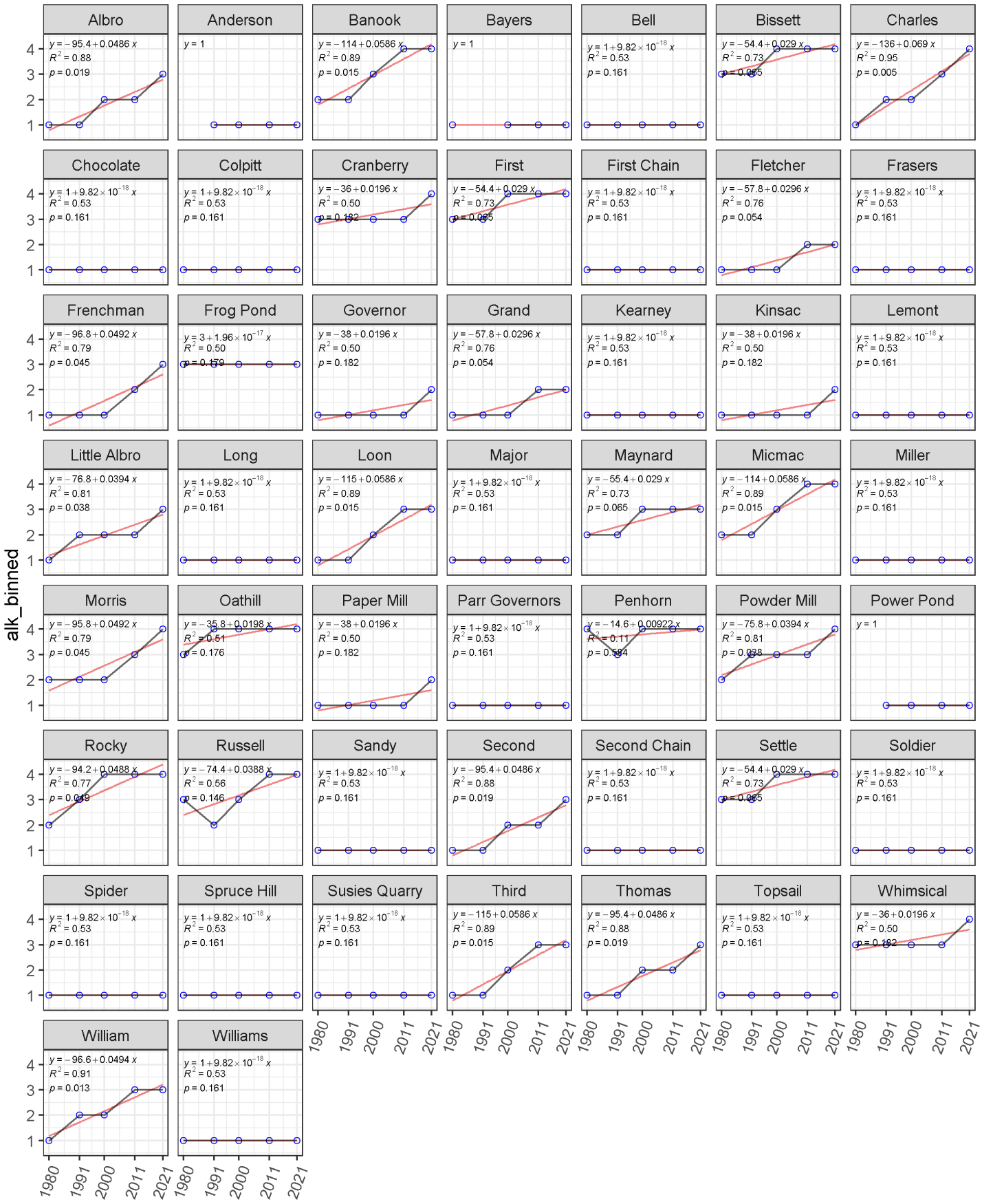
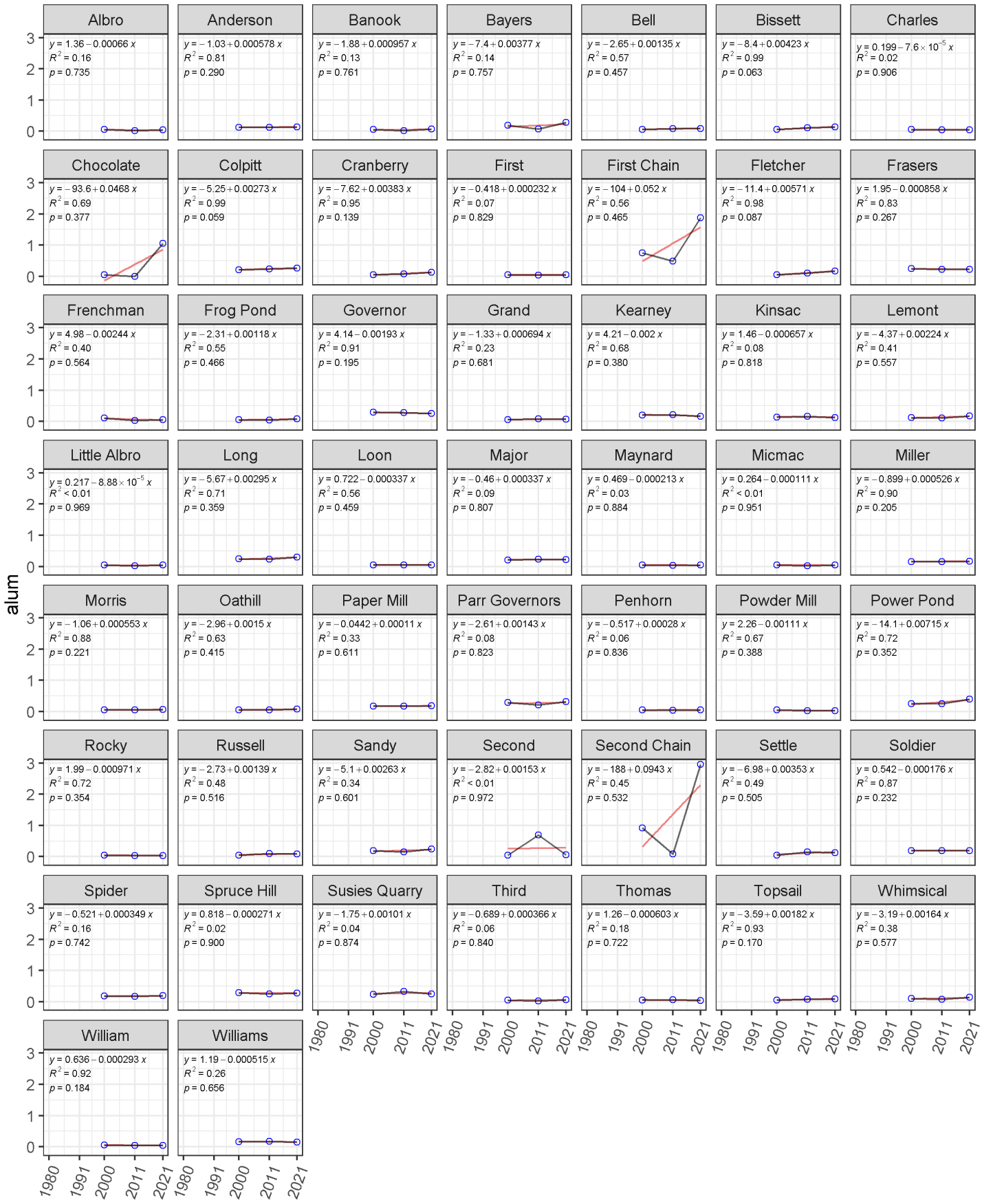
Electronic Supplement 2

Figure A.3. a) – u) *Twenty-one subplots (simple linear regression line plots with trendlines in red) evaluate linear trends in 21 water quality parameters, labelled a) – u), within each of the study lakes. The lines connecting points (black) were included to emphasize patterns and trends (or lack thereof) and should not be interpreted as interpolating values between surveys.*

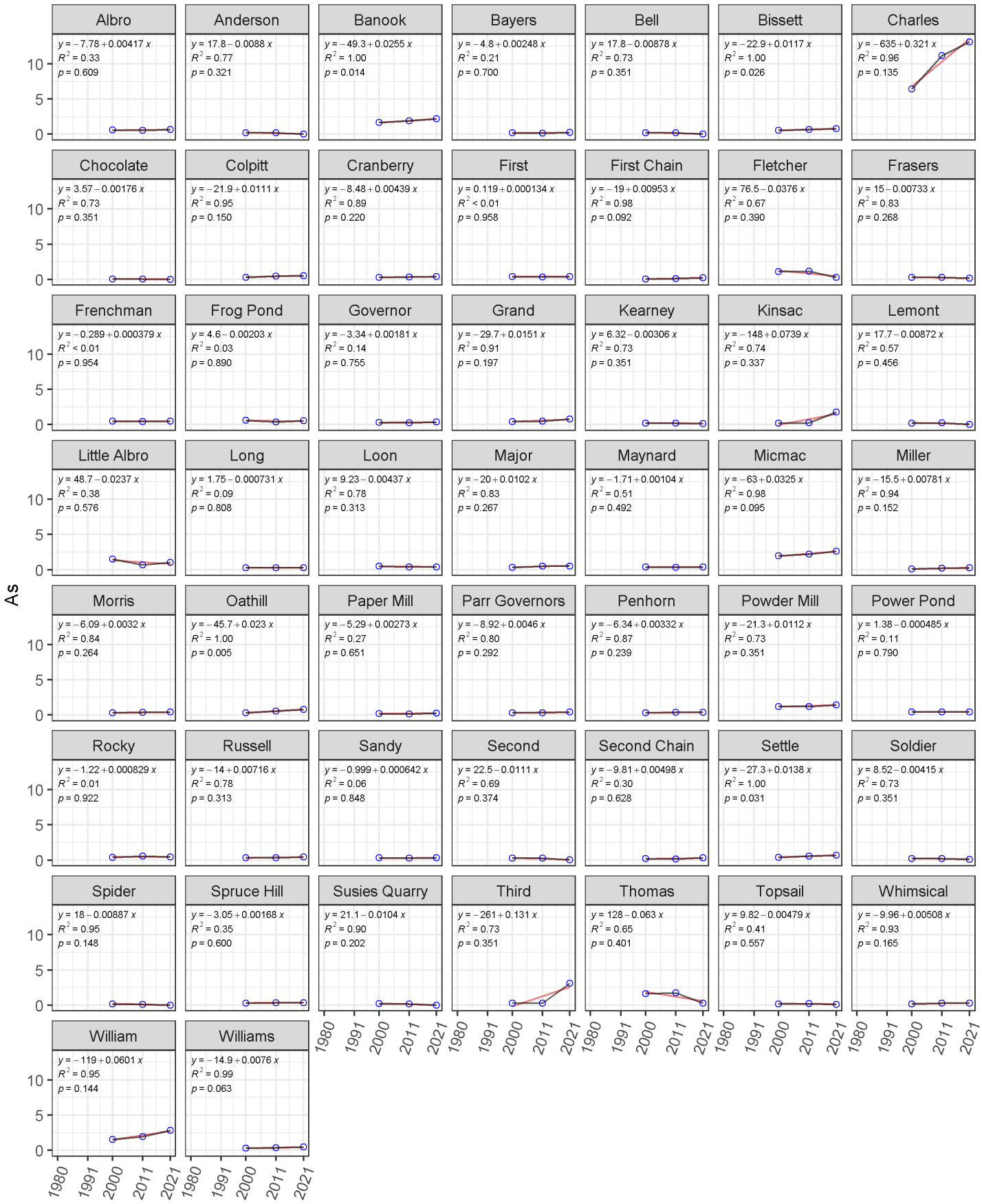
a) Alkalinity (binned)



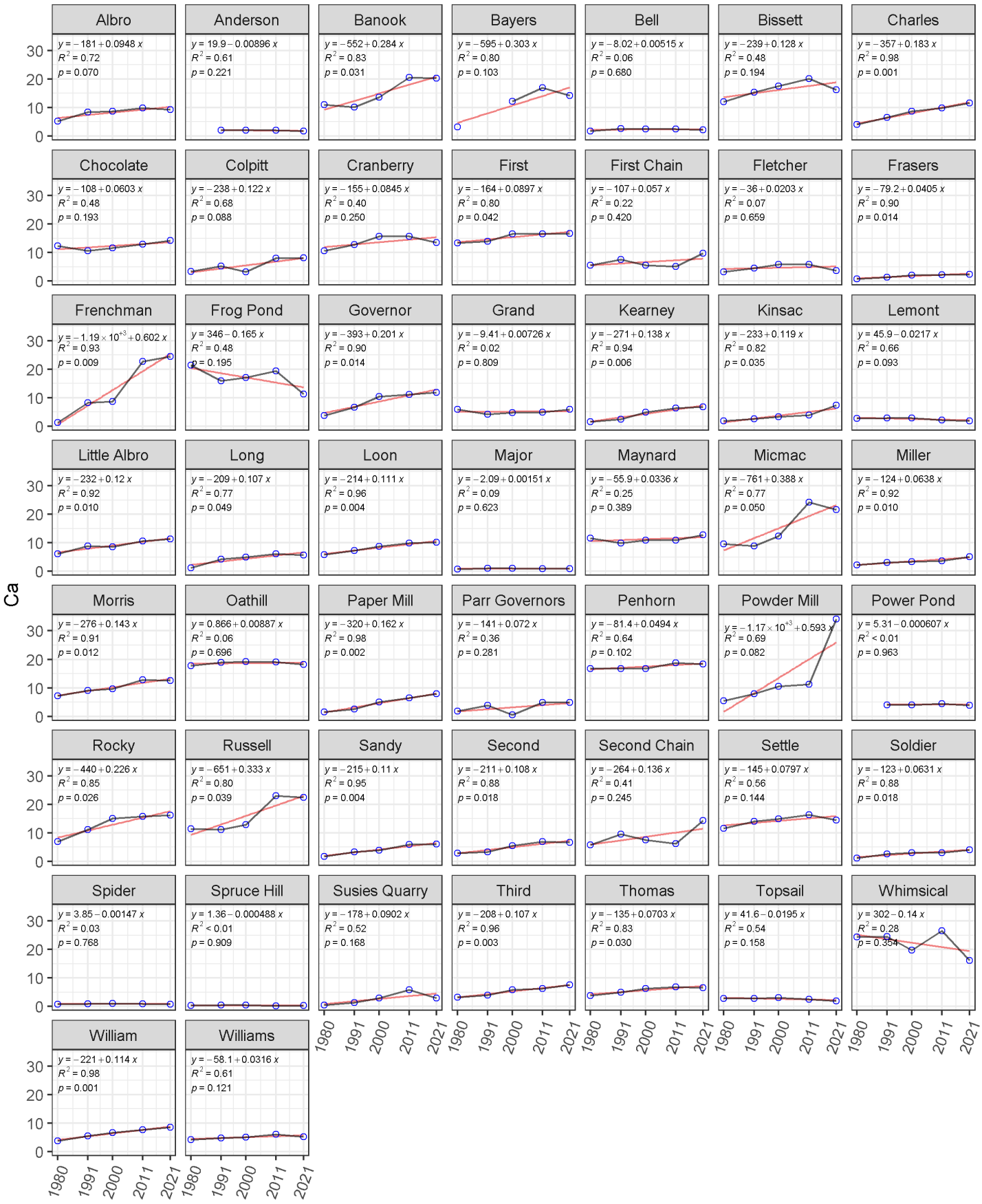
b) Aluminum (mg/L)



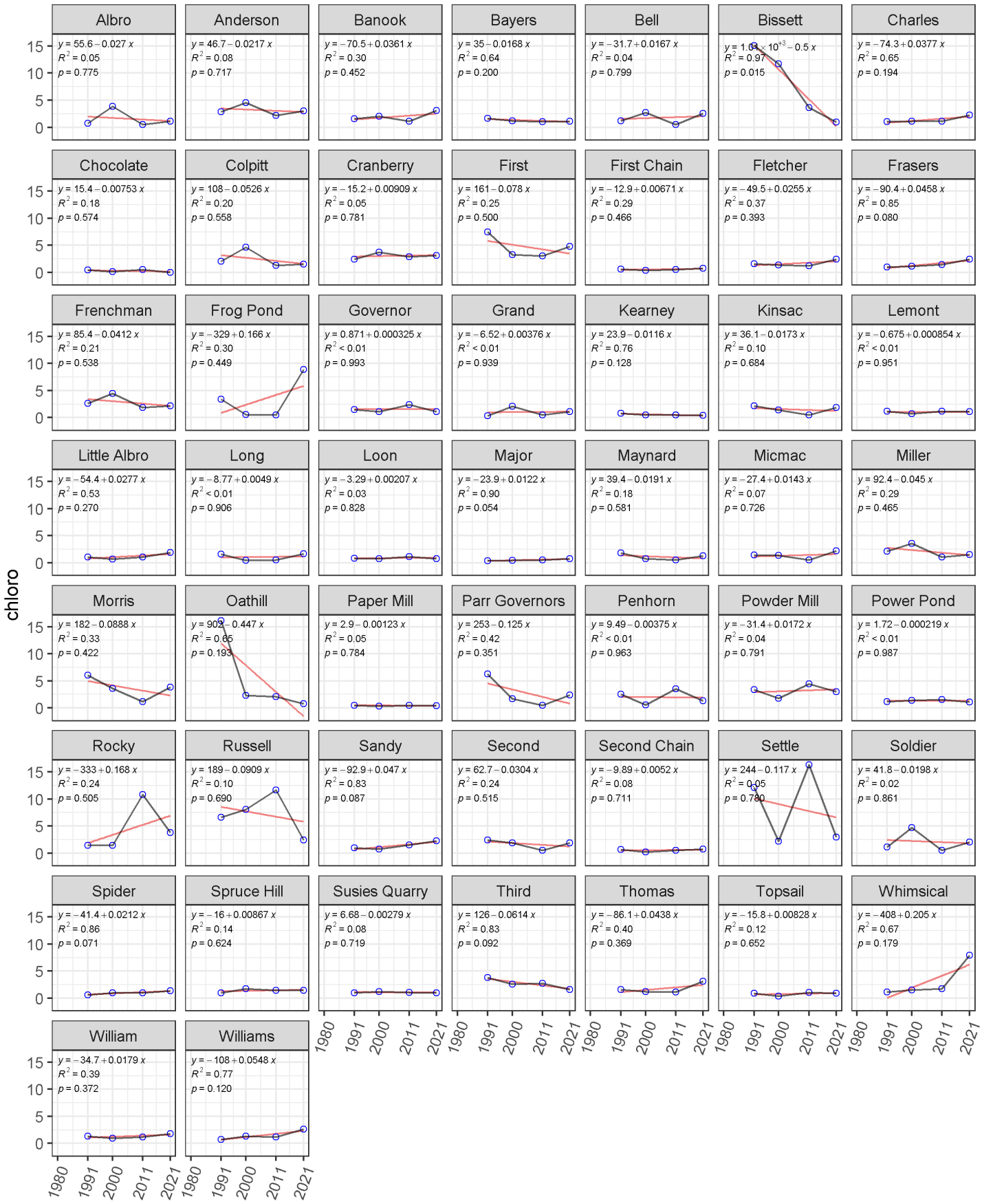
c) Arsenic (µg/L)



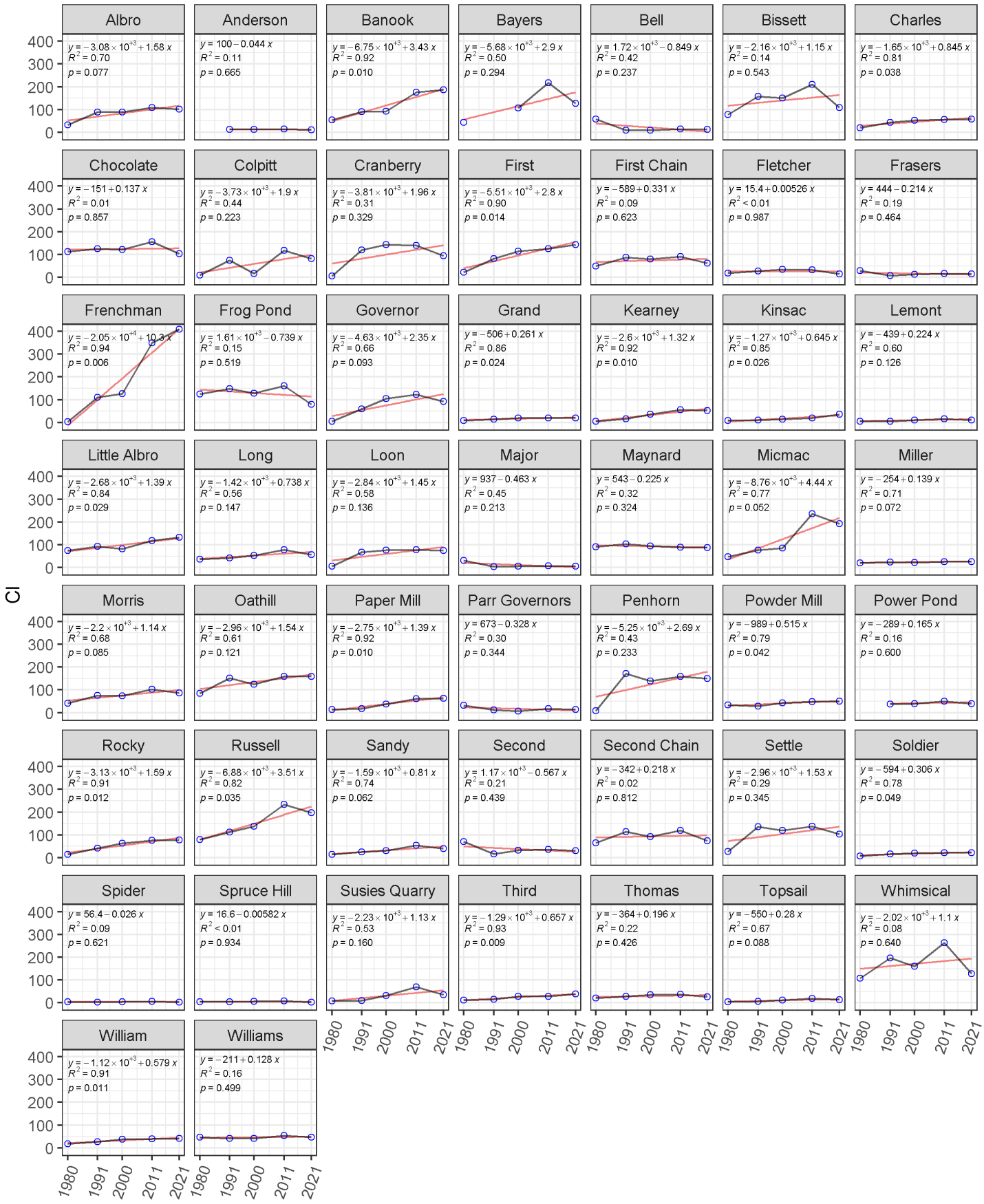
d) Calcium (mg/L)



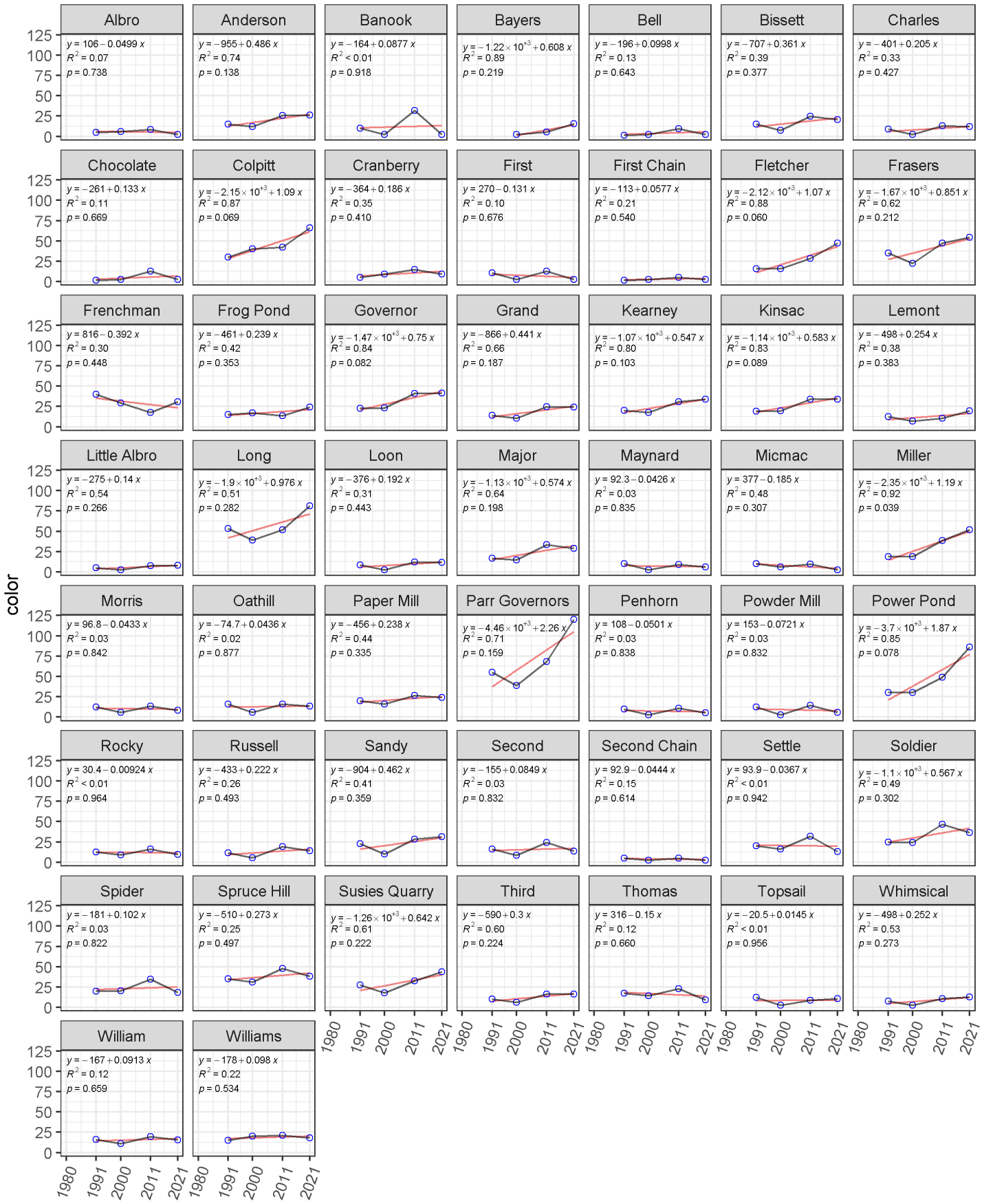
e) Chlorophyll a (µg/L)



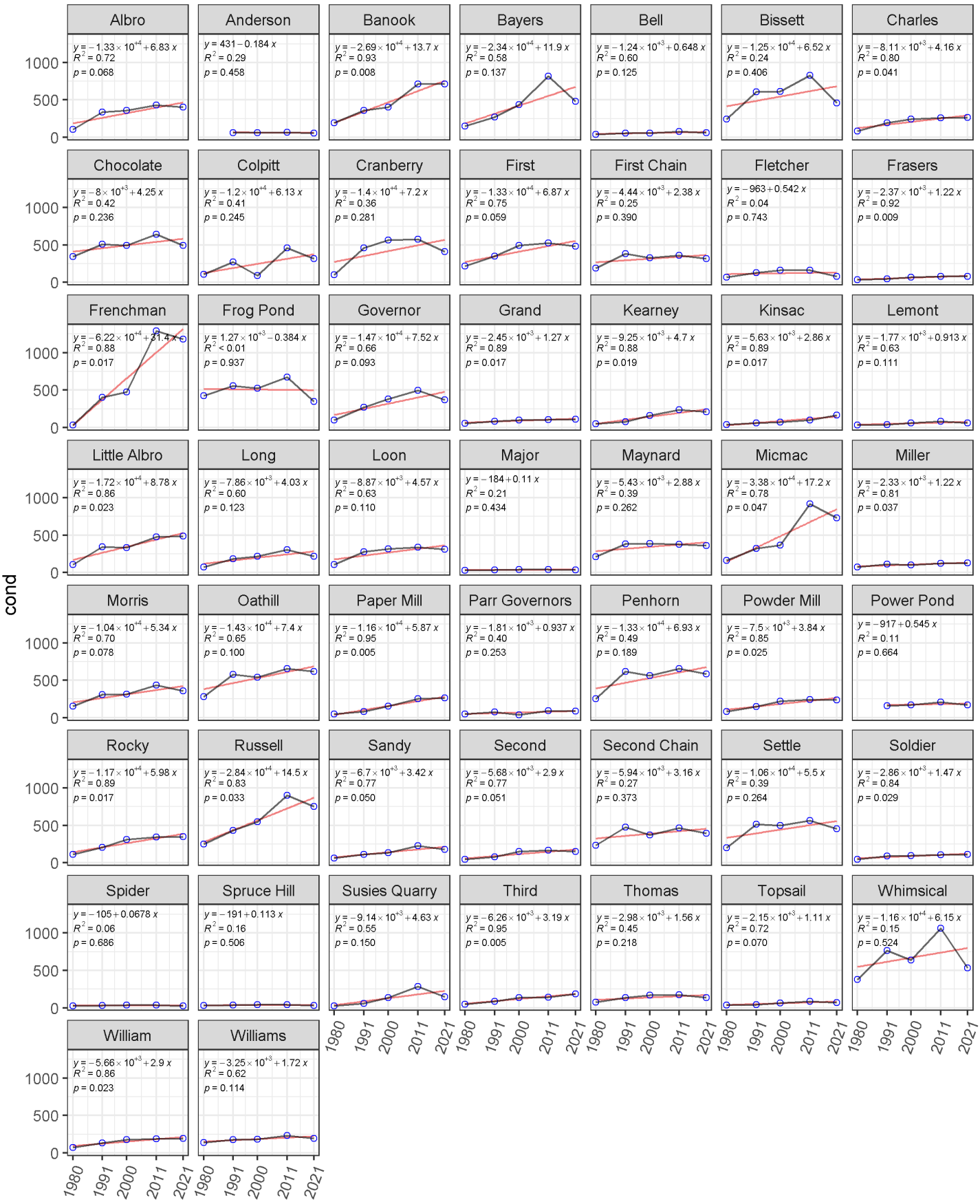
f) Chloride (mg/L)



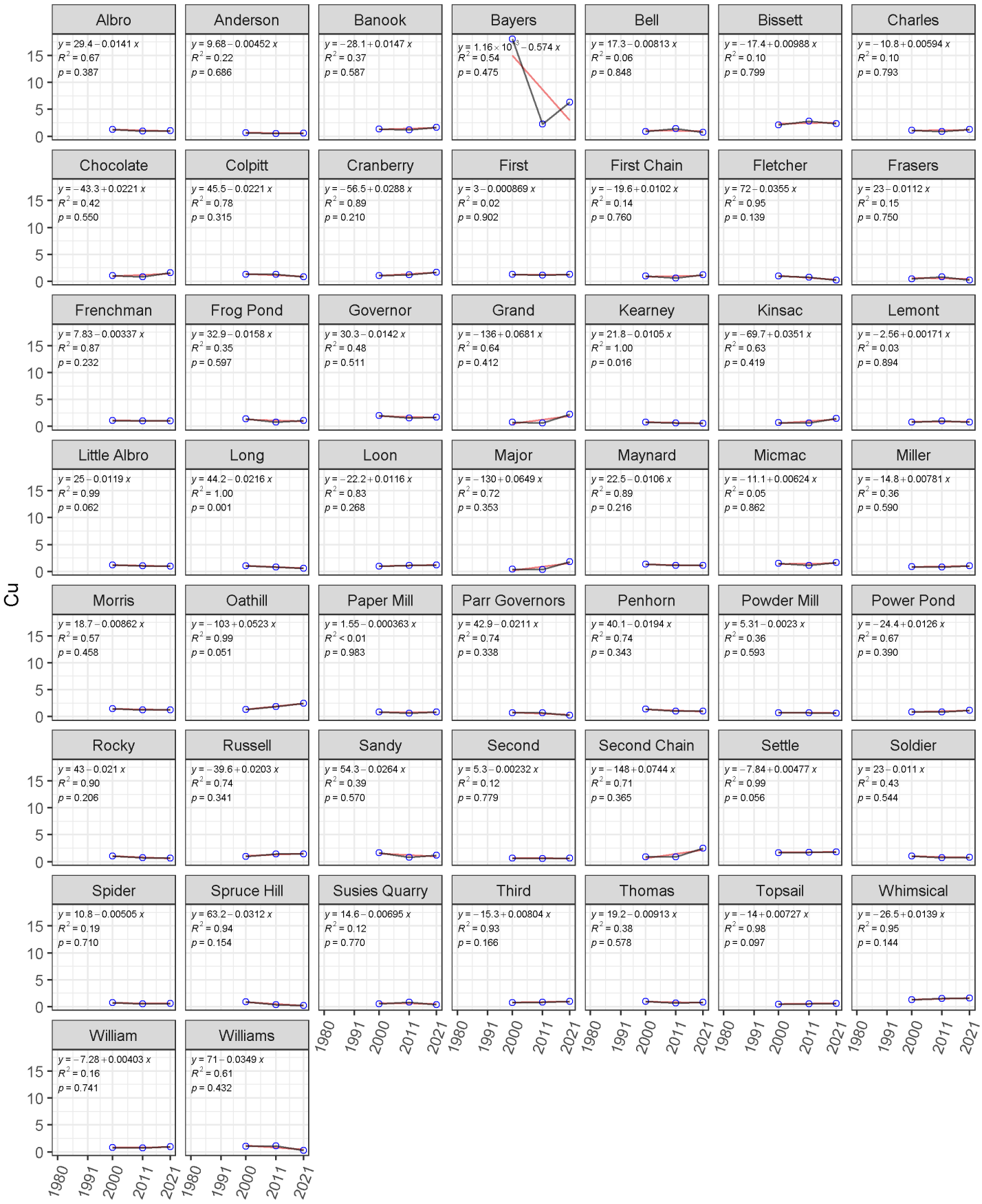
g) Color (TCU)


color
Albro
y = 106 − 0.0499 x
R² = 0.07
p = 0.738
Anderson
y = −955 + 0.486 x
R² = 0.74
p = 0.138
Banook
y = −164 + 0.0877 x
R² < 0.01
p = 0.918
Bayers
y = −1.22 × 10^+3 + 0.608 x
R² = 0.89
p = 0.219
Bell
y = −196 + 0.0998 x
R² = 0.13
p = 0.643
Bissett
y = −707 + 0.361 x
R² = 0.39
p = 0.377
Charles
y = −401 + 0.205 x
R² = 0.33
p = 0.427
Chocolate
y = −261 + 0.133 x
R² = 0.11
p = 0.669
Colpitt
y = −2.15 × 10^+3 + 1.09 x
R² = 0.87
p = 0.069
Cranberry
y = −364 + 0.186 x
R² = 0.35
p = 0.410
First
y = 270 − 0.131 x
R² = 0.10
p = 0.676
First Chain
y = −113 + 0.0577 x
R² = 0.21
p = 0.540
Fletcher
y = −2.12 × 10^+3 + 1.07 x
R² = 0.88
p = 0.060
Frasers
y = −1.67 × 10^+3 + 0.851 x
R² = 0.62
p = 0.212
Frenchman
y = 816 − 0.392 x
R² = 0.30
p = 0.448
Frog Pond
y = −461 + 0.239 x
R² = 0.42
p = 0.353
Governor
y = −1.47 × 10^+3 + 0.75 x
R² = 0.84
p = 0.082
Grand
y = −866 + 0.441 x
R² = 0.66
p = 0.187
Kearney
y = −1.07 × 10^+3 + 0.547 x
R² = 0.80
p = 0.103
Kinsac
y = −1.14 × 10^+3 + 0.583 x
R² = 0.83
p = 0.089
Lemont
y = −498 + 0.254 x
R² = 0.38
p = 0.383
Little Albro
y = −275 + 0.14 x
R² = 0.54
p = 0.266
Long
y = −1.9 × 10^+3 + 0.976 x
R² = 0.51
p = 0.282
Loon
y = −376 + 0.192 x
R² = 0.31
p = 0.443
Major
y = −1.13 × 10^+3 + 0.574 x
R² = 0.64
p = 0.198
Maynard
y = 92.3 − 0.0426 x
R² = 0.03
p = 0.835
Micmac
y = 377 − 0.185 x
R² = 0.48
p = 0.307
Miller
y = −2.35 × 10^+3 + 1.19 x
R² = 0.92
p = 0.039
Morris
y = 96.8 − 0.0433 x
R² = 0.03
p = 0.842
Oathill
y = −74.7 + 0.0436 x
R² = 0.02
p = 0.877
Paper Mill
y = −456 + 0.238 x
R² = 0.44
p = 0.335
Parr Governors
y = −4.46 × 10^+3 + 2.26 x
R² = 0.71
p = 0.159
Penhorn
y = 108 − 0.0501 x
R² = 0.03
p = 0.838
Powder Mill
y = 153 − 0.0721 x
R² = 0.03
p = 0.832
Power Pond
y = −3.7 × 10^+3 + 1.87 x
R² = 0.85
p = 0.078
Rocky
y = 30.4 − 0.00924 x
R² < 0.01
p = 0.964
Russell
y = −433 + 0.222 x
R² = 0.26
p = 0.493
Sandy
y = −904 + 0.462 x
R² = 0.41
p = 0.359
Second
y = −155 + 0.0849 x
R² = 0.03
p = 0.832
Second Chain
y = 92.9 − 0.0444 x
R² = 0.15
p = 0.614
Settle
y = 93.9 − 0.0367 x
R² < 0.01
p = 0.942
Soldier
y = −1.1 × 10^+3 + 0.567 x
R² = 0.49
p = 0.302
Spider
y = −181 + 0.102 x
R² = 0.03
p = 0.822
Spruce Hill
y = −510 + 0.273 x
R² = 0.25
p = 0.497
Susies Quarry
y = −1.26 × 10^+3 + 0.642 x
R² = 0.61
p = 0.222
Third
y = −590 + 0.3 x
R² = 0.60
p = 0.224
Thomas
y = 316 − 0.15 x
R² = 0.12
p = 0.660
Topsail
y = −20.5 + 0.0145 x
R² < 0.01
p = 0.956
Whimsical
y = −498 + 0.252 x
R² = 0.53
p = 0.273
William
y = −167 + 0.0913 x
R² = 0.12
p = 0.659
Williams
y = −178 + 0.098 x
R² = 0.22
p = 0.534
0
25
50
75
100
125
1980
1991
2000
2011
2021

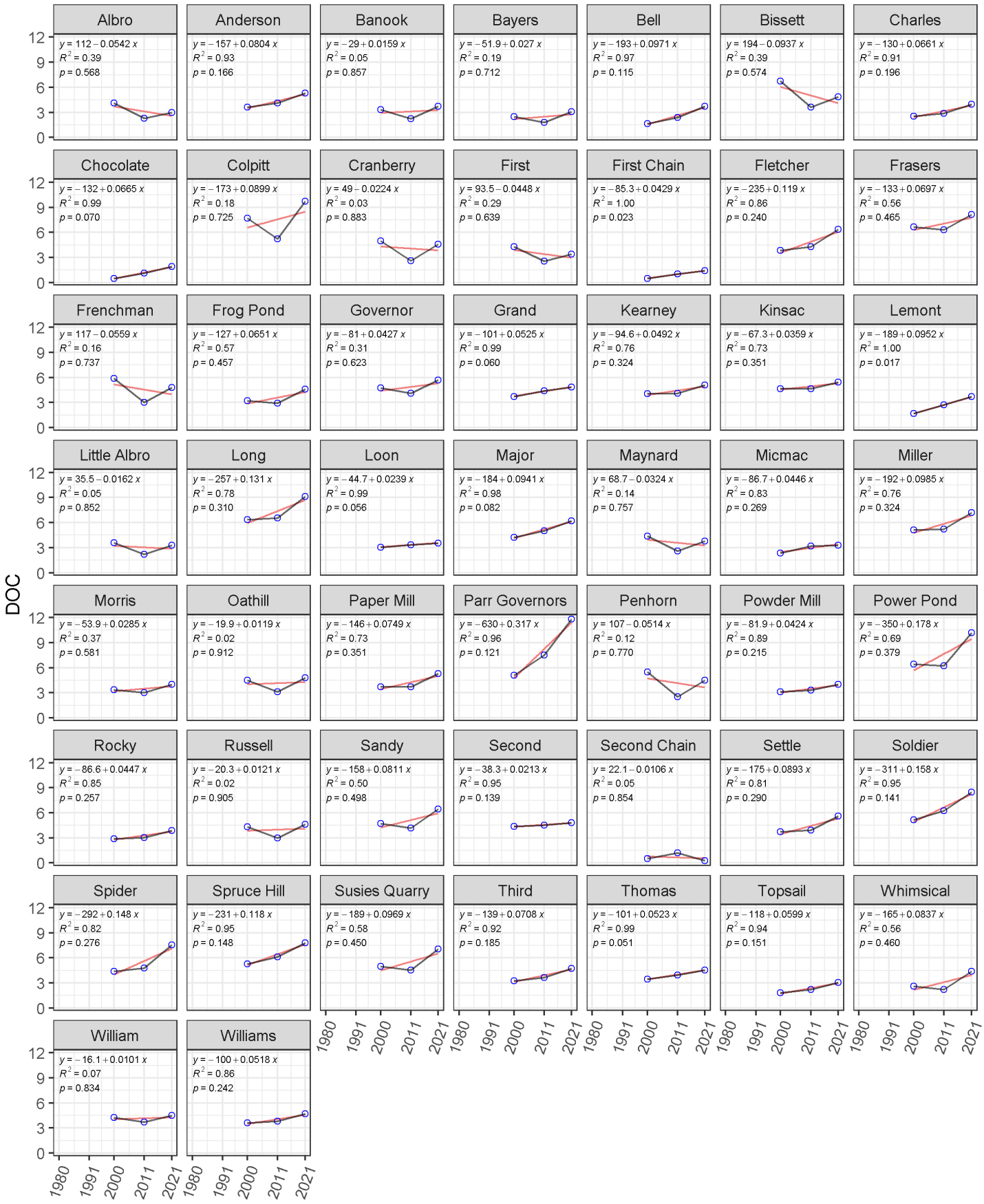
h) Conductivity (µS/cm)



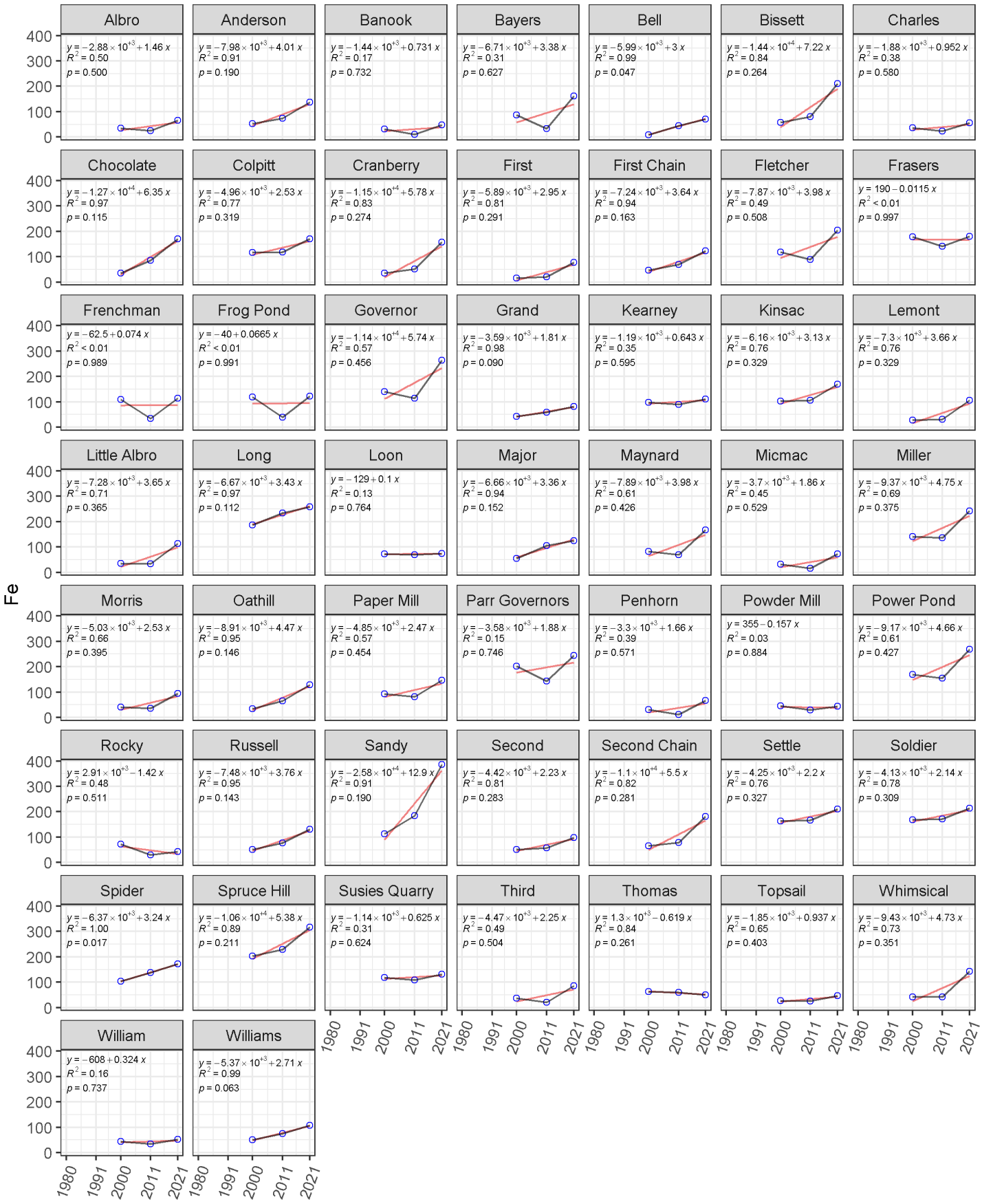
i) Copper (µg/L)


Albro
y = 29.4 − 0.0141 x
R² = 0.67
p = 0.387
Anderson
y = 9.68 − 0.00452 x
R² = 0.22
p = 0.686
Banook
y = −28.1 + 0.0147 x
R² = 0.37
p = 0.587
Bayers
y = 1.16 × 10³ − 0.574 x
R² = 0.54
p = 0.475
Bell
y = 17.3 − 0.00813 x
R² = 0.06
p = 0.848
Bissett
y = −17.4 + 0.00988 x
R² = 0.10
p = 0.799
Charles
y = −10.8 + 0.00594 x
R² = 0.10
p = 0.793
Chocolate
y = −43.3 + 0.0221 x
R² = 0.42
p = 0.550
Colpitt
y = 45.5 − 0.0221 x
R² = 0.78
p = 0.315
Cranberry
y = −56.5 + 0.0288 x
R² = 0.89
p = 0.210
First
y = 3 − 0.000869 x
R² = 0.02
p = 0.902
First Chain
y = −19.6 + 0.0102 x
R² = 0.14
p = 0.760
Fletcher
y = 72 − 0.0355 x
R² = 0.95
p = 0.139
Frasers
y = 23 − 0.0112 x
R² = 0.15
p = 0.750
Frenchman
y = 7.83 − 0.00337 x
R² = 0.87
p = 0.232
Frog Pond
y = 32.9 − 0.0158 x
R² = 0.35
p = 0.597
Governor
y = 30.3 − 0.0142 x
R² = 0.48
p = 0.511
Grand
y = −136 + 0.0681 x
R² = 0.64
p = 0.412
Kearney
y = 21.8 − 0.0105 x
R² = 1.00
p = 0.016
Kinsac
y = −69.7 + 0.0351 x
R² = 0.63
p = 0.419
Lemont
y = −2.56 + 0.00171 x
R² = 0.03
p = 0.894
Little Albro
y = 25 − 0.0119 x
R² = 0.99
p = 0.062
Long
y = 44.2 − 0.0216 x
R² = 1.00
p = 0.001
Loon
y = −22.2 + 0.0116 x
R² = 0.83
p = 0.268
Major
y = −130 + 0.0649 x
R² = 0.72
p = 0.353
Maynard
y = 22.5 − 0.0106 x
R² = 0.89
p = 0.216
Micmac
y = −11.1 + 0.00624 x
R² = 0.05
p = 0.862
Miller
y = −14.8 + 0.00781 x
R² = 0.36
p = 0.590
Morris
y = 18.7 − 0.00862 x
R² = 0.57
p = 0.458
Oathill
y = −103 + 0.0523 x
R² = 0.99
p = 0.051
Paper Mill
y = 1.55 − 0.000363 x
R² < 0.01
p = 0.983
Parr Governors
y = 42.9 − 0.0211 x
R² = 0.74
p = 0.338
Penhorn
y = 40.1 − 0.0194 x
R² = 0.74
p = 0.343
Powder Mill
y = 5.31 − 0.0023 x
R² = 0.36
p = 0.593
Power Pond
y = −24.4 + 0.0126 x
R² = 0.67
p = 0.390
Rocky
y = 43 − 0.021 x
R² = 0.90
p = 0.206
Russell
y = −39.6 + 0.0203 x
R² = 0.74
p = 0.341
Sandy
y = 54.3 − 0.0264 x
R² = 0.39
p = 0.570
Second
y = 5.3 − 0.00232 x
R² = 0.12
p = 0.779
Second Chain
y = −148 + 0.0744 x
R² = 0.71
p = 0.365
Settle
y = −7.84 + 0.00477 x
R² = 0.99
p = 0.056
Soldier
y = 23 − 0.011 x
R² = 0.43
p = 0.544
Spider
y = 10.8 − 0.00505 x
R² = 0.19
p = 0.710
Spruce Hill
y = 63.2 − 0.0312 x
R² = 0.94
p = 0.154
Susies Quarry
y = 14.6 − 0.00695 x
R² = 0.12
p = 0.770
Third
y = −15.3 + 0.00804 x
R² = 0.93
p = 0.166
Thomas
y = 19.2 − 0.00913 x
R² = 0.38
p = 0.578
Topsail
y = −14 + 0.00727 x
R² = 0.98
p = 0.097
Whimsical
y = −26.5 + 0.0139 x
R² = 0.95
p = 0.144
William
y = −7.28 + 0.00403 x
R² = 0.16
p = 0.741
Williams
y = 71 − 0.0349 x
R² = 0.61
p = 0.432
Cu
0
5
10
15
1980
1991
2000
2011
2021

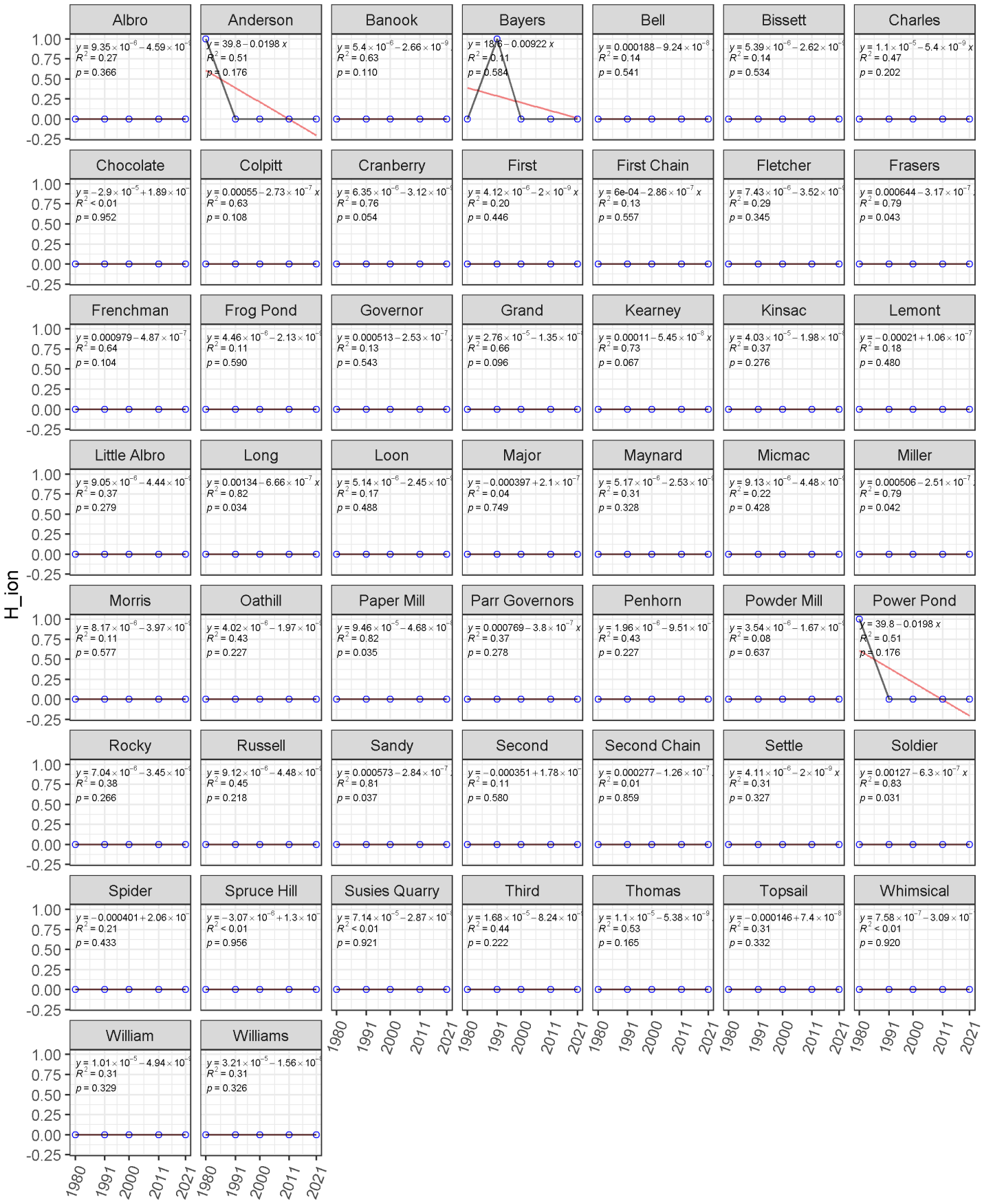
j) DOC (mg/L)


DOC
Albro
y = 112 − 0.0542 x
R² = 0.39
p = 0.568
Anderson
y = −157 + 0.0804 x
R² = 0.93
p = 0.166
Banook
y = −29 + 0.0159 x
R² = 0.05
p = 0.857
Bayers
y = −51.9 + 0.027 x
R² = 0.19
p = 0.712
Bell
y = −193 + 0.0971 x
R² = 0.97
p = 0.115
Bissett
y = 194 − 0.0937 x
R² = 0.39
p = 0.574
Charles
y = −130 + 0.0661 x
R² = 0.91
p = 0.196
Chocolate
y = −132 + 0.0665 x
R² = 0.99
p = 0.070
Colpitt
y = −173 + 0.0899 x
R² = 0.18
p = 0.725
Cranberry
y = 49 − 0.0224 x
R² = 0.03
p = 0.883
First
y = 93.5 − 0.0448 x
R² = 0.29
p = 0.639
First Chain
y = −85.3 + 0.0429 x
R² = 1.00
p = 0.023
Fletcher
y = −235 + 0.119 x
R² = 0.86
p = 0.240
Frasers
y = −133 + 0.0697 x
R² = 0.56
p = 0.465
Frenchman
y = 117 − 0.0559 x
R² = 0.16
p = 0.737
Frog Pond
y = −127 + 0.0651 x
R² = 0.57
p = 0.457
Governor
y = −81 + 0.0427 x
R² = 0.31
p = 0.623
Grand
y = −101 + 0.0525 x
R² = 0.99
p = 0.060
Kearney
y = −94.6 + 0.0492 x
R² = 0.76
p = 0.324
Kinsac
y = −67.3 + 0.0359 x
R² = 0.73
p = 0.351
Lemont
y = −189 + 0.0952 x
R² = 1.00
p = 0.017
Little Albro
y = 35.5 − 0.0162 x
R² = 0.05
p = 0.852
Long
y = −257 + 0.131 x
R² = 0.78
p = 0.310
Loon
y = −44.7 + 0.0239 x
R² = 0.99
p = 0.056
Major
y = −184 + 0.0941 x
R² = 0.98
p = 0.082
Maynard
y = 68.7 − 0.0324 x
R² = 0.14
p = 0.757
Micmac
y = −86.7 + 0.0446 x
R² = 0.83
p = 0.269
Miller
y = −192 + 0.0985 x
R² = 0.76
p = 0.324
Morris
y = −53.9 + 0.0285 x
R² = 0.37
p = 0.581
Oathill
y = −19.9 + 0.0119 x
R² = 0.02
p = 0.912
Paper Mill
y = −146 + 0.0749 x
R² = 0.73
p = 0.351
Parr Governors
y = −630 + 0.317 x
R² = 0.96
p = 0.121
Penhorn
y = 107 − 0.0514 x
R² = 0.12
p = 0.770
Powder Mill
y = −81.9 + 0.0424 x
R² = 0.89
p = 0.215
Power Pond
y = −350 + 0.178 x
R² = 0.69
p = 0.379
Rocky
y = −86.6 + 0.0447 x
R² = 0.85
p = 0.257
Russell
y = −20.3 + 0.0121 x
R² = 0.02
p = 0.905
Sandy
y = −158 + 0.0811 x
R² = 0.50
p = 0.498
Second
y = −38.3 + 0.0213 x
R² = 0.95
p = 0.139
Second Chain
y = 22.1 − 0.0106 x
R² = 0.05
p = 0.854
Settle
y = −175 + 0.0893 x
R² = 0.81
p = 0.290
Soldier
y = −311 + 0.158 x
R² = 0.95
p = 0.141
Spider
y = −292 + 0.148 x
R² = 0.82
p = 0.276
Spruce Hill
y = −231 + 0.118 x
R² = 0.95
p = 0.148
Susies Quarry
y = −189 + 0.0969 x
R² = 0.58
p = 0.450
Third
y = −139 + 0.0708 x
R² = 0.92
p = 0.185
Thomas
y = −101 + 0.0523 x
R² = 0.99
p = 0.051
Topsail
y = −118 + 0.0599 x
R² = 0.94
p = 0.151
Whimsical
y = −165 + 0.0837 x
R² = 0.56
p = 0.460
William
y = −16.1 + 0.0101 x
R² = 0.07
p = 0.834
Williams
y = −100 + 0.0518 x
R² = 0.86
p = 0.242
0
3
6
9
12
1980
1991
2000
2011
2021

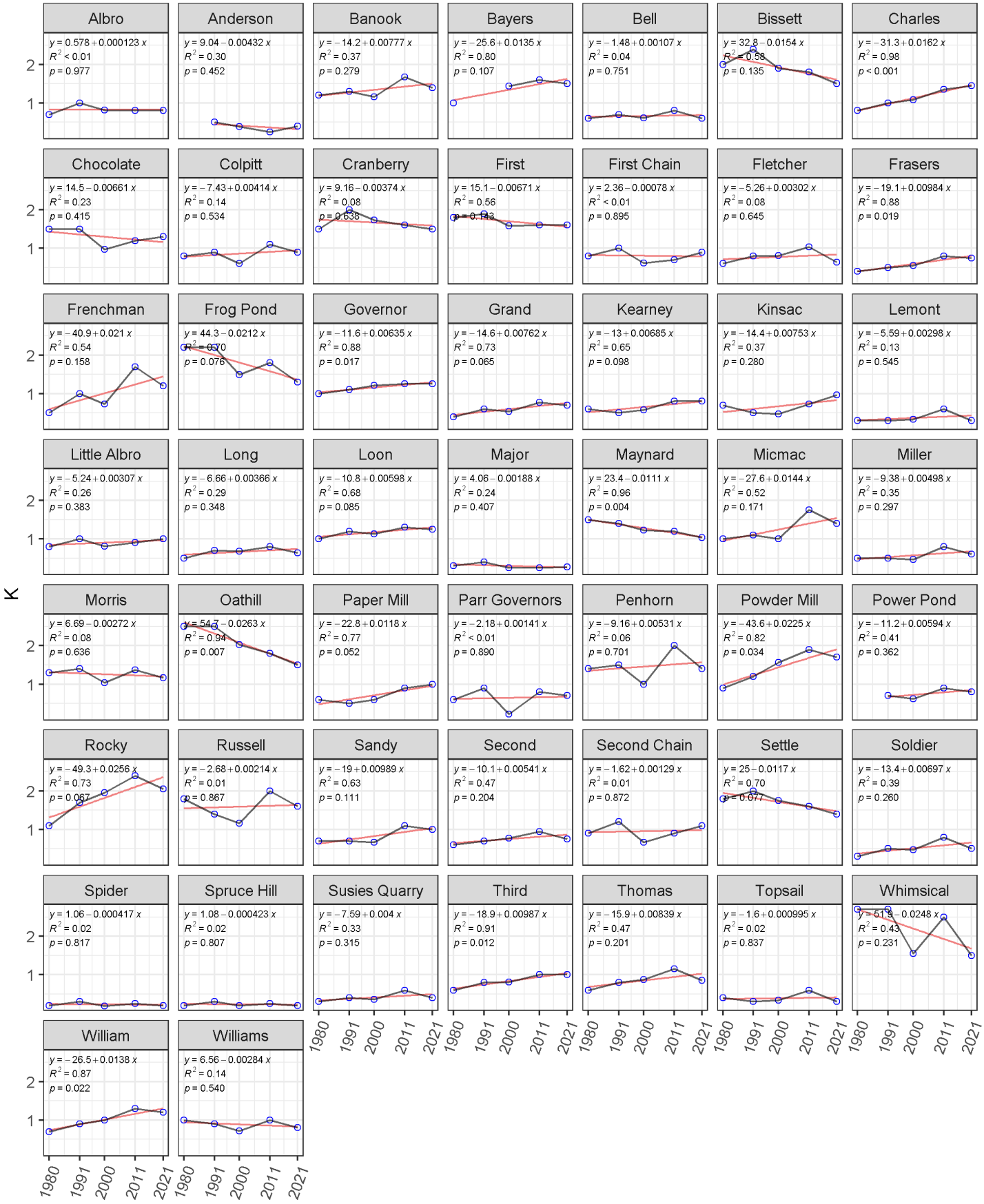
k) Iron (µg/L)


Albro
y = −2.88 × 10^+3 + 1.46 x
R^2 = 0.50
p = 0.500
Anderson
y = −7.98 × 10^+3 + 4.01 x
R^2 = 0.91
p = 0.190
Banook
y = −1.44 × 10^+3 + 0.731 x
R^2 = 0.17
p = 0.732
Bayers
y = −6.71 × 10^+3 + 3.38 x
R^2 = 0.31
p = 0.627
Bell
y = −5.99 × 10^+3 + 3 x
R^2 = 0.99
p = 0.047
Bissett
y = −1.44 × 10^+4 + 7.22 x
R^2 = 0.84
p = 0.264
Charles
y = −1.88 × 10^+3 + 0.952 x
R^2 = 0.38
p = 0.580
Chocolate
y = −1.27 × 10^+4 + 6.35 x
R^2 = 0.97
p = 0.115
Colpitt
y = −4.96 × 10^+3 + 2.53 x
R^2 = 0.77
p = 0.319
Cranberry
y = −1.15 × 10^+4 + 5.78 x
R^2 = 0.83
p = 0.274
First
y = −5.89 × 10^+3 + 2.95 x
R^2 = 0.81
p = 0.291
First Chain
y = −7.24 × 10^+3 + 3.64 x
R^2 = 0.94
p = 0.163
Fletcher
y = −7.87 × 10^+3 + 3.98 x
R^2 = 0.49
p = 0.508
Frasers
y = 190 − 0.0115 x
R^2 < 0.01
p = 0.997
Frenchman
y = −62.5 + 0.074 x
R^2 < 0.01
p = 0.989
Frog Pond
y = −40 + 0.0665 x
R^2 < 0.01
p = 0.991
Governor
y = −1.14 × 10^+4 + 5.74 x
R^2 = 0.57
p = 0.456
Grand
y = −3.59 × 10^+3 + 1.81 x
R^2 = 0.98
p = 0.090
Kearney
y = −1.19 × 10^+3 + 0.643 x
R^2 = 0.35
p = 0.595
Kinsac
y = −6.16 × 10^+3 + 3.13 x
R^2 = 0.76
p = 0.329
Lemont
y = −7.3 × 10^+3 + 3.66 x
R^2 = 0.76
p = 0.329
Little Albro
y = −7.28 × 10^+3 + 3.65 x
R^2 = 0.71
p = 0.365
Long
y = −6.67 × 10^+3 + 3.43 x
R^2 = 0.97
p = 0.112
Loon
y = −129 + 0.1 x
R^2 = 0.13
p = 0.764
Major
y = −6.66 × 10^+3 + 3.36 x
R^2 = 0.94
p = 0.152
Maynard
y = −7.89 × 10^+3 + 3.98 x
R^2 = 0.61
p = 0.426
Micmac
y = −3.7 × 10^+3 + 1.86 x
R^2 = 0.45
p = 0.529
Miller
y = −9.37 × 10^+3 + 4.75 x
R^2 = 0.69
p = 0.375
Morris
y = −5.03 × 10^+3 + 2.53 x
R^2 = 0.66
p = 0.395
Oathill
y = −8.91 × 10^+3 + 4.47 x
R^2 = 0.95
p = 0.146
Paper Mill
y = −4.85 × 10^+3 + 2.47 x
R^2 = 0.57
p = 0.454
Parr Governors
y = −3.58 × 10^+3 + 1.88 x
R^2 = 0.15
p = 0.746
Penhorn
y = −3.3 × 10^+3 + 1.66 x
R^2 = 0.39
p = 0.571
Powder Mill
y = 355 − 0.157 x
R^2 = 0.03
p = 0.884
Power Pond
y = −9.17 × 10^+3 + 4.66 x
R^2 = 0.61
p = 0.427
Rocky
y = 2.91 × 10^+3 − 1.42 x
R^2 = 0.48
p = 0.511
Russell
y = −7.48 × 10^+3 + 3.76 x
R^2 = 0.95
p = 0.143
Sandy
y = −2.58 × 10^+4 + 12.9 x
R^2 = 0.91
p = 0.190
Second
y = −4.42 × 10^+3 + 2.23 x
R^2 = 0.81
p = 0.283
Second Chain
y = −1.1 × 10^+4 + 5.5 x
R^2 = 0.82
p = 0.281
Settle
y = −4.25 × 10^+3 + 2.2 x
R^2 = 0.76
p = 0.327
Soldier
y = −4.13 × 10^+3 + 2.14 x
R^2 = 0.78
p = 0.309
Spider
y = −6.37 × 10^+3 + 3.24 x
R^2 = 1.00
p = 0.017
Spruce Hill
y = −1.06 × 10^+4 + 5.38 x
R^2 = 0.89
p = 0.211
Susies Quarry
y = −1.14 × 10^+3 + 0.625 x
R^2 = 0.31
p = 0.624
Third
y = −4.47 × 10^+3 + 2.25 x
R^2 = 0.49
p = 0.504
Thomas
y = 1.3 × 10^+3 − 0.619 x
R^2 = 0.84
p = 0.261
Topsail
y = −1.85 × 10^+3 + 0.937 x
R^2 = 0.65
p = 0.403
Whimsical
y = −9.43 × 10^+3 + 4.73 x
R^2 = 0.73
p = 0.351
William
y = −608 + 0.324 x
R^2 = 0.16
p = 0.737
Williams
y = −5.37 × 10^+3 + 2.71 x
R^2 = 0.99
p = 0.063
Fe
0
100
200
300
400
1980
1991
2000
2011
2021

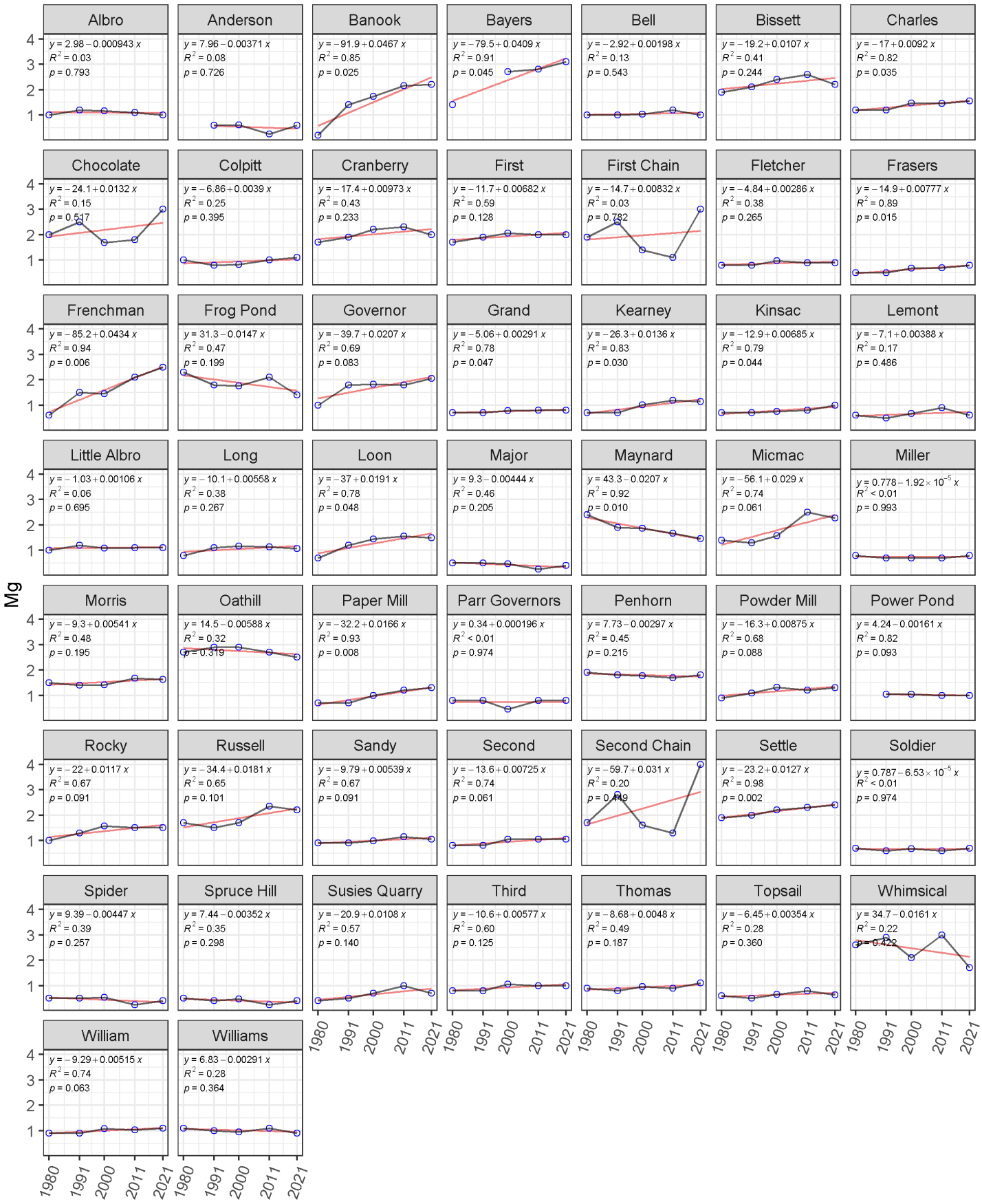
l) $[H^+]$


H_ion
Albro
Anderson
Banook
Bayers
Bell
Bissett
Charles
Chocolate
Colpitt
Cranberry
First
First Chain
Fletcher
Frasers
Frenchman
Frog Pond
Governor
Grand
Kearney
Kinsac
Lemont
Little Albro
Long
Loon
Major
Maynard
Micmac
Miller
Morris
Oathill
Paper Mill
Parr Governors
Penhorn
Powder Mill
Power Pond
Rocky
Russell
Sandy
Second
Second Chain
Settle
Soldier
Spider
Spruce Hill
Susies Quarry
Third
Thomas
Topsail
Whimsical
William
Williams
1.00
0.75
0.50
0.25
0.00
-0.25
1980
1991
2000
2011
2021

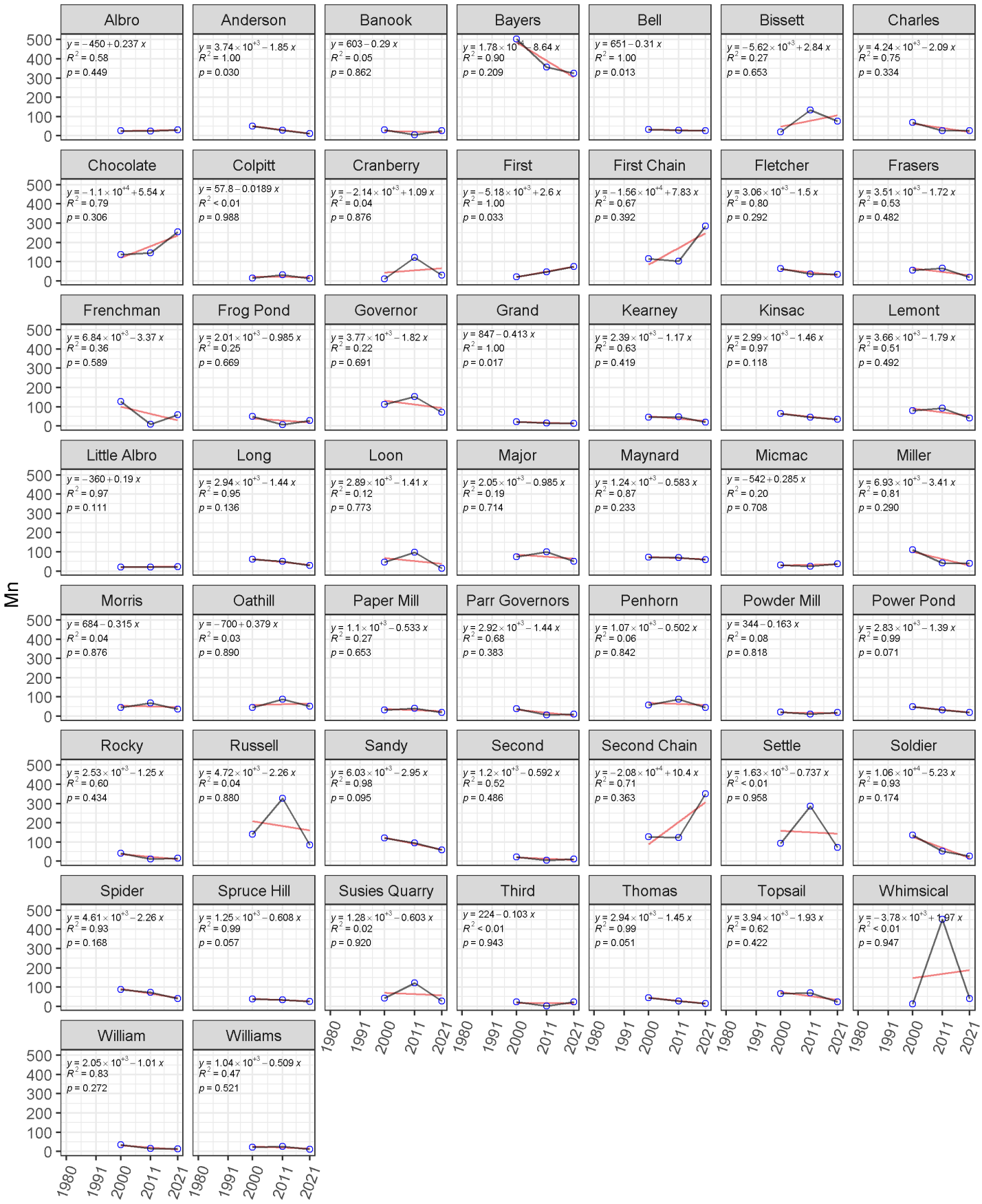
m) Potassium (mg/L)



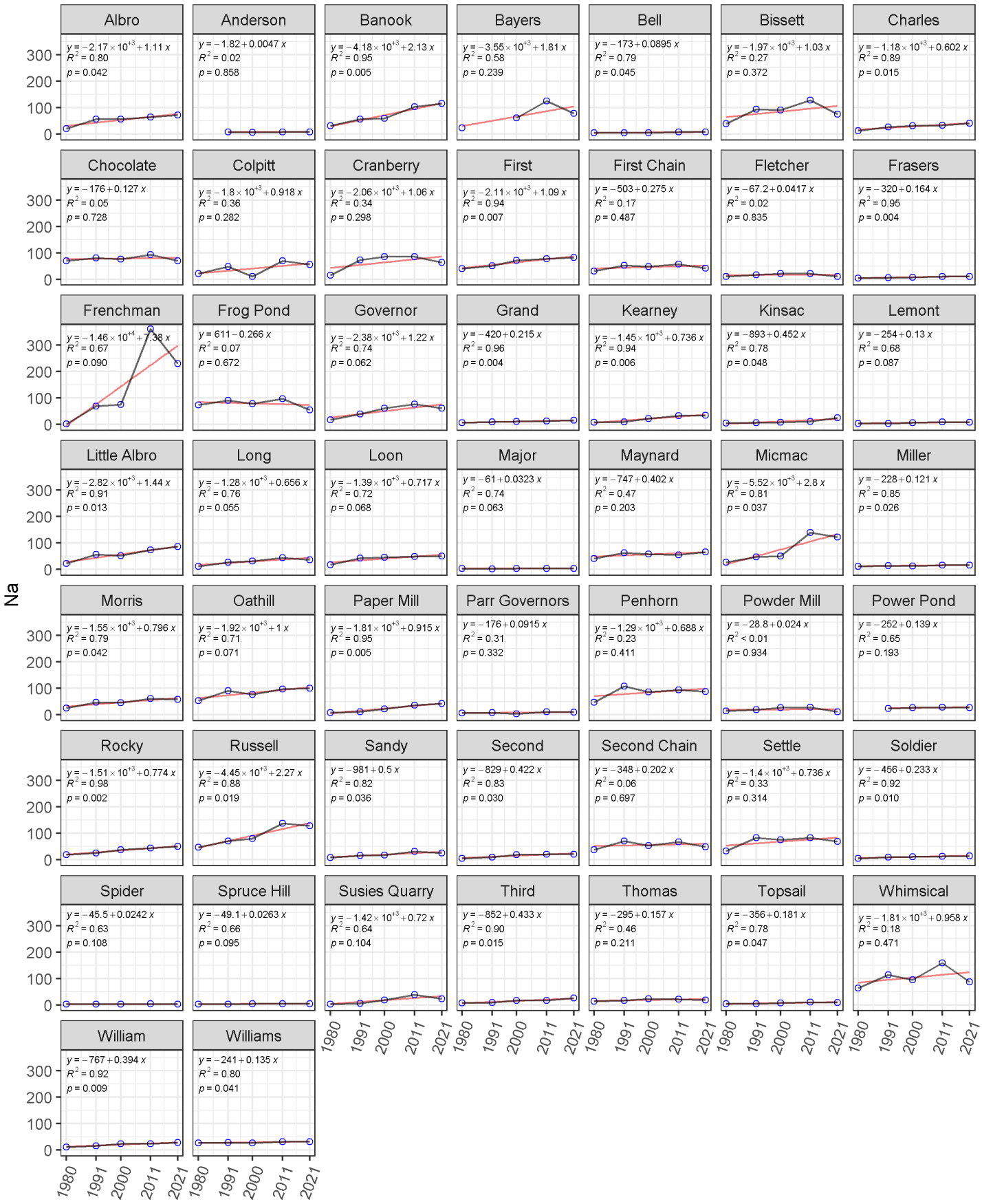
n) Magnesium (mg/L)



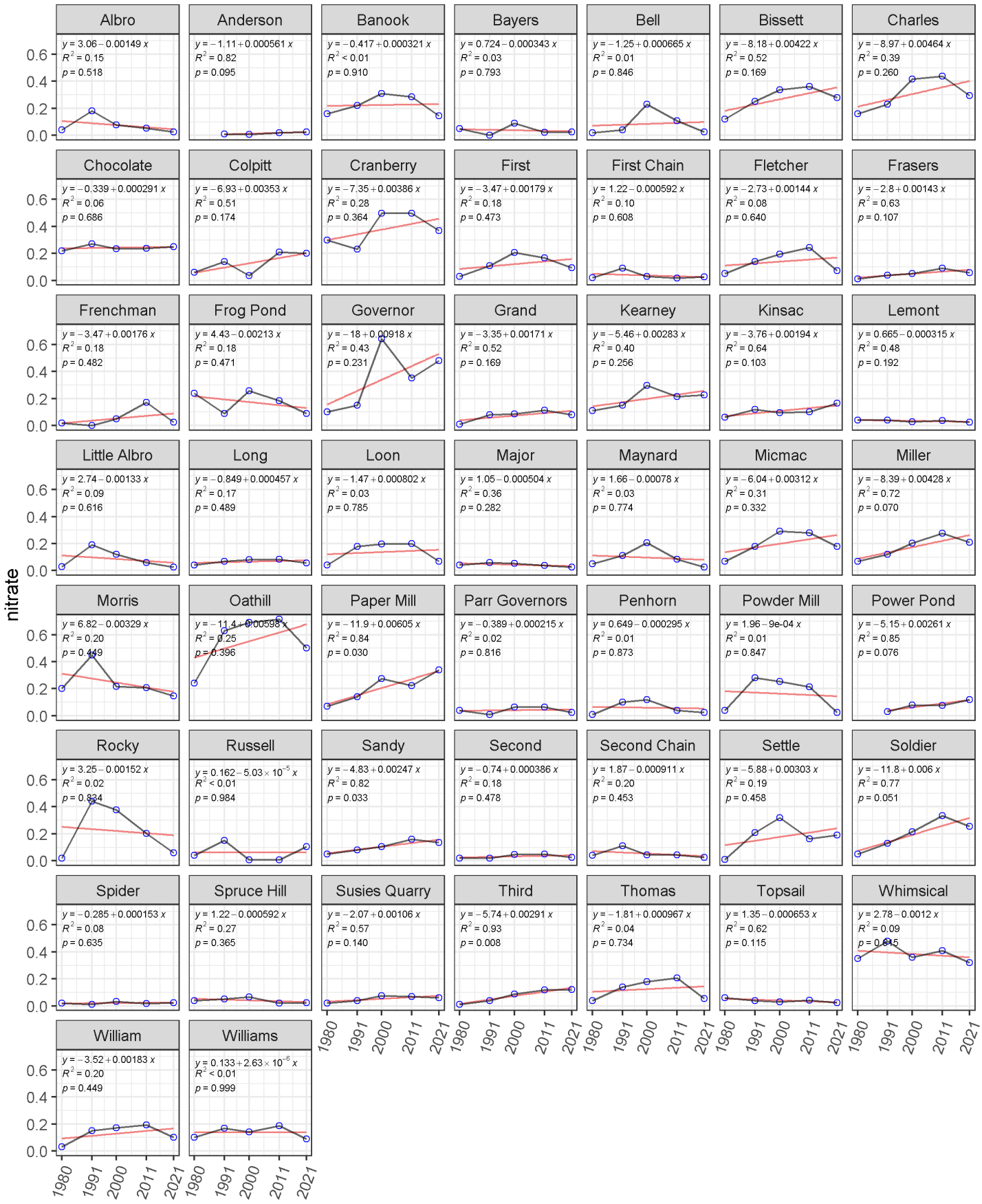
o) Manganese (µg/L)



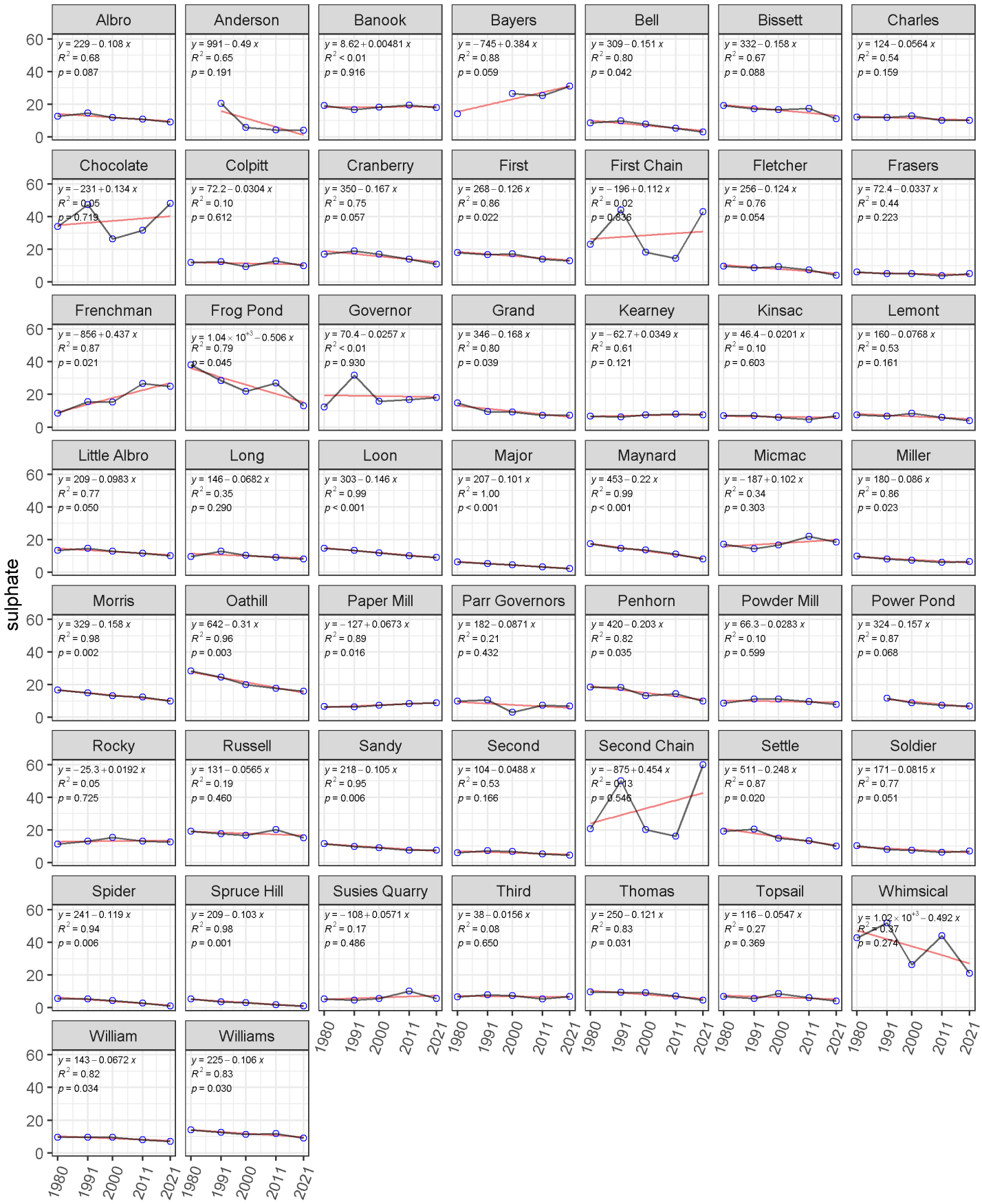
p) Sodium (mg/L)


Na
Albro
y = −2.17 × 10^+3 + 1.11 x
R^2 = 0.80
p = 0.042
Anderson
y = −1.82 + 0.0047 x
R^2 = 0.02
p = 0.858
Banook
y = −4.18 × 10^+3 + 2.13 x
R^2 = 0.95
p = 0.005
Bayers
y = −3.55 × 10^+3 + 1.81 x
R^2 = 0.58
p = 0.239
Bell
y = −173 + 0.0895 x
R^2 = 0.79
p = 0.045
Bissett
y = −1.97 × 10^+3 + 1.03 x
R^2 = 0.27
p = 0.372
Charles
y = −1.18 × 10^+3 + 0.602 x
R^2 = 0.89
p = 0.015
Chocolate
y = −176 + 0.127 x
R^2 = 0.05
p = 0.728
Colpitt
y = −1.8 × 10^+3 + 0.918 x
R^2 = 0.36
p = 0.282
Cranberry
y = −2.06 × 10^+3 + 1.06 x
R^2 = 0.34
p = 0.298
First
y = −2.11 × 10^+3 + 1.09 x
R^2 = 0.94
p = 0.007
First Chain
y = −503 + 0.275 x
R^2 = 0.17
p = 0.487
Fletcher
y = −67.2 + 0.0417 x
R^2 = 0.02
p = 0.835
Frasers
y = −320 + 0.164 x
R^2 = 0.95
p = 0.004
Frenchman
y = −1.46 × 10^+4 + 7.38 x
R^2 = 0.67
p = 0.090
Frog Pond
y = 611 − 0.266 x
R^2 = 0.07
p = 0.672
Governor
y = −2.38 × 10^+3 + 1.22 x
R^2 = 0.74
p = 0.062
Grand
y = −420 + 0.215 x
R^2 = 0.96
p = 0.004
Kearney
y = −1.45 × 10^+3 + 0.736 x
R^2 = 0.94
p = 0.006
Kinsac
y = −893 + 0.452 x
R^2 = 0.78
p = 0.048
Lemont
y = −254 + 0.13 x
R^2 = 0.68
p = 0.087
Little Albro
y = −2.82 × 10^+3 + 1.44 x
R^2 = 0.91
p = 0.013
Long
y = −1.28 × 10^+3 + 0.656 x
R^2 = 0.76
p = 0.055
Loon
y = −1.39 × 10^+3 + 0.717 x
R^2 = 0.72
p = 0.068
Major
y = −61 + 0.0323 x
R^2 = 0.74
p = 0.063
Maynard
y = −747 + 0.402 x
R^2 = 0.47
p = 0.203
Micmac
y = −5.52 × 10^+3 + 2.8 x
R^2 = 0.81
p = 0.037
Miller
y = −228 + 0.121 x
R^2 = 0.85
p = 0.026
Morris
y = −1.55 × 10^+3 + 0.796 x
R^2 = 0.79
p = 0.042
Oathill
y = −1.92 × 10^+3 + 1 x
R^2 = 0.71
p = 0.071
Paper Mill
y = −1.81 × 10^+3 + 0.915 x
R^2 = 0.95
p = 0.005
Parr Governors
y = −176 + 0.0915 x
R^2 = 0.31
p = 0.332
Penhorn
y = −1.29 × 10^+3 + 0.688 x
R^2 = 0.23
p = 0.411
Powder Mill
y = −28.8 + 0.024 x
R^2 < 0.01
p = 0.934
Power Pond
y = −252 + 0.139 x
R^2 = 0.65
p = 0.193
Rocky
y = −1.51 × 10^+3 + 0.774 x
R^2 = 0.98
p = 0.002
Russell
y = −4.45 × 10^+3 + 2.27 x
R^2 = 0.88
p = 0.019
Sandy
y = −981 + 0.5 x
R^2 = 0.82
p = 0.036
Second
y = −829 + 0.422 x
R^2 = 0.83
p = 0.030
Second Chain
y = −348 + 0.202 x
R^2 = 0.06
p = 0.697
Settle
y = −1.4 × 10^+3 + 0.736 x
R^2 = 0.33
p = 0.314
Soldier
y = −456 + 0.233 x
R^2 = 0.92
p = 0.010
Spider
y = −45.5 + 0.0242 x
R^2 = 0.63
p = 0.108
Spruce Hill
y = −49.1 + 0.0263 x
R^2 = 0.66
p = 0.095
Susies Quarry
y = −1.42 × 10^+3 + 0.72 x
R^2 = 0.64
p = 0.104
Third
y = −852 + 0.433 x
R^2 = 0.90
p = 0.015
Thomas
y = −295 + 0.157 x
R^2 = 0.46
p = 0.211
Topsail
y = −356 + 0.181 x
R^2 = 0.78
p = 0.047
Whimsical
y = −1.81 × 10^+3 + 0.958 x
R^2 = 0.18
p = 0.471
William
y = −767 + 0.394 x
R^2 = 0.92
p = 0.009
Williams
y = −241 + 0.135 x
R^2 = 0.80
p = 0.041
0
100
200
300
1980
1991
2000
2011
2021

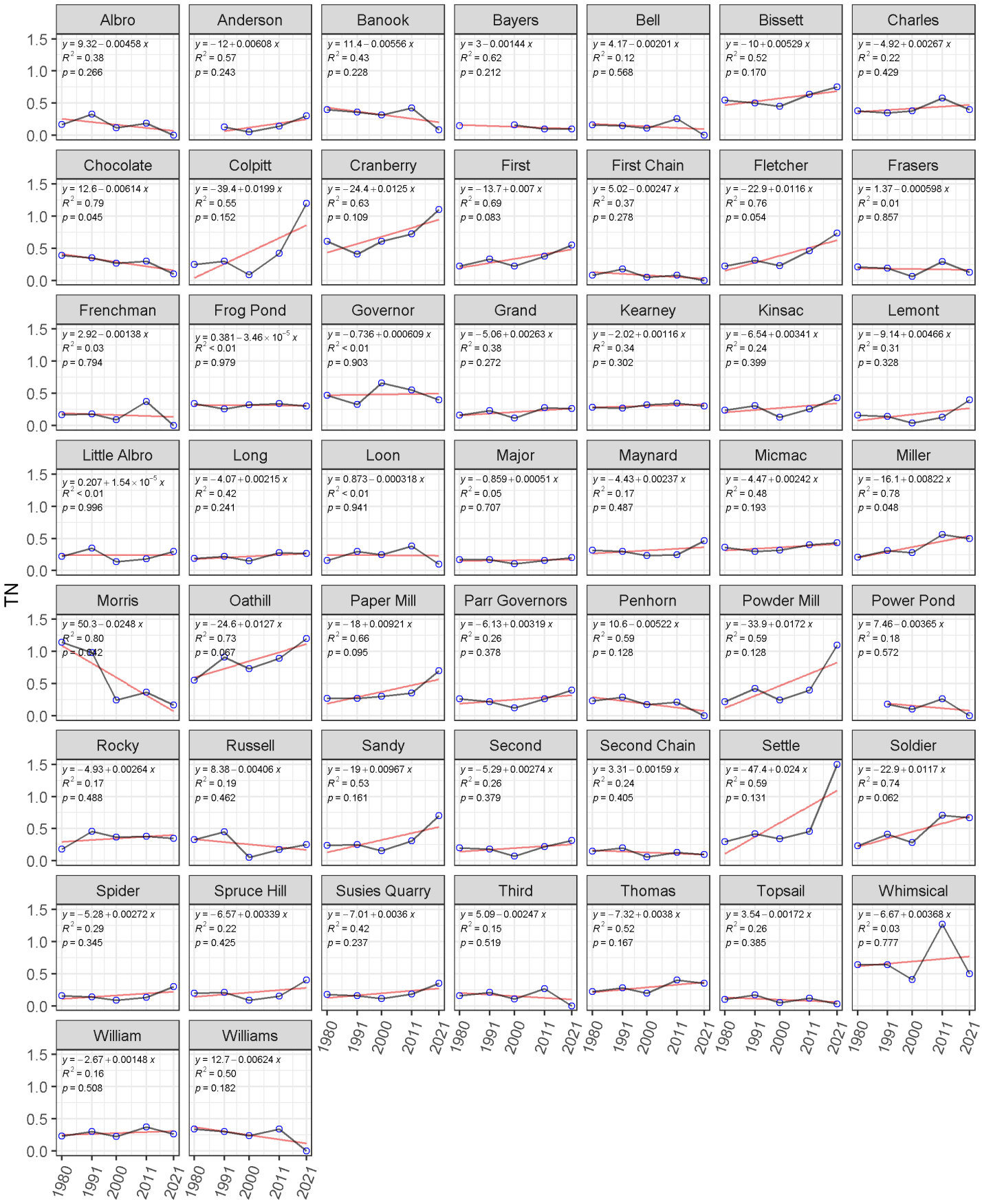
q) Nitrate (mg/L)



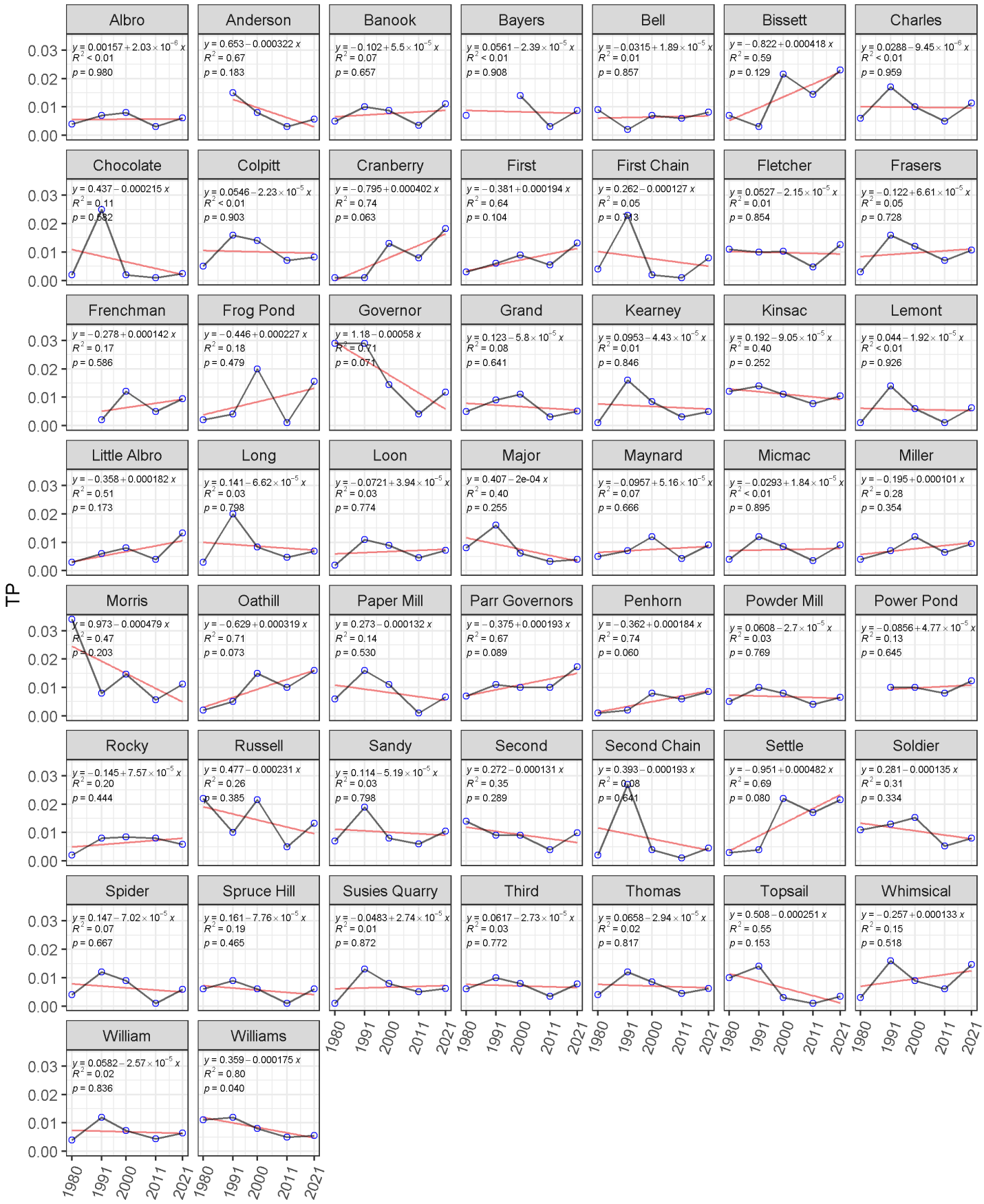
r) Sulphate (mg/L)



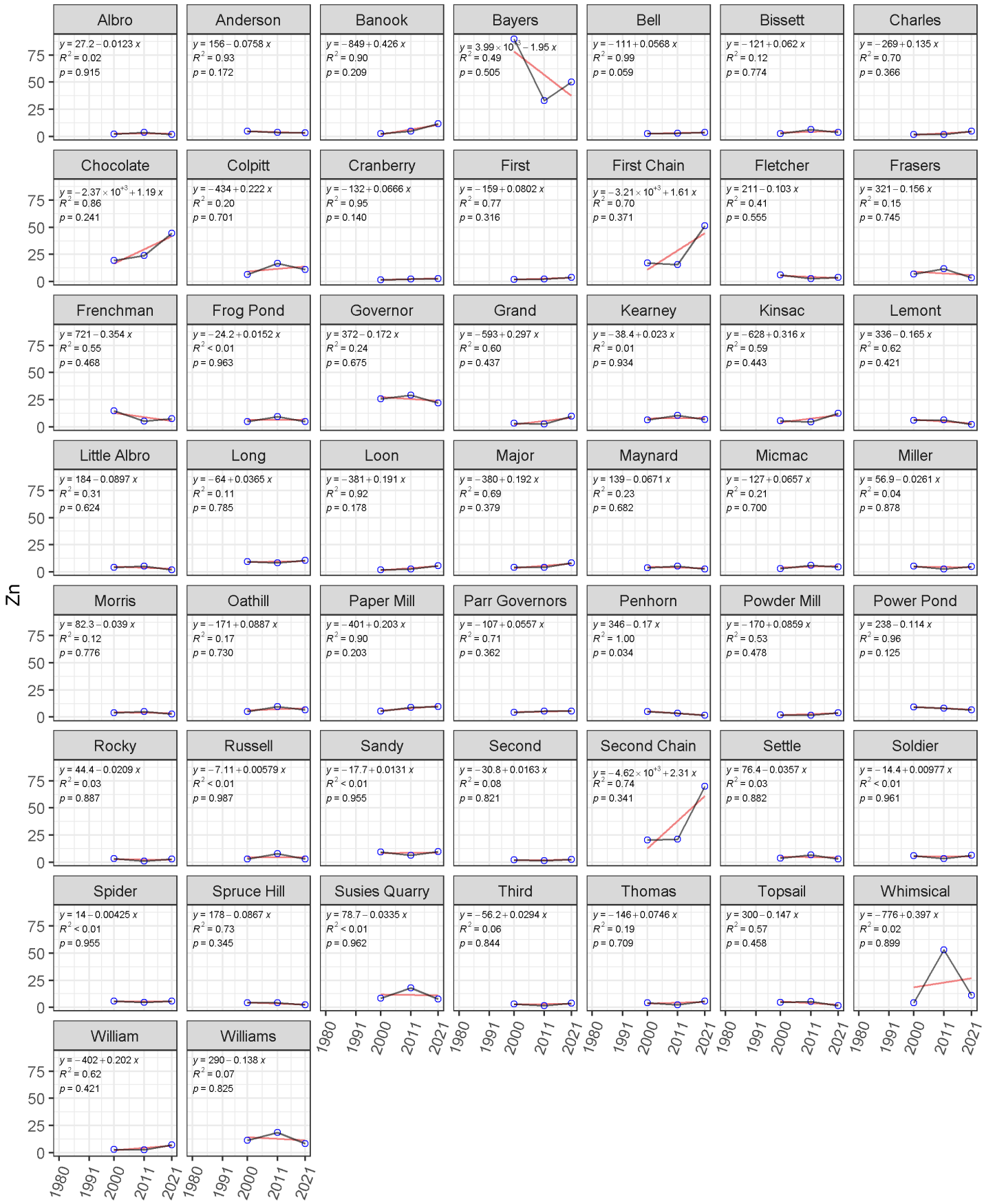
s) TN (mg/L)


TN
Albro
y = 9.32 − 0.00458 x
R² = 0.38
p = 0.266
Anderson
y = −12 + 0.00608 x
R² = 0.57
p = 0.243
Banook
y = 11.4 − 0.00556 x
R² = 0.43
p = 0.228
Bayers
y = 3 − 0.00144 x
R² = 0.62
p = 0.212
Bell
y = 4.17 − 0.00201 x
R² = 0.12
p = 0.568
Bissett
y = −10 + 0.00529 x
R² = 0.52
p = 0.170
Charles
y = −4.92 + 0.00267 x
R² = 0.22
p = 0.429
Chocolate
y = 12.6 − 0.00614 x
R² = 0.79
p = 0.045
Colpitt
y = −39.4 + 0.0199 x
R² = 0.55
p = 0.152
Cranberry
y = −24.4 + 0.0125 x
R² = 0.63
p = 0.109
First
y = −13.7 + 0.007 x
R² = 0.69
p = 0.083
First Chain
y = 5.02 − 0.00247 x
R² = 0.37
p = 0.278
Fletcher
y = −22.9 + 0.0116 x
R² = 0.76
p = 0.054
Frasers
y = 1.37 − 0.000598 x
R² = 0.01
p = 0.857
Frenchman
y = 2.92 − 0.00138 x
R² = 0.03
p = 0.794
Frog Pond
y = 0.381 − 3.46 × 10⁻⁵ x
R² < 0.01
p = 0.979
Governor
y = −0.736 + 0.000609 x
R² < 0.01
p = 0.903
Grand
y = −5.06 + 0.00263 x
R² = 0.38
p = 0.272
Kearney
y = −2.02 + 0.00116 x
R² = 0.34
p = 0.302
Kinsac
y = −6.54 + 0.00341 x
R² = 0.24
p = 0.399
Lemont
y = −9.14 + 0.00466 x
R² = 0.31
p = 0.328
Little Albro
y = 0.207 + 1.54 × 10⁻⁵ x
R² < 0.01
p = 0.996
Long
y = −4.07 + 0.00215 x
R² = 0.42
p = 0.241
Loon
y = 0.873 − 0.000318 x
R² < 0.01
p = 0.941
Major
y = −0.859 + 0.00051 x
R² = 0.05
p = 0.707
Maynard
y = −4.43 + 0.00237 x
R² = 0.17
p = 0.487
Micmac
y = −4.47 + 0.00242 x
R² = 0.48
p = 0.193
Miller
y = −16.1 + 0.00822 x
R² = 0.78
p = 0.048
Morris
y = 50.3 − 0.0248 x
R² = 0.80
p = 0.042
Oathill
y = −24.6 + 0.0127 x
R² = 0.73
p = 0.067
Paper Mill
y = −18 + 0.00921 x
R² = 0.66
p = 0.095
Parr Governors
y = −6.13 + 0.00319 x
R² = 0.26
p = 0.378
Penhorn
y = 10.6 − 0.00522 x
R² = 0.59
p = 0.128
Powder Mill
y = −33.9 + 0.0172 x
R² = 0.59
p = 0.128
Power Pond
y = 7.46 − 0.00365 x
R² = 0.18
p = 0.572
Rocky
y = −4.93 + 0.00264 x
R² = 0.17
p = 0.488
Russell
y = 8.38 − 0.00406 x
R² = 0.19
p = 0.462
Sandy
y = −19 + 0.00967 x
R² = 0.53
p = 0.161
Second
y = −5.29 + 0.00274 x
R² = 0.26
p = 0.379
Second Chain
y = 3.31 − 0.00159 x
R² = 0.24
p = 0.405
Settle
y = −47.4 + 0.024 x
R² = 0.59
p = 0.131
Soldier
y = −22.9 + 0.0117 x
R² = 0.74
p = 0.062
Spider
y = −5.28 + 0.00272 x
R² = 0.29
p = 0.345
Spruce Hill
y = −6.57 + 0.00339 x
R² = 0.22
p = 0.425
Susies Quarry
y = −7.01 + 0.0036 x
R² = 0.42
p = 0.237
Third
y = 5.09 − 0.00247 x
R² = 0.15
p = 0.519
Thomas
y = −7.32 + 0.0038 x
R² = 0.52
p = 0.167
Topsail
y = 3.54 − 0.00172 x
R² = 0.26
p = 0.385
Whimsical
y = −6.67 + 0.00368 x
R² = 0.03
p = 0.777
William
y = −2.67 + 0.00148 x
R² = 0.16
p = 0.508
Williams
y = 12.7 − 0.00624 x
R² = 0.50
p = 0.182
0.0
0.5
1.0
1.5
1980
1991
2000
2011
2021

t) TP (mg/L)


TP
Albro
Anderson
Banook
Bayers
Bell
Bissett
Charles
Chocolate
Colpitt
Cranberry
First
First Chain
Fletcher
Frasers
Frenchman
Frog Pond
Governor
Grand
Kearney
Kinsac
Lemont
Little Albro
Long
Loon
Major
Maynard
Micmac
Miller
Morris
Oathill
Paper Mill
Parr Governors
Penhorn
Powder Mill
Power Pond
Rocky
Russell
Sandy
Second
Second Chain
Settle
Soldier
Spider
Spruce Hill
Susies Quarry
Third
Thomas
Topsail
Whimsical
William
Williams
0.00
0.01
0.02
0.03
1980
1991
2000
2011
2021

u) Zinc (µg/L)


Albro
y = 27.2 − 0.0123 x
R² = 0.02
p = 0.915
Anderson
y = 156 − 0.0758 x
R² = 0.93
p = 0.172
Banook
y = −849 + 0.426 x
R² = 0.90
p = 0.209
Bayers
y = 3.99 × 10^+3 − 1.95 x
R² = 0.49
p = 0.505
Bell
y = −111 + 0.0568 x
R² = 0.99
p = 0.059
Bissett
y = −121 + 0.062 x
R² = 0.12
p = 0.774
Charles
y = −269 + 0.135 x
R² = 0.70
p = 0.366
Chocolate
y = −2.37 × 10^+3 + 1.19 x
R² = 0.86
p = 0.241
Colpitt
y = −434 + 0.222 x
R² = 0.20
p = 0.701
Cranberry
y = −132 + 0.0666 x
R² = 0.95
p = 0.140
First
y = −159 + 0.0802 x
R² = 0.77
p = 0.316
First Chain
y = −3.21 × 10^+3 + 1.61 x
R² = 0.70
p = 0.371
Fletcher
y = 211 − 0.103 x
R² = 0.41
p = 0.555
Frasers
y = 321 − 0.156 x
R² = 0.15
p = 0.745
Frenchman
y = 721 − 0.354 x
R² = 0.55
p = 0.468
Frog Pond
y = −24.2 + 0.0152 x
R² < 0.01
p = 0.963
Governor
y = 372 − 0.172 x
R² = 0.24
p = 0.675
Grand
y = −593 + 0.297 x
R² = 0.60
p = 0.437
Kearney
y = −38.4 + 0.023 x
R² = 0.01
p = 0.934
Kinsac
y = −628 + 0.316 x
R² = 0.59
p = 0.443
Lemont
y = 336 − 0.165 x
R² = 0.62
p = 0.421
Little Albro
y = 184 − 0.0897 x
R² = 0.31
p = 0.624
Long
y = −64 + 0.0365 x
R² = 0.11
p = 0.785
Loon
y = −381 + 0.191 x
R² = 0.92
p = 0.178
Major
y = −380 + 0.192 x
R² = 0.69
p = 0.379
Maynard
y = 139 − 0.0671 x
R² = 0.23
p = 0.682
Micmac
y = −127 + 0.0657 x
R² = 0.21
p = 0.700
Miller
y = 56.9 − 0.0261 x
R² = 0.04
p = 0.878
Morris
y = 82.3 − 0.039 x
R² = 0.12
p = 0.776
Oathill
y = −171 + 0.0887 x
R² = 0.17
p = 0.730
Paper Mill
y = −401 + 0.203 x
R² = 0.90
p = 0.203
Parr Governors
y = −107 + 0.0557 x
R² = 0.71
p = 0.362
Penhorn
y = 346 − 0.17 x
R² = 1.00
p = 0.034
Powder Mill
y = −170 + 0.0859 x
R² = 0.53
p = 0.478
Power Pond
y = 238 − 0.114 x
R² = 0.96
p = 0.125
Rocky
y = 44.4 − 0.0209 x
R² = 0.03
p = 0.887
Russell
y = −7.11 + 0.00579 x
R² < 0.01
p = 0.987
Sandy
y = −17.7 + 0.0131 x
R² < 0.01
p = 0.955
Second
y = −30.8 + 0.0163 x
R² = 0.08
p = 0.821
Second Chain
y = −4.62 × 10^+3 + 2.31 x
R² = 0.74
p = 0.341
Settle
y = 76.4 − 0.0357 x
R² = 0.03
p = 0.882
Soldier
y = −14.4 + 0.00977 x
R² < 0.01
p = 0.961
Spider
y = 14 − 0.00425 x
R² < 0.01
p = 0.955
Spruce Hill
y = 178 − 0.0867 x
R² = 0.73
p = 0.345
Susies Quarry
y = 78.7 − 0.0335 x
R² < 0.01
p = 0.962
Third
y = −56.2 + 0.0294 x
R² = 0.06
p = 0.844
Thomas
y = −146 + 0.0746 x
R² = 0.19
p = 0.709
Topsail
y = 300 − 0.147 x
R² = 0.57
p = 0.458
Whimsical
y = −776 + 0.397 x
R² = 0.02
p = 0.899
William
y = −402 + 0.202 x
R² = 0.62
p = 0.421
Williams
y = 290 − 0.138 x
R² = 0.07
p = 0.825
Zn
0
25
50
75
1980
1991
2000
2011
2021