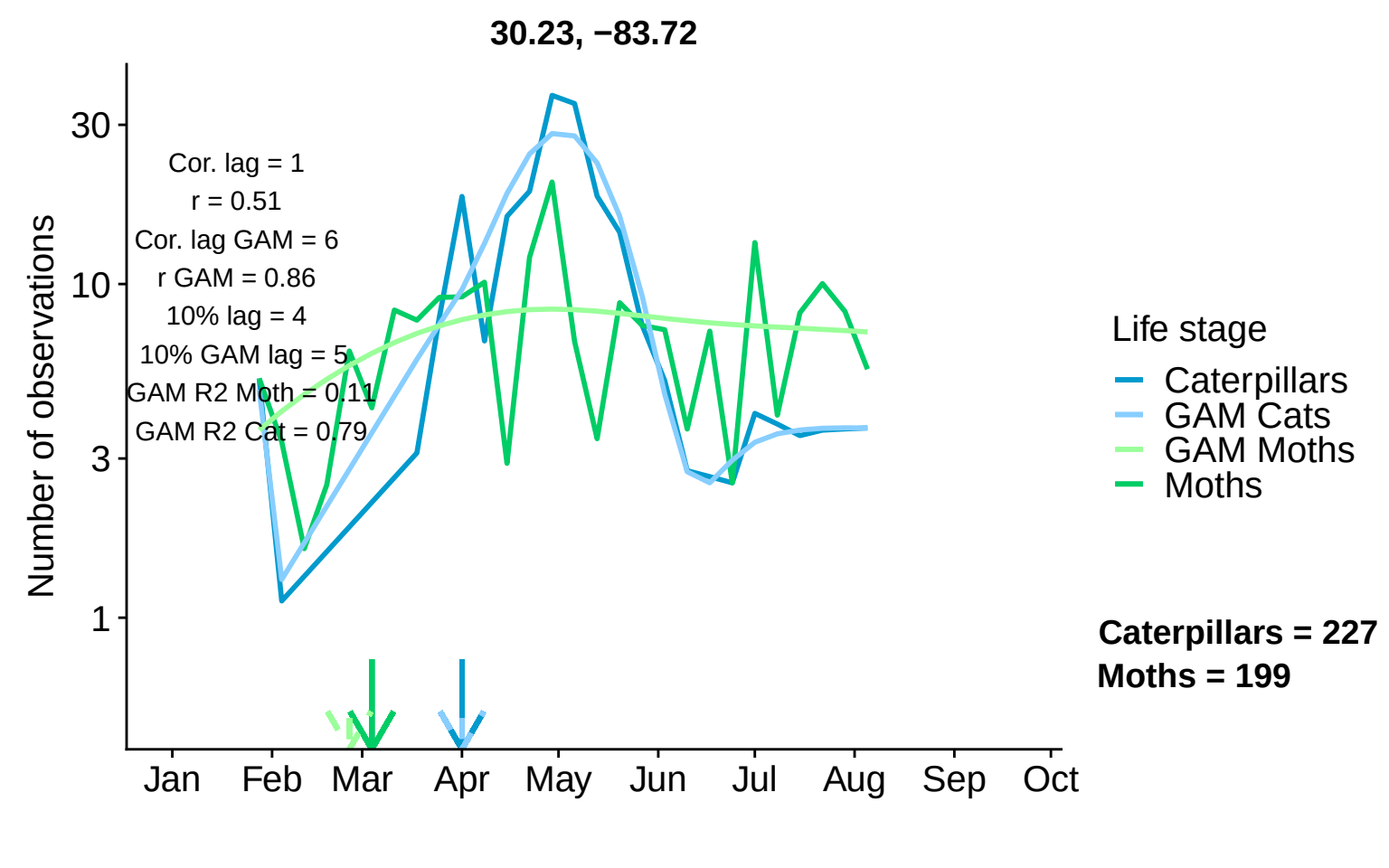
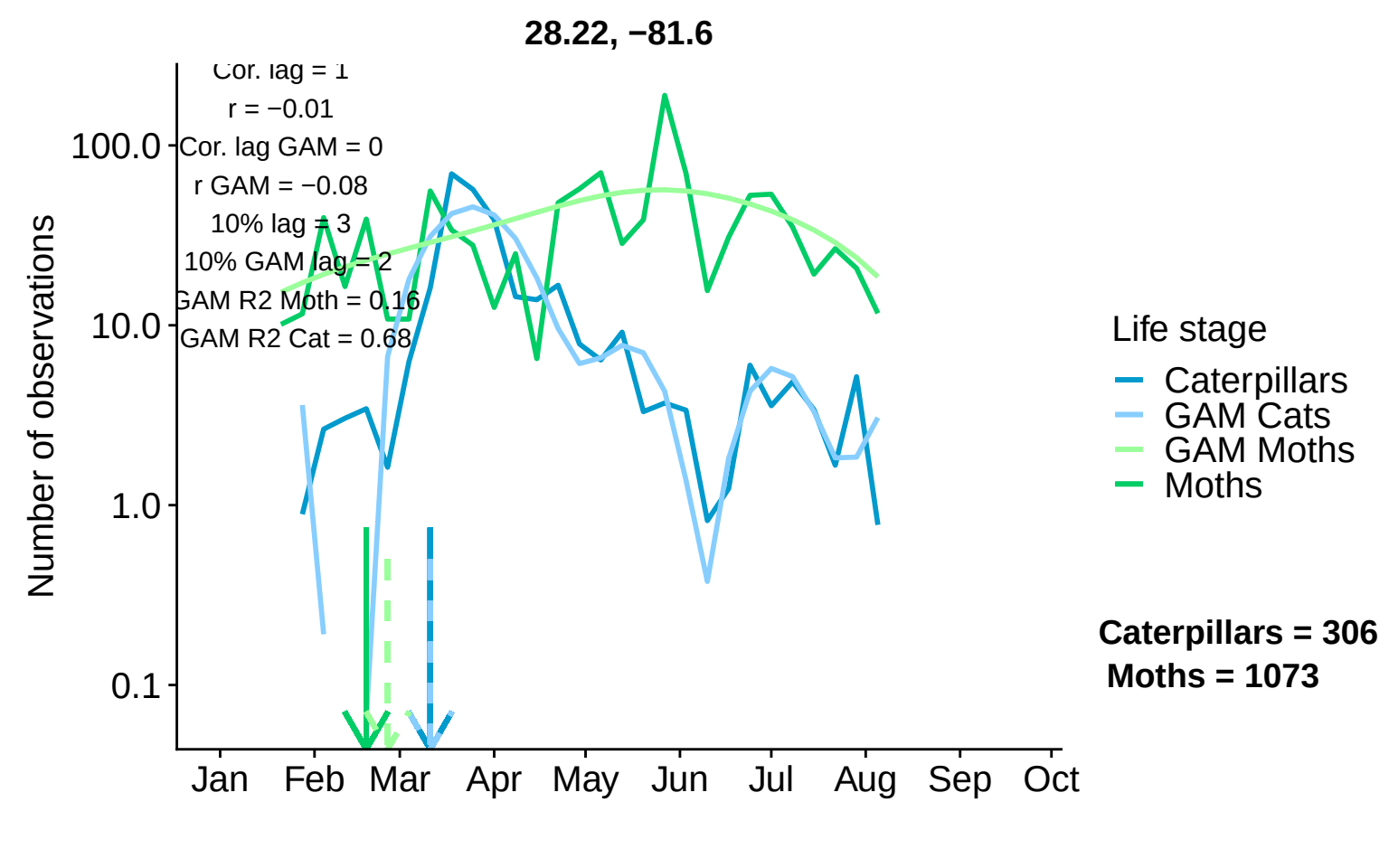
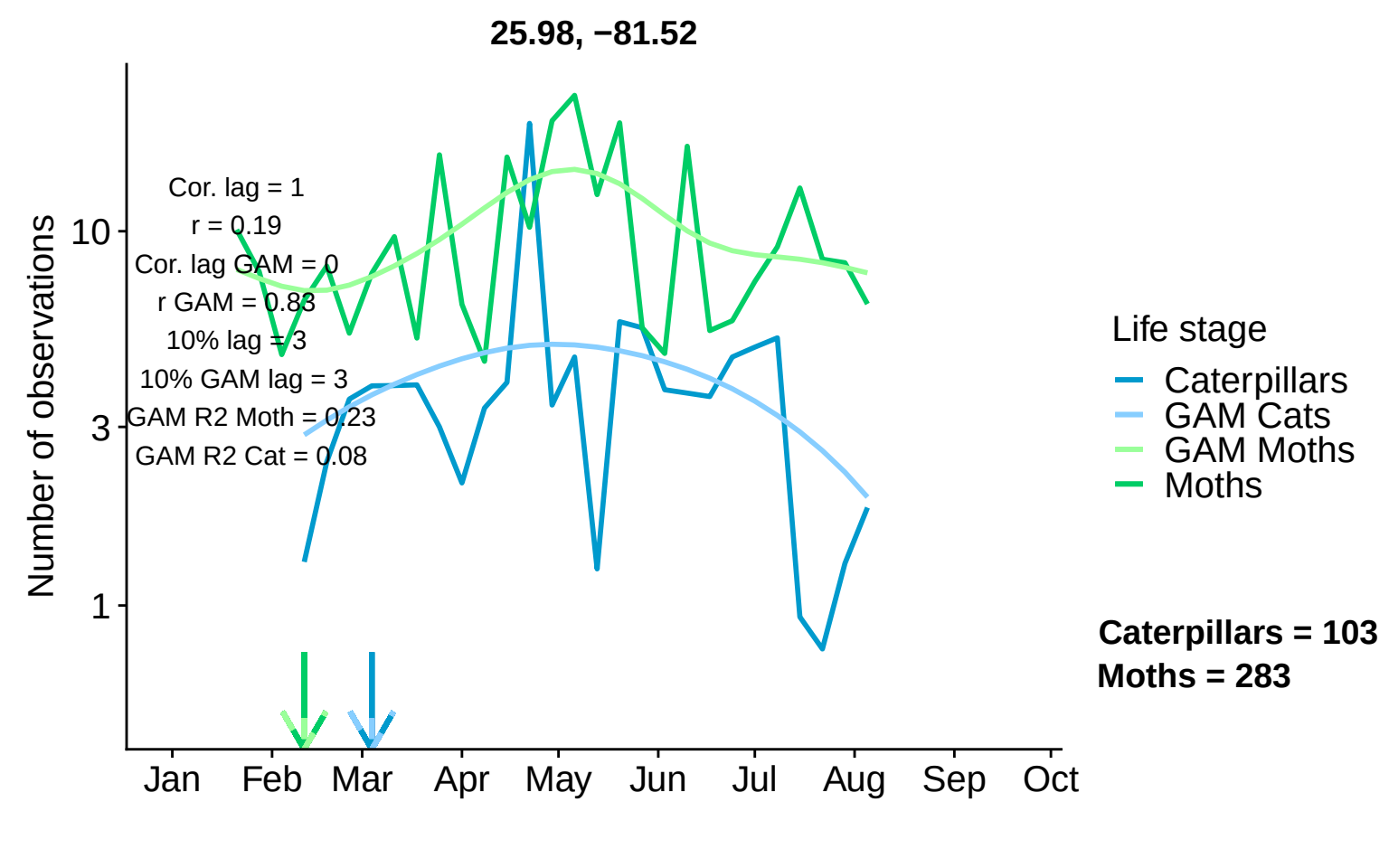
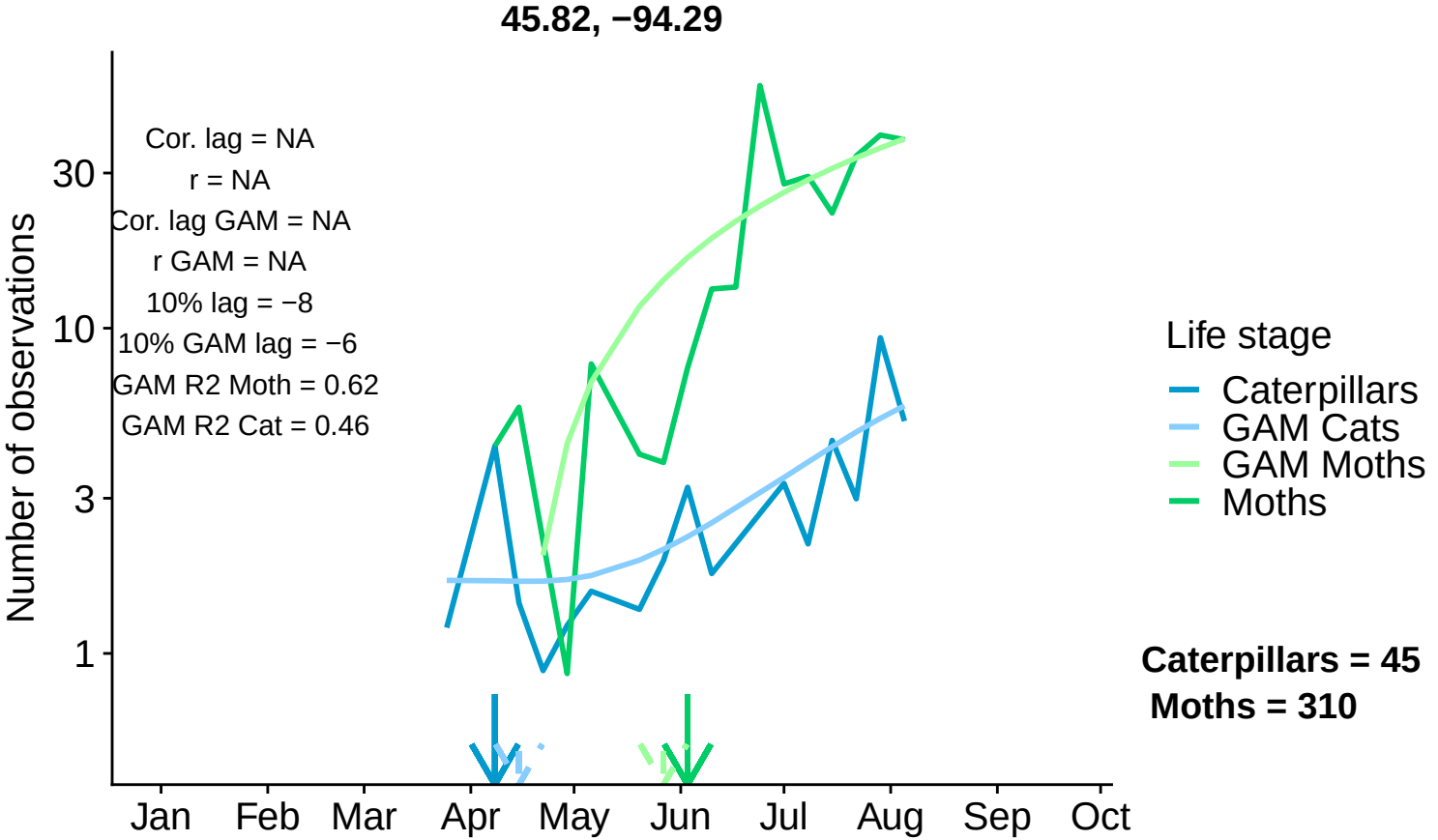
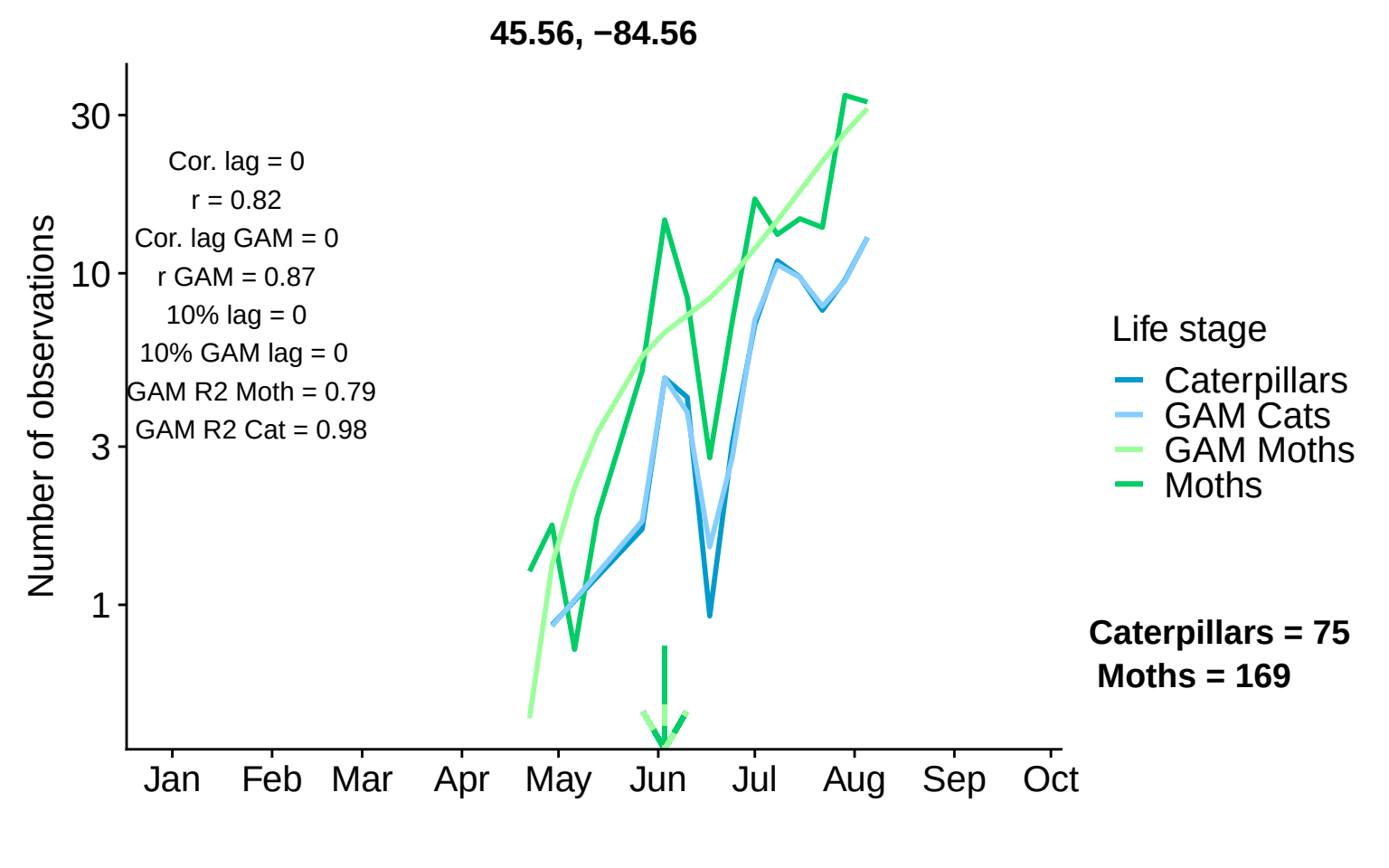
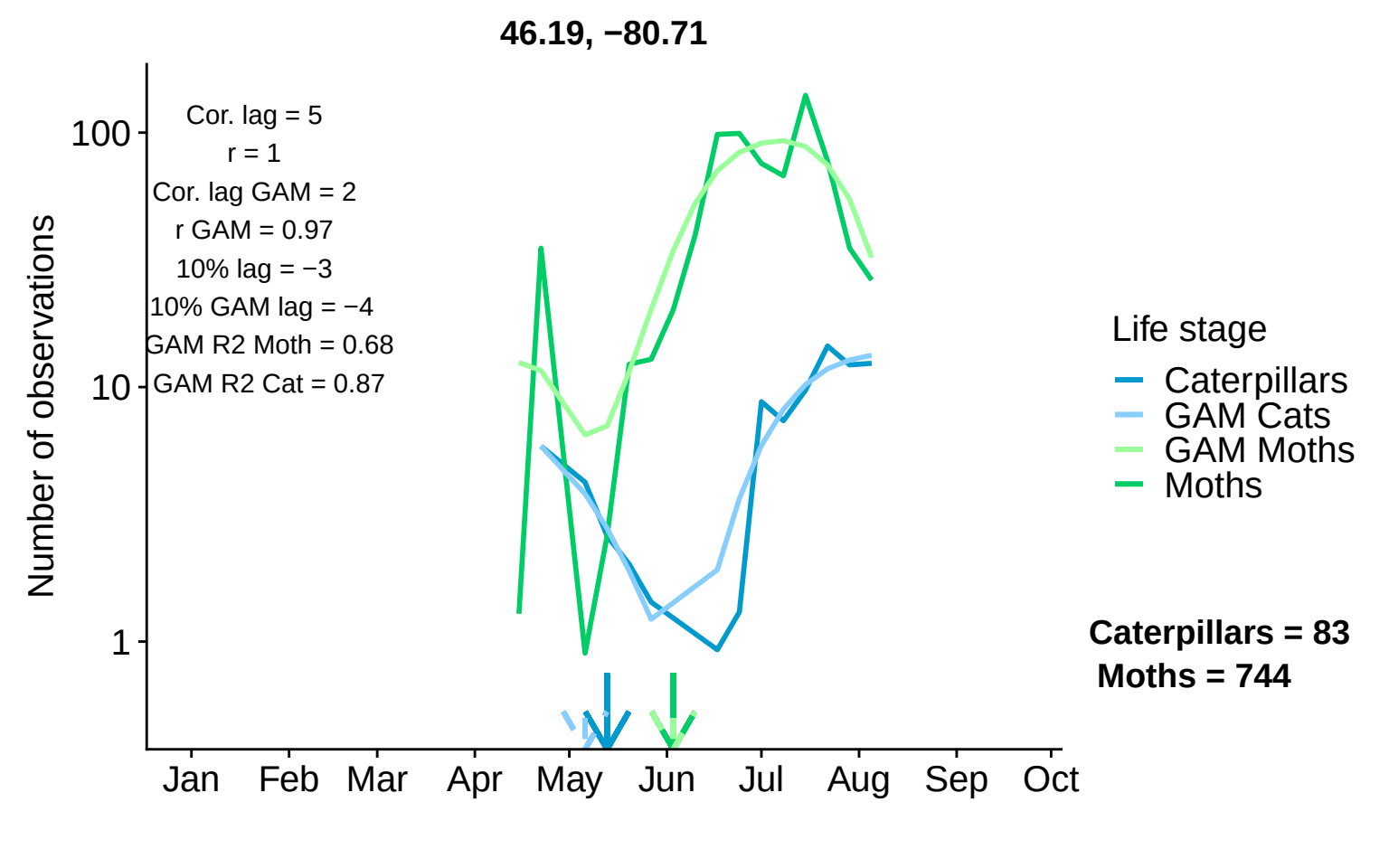

30.23, −83.72
Number of observations
30
10
3
1
Cor. lag = 1
r = 0.51
Cor. lag GAM = 6
r GAM = 0.86
10% lag = 4
10% GAM lag = 5
GAM R2 Moth = 0.11
GAM R2 Cat = 0.79
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 227
Moths = 199

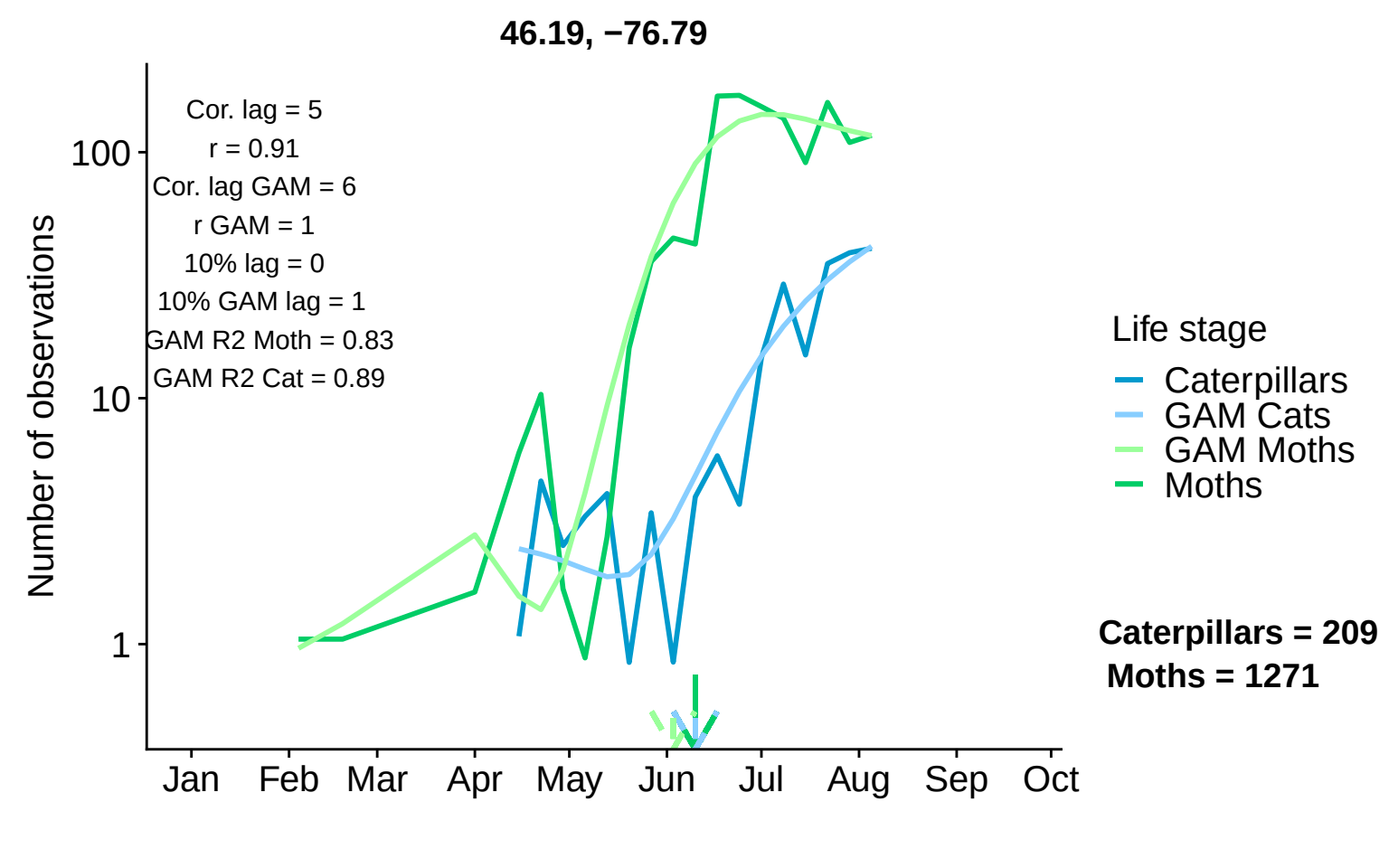

28.22, −81.6
Cor. lag = 1
r = −0.01
Cor. lag GAM = 0
r GAM = −0.08
10% lag = 3
10% GAM lag = 2
GAM R2 Moth = 0.16
GAM R2 Cat = 0.68
100.0
10.0
1.0
0.1
Number of observations
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 306
Moths = 1073

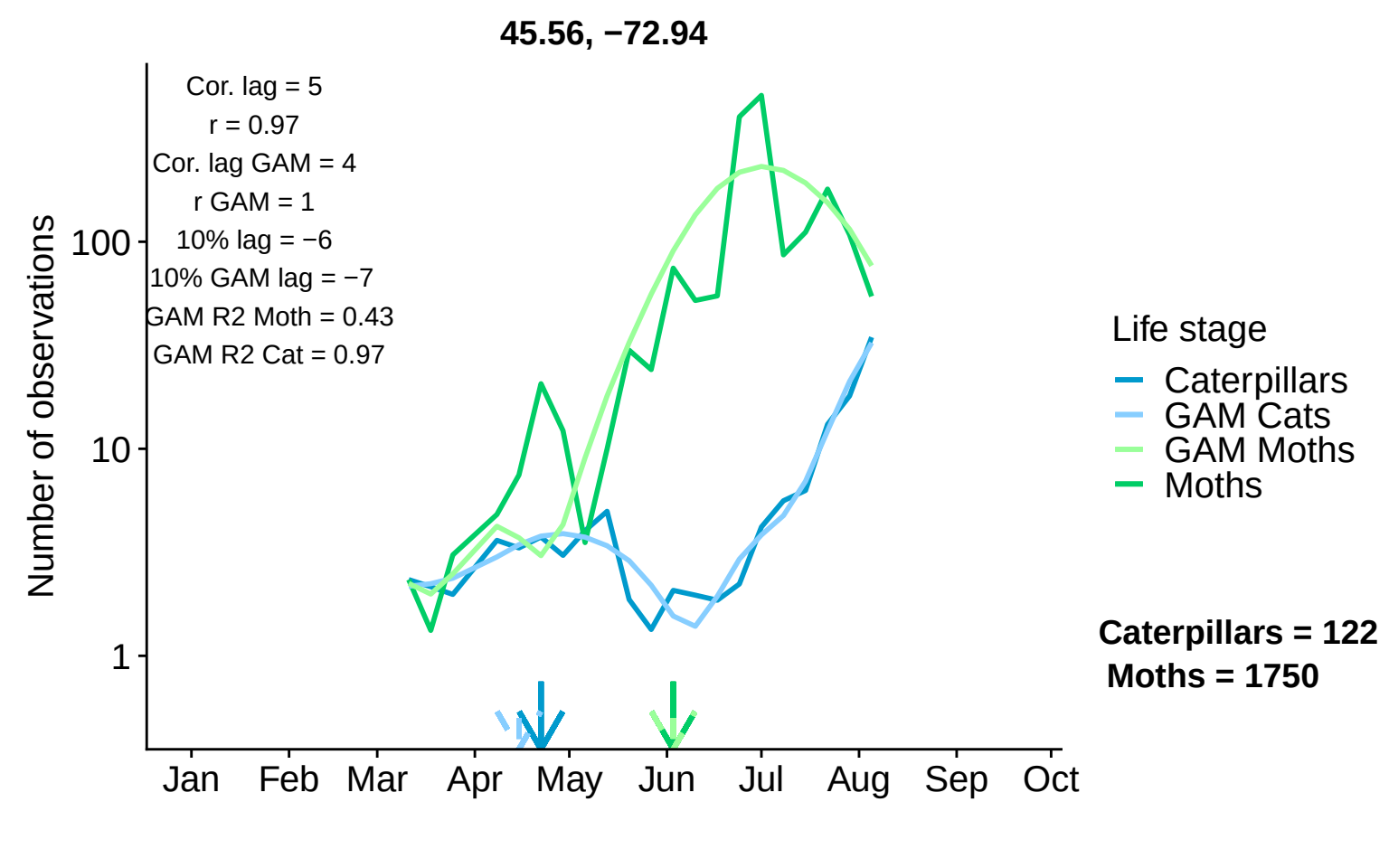

25.98, −81.52
Number of observations
10
3
1
Cor. lag = 1
r = 0.19
Cor. lag GAM = 0
r GAM = 0.83
10% lag = 3
10% GAM lag = 3
GAM R2 Moth = 0.23
GAM R2 Cat = 0.08
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 103
Moths = 283

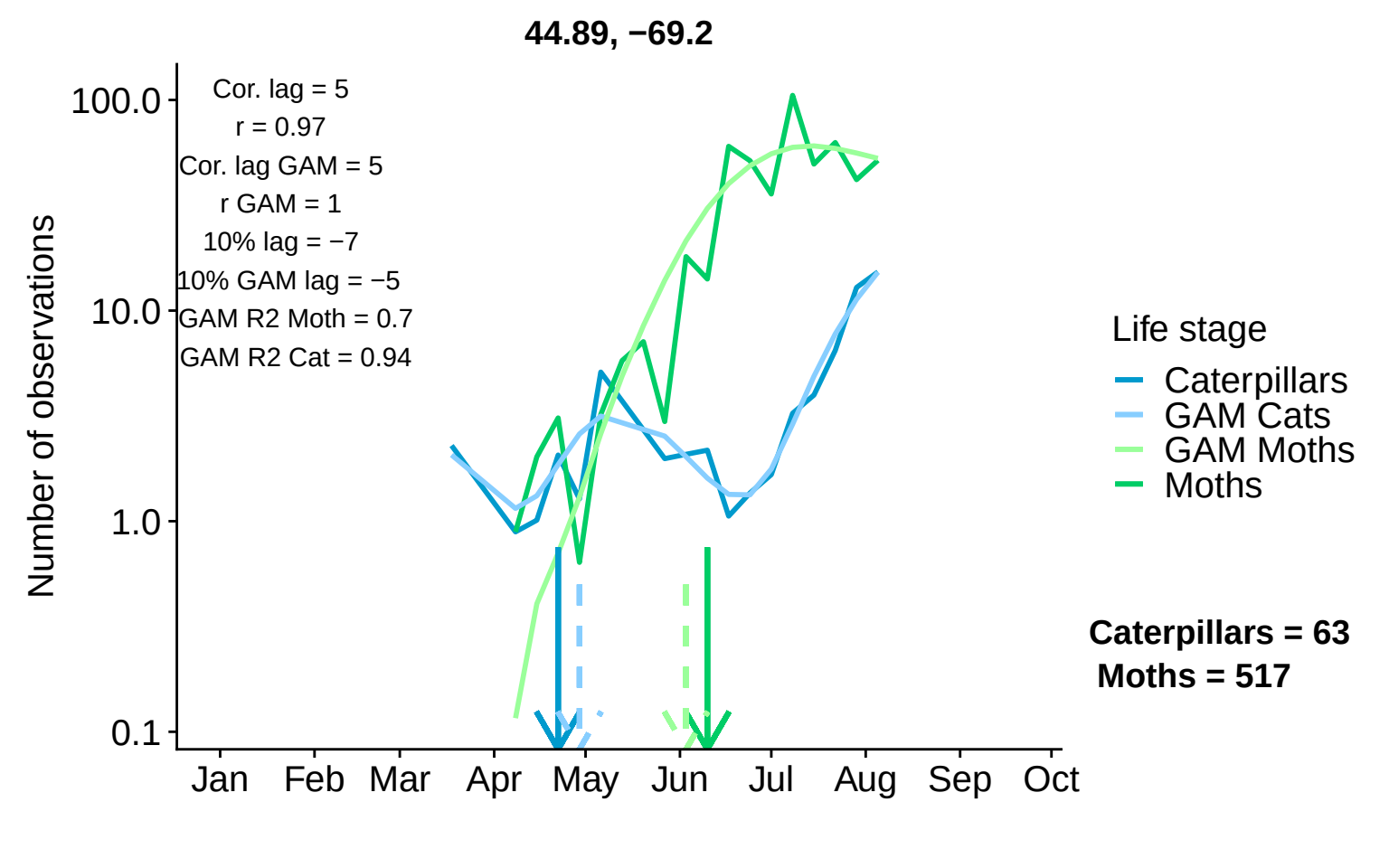

45.82, −94.29
Cor. lag = NA
r = NA
Cor. lag GAM = NA
r GAM = NA
10% lag = −8
10% GAM lag = −6
GAM R2 Moth = 0.62
GAM R2 Cat = 0.46
Number of observations
30
10
3
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 45
Moths = 310

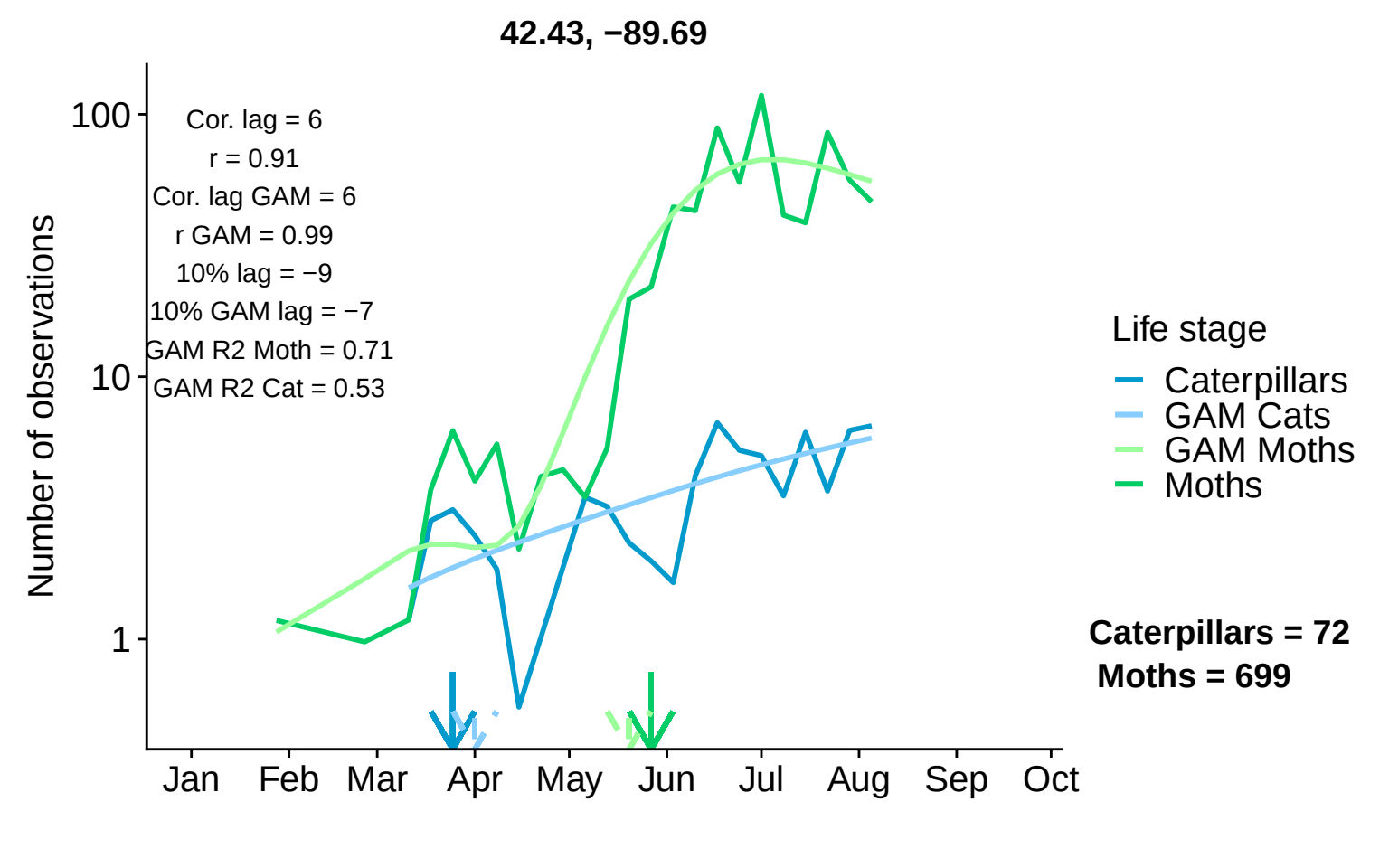

45.56, −84.56
Number of observations
30
10
3
1
Cor. lag = 0
r = 0.82
Cor. lag GAM = 0
r GAM = 0.87
10% lag = 0
10% GAM lag = 0
GAM R2 Moth = 0.79
GAM R2 Cat = 0.98
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 75
Moths = 169

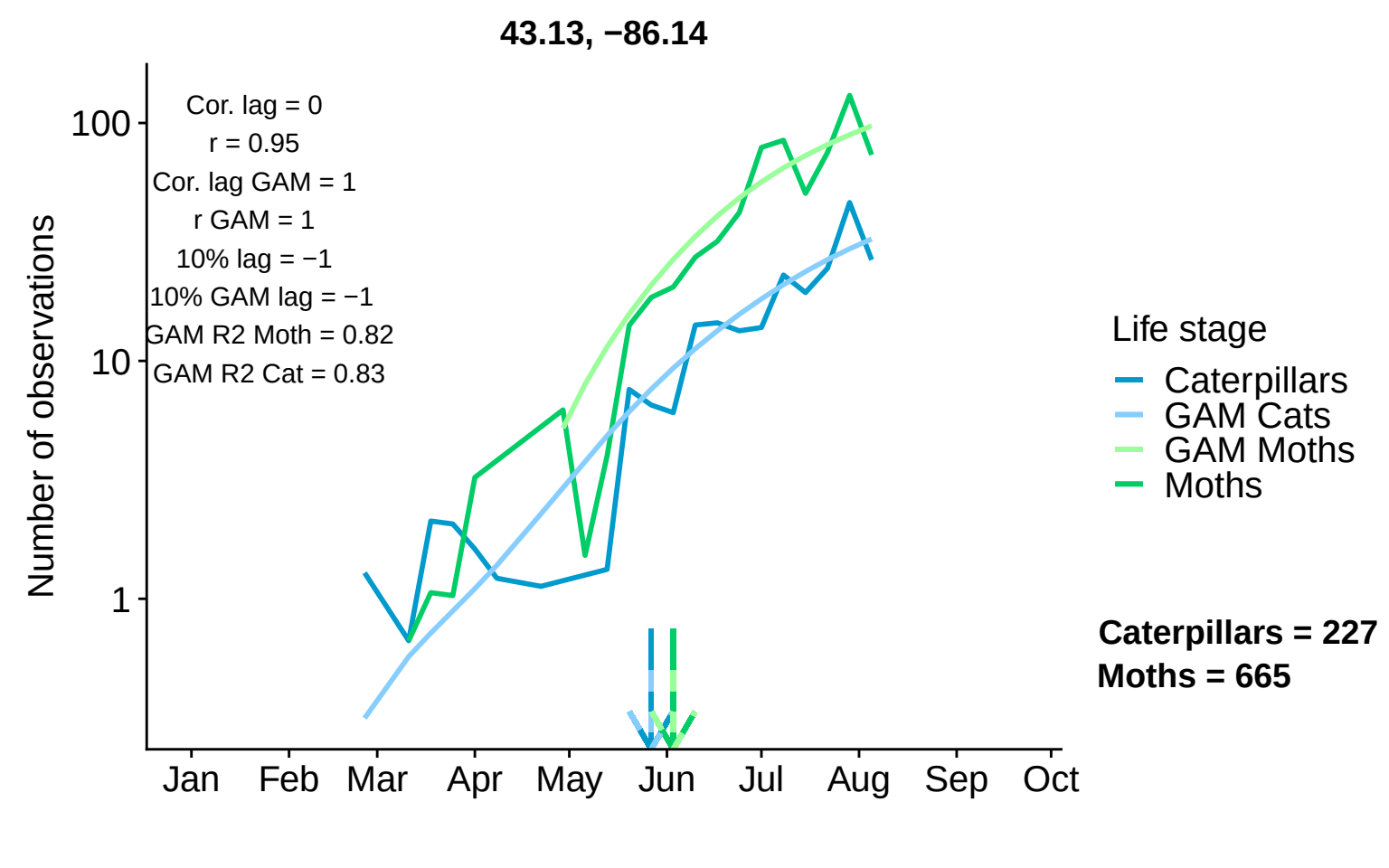

46.19, −80.71
Cor. lag = 5
r = 1
Cor. lag GAM = 2
r GAM = 0.97
10% lag = −3
10% GAM lag = −4
GAM R2 Moth = 0.68
GAM R2 Cat = 0.87
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 83
Moths = 744

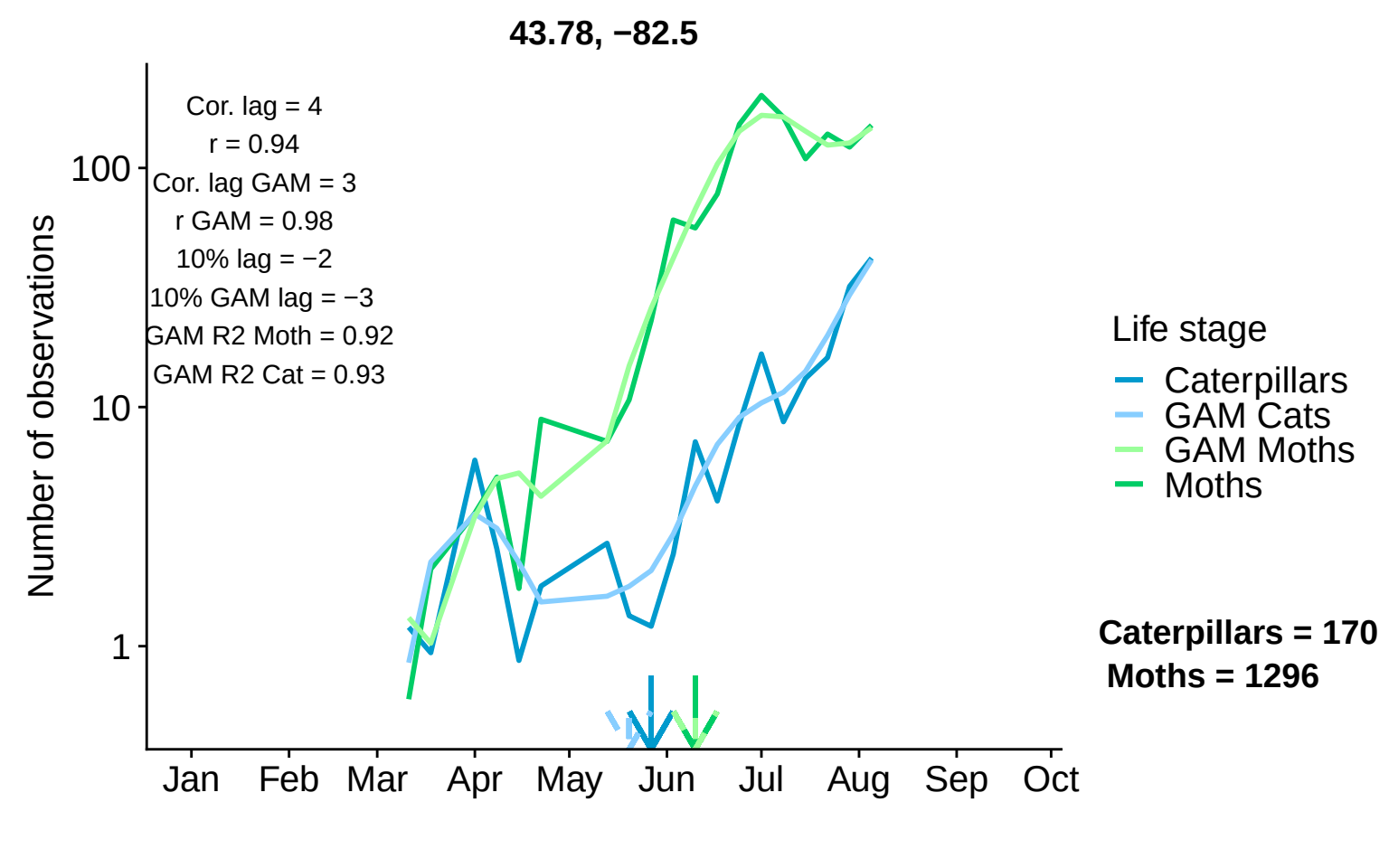

46.19, −76.79
Cor. lag = 5
r = 0.91
Cor. lag GAM = 6
r GAM = 1
10% lag = 0
10% GAM lag = 1
GAM R2 Moth = 0.83
GAM R2 Cat = 0.89
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 209
Moths = 1271

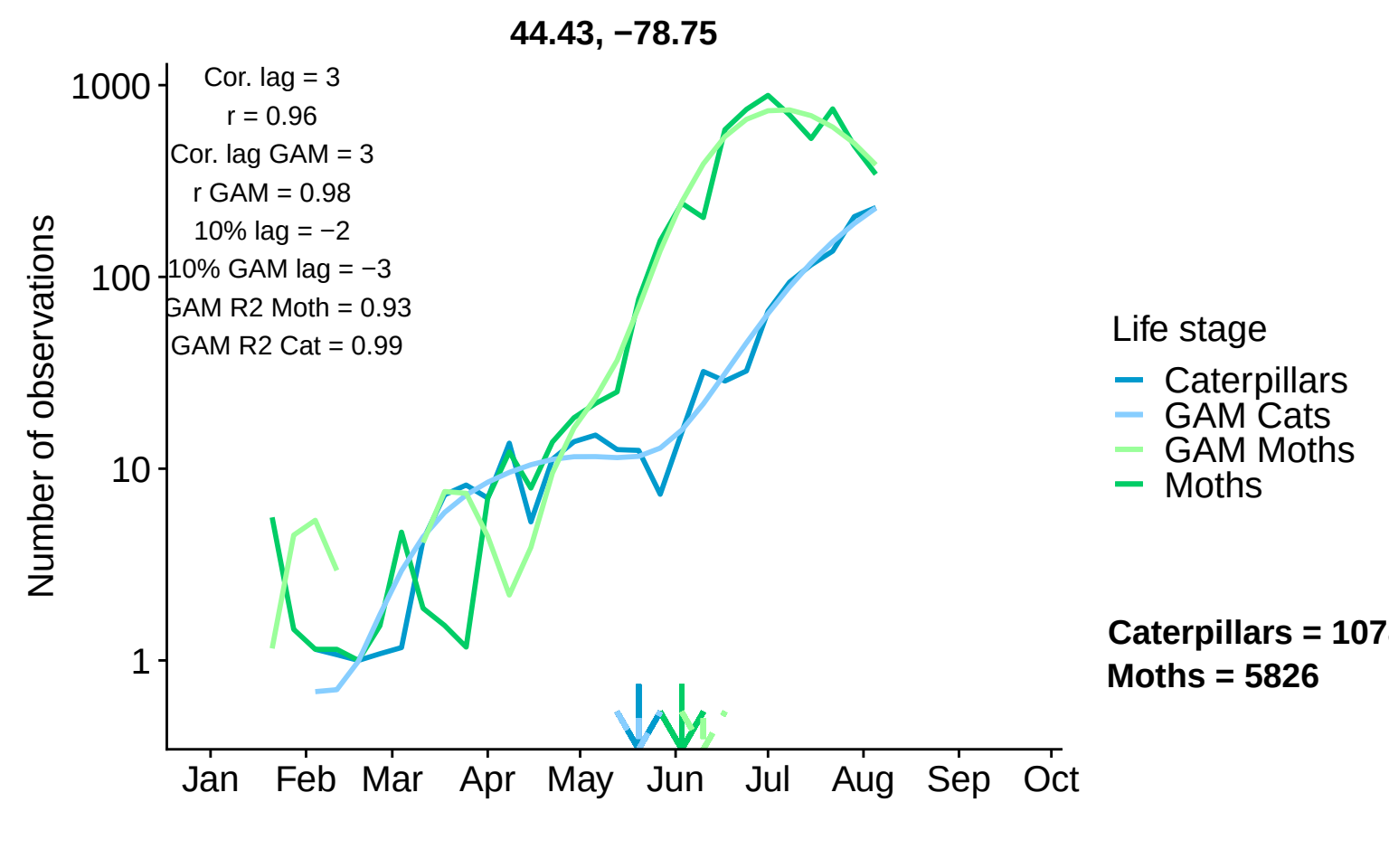

45.56, −72.94
Cor. lag = 5
r = 0.97
Cor. lag GAM = 4
r GAM = 1
10% lag = −6
10% GAM lag = −7
GAM R2 Moth = 0.43
GAM R2 Cat = 0.97
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 122
Moths = 1750

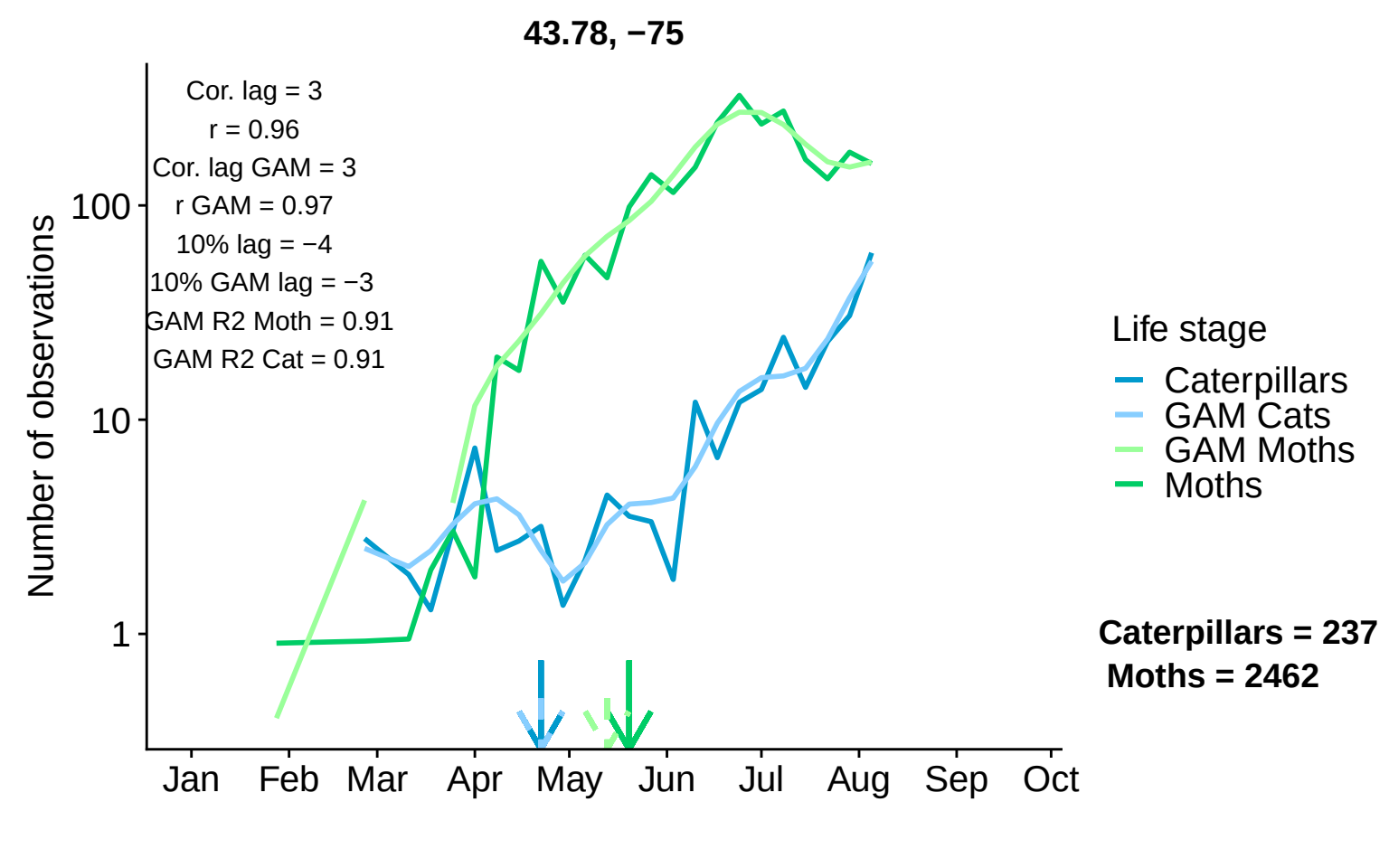

44.89, −69.2
Cor. lag = 5
r = 0.97
Cor. lag GAM = 5
r GAM = 1
10% lag = −7
10% GAM lag = −5
GAM R2 Moth = 0.7
GAM R2 Cat = 0.94
Number of observations
100.0
10.0
1.0
0.1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 63
Moths = 517

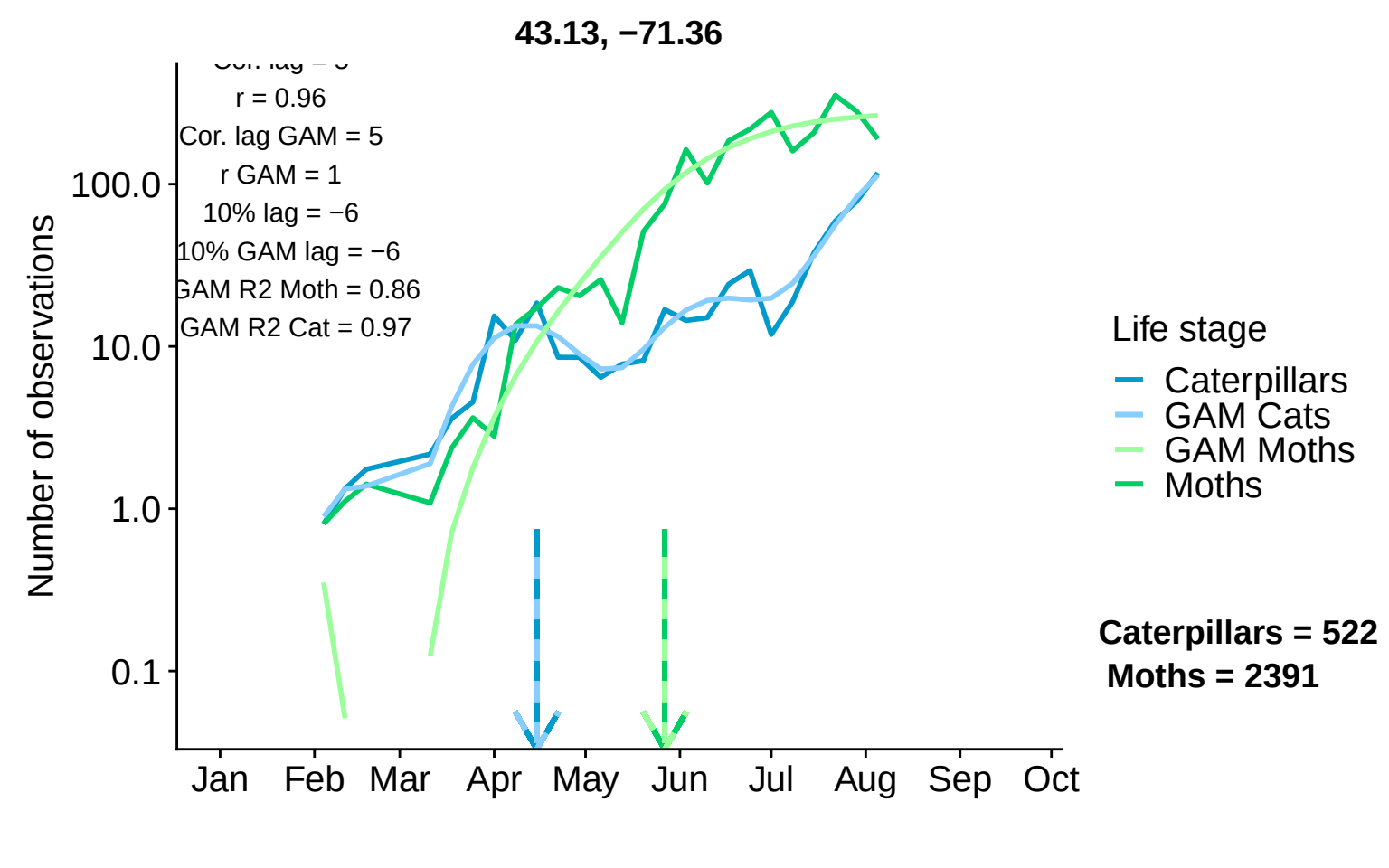

42.43, −89.69
Cor. lag = 6
r = 0.91
Cor. lag GAM = 6
r GAM = 0.99
10% lag = −9
10% GAM lag = −7
GAM R2 Moth = 0.71
GAM R2 Cat = 0.53
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 72
Moths = 699

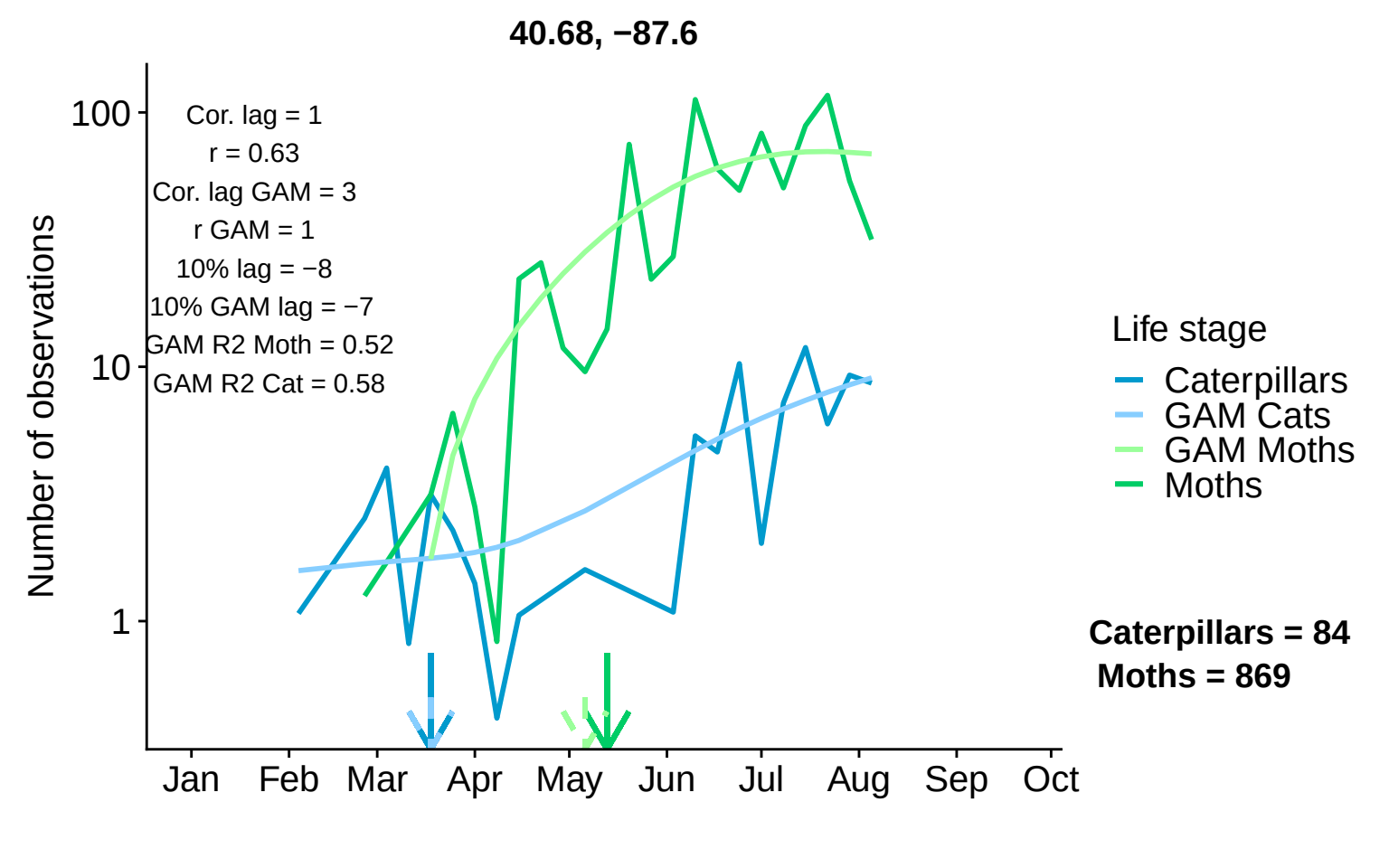

43.13, −86.14
Cor. lag = 0
r = 0.95
Cor. lag GAM = 1
r GAM = 1
10% lag = −1
10% GAM lag = −1
GAM R2 Moth = 0.82
GAM R2 Cat = 0.83
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 227
Moths = 665

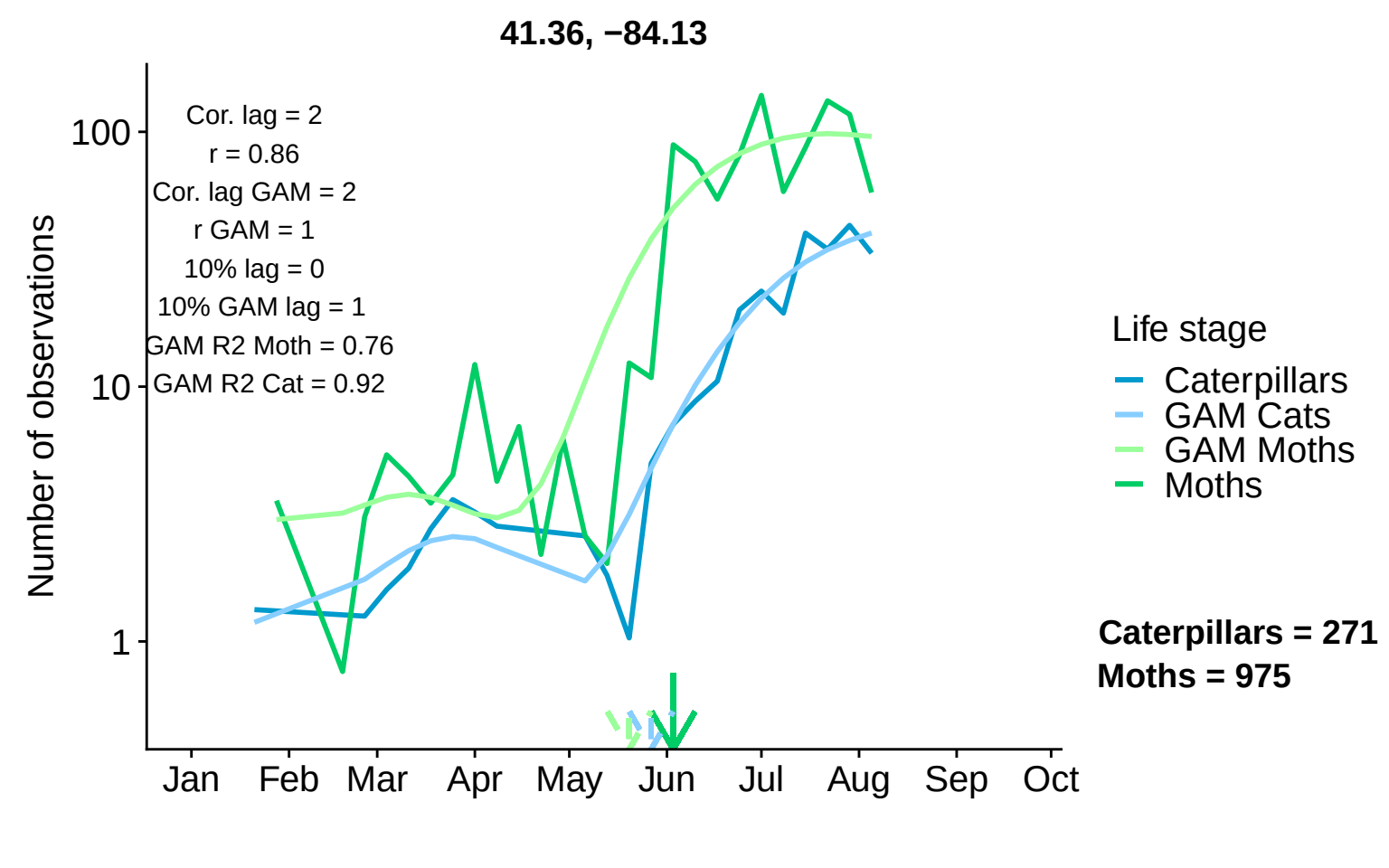

43.78, −82.5
Cor. lag = 4
r = 0.94
Cor. lag GAM = 3
r GAM = 0.98
10% lag = −2
10% GAM lag = −3
GAM R2 Moth = 0.92
GAM R2 Cat = 0.93
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 170
Moths = 1296

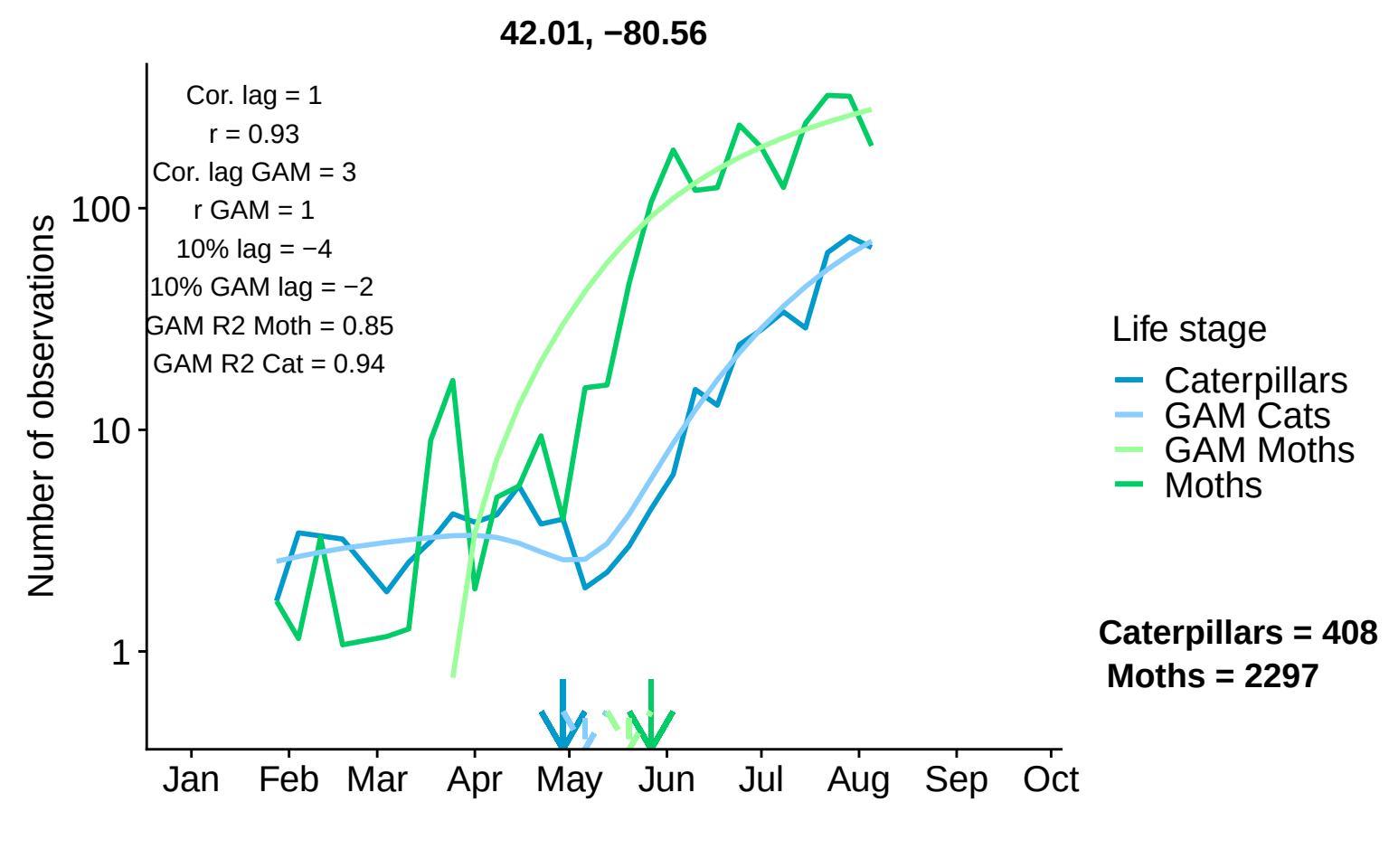

44.43, −78.75
Cor. lag = 3
r = 0.96
Cor. lag GAM = 3
r GAM = 0.98
10% lag = −2
10% GAM lag = −3
GAM R2 Moth = 0.93
GAM R2 Cat = 0.99
Number of observations
1000
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 107
Moths = 5826

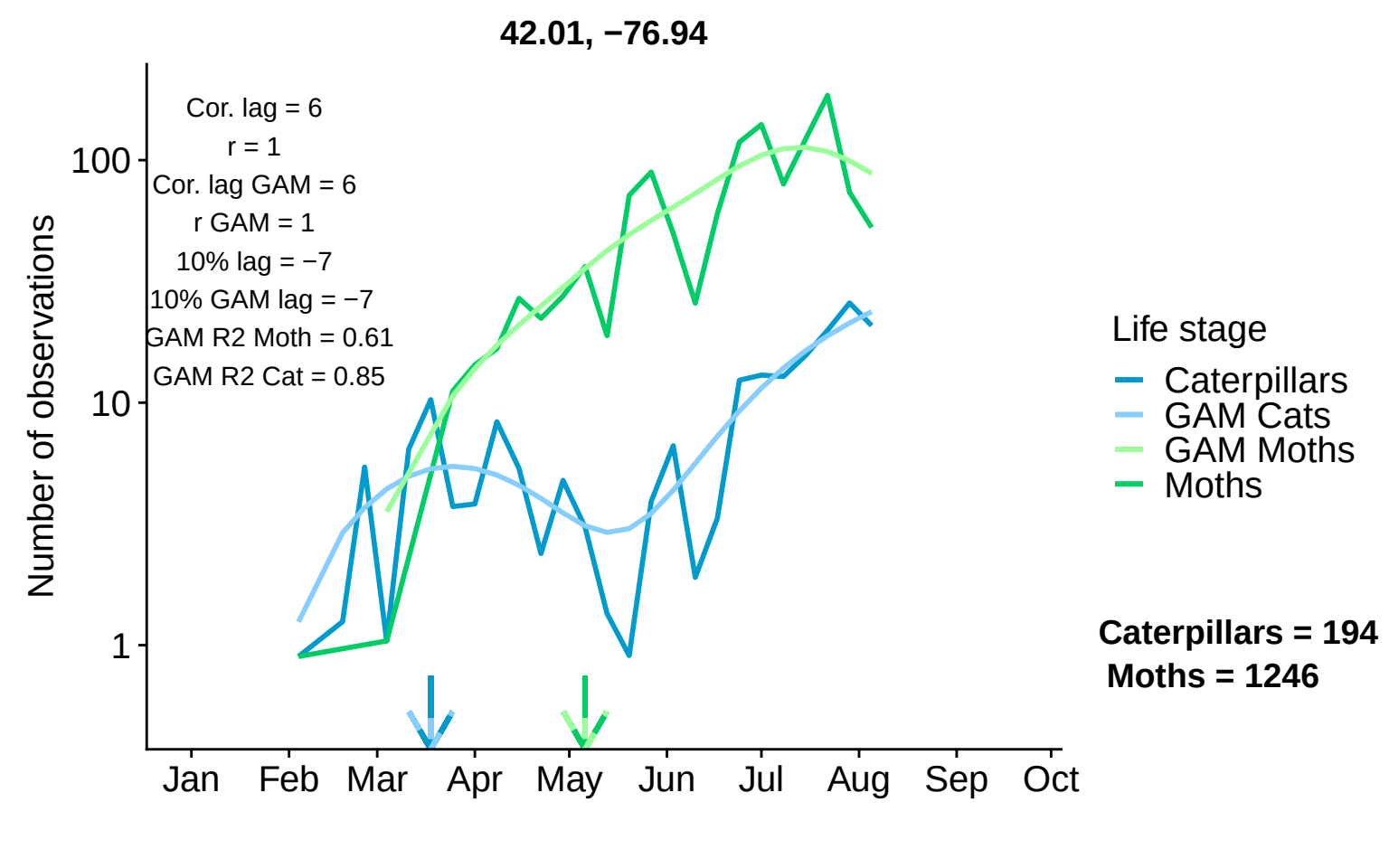

43.78, −75
Cor. lag = 3
r = 0.96
Cor. lag GAM = 3
r GAM = 0.97
10% lag = −4
10% GAM lag = −3
GAM R2 Moth = 0.91
GAM R2 Cat = 0.91
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 237
Moths = 2462

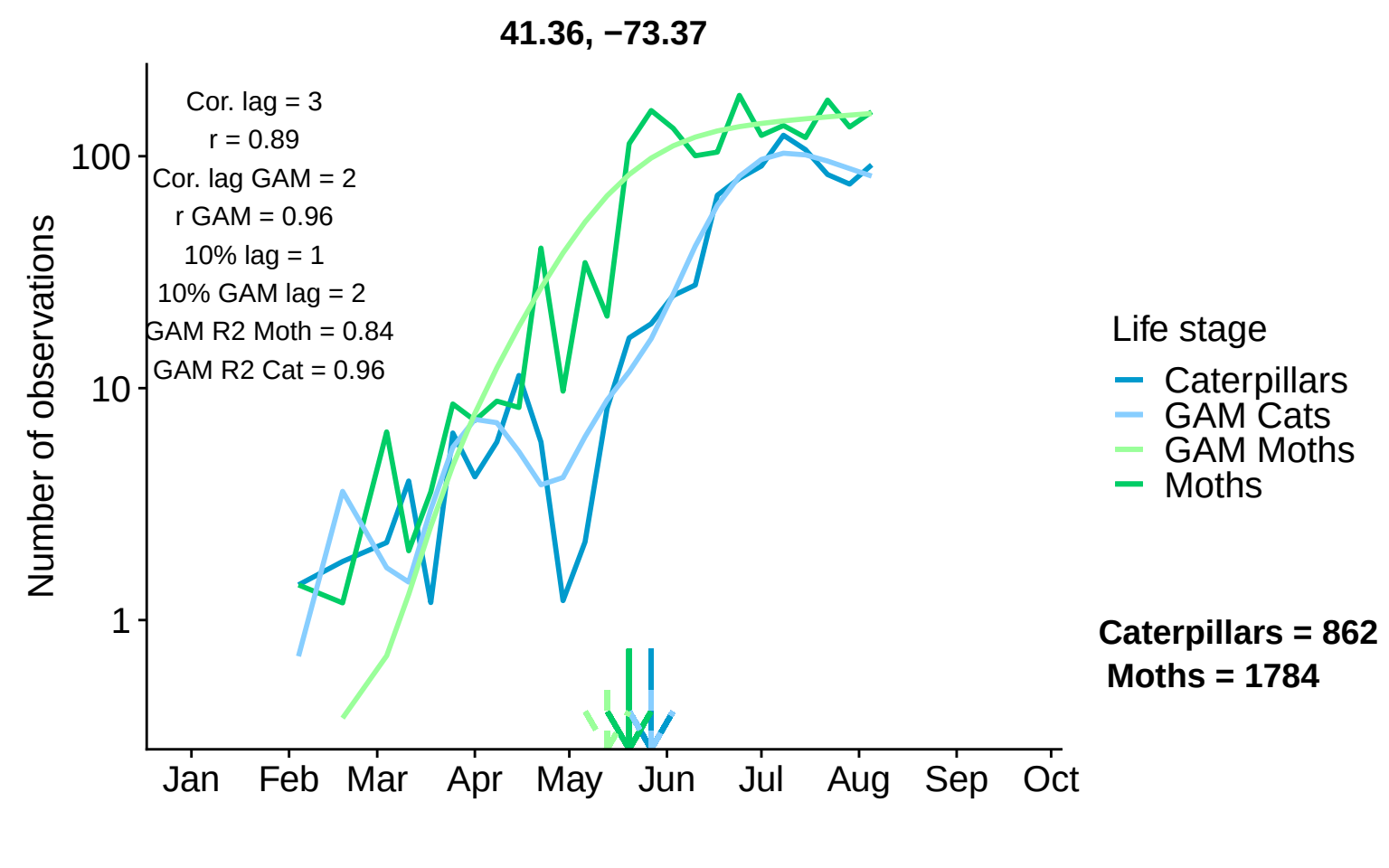

43.13, −71.36
r = 0.96
Cor. lag GAM = 5
r GAM = 1
10% lag = −6
10% GAM lag = −6
GAM R2 Moth = 0.86
GAM R2 Cat = 0.97
Number of observations
100.0
10.0
1.0
0.1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 522
Moths = 2391

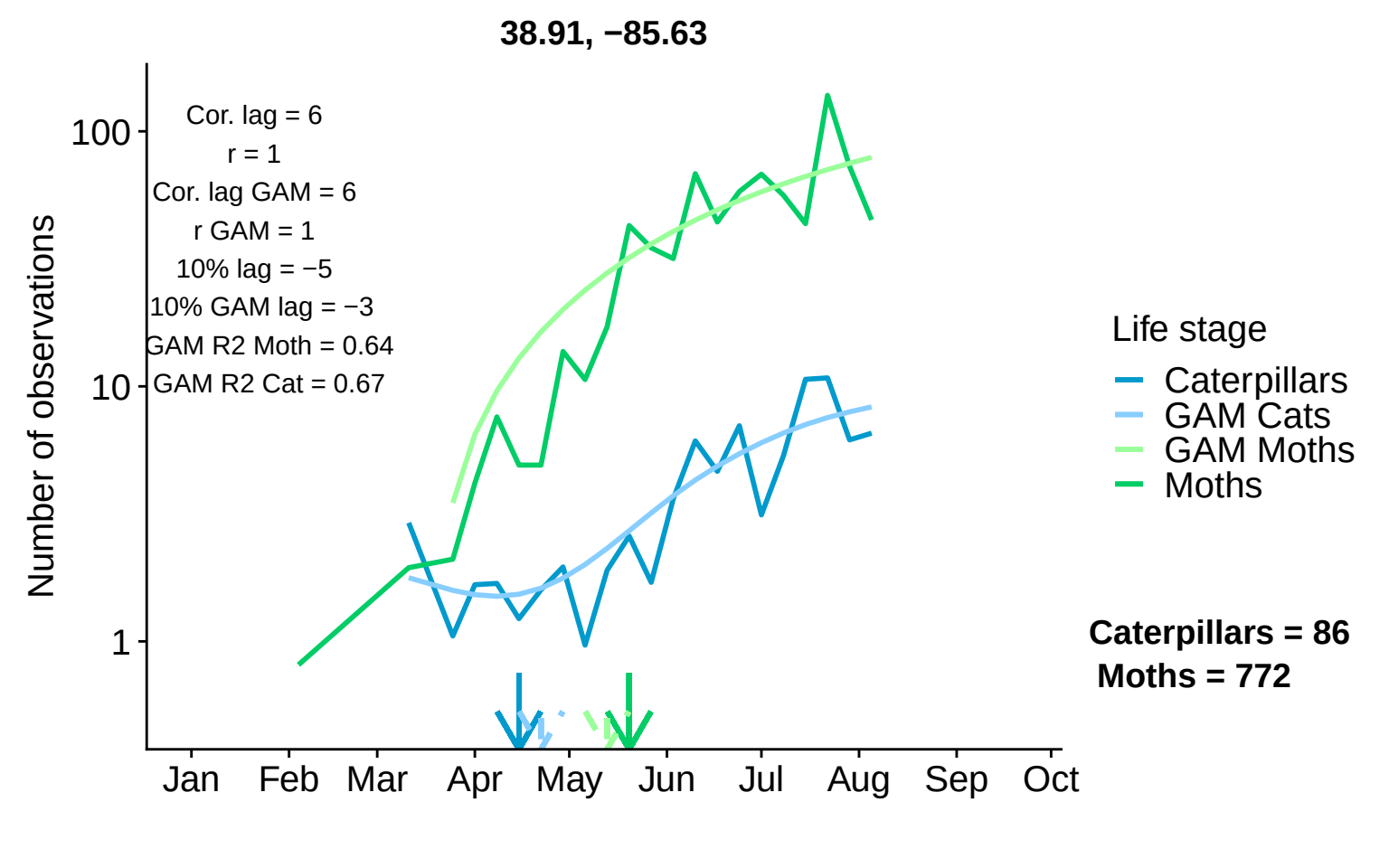

40.68, −87.6
Cor. lag = 1
r = 0.63
Cor. lag GAM = 3
r GAM = 1
10% lag = −8
10% GAM lag = −7
GAM R2 Moth = 0.52
GAM R2 Cat = 0.58
100
10
1
Number of observations
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 84
Moths = 869

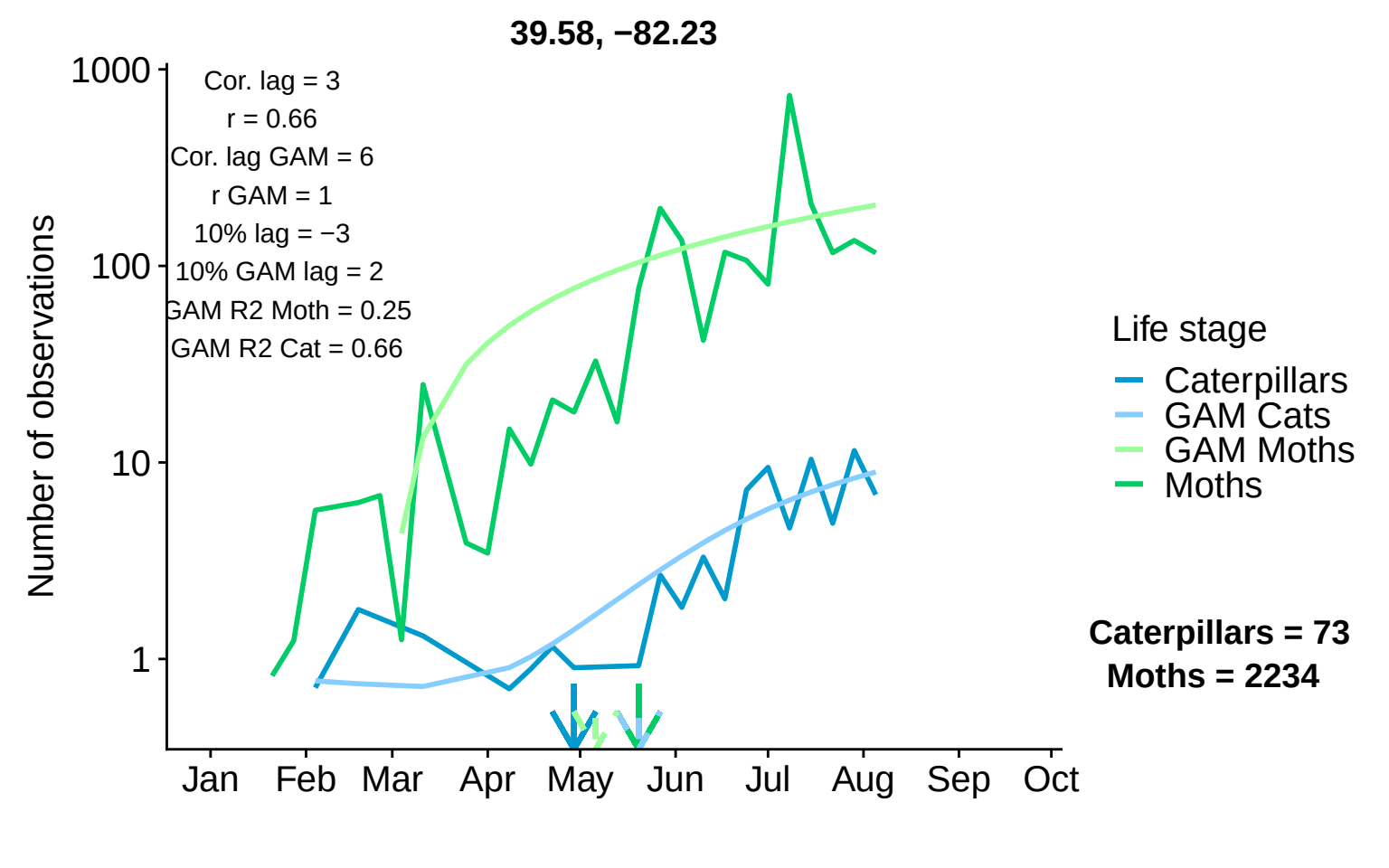

41.36, −84.13
Cor. lag = 2
r = 0.86
Cor. lag GAM = 2
r GAM = 1
10% lag = 0
10% GAM lag = 1
GAM R2 Moth = 0.76
GAM R2 Cat = 0.92
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 271
Moths = 975

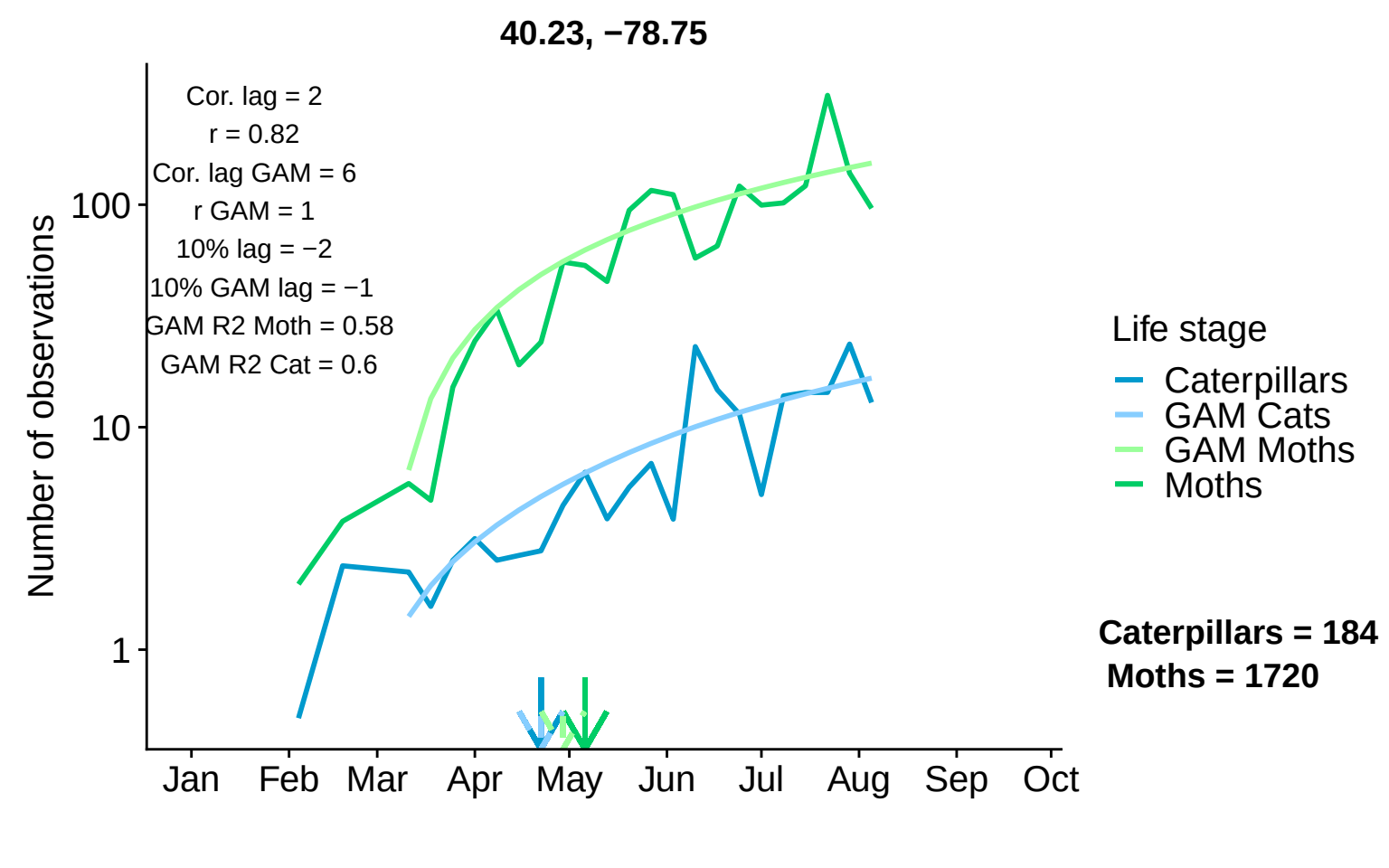

42.01, −80.56
Cor. lag = 1
r = 0.93
Cor. lag GAM = 3
r GAM = 1
10% lag = −4
10% GAM lag = −2
GAM R2 Moth = 0.85
GAM R2 Cat = 0.94
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 408
Moths = 2297

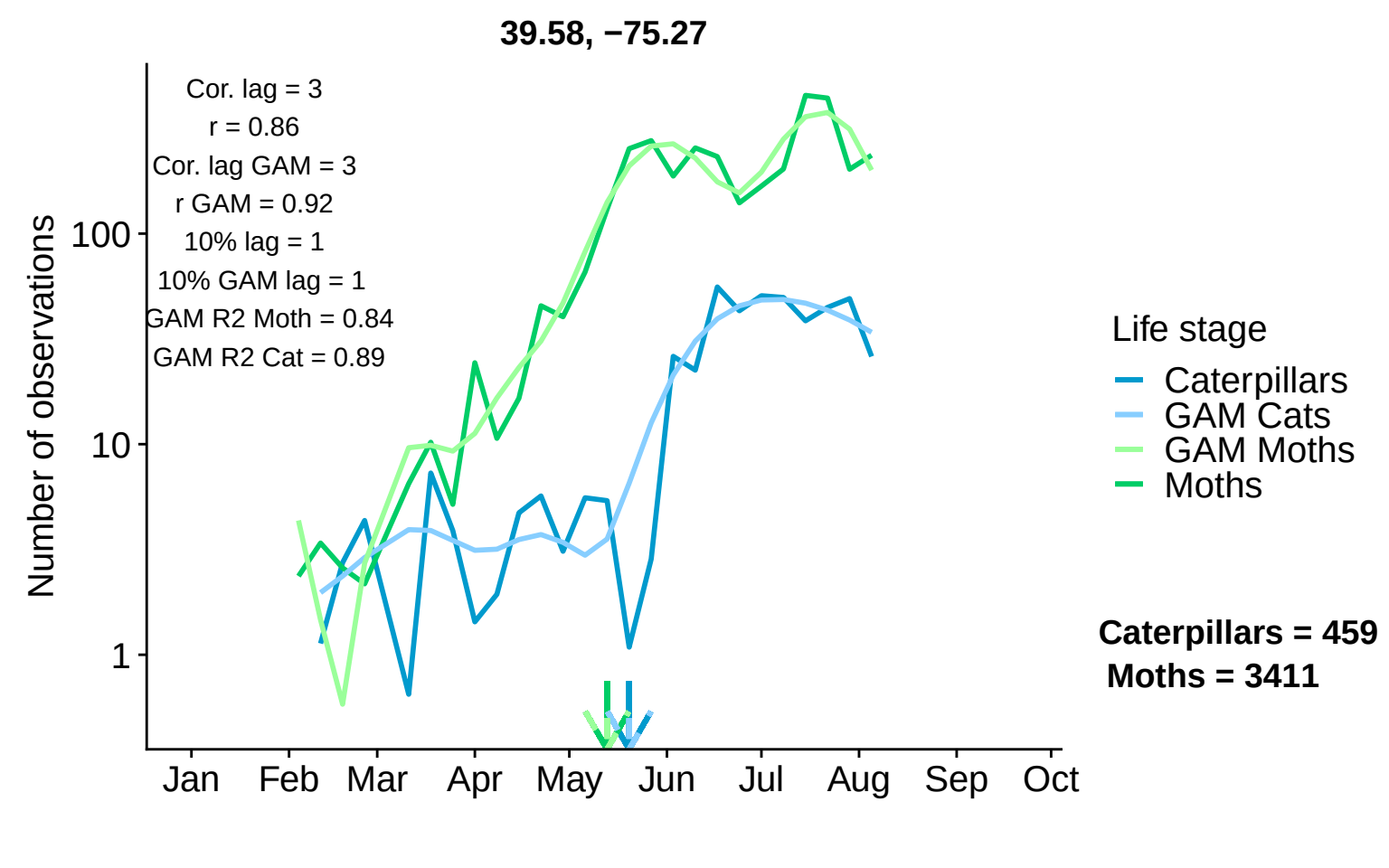

42.01, −76.94
Cor. lag = 6
r = 1
Cor. lag GAM = 6
r GAM = 1
10% lag = −7
10% GAM lag = −7
GAM R2 Moth = 0.61
GAM R2 Cat = 0.85
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 194
Moths = 1246

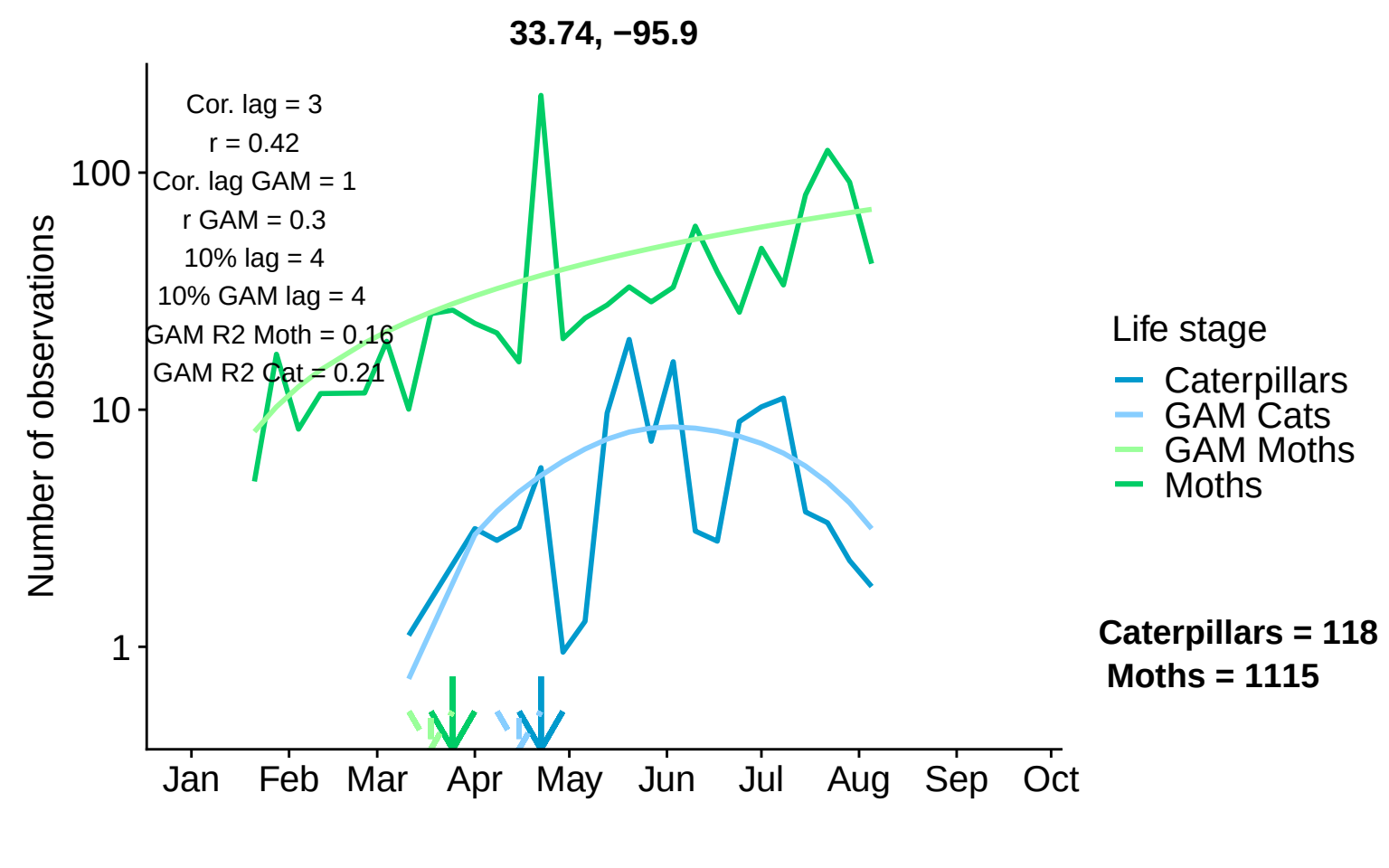

41.36, −73.37
Cor. lag = 3
r = 0.89
Cor. lag GAM = 2
r GAM = 0.96
10% lag = 1
10% GAM lag = 2
GAM R2 Moth = 0.84
GAM R2 Cat = 0.96
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 862
Moths = 1784

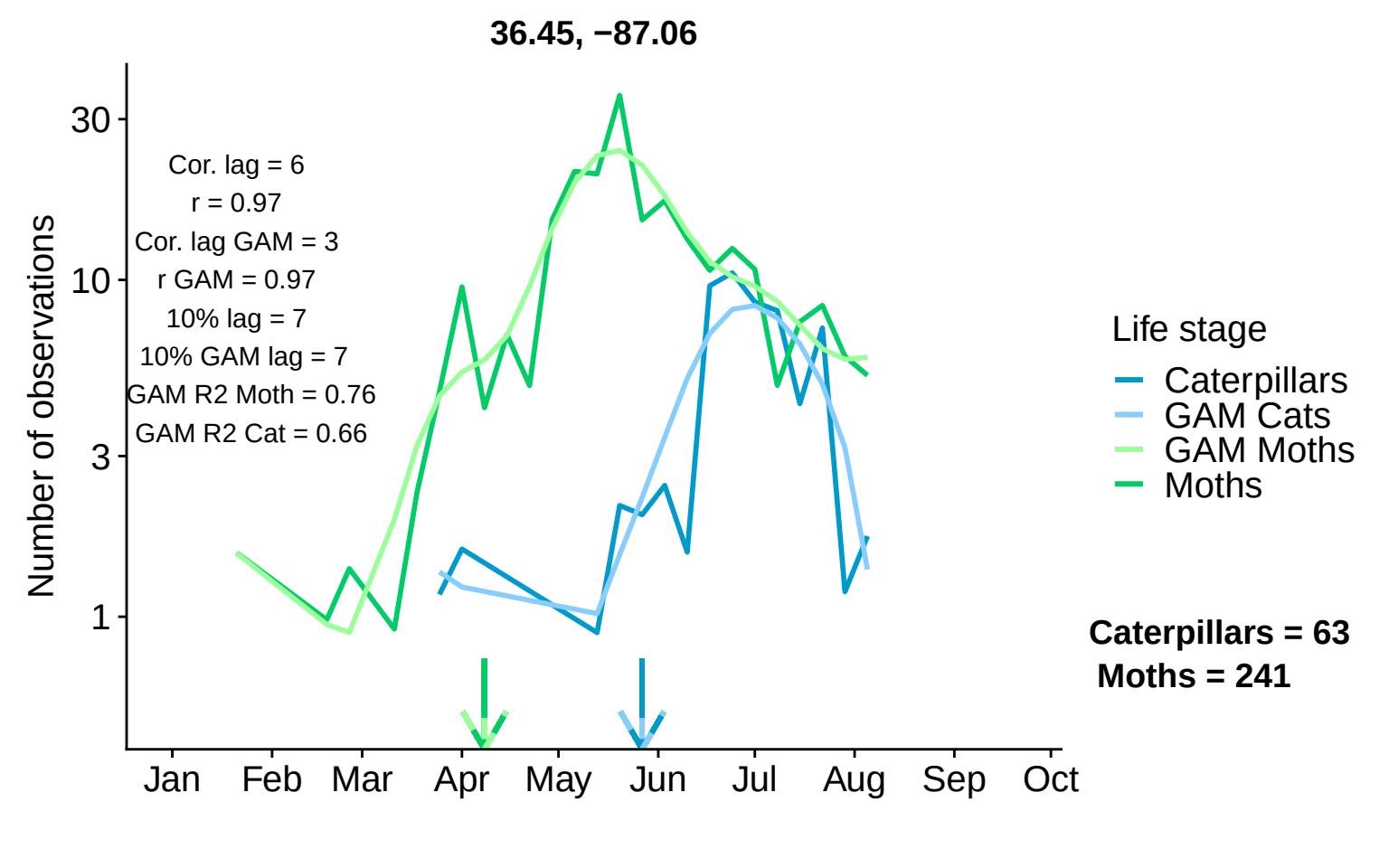

38.91, −85.63
Cor. lag = 6
r = 1
Cor. lag GAM = 6
r GAM = 1
10% lag = −5
10% GAM lag = −3
GAM R2 Moth = 0.64
GAM R2 Cat = 0.67
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 86
Moths = 772

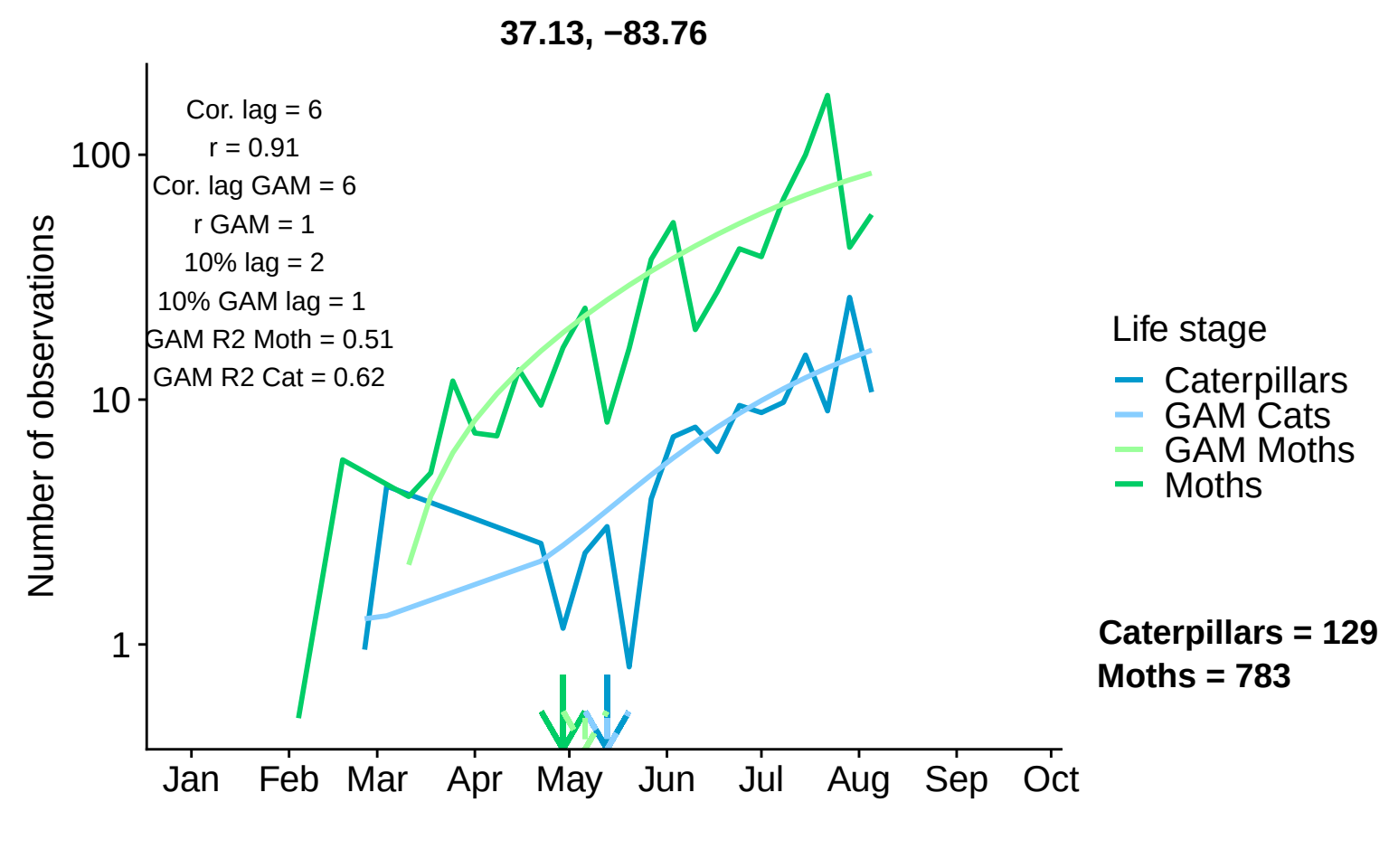

39.58, −82.23
Cor. lag = 3
r = 0.66
Cor. lag GAM = 6
r GAM = 1
10% lag = −3
10% GAM lag = 2
GAM R2 Moth = 0.25
GAM R2 Cat = 0.66
Number of observations
1000
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 73
Moths = 2234

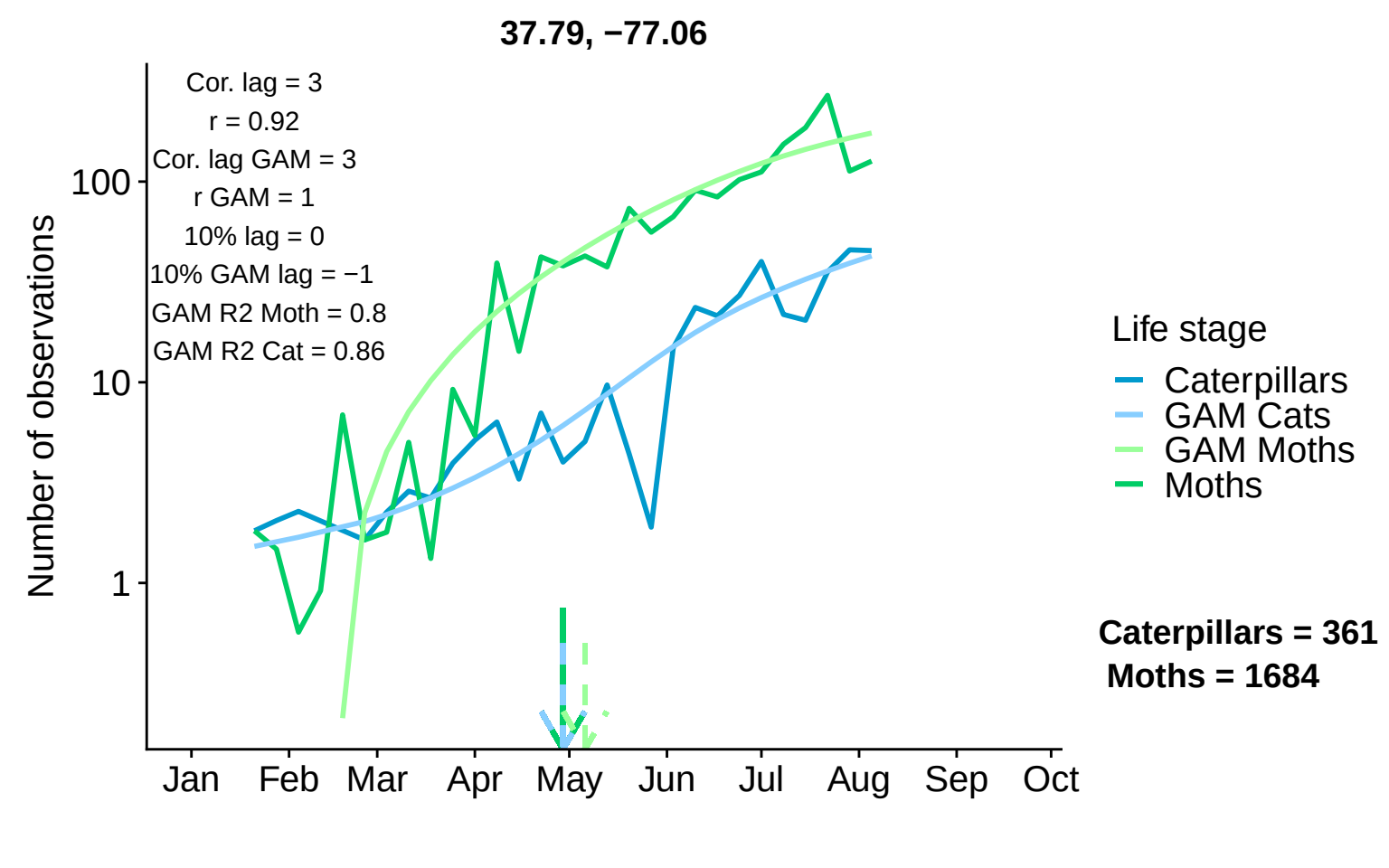

40.23, −78.75
Cor. lag = 2
r = 0.82
Cor. lag GAM = 6
r GAM = 1
10% lag = −2
10% GAM lag = −1
GAM R2 Moth = 0.58
GAM R2 Cat = 0.6
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 184
Moths = 1720

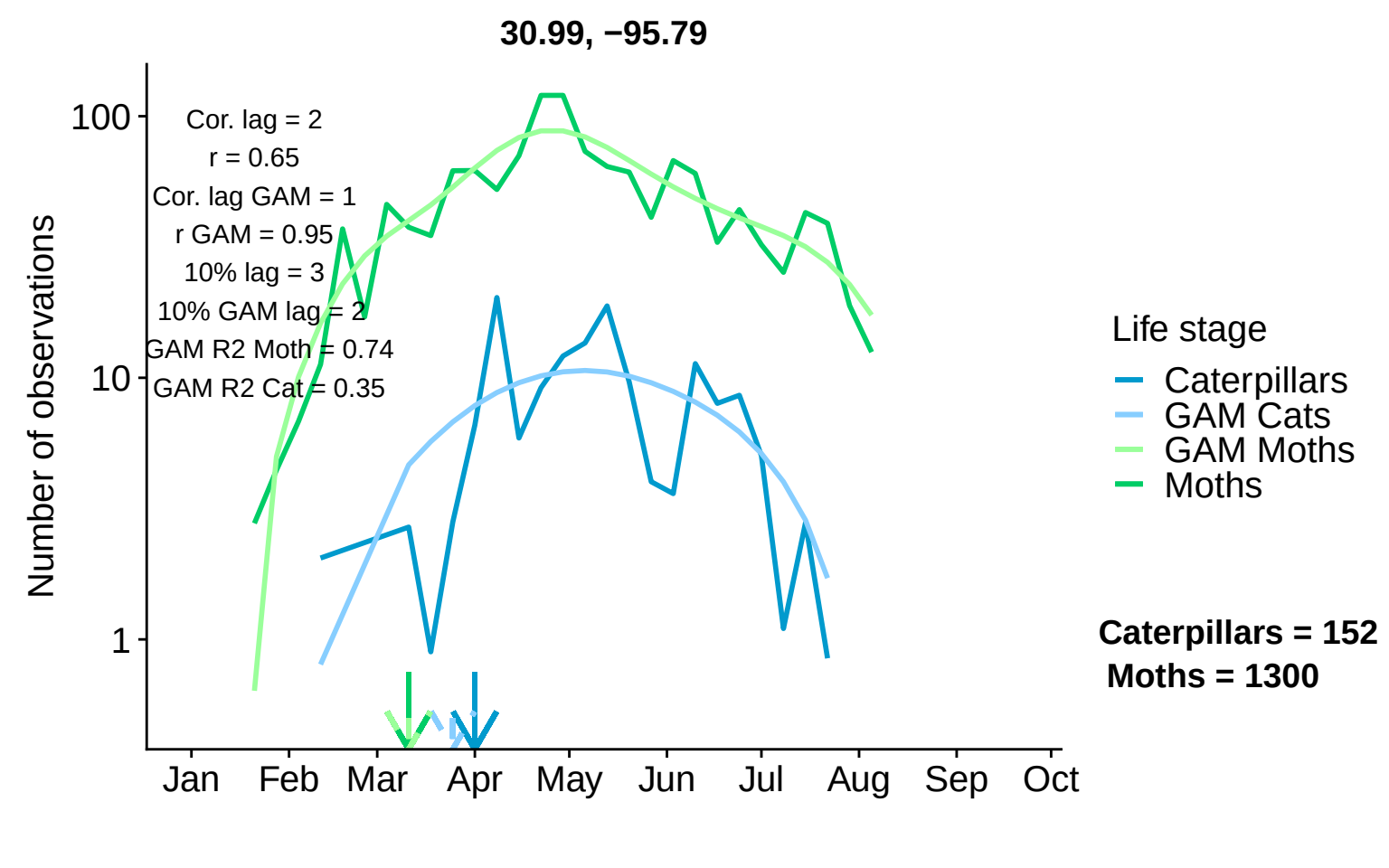

39.58, −75.27
Cor. lag = 3
r = 0.86
Cor. lag GAM = 3
r GAM = 0.92
10% lag = 1
10% GAM lag = 1
GAM R2 Moth = 0.84
GAM R2 Cat = 0.89
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 459
Moths = 3411

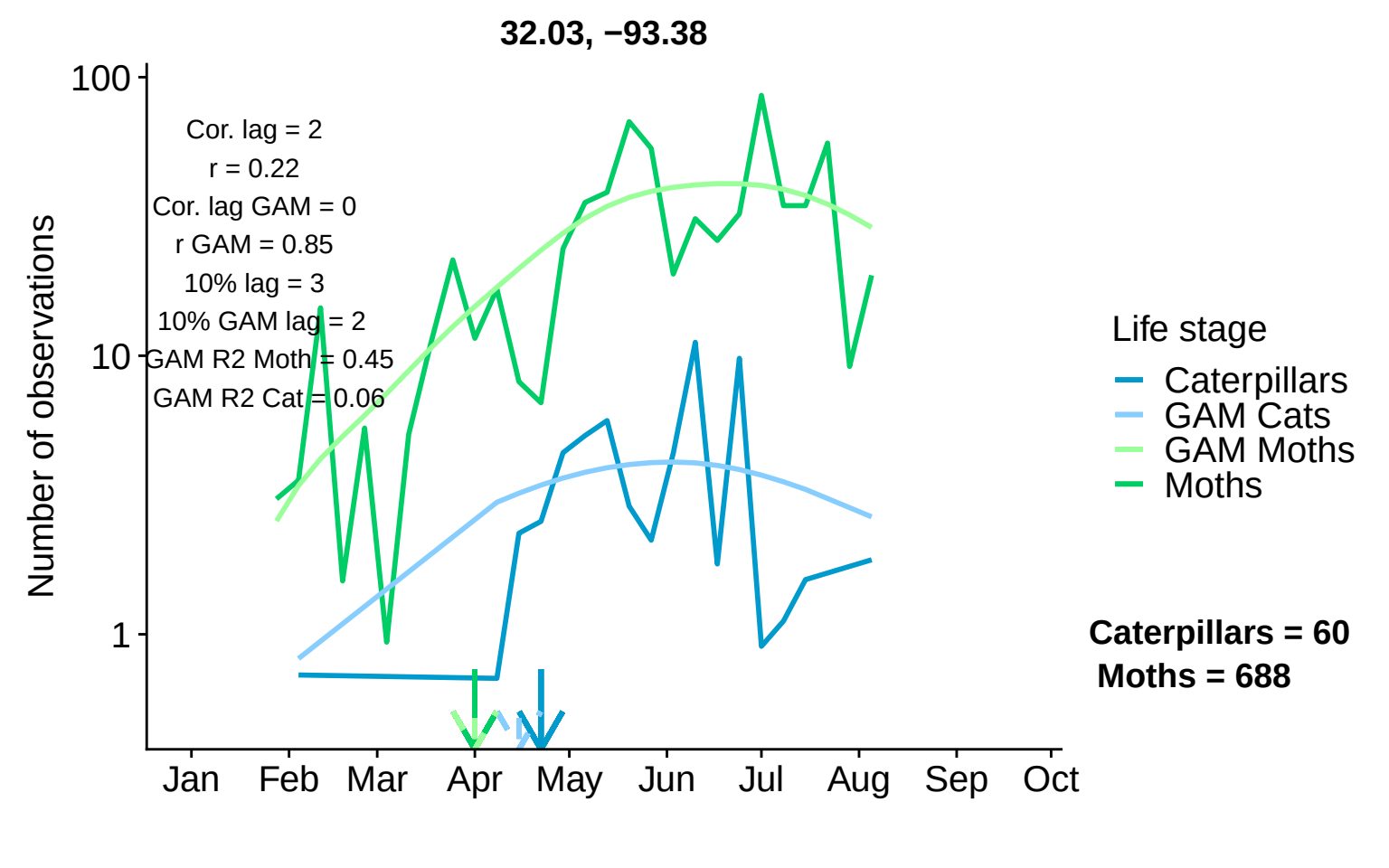

33.74, −95.9
Cor. lag = 3
r = 0.42
Cor. lag GAM = 1
r GAM = 0.3
10% lag = 4
10% GAM lag = 4
GAM R2 Moth = 0.16
GAM R2 Cat = 0.21
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 118
Moths = 1115

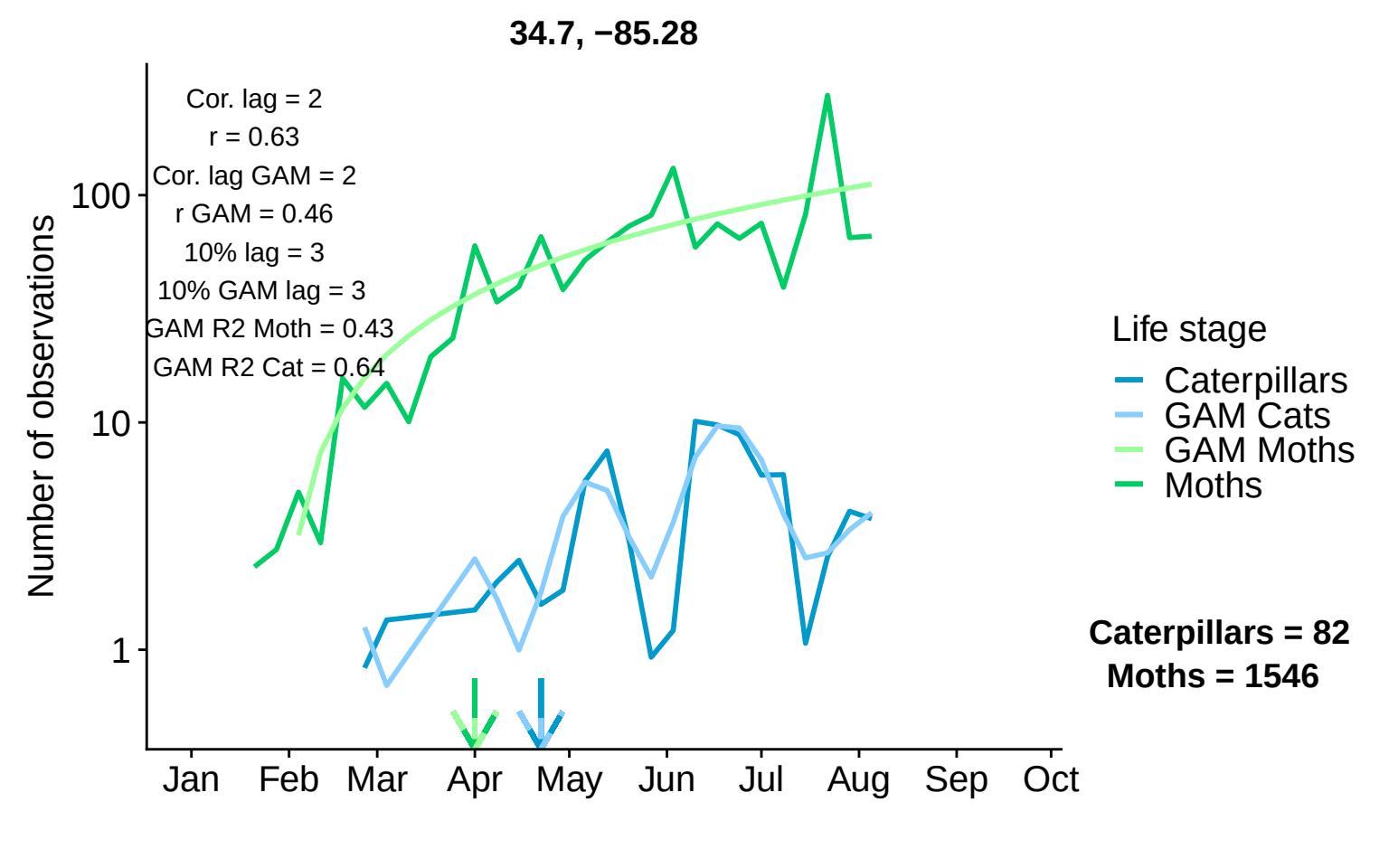

36.45, −87.06
Number of observations
30
10
3
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Cor. lag = 6
r = 0.97
Cor. lag GAM = 3
r GAM = 0.97
10% lag = 7
10% GAM lag = 7
GAM R2 Moth = 0.76
GAM R2 Cat = 0.66
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 63
Moths = 241

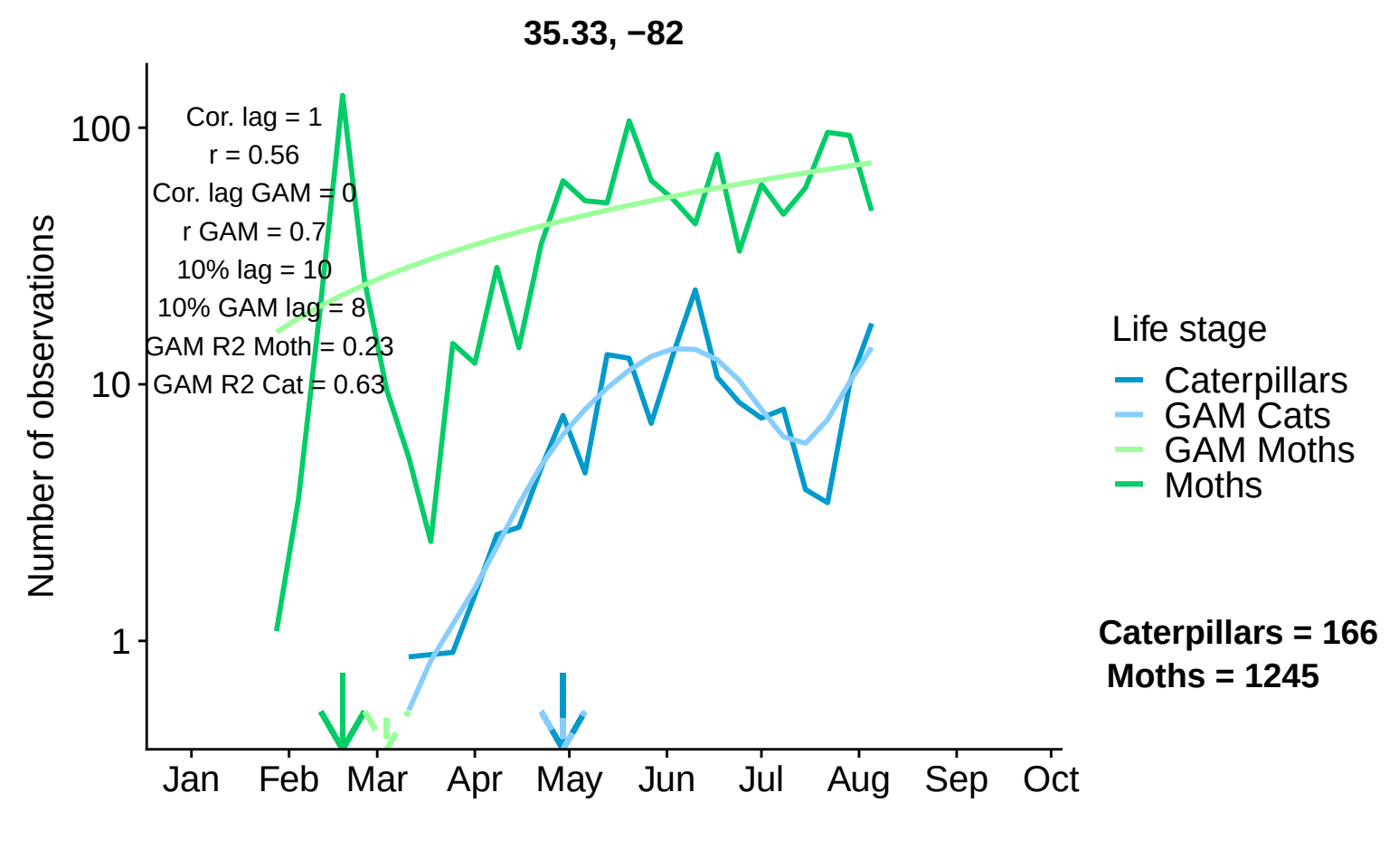

37.13, −83.76
Cor. lag = 6
r = 0.91
Cor. lag GAM = 6
r GAM = 1
10% lag = 2
10% GAM lag = 1
GAM R2 Moth = 0.51
GAM R2 Cat = 0.62
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 129
Moths = 783

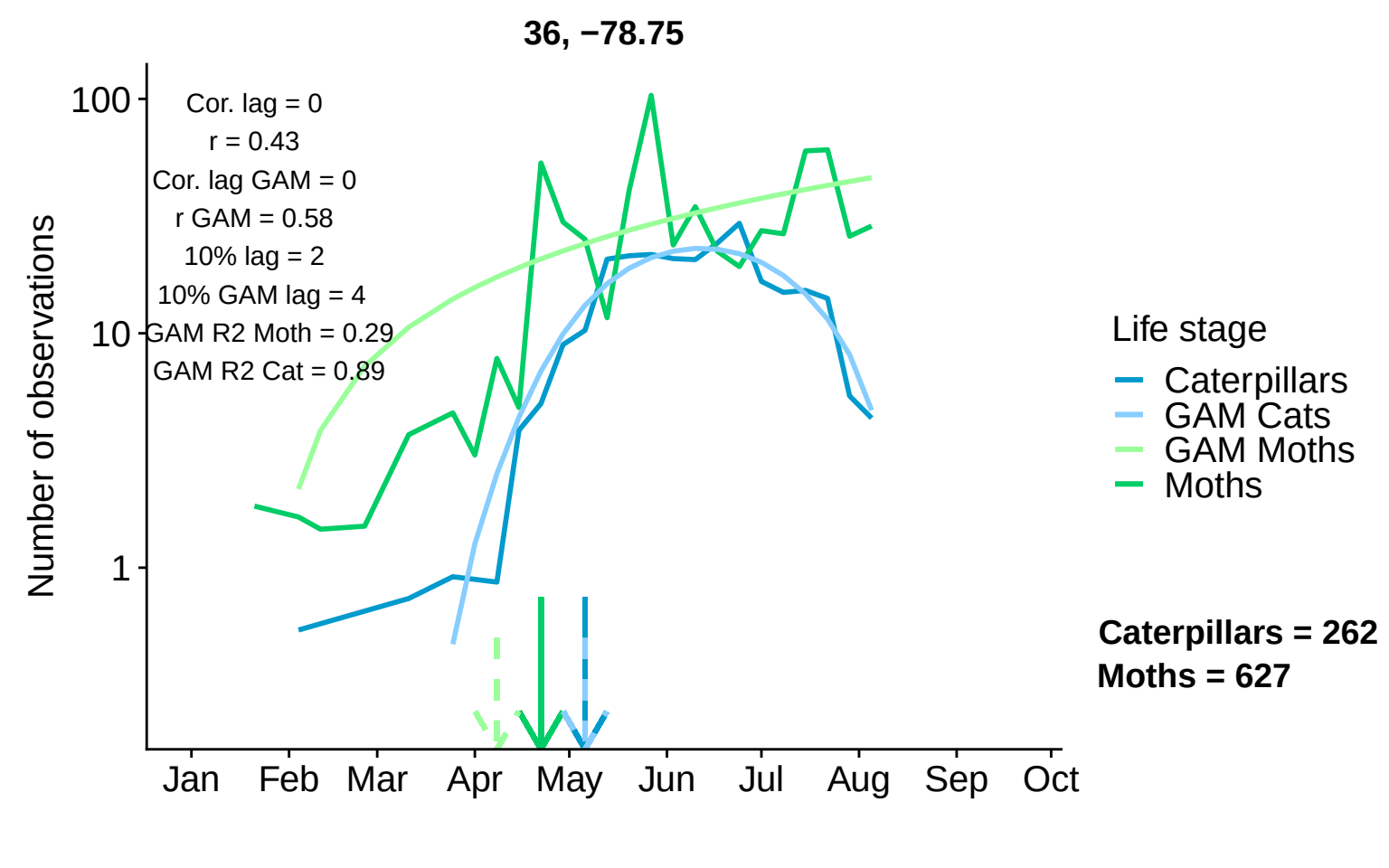

37.79, −77.06
Cor. lag = 3
r = 0.92
Cor. lag GAM = 3
r GAM = 1
10% lag = 0
10% GAM lag = −1
GAM R2 Moth = 0.8
GAM R2 Cat = 0.86
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 361
Moths = 1684

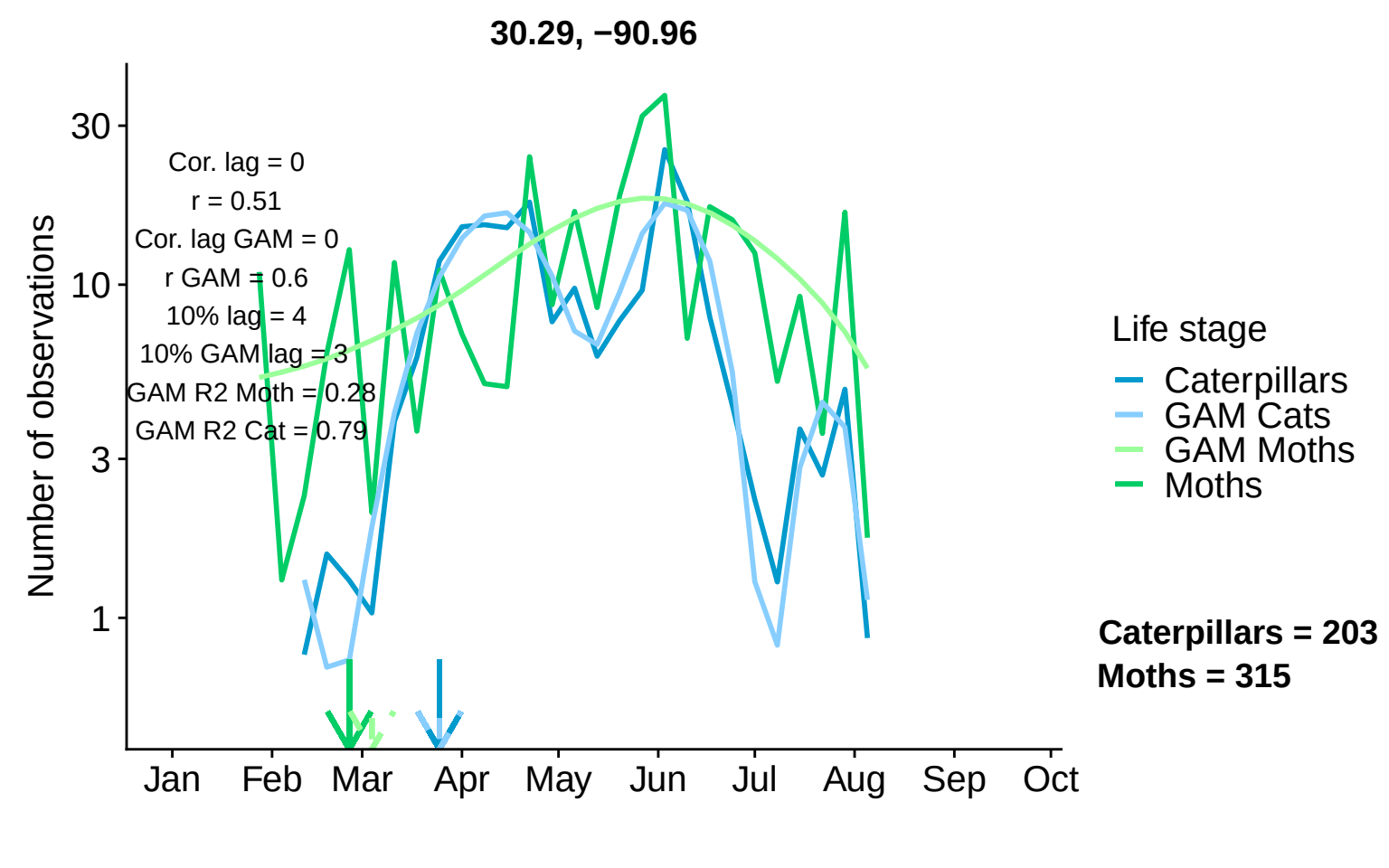

30.99, −95.79
Cor. lag = 2
r = 0.65
Cor. lag GAM = 1
r GAM = 0.95
10% lag = 3
10% GAM lag = 2
GAM R2 Moth = 0.74
GAM R2 Cat = 0.35
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 152
Moths = 1300

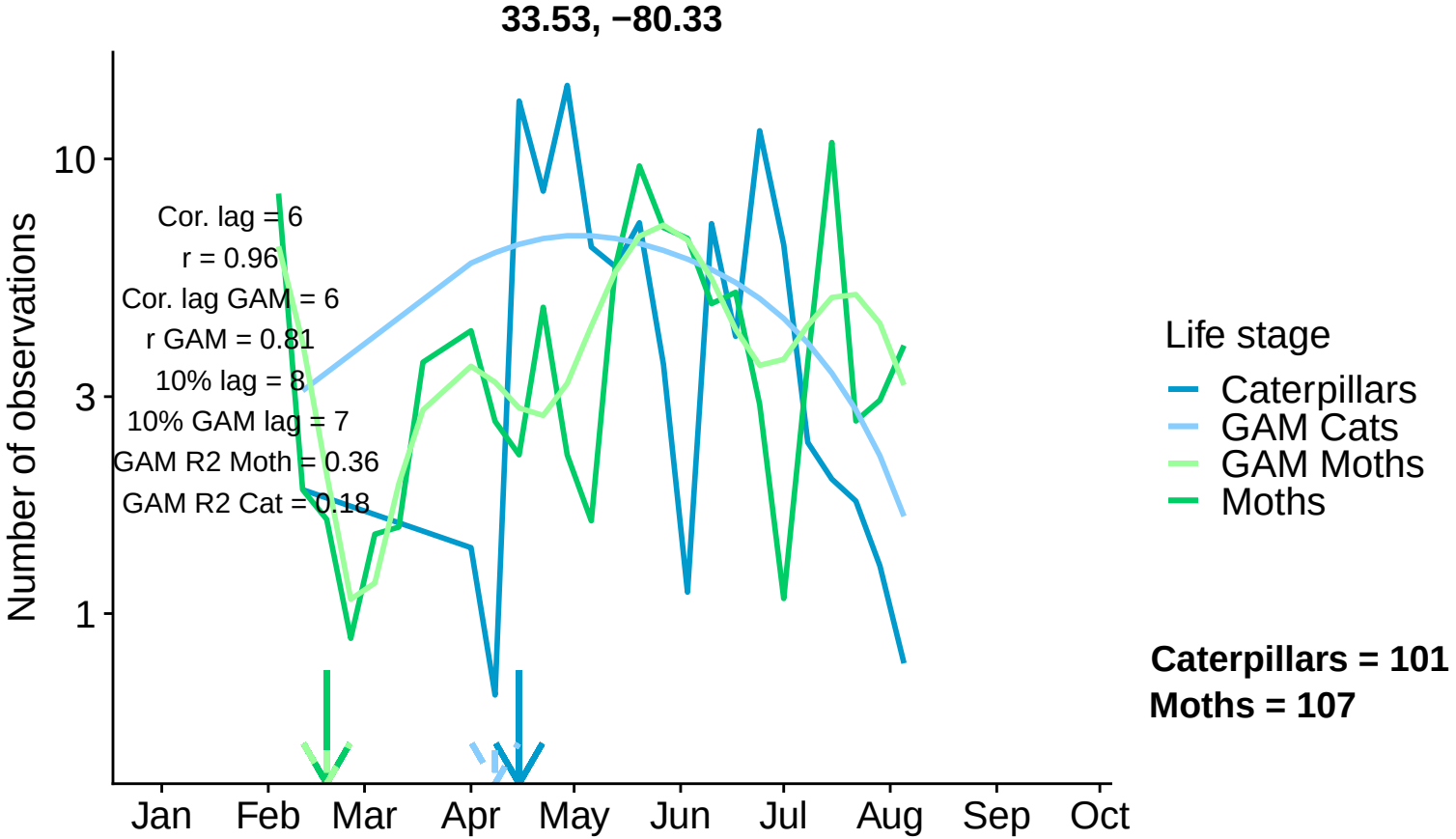

32.03, −93.38
100
10
1
Number of observations
Cor. lag = 2
r = 0.22
Cor. lag GAM = 0
r GAM = 0.85
10% lag = 3
10% GAM lag = 2
GAM R2 Moth = 0.45
GAM R2 Cat = 0.06
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 60
Moths = 688

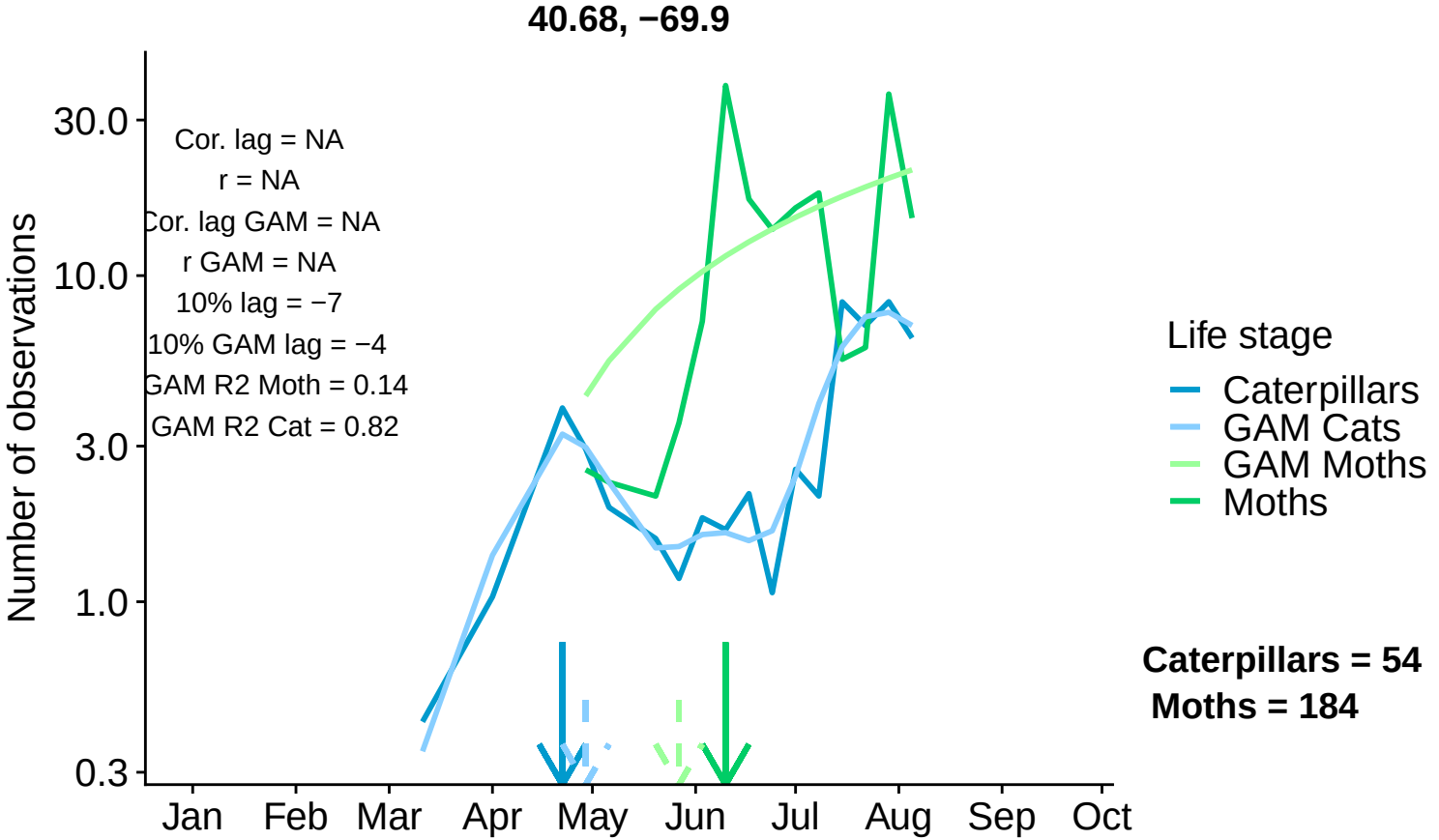

34.7, −85.28
Cor. lag = 2
r = 0.63
Cor. lag GAM = 2
r GAM = 0.46
10% lag = 3
10% GAM lag = 3
GAM R2 Moth = 0.43
GAM R2 Cat = 0.64
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 82
Moths = 1546

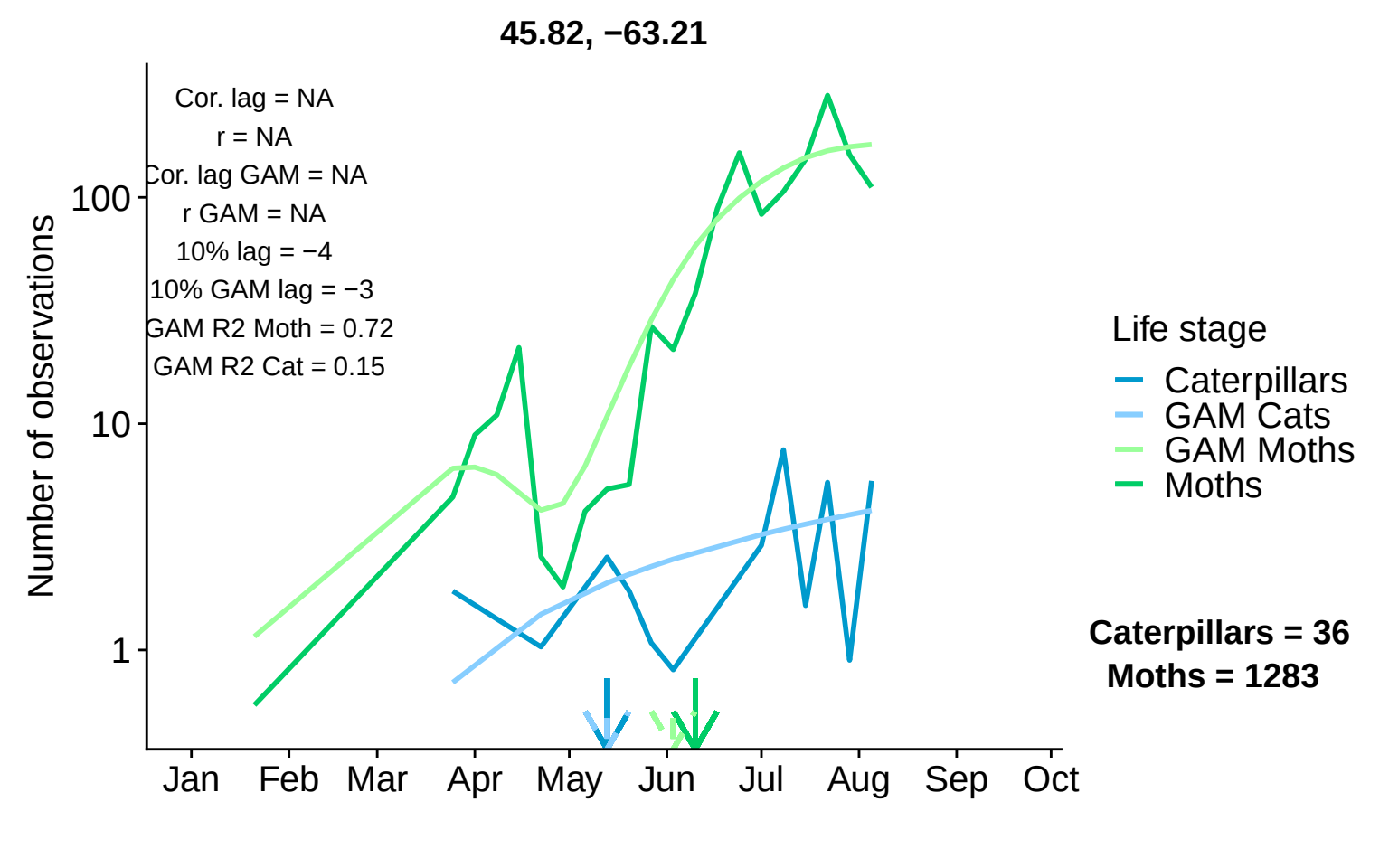

35.33, −82
Cor. lag = 1
r = 0.56
Cor. lag GAM = 0
r GAM = 0.7
10% lag = 10
10% GAM lag = 8
GAM R2 Moth = 0.23
GAM R2 Cat = 0.63
100
10
1
Number of observations
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 166
Moths = 1245


36, −78.75
Cor. lag = 0
r = 0.43
Cor. lag GAM = 0
r GAM = 0.58
10% lag = 2
10% GAM lag = 4
GAM R2 Moth = 0.29
GAM R2 Cat = 0.89
100
10
1
Number of observations
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 262
Moths = 627


30.29, −90.96
Number of observations
30
10
3
1
Cor. lag = 0
r = 0.51
Cor. lag GAM = 0
r GAM = 0.6
10% lag = 4
10% GAM lag = 3
GAM R2 Moth = 0.28
GAM R2 Cat = 0.79
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 203
Moths = 315


33.53, −80.33
Number of observations
10
3
1
Cor. lag = 6
r = 0.96
Cor. lag GAM = 6
r GAM = 0.81
10% lag = 8
10% GAM lag = 7
GAM R2 Moth = 0.36
GAM R2 Cat = 0.18
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 101
Moths = 107


40.68, −69.9
Cor. lag = NA
r = NA
Cor. lag GAM = NA
r GAM = NA
10% lag = −7
10% GAM lag = −4
GAM R2 Moth = 0.14
GAM R2 Cat = 0.82
Number of observations
30.0
10.0
3.0
1.0
0.3
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 54
Moths = 184


45.82, −63.21
Cor. lag = NA
r = NA
Cor. lag GAM = NA
r GAM = NA
10% lag = −4
10% GAM lag = −3
GAM R2 Moth = 0.72
GAM R2 Cat = 0.15
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 36
Moths = 1283