0.10
0.15
SHAP value (impact on model output)
High
Feature value
Low

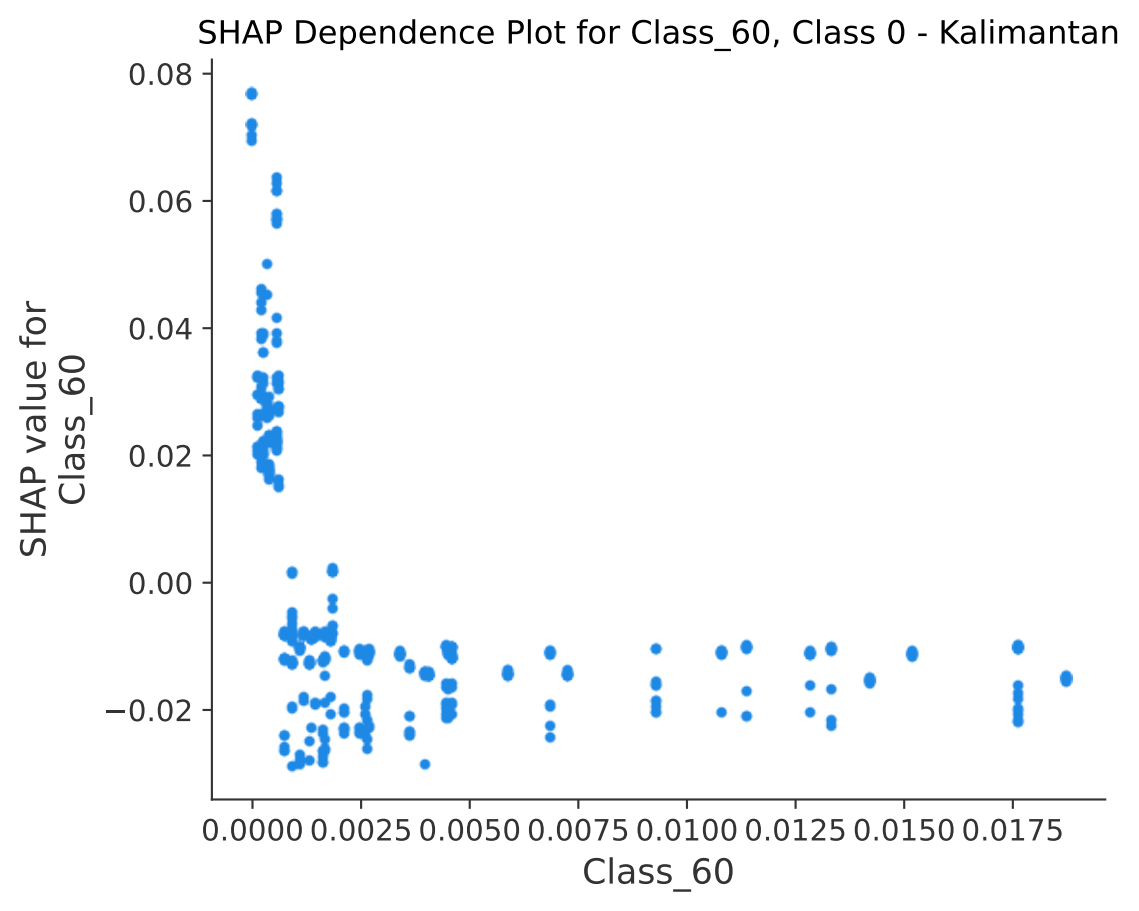

SHAP Beeswarm Plot for Class 1 - Kalimantan
Incidence_Rate_lag1
Class_60
potential_evaporation_sum_lag3
Class_50
Class_20
evaporative_stress_index_lag3
Class_30
ANOM3_lag2
Class_40
aridity_index_lag3
ANOM3_lag1
Class_10
ANOM3.4_lag2
Class_95
Class_80
Class_90
ANOM3.4_lag1
potential_evaporation_sum_lag2
evaporative_stress_index_lag1
precipitation_lag3
−0.10
−0.05
0.00
0.05
0.10
SHAP value (impact on model output)
High
Feature value
Low

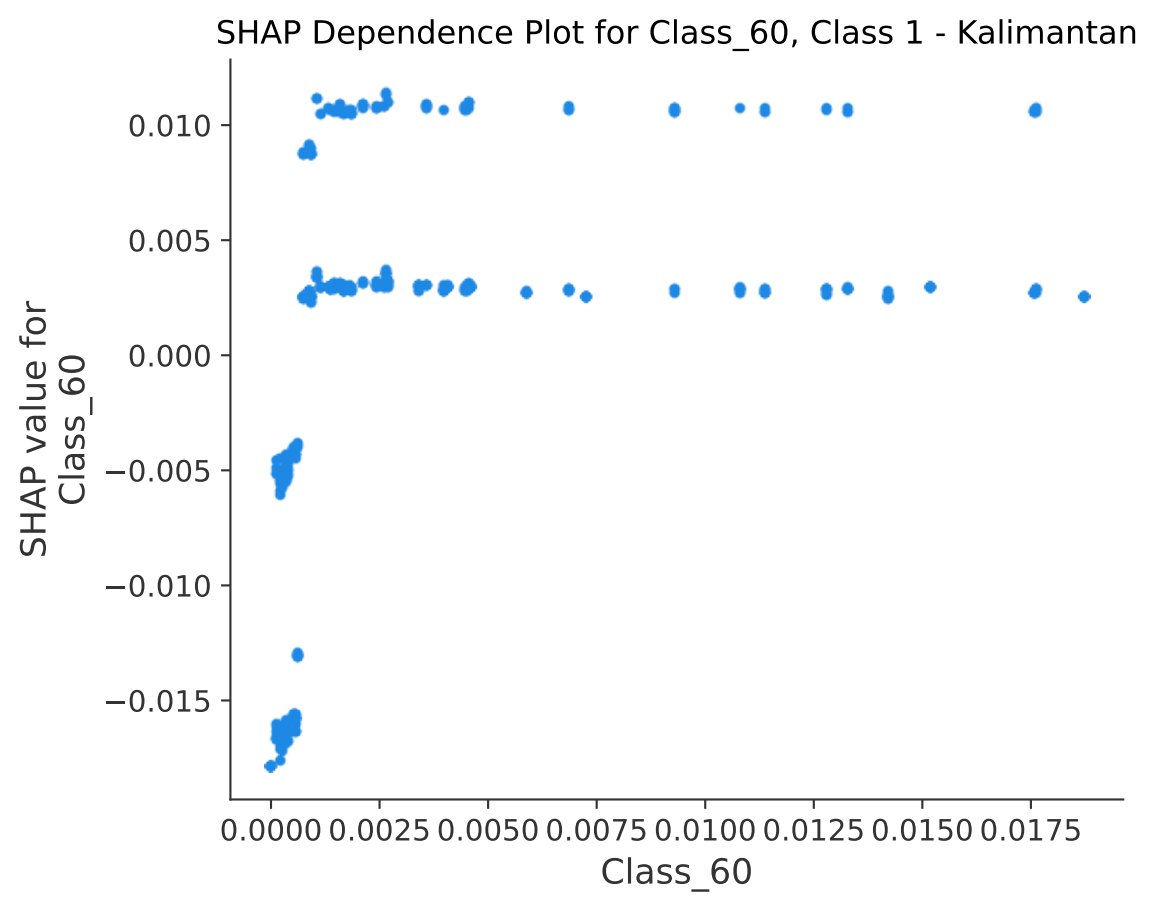

SHAP Beeswarm Plot for Class 2 - Kalimantan
Incidence_Rate_lag1
evaporative_stress_index_lag3
ANOM4_lag1
aridity_index_lag3
potential_evaporation_sum_lag3
ANOM3
ANOM4
DMI_lag3
Class_95
Class_80
ANOM3_lag2
temperature_2m_max_lag1
Class_90
Class_60
Class_50
ANOM4_lag2
temperature_2m_lag1
precipitation_lag3
evaporative_stress_index_lag2
temperature_2m_max
−0.1
0.0
0.1
0.2
SHAP value (impact on model output)
High
Feature value
Low

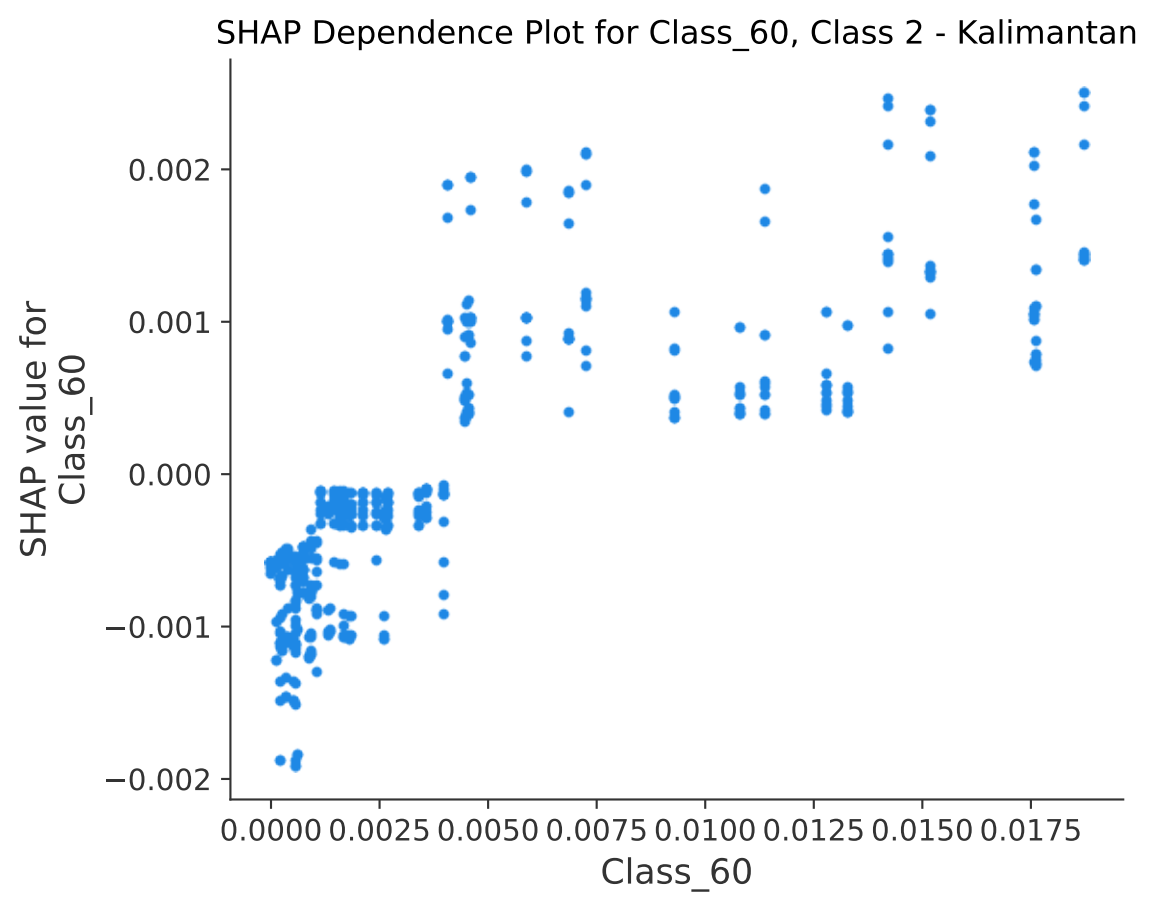

SHAP Dependence Plot for Incidence_Rate_lag1, Class 0 - Kalimantan
SHAP value for Incidence_Rate_lag1
0.15
0.10
0.05
0.00
−0.05
−0.10
0
10
20
30
40
50
60
Incidence_Rate_lag1

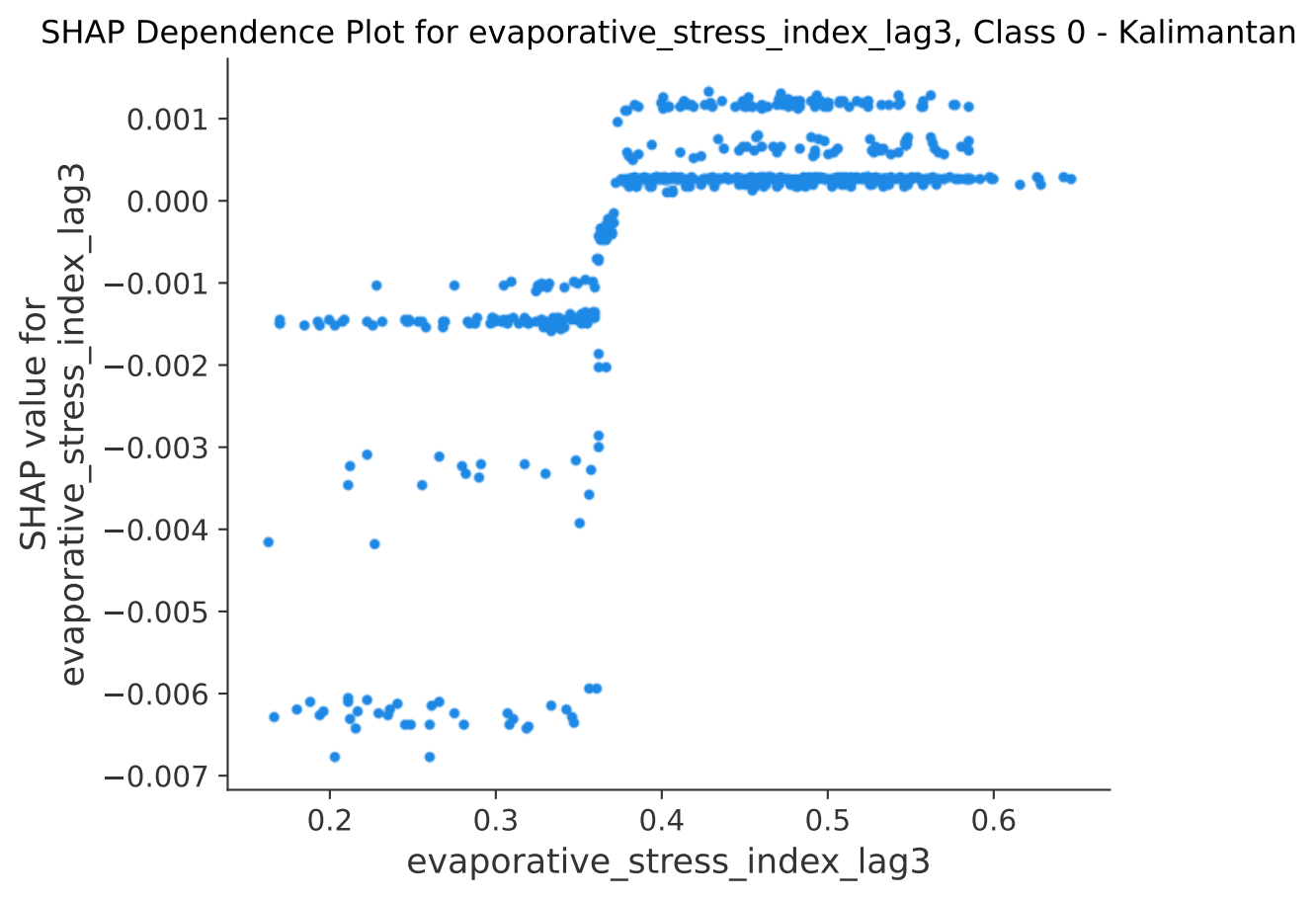

SHAP Dependence Plot for Incidence_Rate_lag1, Class 1 - Kalimantan
SHAP value for Incidence_Rate_lag1
0.10
0.05
0.00
−0.05
−0.10
0
10
20
30
40
50
60
Incidence_Rate_lag1

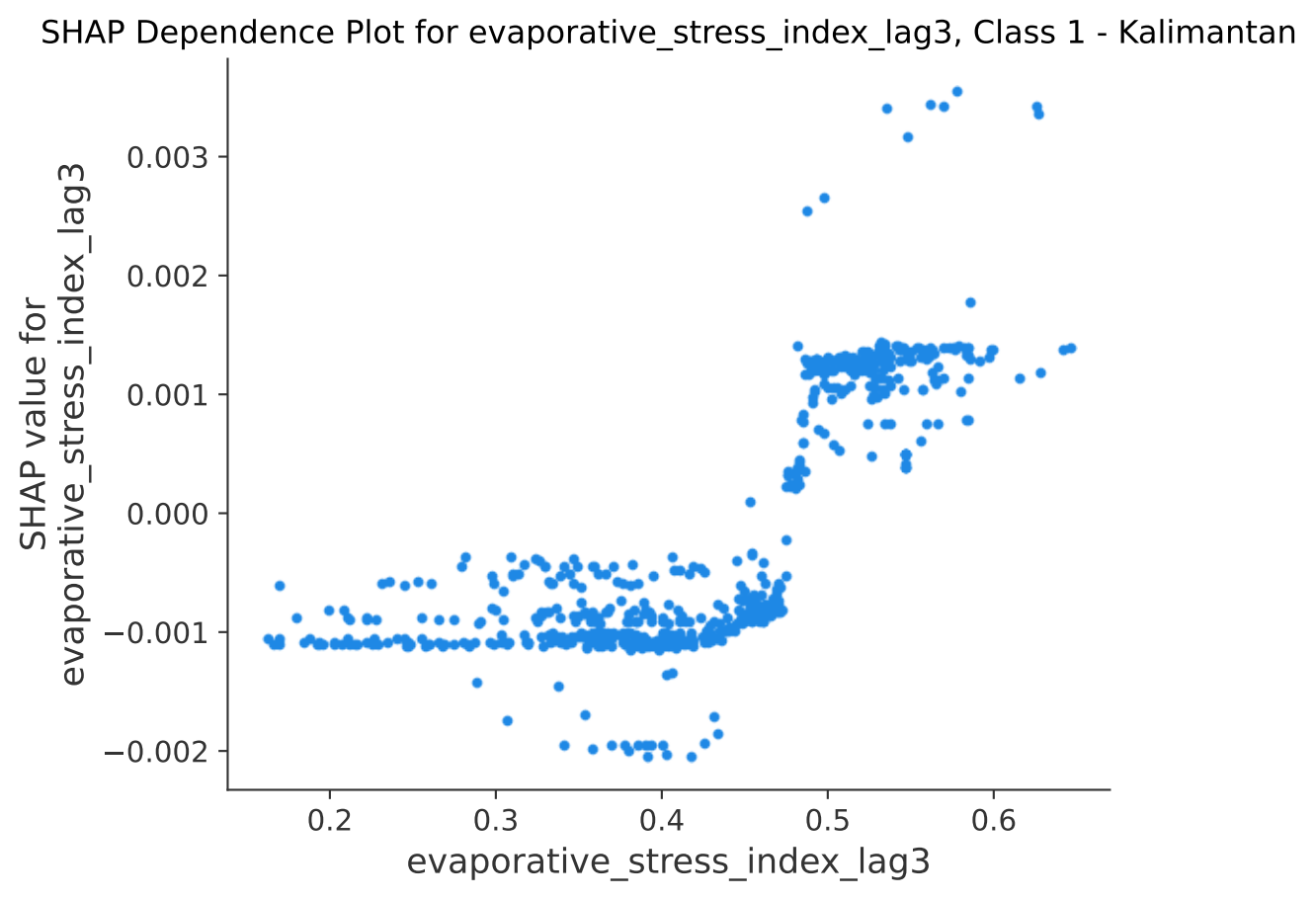

SHAP Dependence Plot for Incidence_Rate_lag1, Class 2 - Kalimantan
SHAP value for Incidence_Rate_lag1
Incidence_Rate_lag1
0.25
0.20
0.15
0.10
0.05
0.00
−0.05
−0.10
0
10
20
30
40
50
60

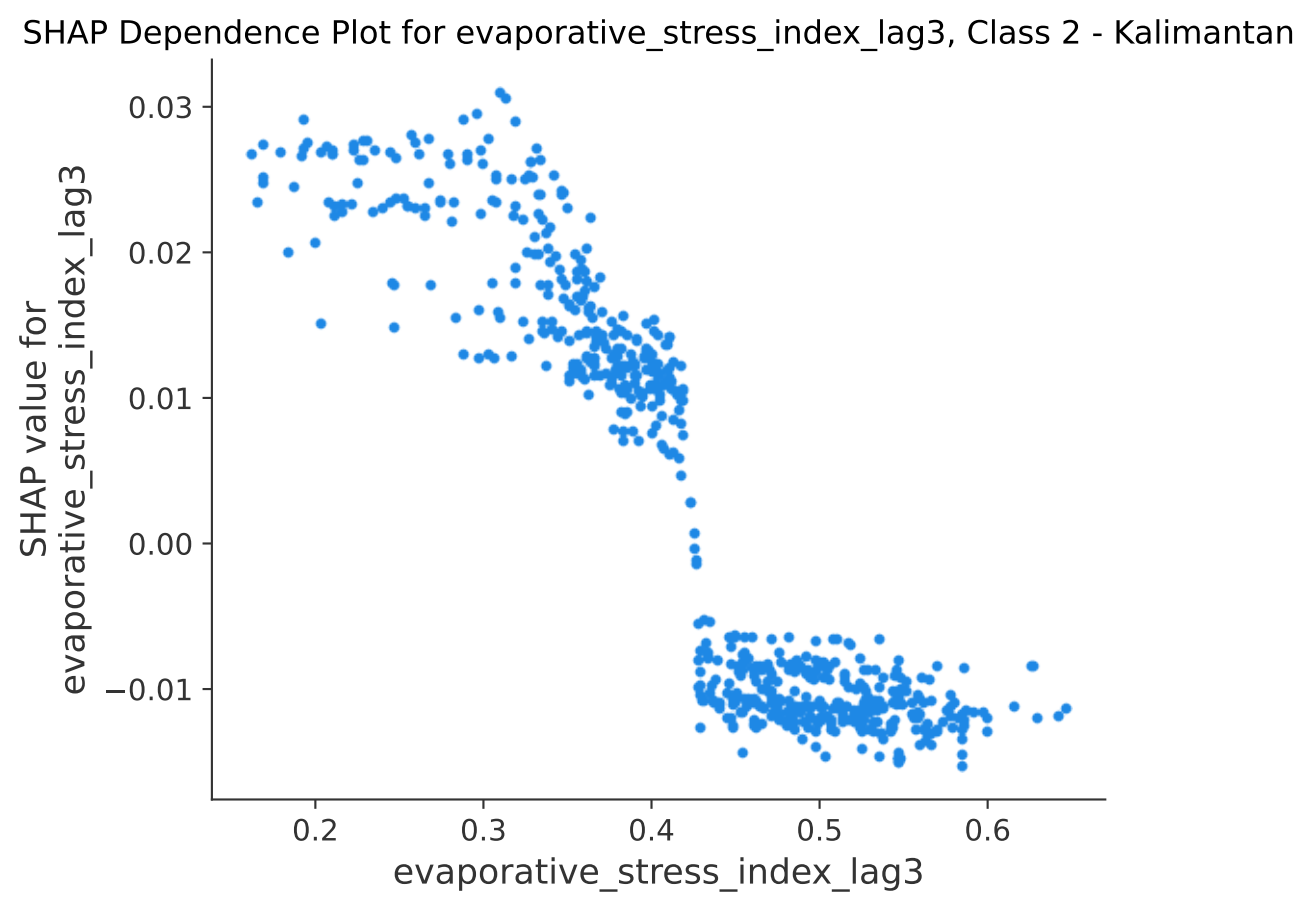

SHAP Dependence Plot for Class_60, Class 0 - Kalimantan
SHAP value for Class_60
0.08
0.06
0.04
0.02
0.00
−0.02
0.0000
0.0025
0.0050
0.0075
0.0100
0.0125
0.0150
0.0175
Class_60

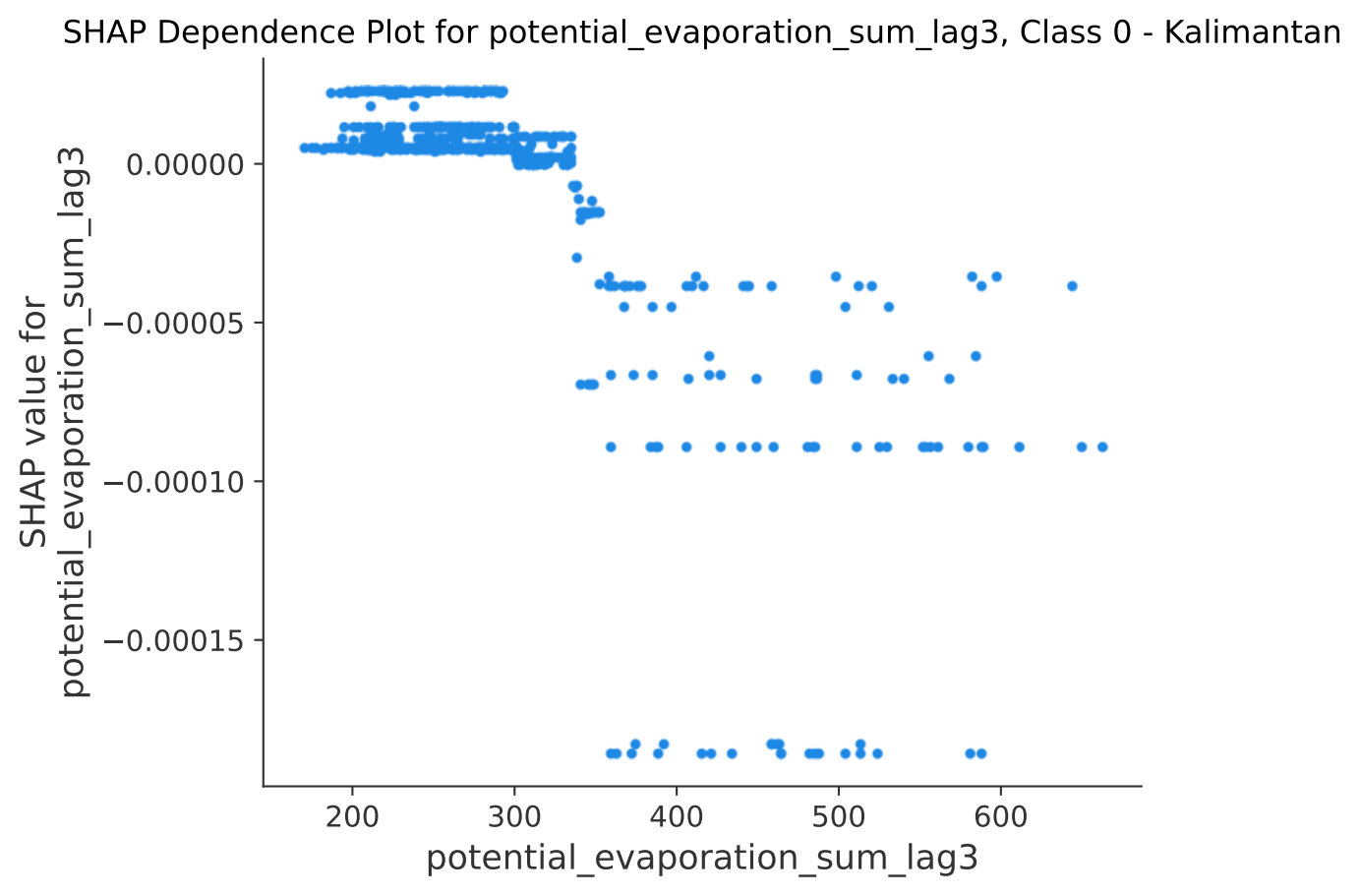

SHAP Dependence Plot for Class_60, Class 1 - Kalimantan
SHAP value for Class_60
0.010
0.005
0.000
−0.005
−0.010
−0.015
0.0000 0.0025 0.0050 0.0075 0.0100 0.0125 0.0150 0.0175
Class_60

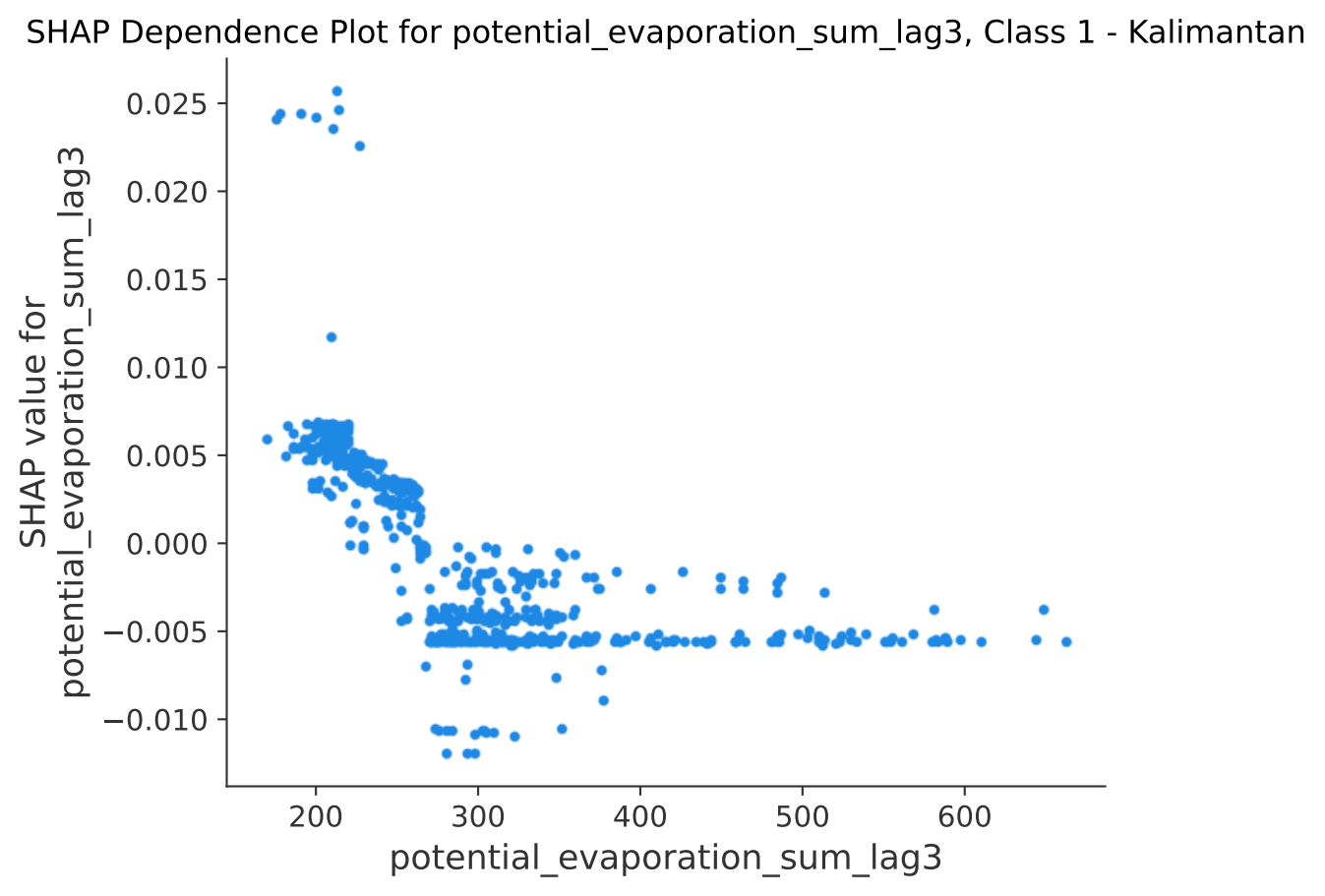

SHAP Dependence Plot for Class_60, Class 2 - Kalimantan
SHAP value for Class_60
0.002
0.001
0.000
−0.001
−0.002
0.0000
0.0025
0.0050
0.0075
0.0100
0.0125
0.0150
0.0175
Class_60

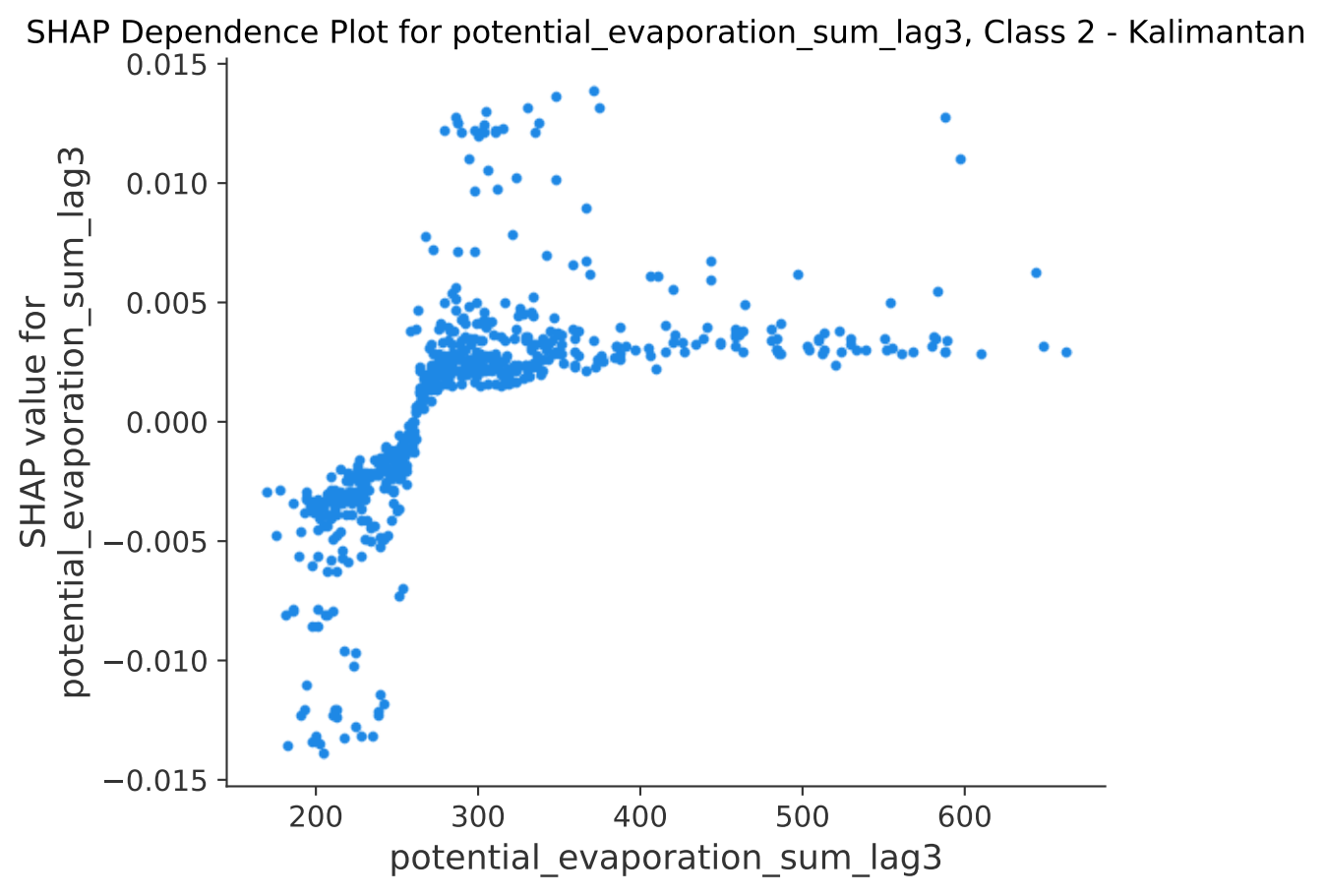

SHAP Dependence Plot for evaporative_stress_index_lag3, Class 0 - Kalimantan
SHAP value for evaporative_stress_index_lag3
evaporative_stress_index_lag3
0.001
0.000
−0.001
−0.002
−0.003
−0.004
−0.005
−0.006
−0.007
0.2
0.3
0.4
0.5
0.6

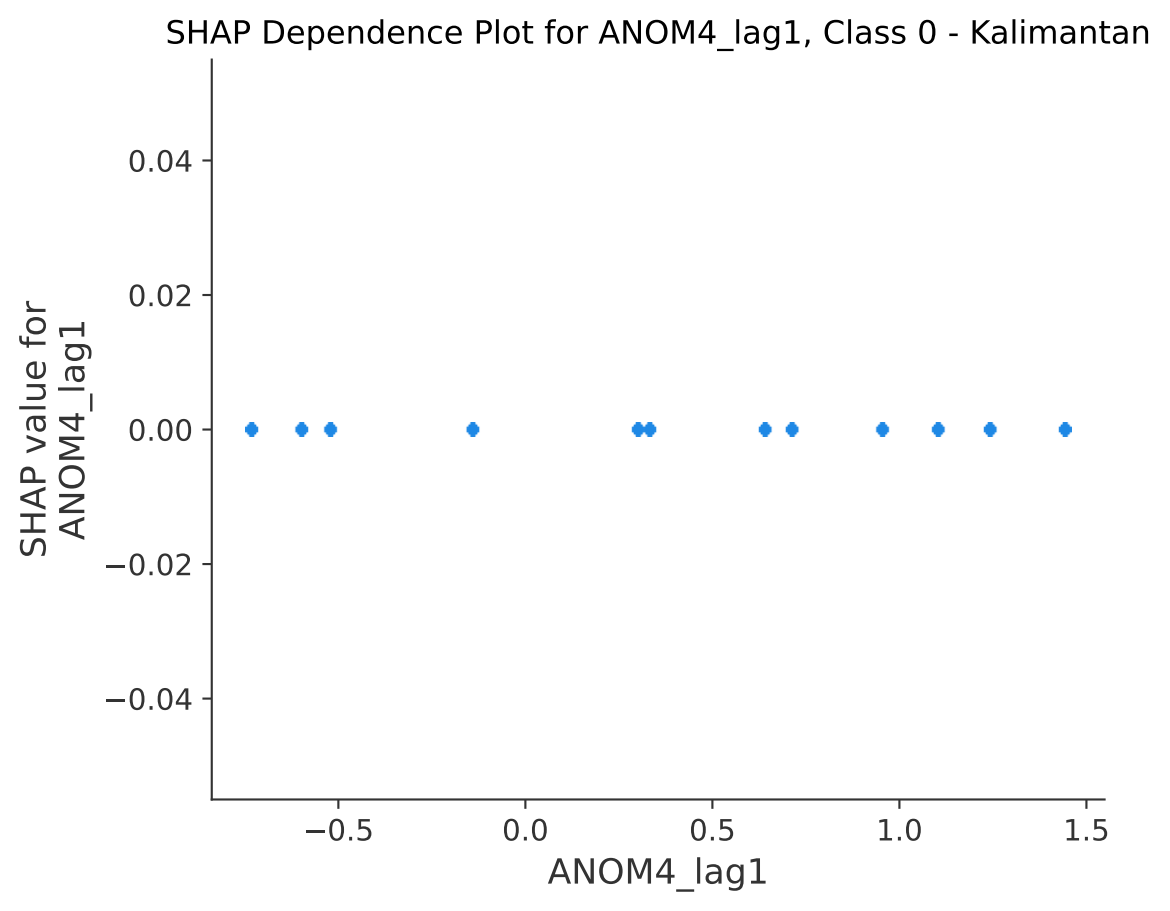

SHAP Dependence Plot for evaporative_stress_index_lag3, Class 1 - Kalimantan
SHAP value for evaporative_stress_index_lag3
0.003
0.002
0.001
0.000
−0.001
−0.002
0.2
0.3
0.4
0.5
0.6
evaporative_stress_index_lag3

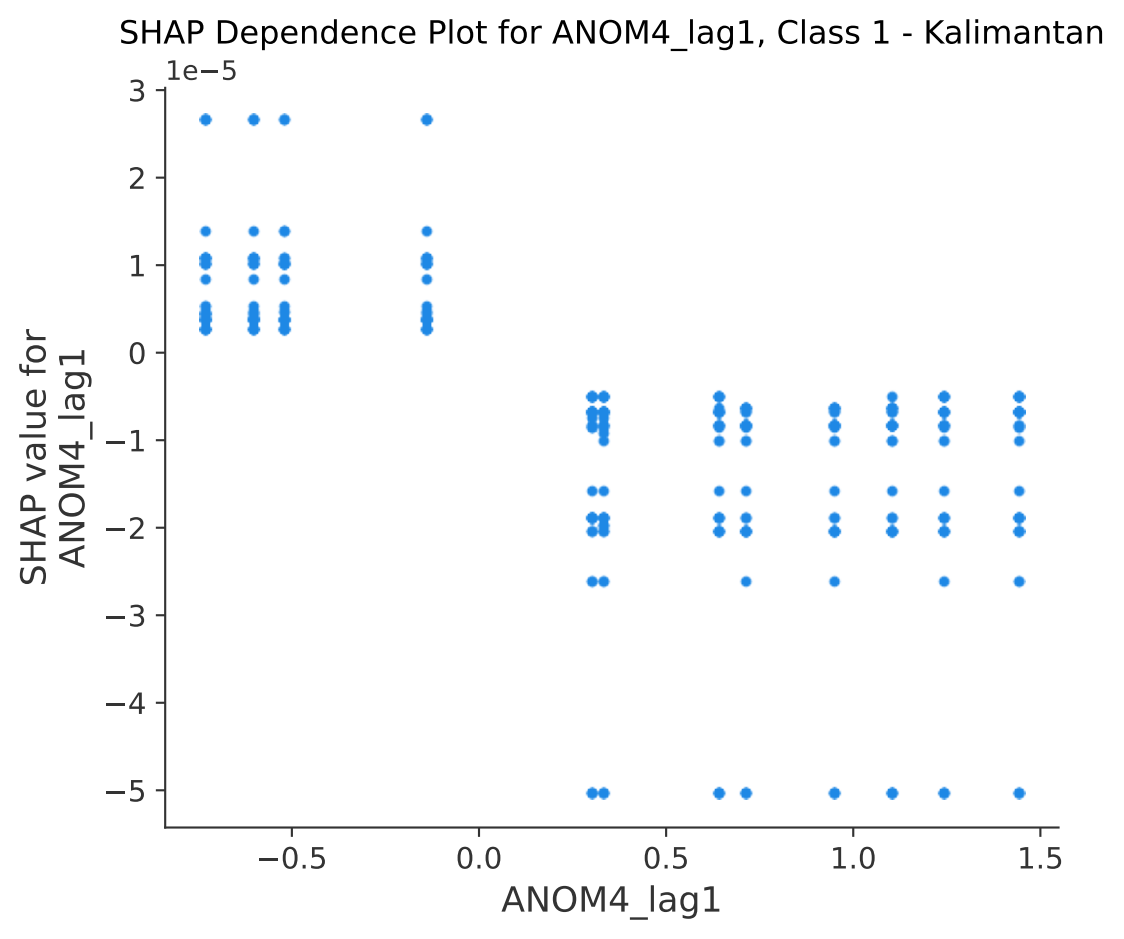

SHAP Dependence Plot for evaporative_stress_index_lag3, Class 2 - Kalimantan
SHAP value for evaporative_stress_index_lag3
0.03
0.02
0.01
0.00
−0.01
0.2
0.3
0.4
0.5
0.6
evaporative_stress_index_lag3

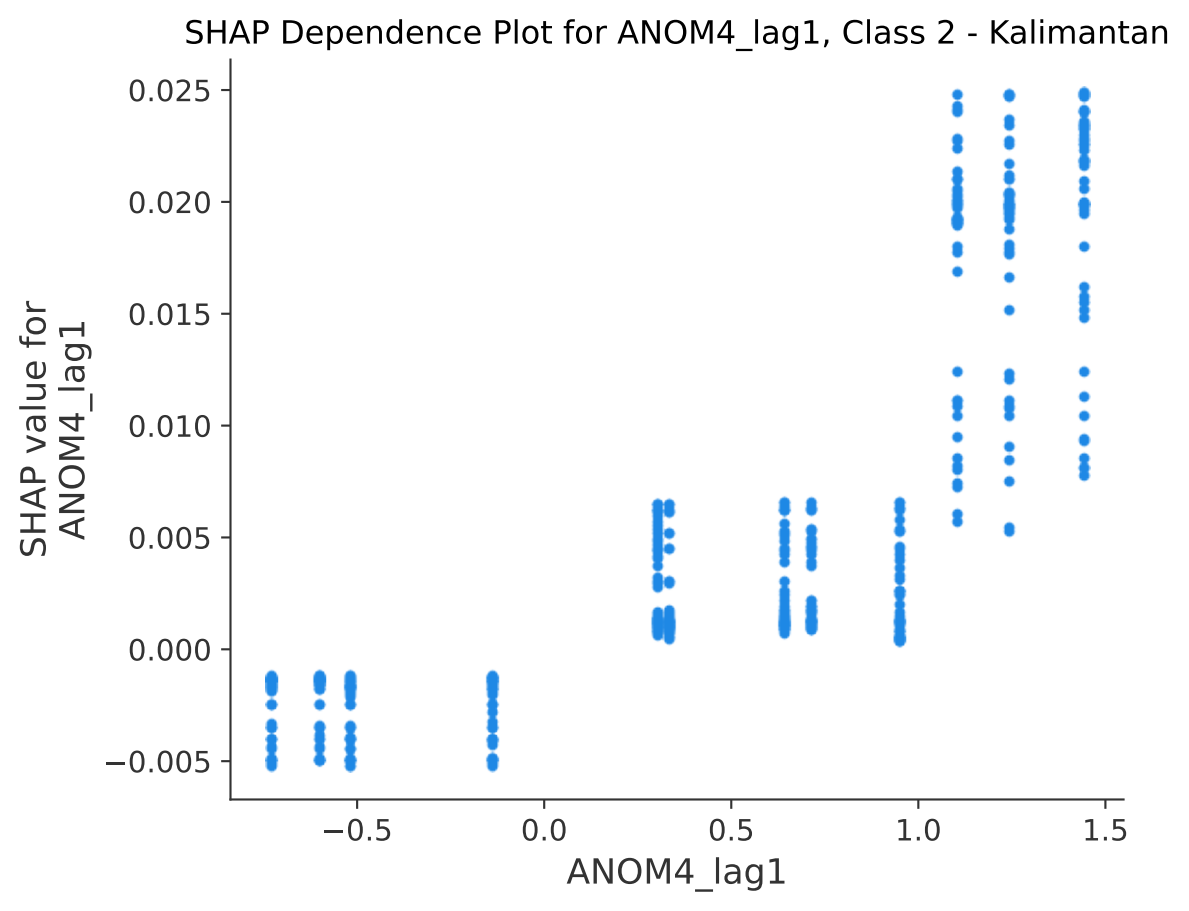

SHAP Dependence Plot for potential_evaporation_sum_lag3, Class 0 - Kalimantan
SHAP value for potential_evaporation_sum_lag3
0.00000
−0.00005
−0.00010
−0.00015
200
300
400
500
600
potential_evaporation_sum_lag3


SHAP Dependence Plot for potential_evaporation_sum_lag3, Class 1 - Kalimantan
SHAP value for potential_evaporation_sum_lag3
0.025
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010
200
300
400
500
600
potential_evaporation_sum_lag3


SHAP Dependence Plot for potential_evaporation_sum_lag3, Class 2 - Kalimantan
SHAP value for potential_evaporation_sum_lag3
potential_evaporation_sum_lag3
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015
200
300
400
500
600


SHAP Dependence Plot for ANOM4_lag1, Class 0 - Kalimantan
SHAP value for ANOM4_lag1
0.04
0.02
0.00
−0.02
−0.04
−0.5
0.0
0.5
1.0
1.5
ANOM4_lag1


SHAP Dependence Plot for ANOM4_lag1, Class 1 - Kalimantan
1e−5
3
2
1
0
−1
−2
−3
−4
−5
SHAP value for ANOM4_lag1
−0.5
0.0
0.5
1.0
1.5
ANOM4_lag1


SHAP Dependence Plot for ANOM4_lag1, Class 2 - Kalimantan
SHAP value for ANOM4_lag1
ANOM4_lag1
0.025
0.020
0.015
0.010
0.005
0.000
−0.005
−0.5
0.0
0.5
1.0
1.5