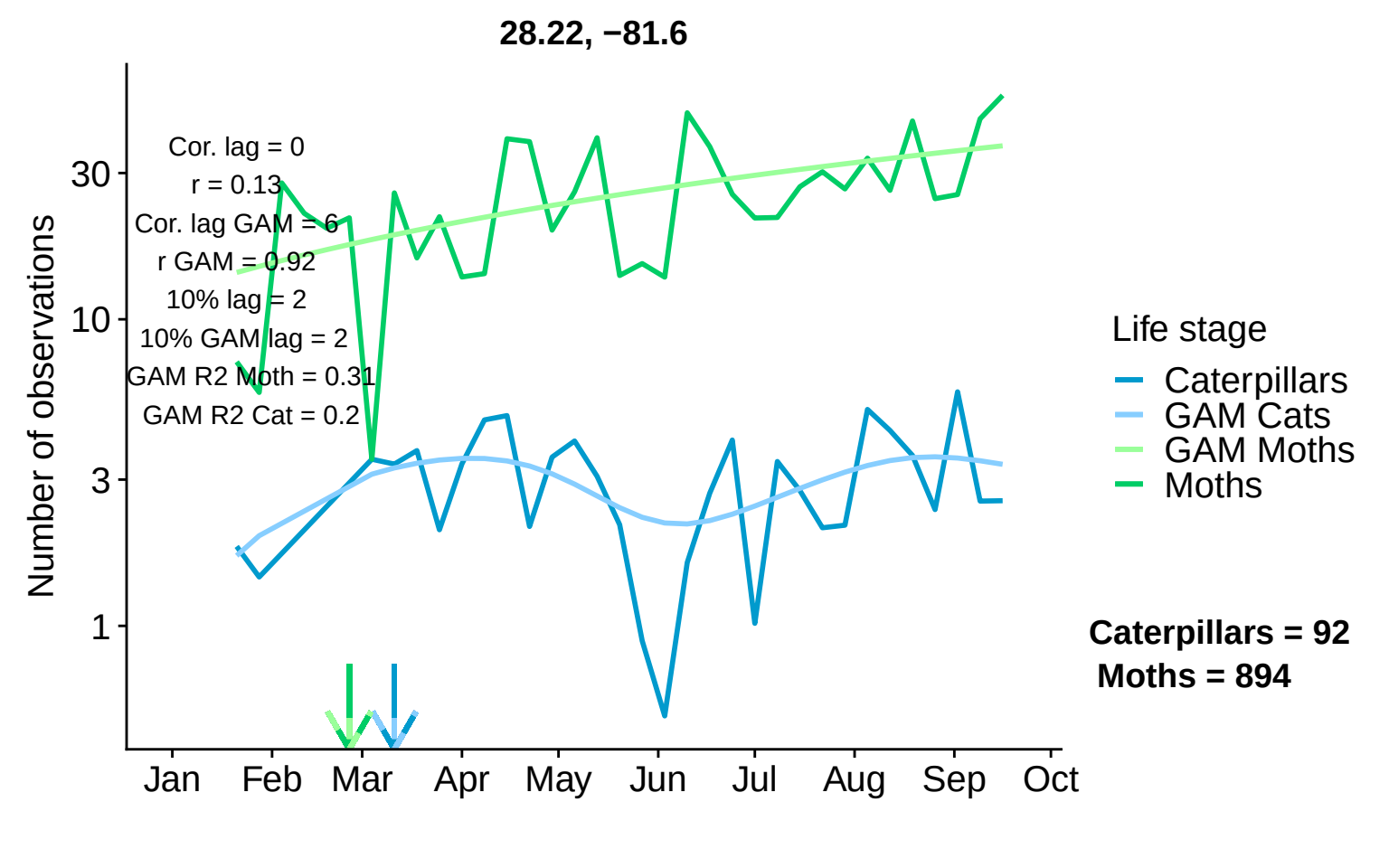
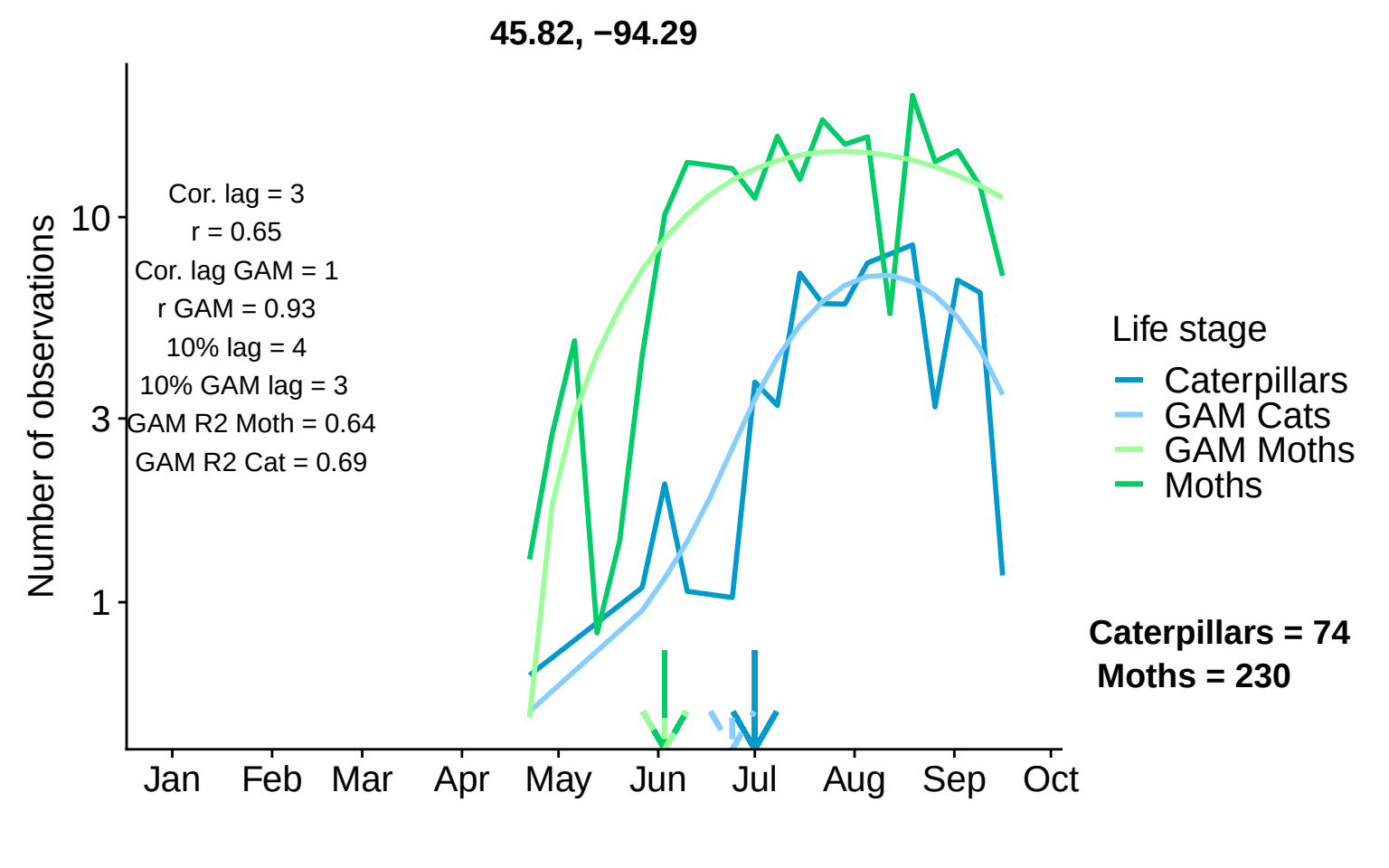
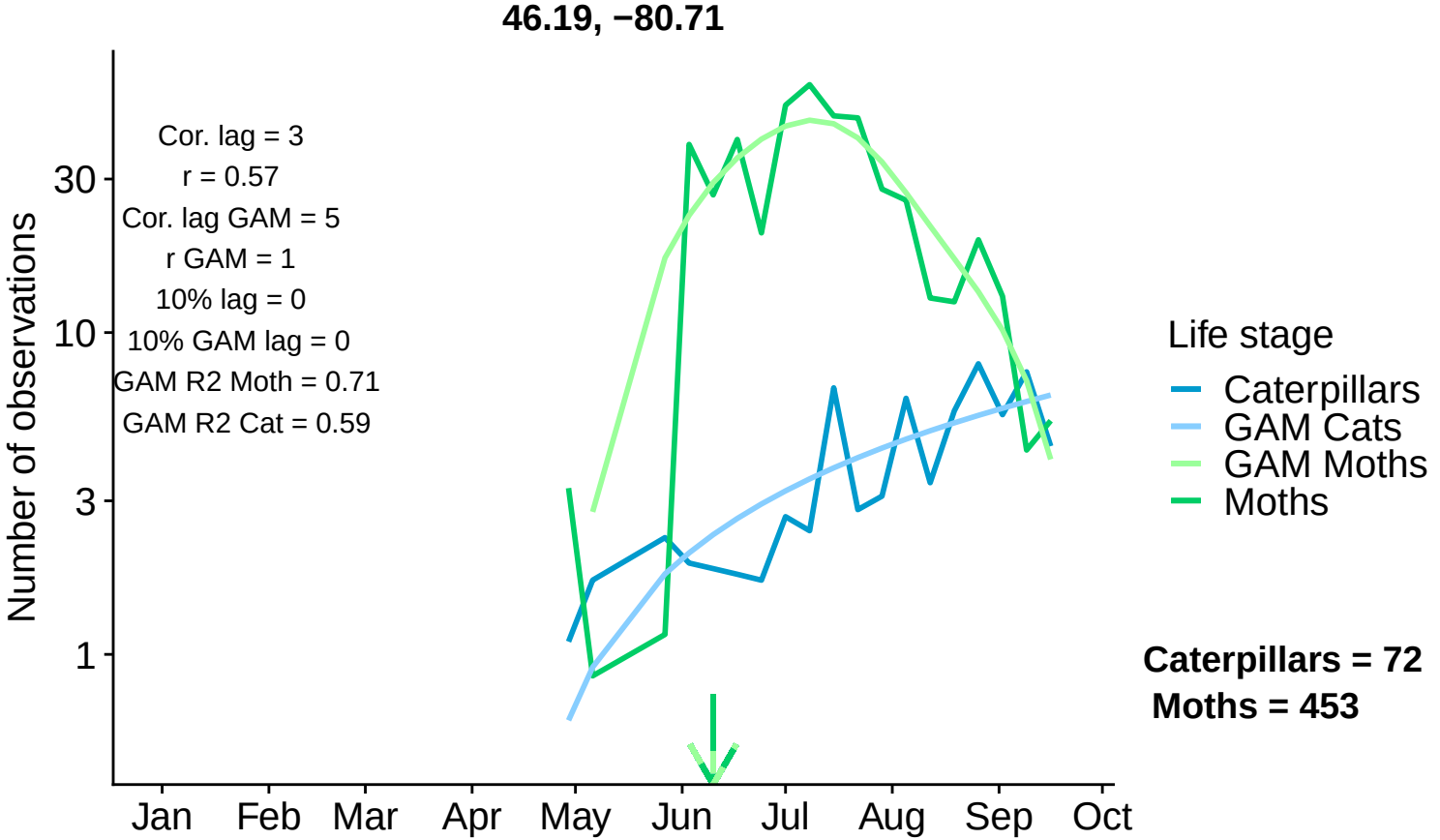
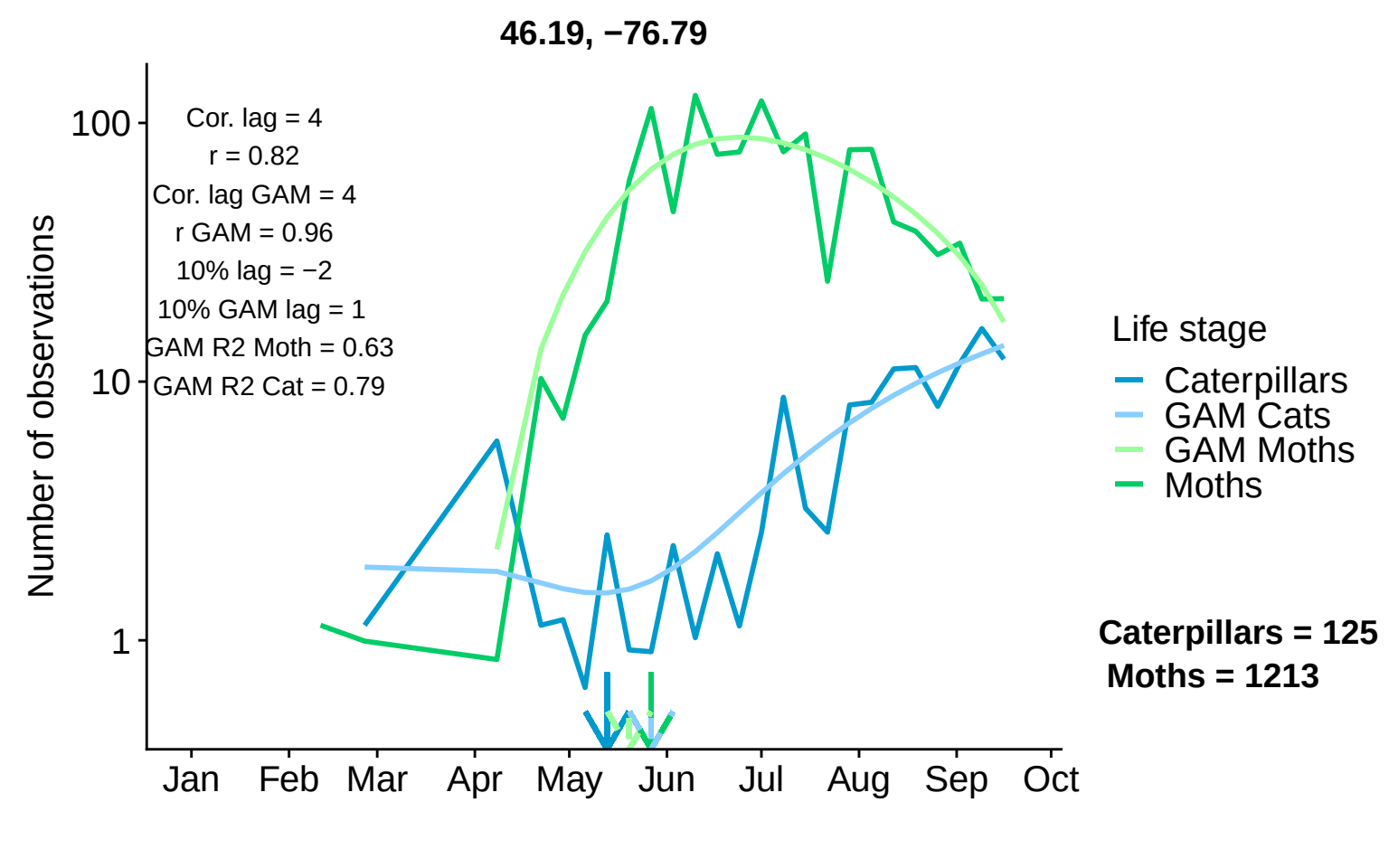
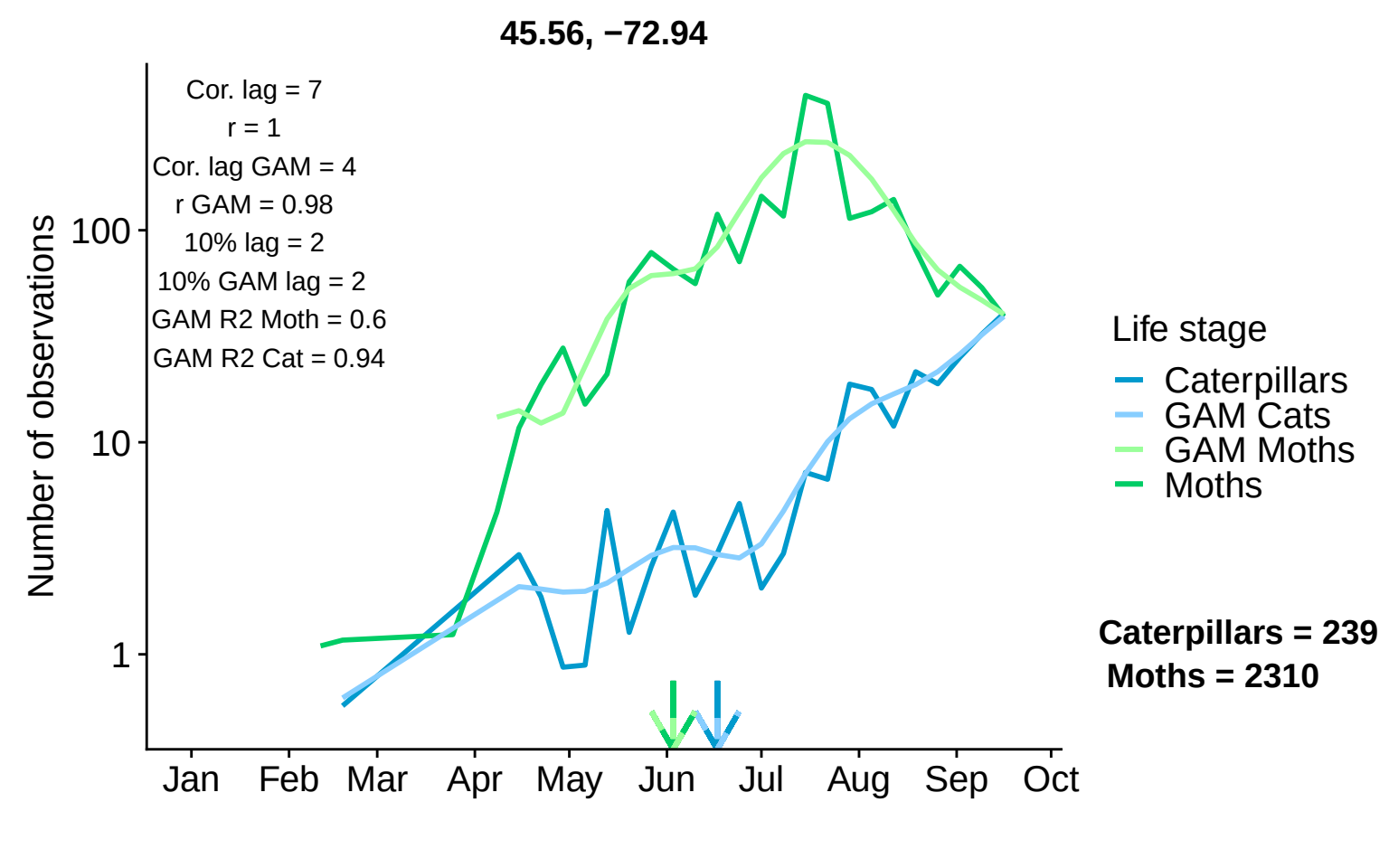
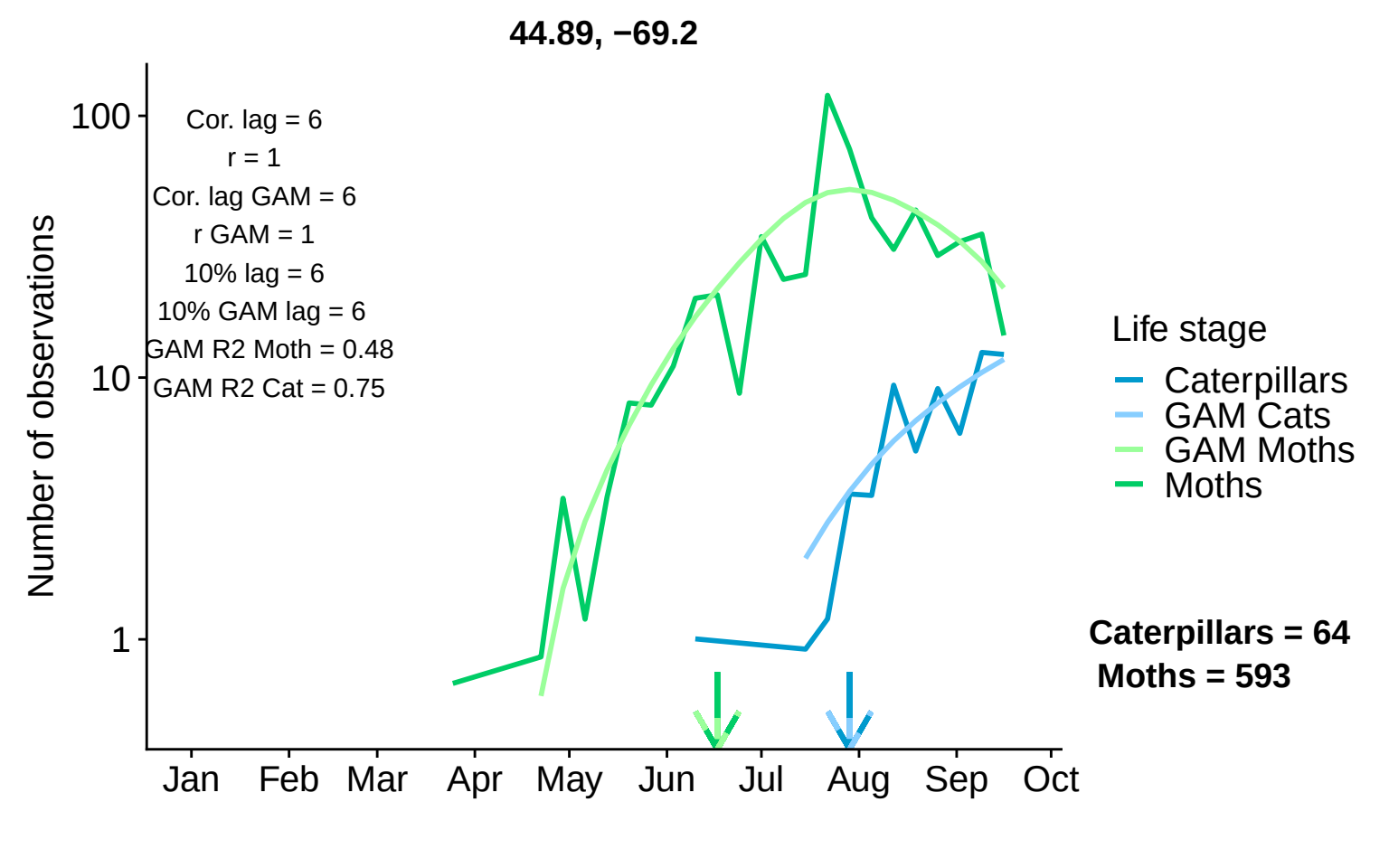

28.22, −81.6
Cor. lag = 0
r = 0.13
Cor. lag GAM = 6
r GAM = 0.92
10% lag = 2
10% GAM lag = 2
GAM R2 Moth = 0.31
GAM R2 Cat = 0.2
Number of observations
30
10
3
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 92
Moths = 894

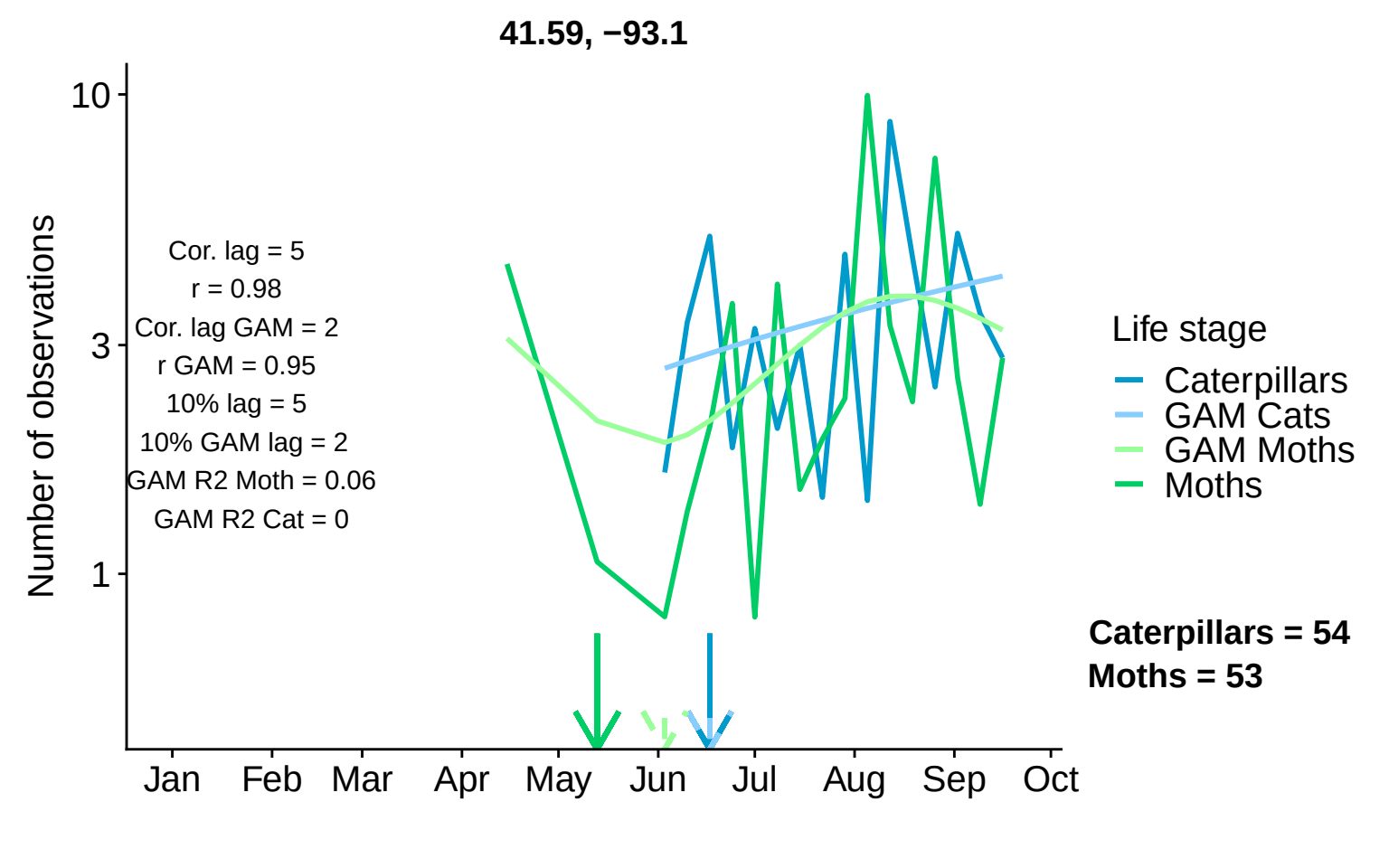

45.82, −94.29
Number of observations
10
3
1
Cor. lag = 3
r = 0.65
Cor. lag GAM = 1
r GAM = 0.93
10% lag = 4
10% GAM lag = 3
GAM R2 Moth = 0.64
GAM R2 Cat = 0.69
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 74
Moths = 230

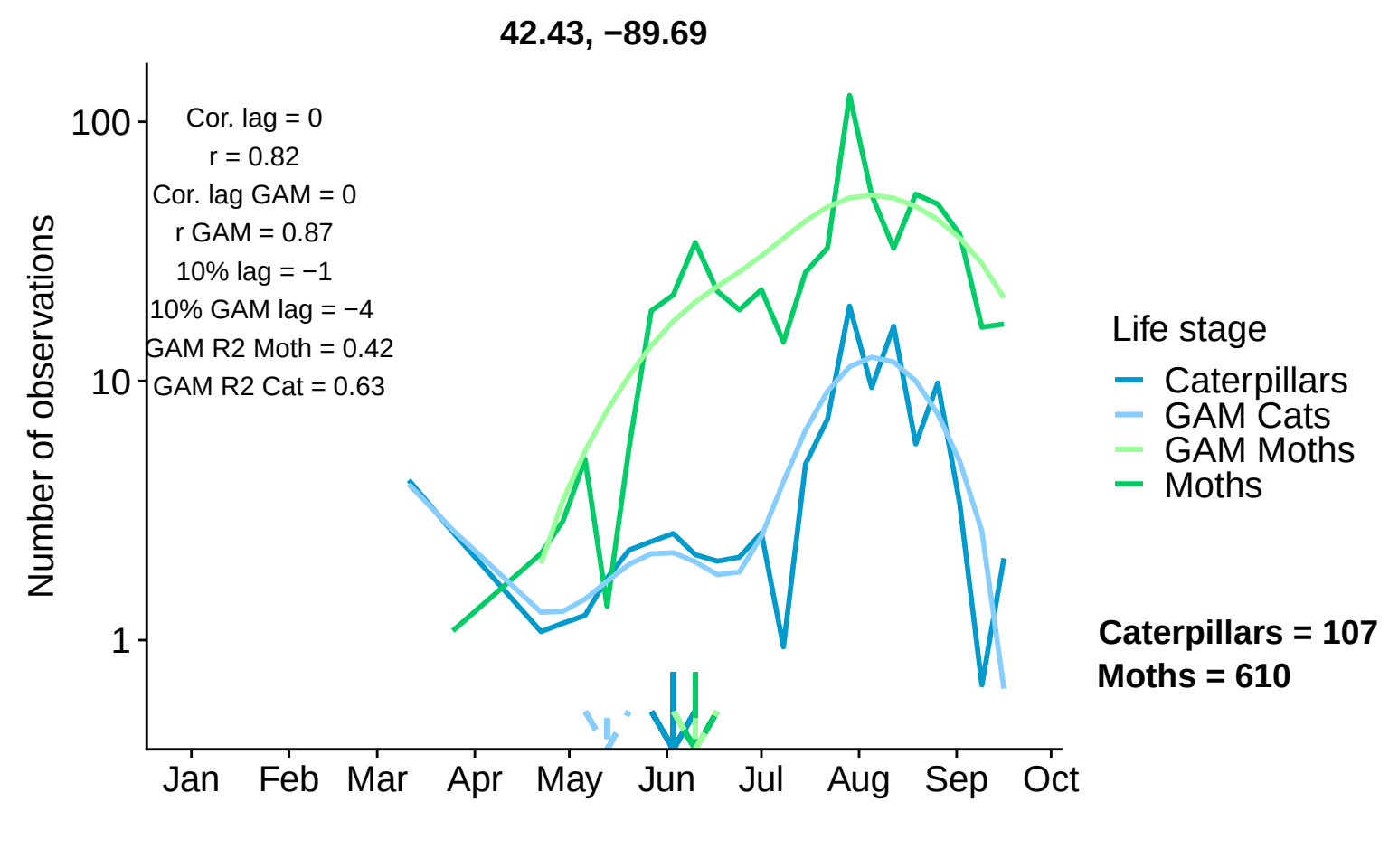

46.19, −80.71
Cor. lag = 3
r = 0.57
Cor. lag GAM = 5
r GAM = 1
10% lag = 0
10% GAM lag = 0
GAM R2 Moth = 0.71
GAM R2 Cat = 0.59
Number of observations
30
10
3
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 72
Moths = 453

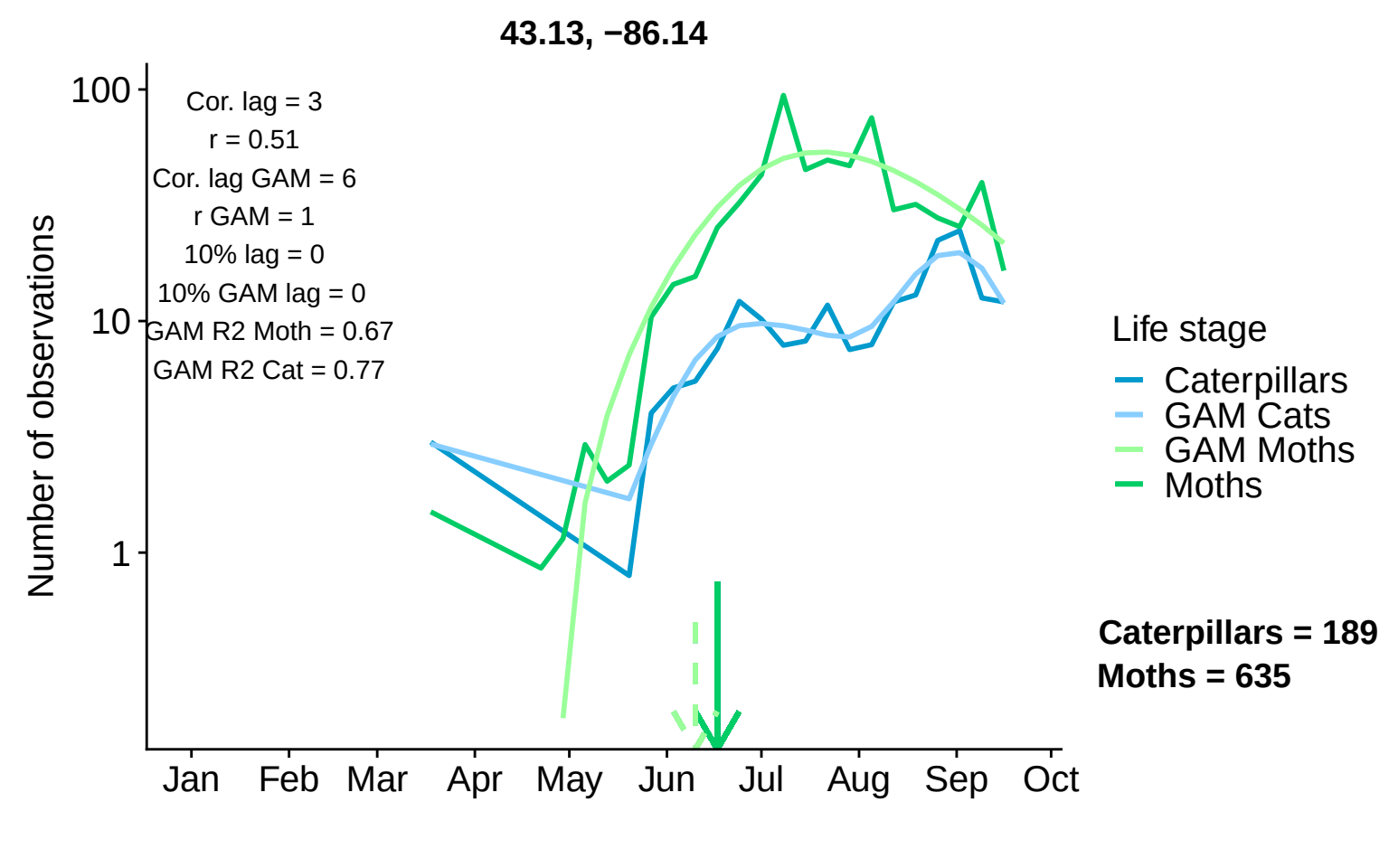

46.19, −76.79
Cor. lag = 4
r = 0.82
Cor. lag GAM = 4
r GAM = 0.96
10% lag = −2
10% GAM lag = 1
GAM R2 Moth = 0.63
GAM R2 Cat = 0.79
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 125
Moths = 1213

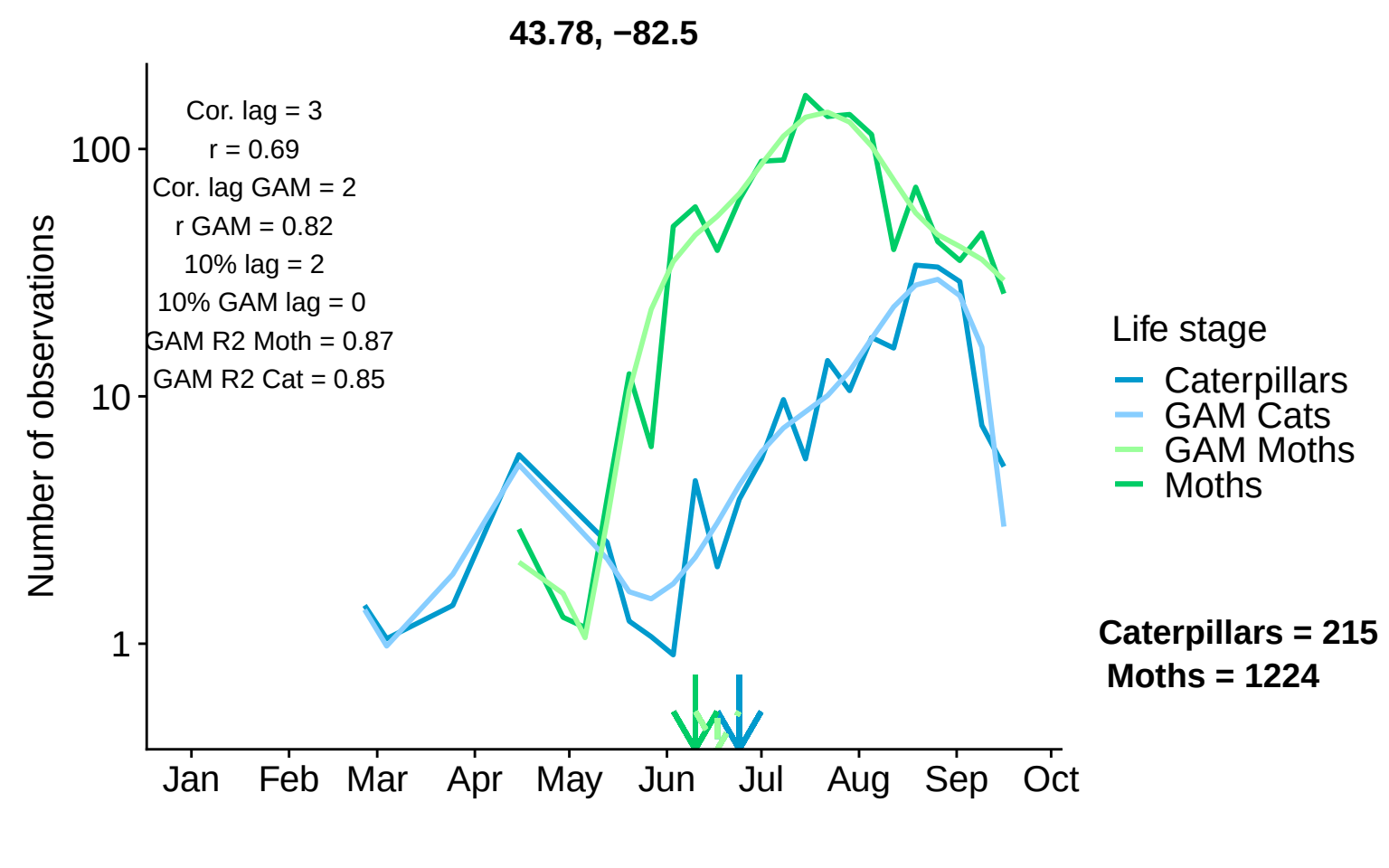

45.56, −72.94
Cor. lag = 7
r = 1
Cor. lag GAM = 4
r GAM = 0.98
10% lag = 2
10% GAM lag = 2
GAM R2 Moth = 0.6
GAM R2 Cat = 0.94
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 239
Moths = 2310

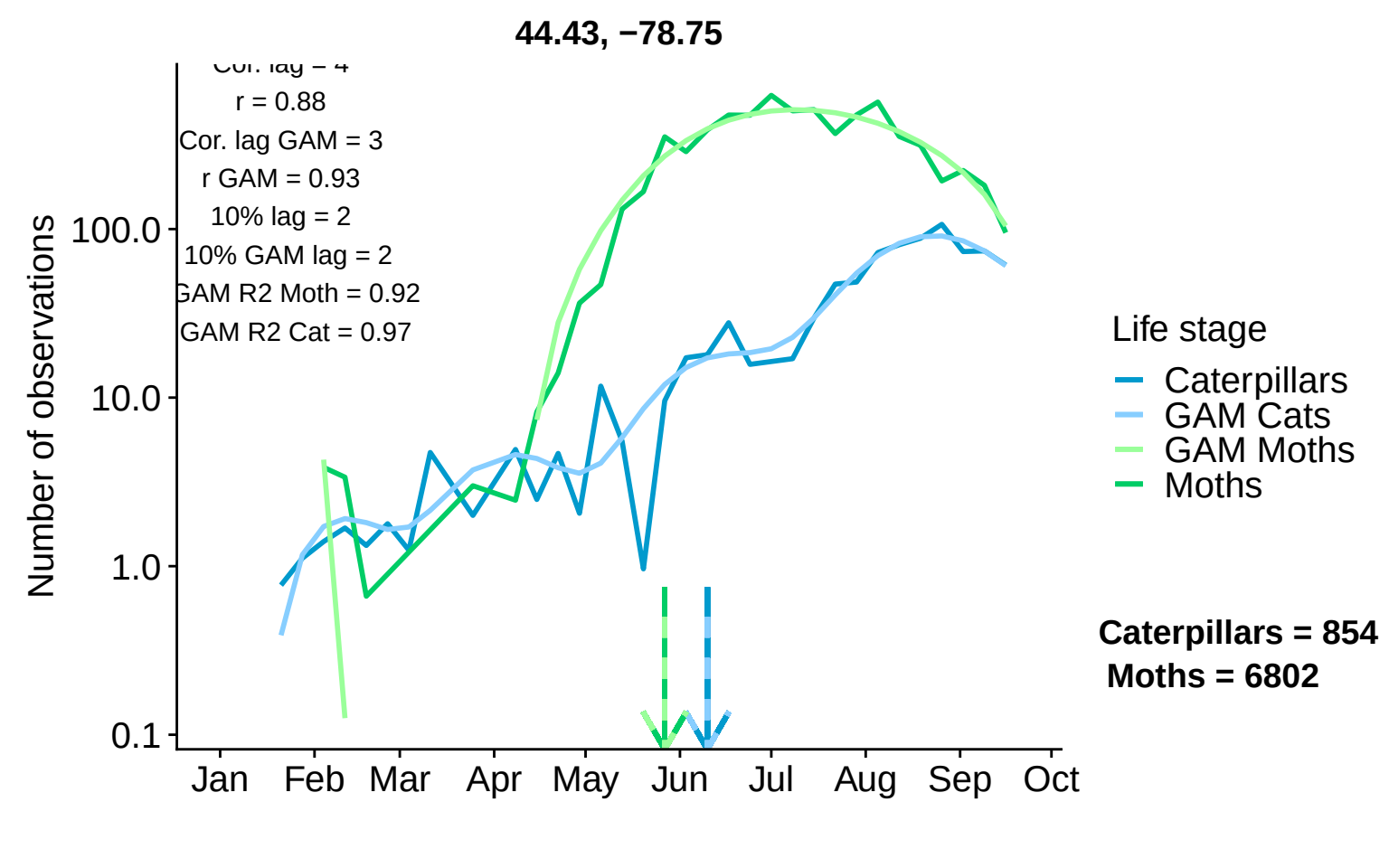

44.89, −69.2
Cor. lag = 6
r = 1
Cor. lag GAM = 6
r GAM = 1
10% lag = 6
10% GAM lag = 6
GAM R2 Moth = 0.48
GAM R2 Cat = 0.75
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 64
Moths = 593

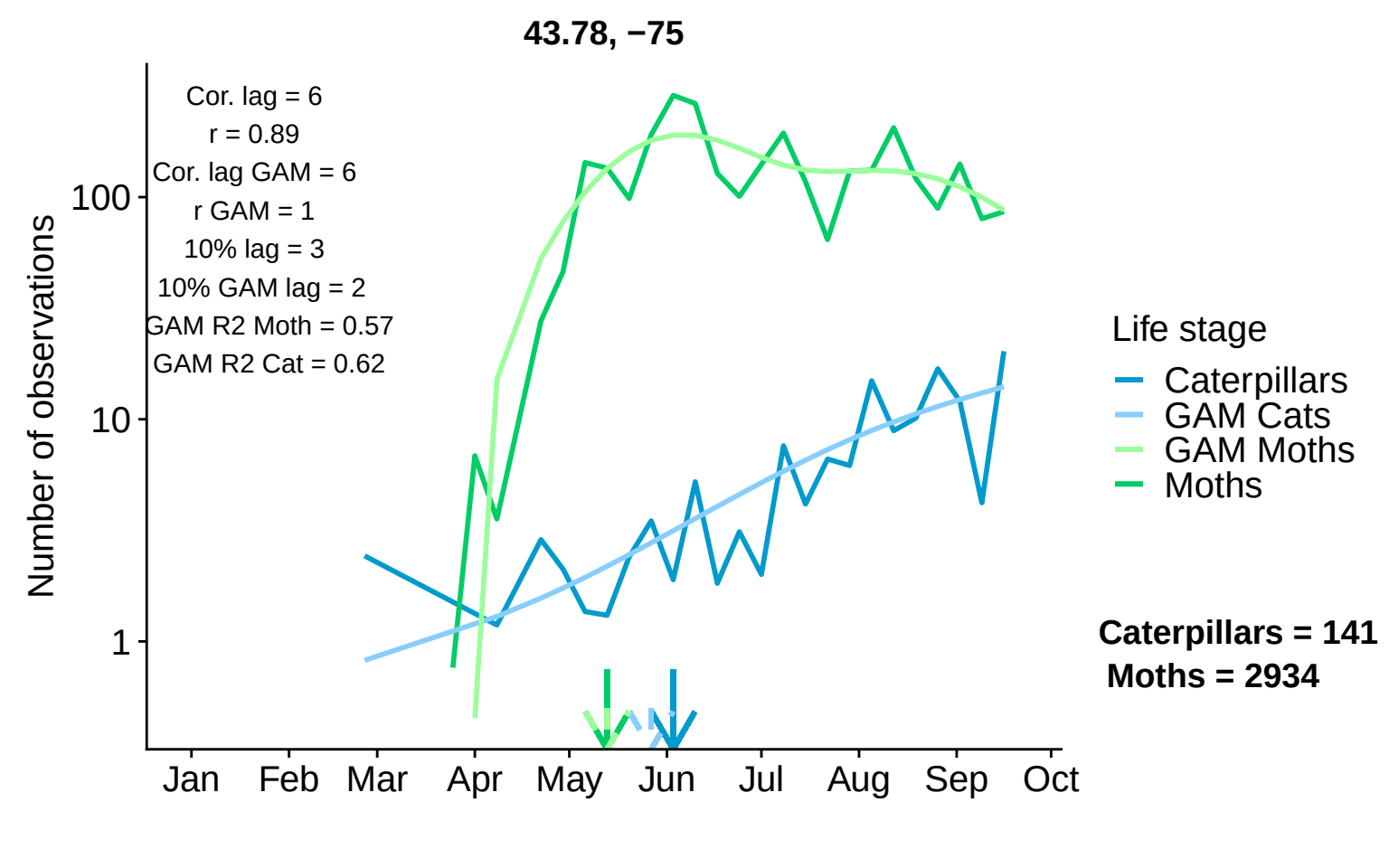

41.59, −93.1
Number of observations
10
3
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Cor. lag = 5
r = 0.98
Cor. lag GAM = 2
r GAM = 0.95
10% lag = 5
10% GAM lag = 2
GAM R2 Moth = 0.06
GAM R2 Cat = 0
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 54
Moths = 53

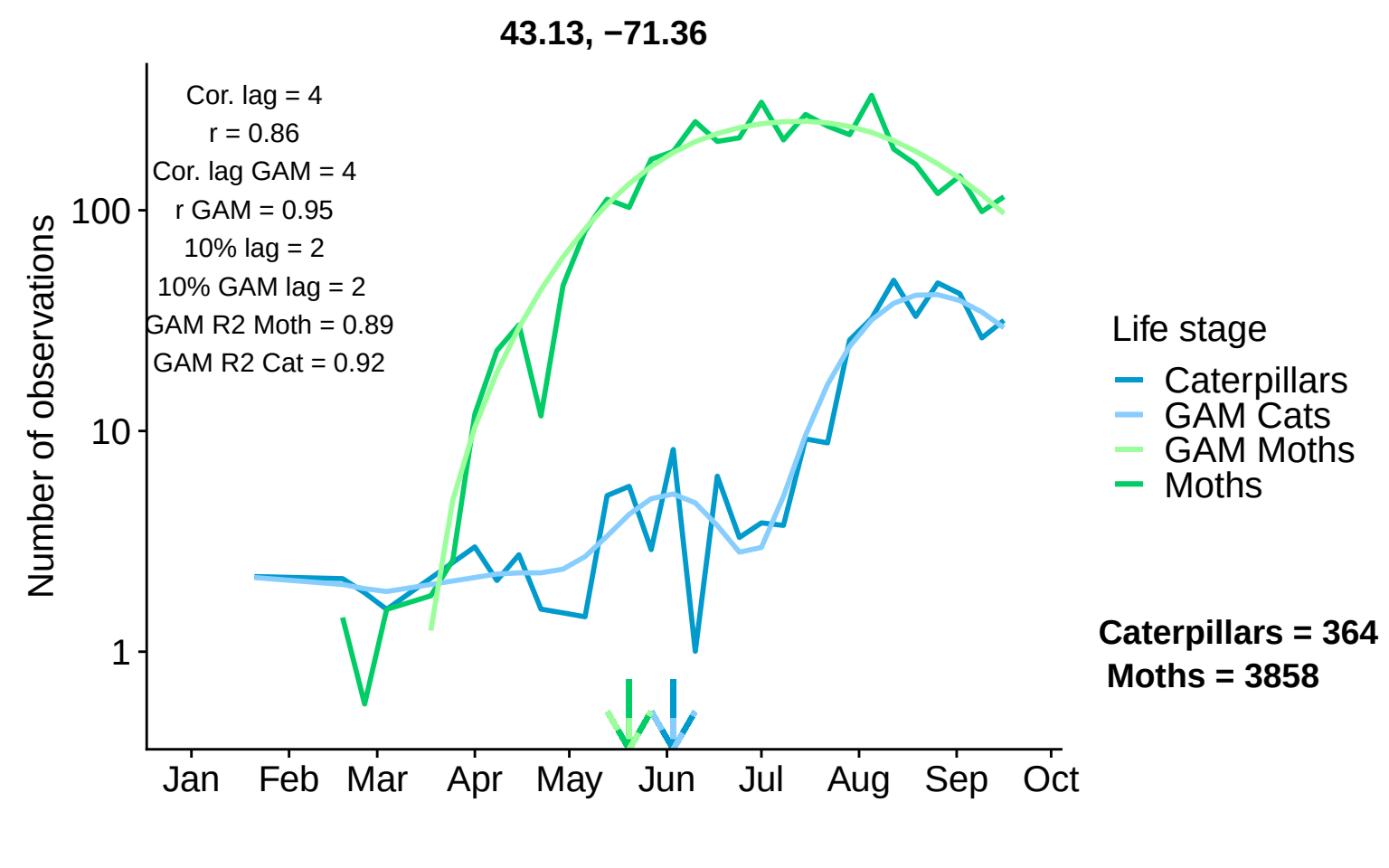

42.43, −89.69
Cor. lag = 0
r = 0.82
Cor. lag GAM = 0
r GAM = 0.87
10% lag = −1
10% GAM lag = −4
GAM R2 Moth = 0.42
GAM R2 Cat = 0.63
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 107
Moths = 610

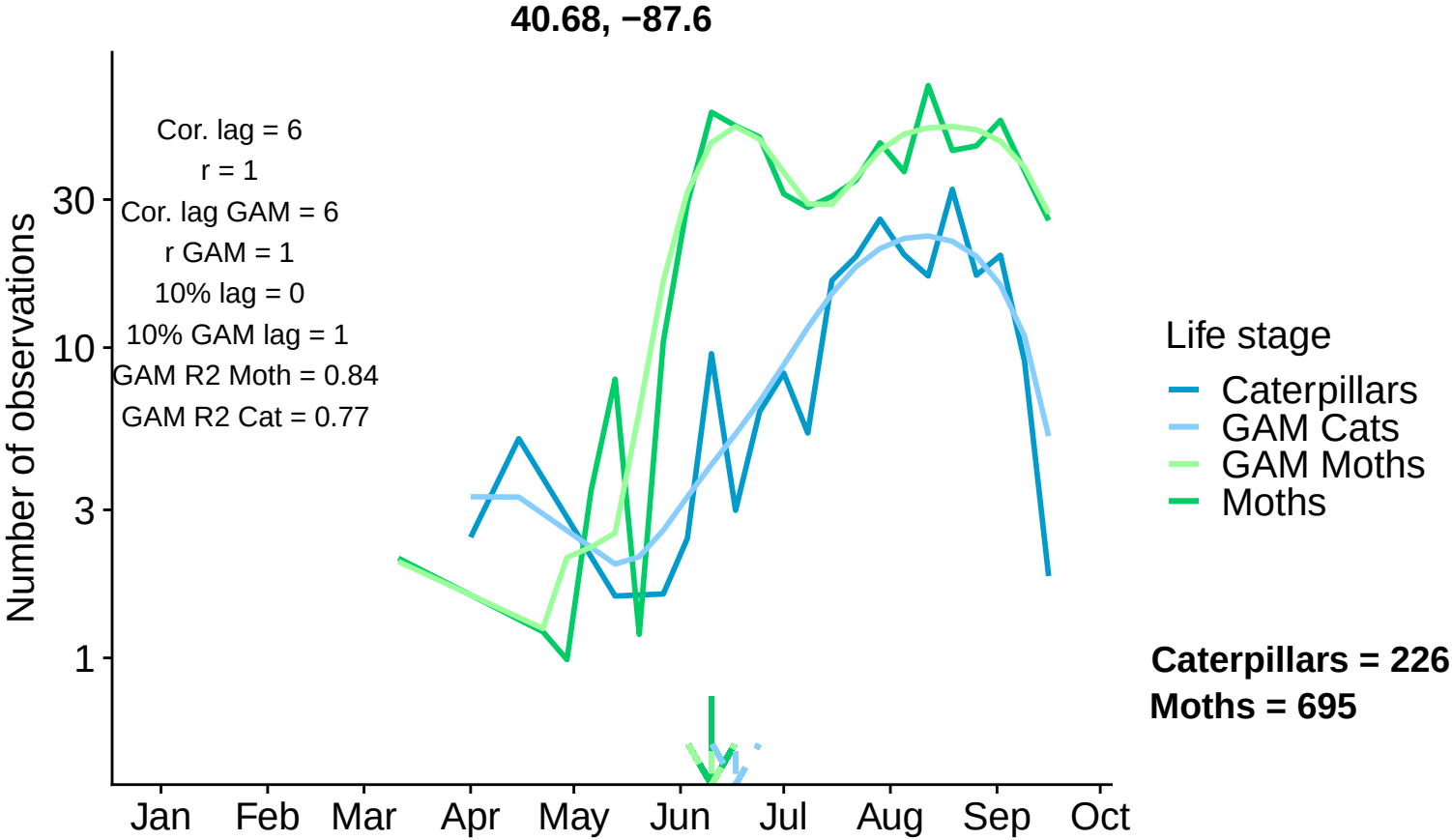

43.13, −86.14
Cor. lag = 3
r = 0.51
Cor. lag GAM = 6
r GAM = 1
10% lag = 0
10% GAM lag = 0
GAM R2 Moth = 0.67
GAM R2 Cat = 0.77
100
10
1
Number of observations
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 189
Moths = 635

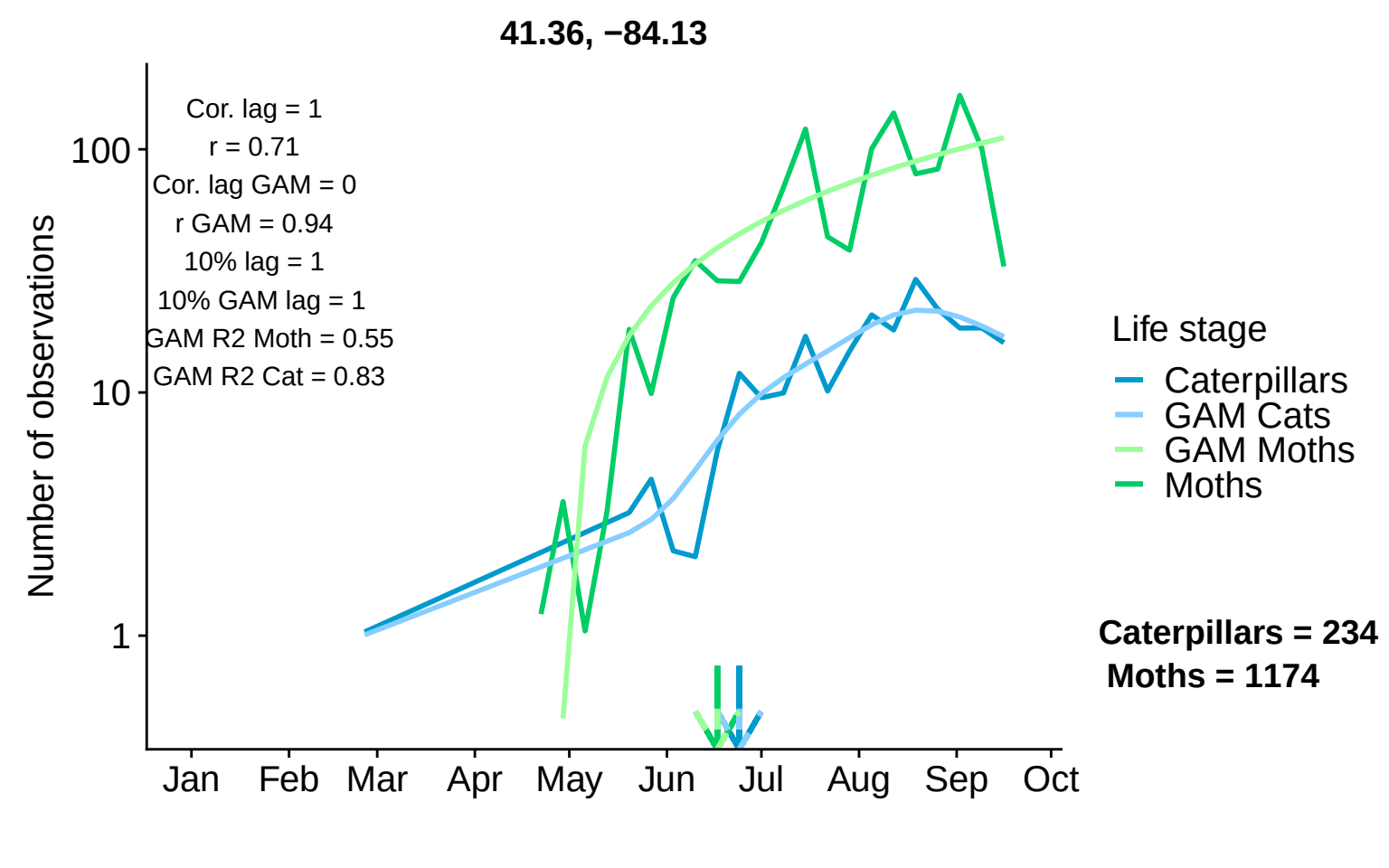

43.78, −82.5
Cor. lag = 3
r = 0.69
Cor. lag GAM = 2
r GAM = 0.82
10% lag = 2
10% GAM lag = 0
GAM R2 Moth = 0.87
GAM R2 Cat = 0.85
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 215
Moths = 1224

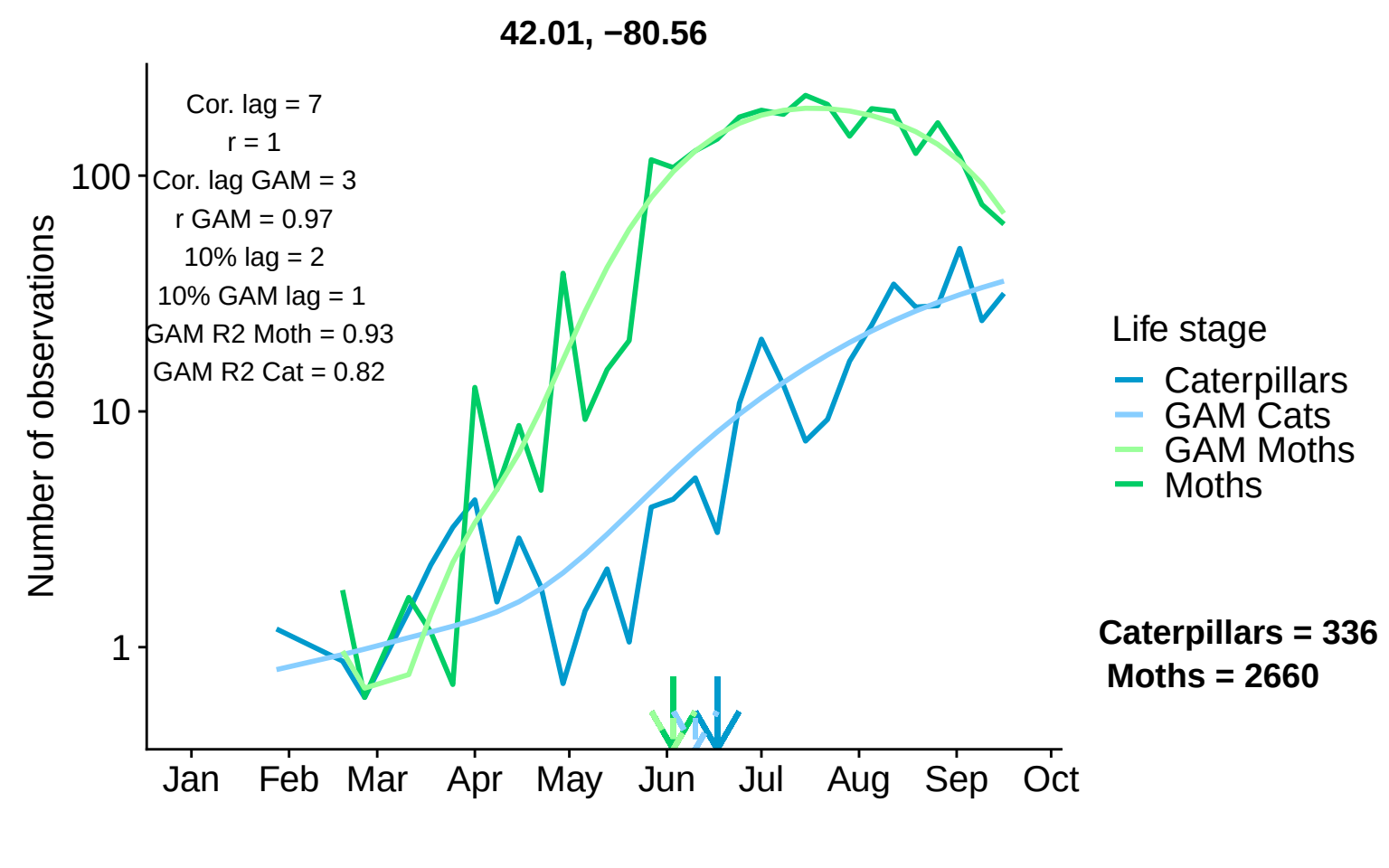

44.43, −78.75
Cor. lag = 4
r = 0.88
Cor. lag GAM = 3
r GAM = 0.93
10% lag = 2
10% GAM lag = 2
GAM R2 Moth = 0.92
GAM R2 Cat = 0.97
Number of observations
100.0
10.0
1.0
0.1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 854
Moths = 6802

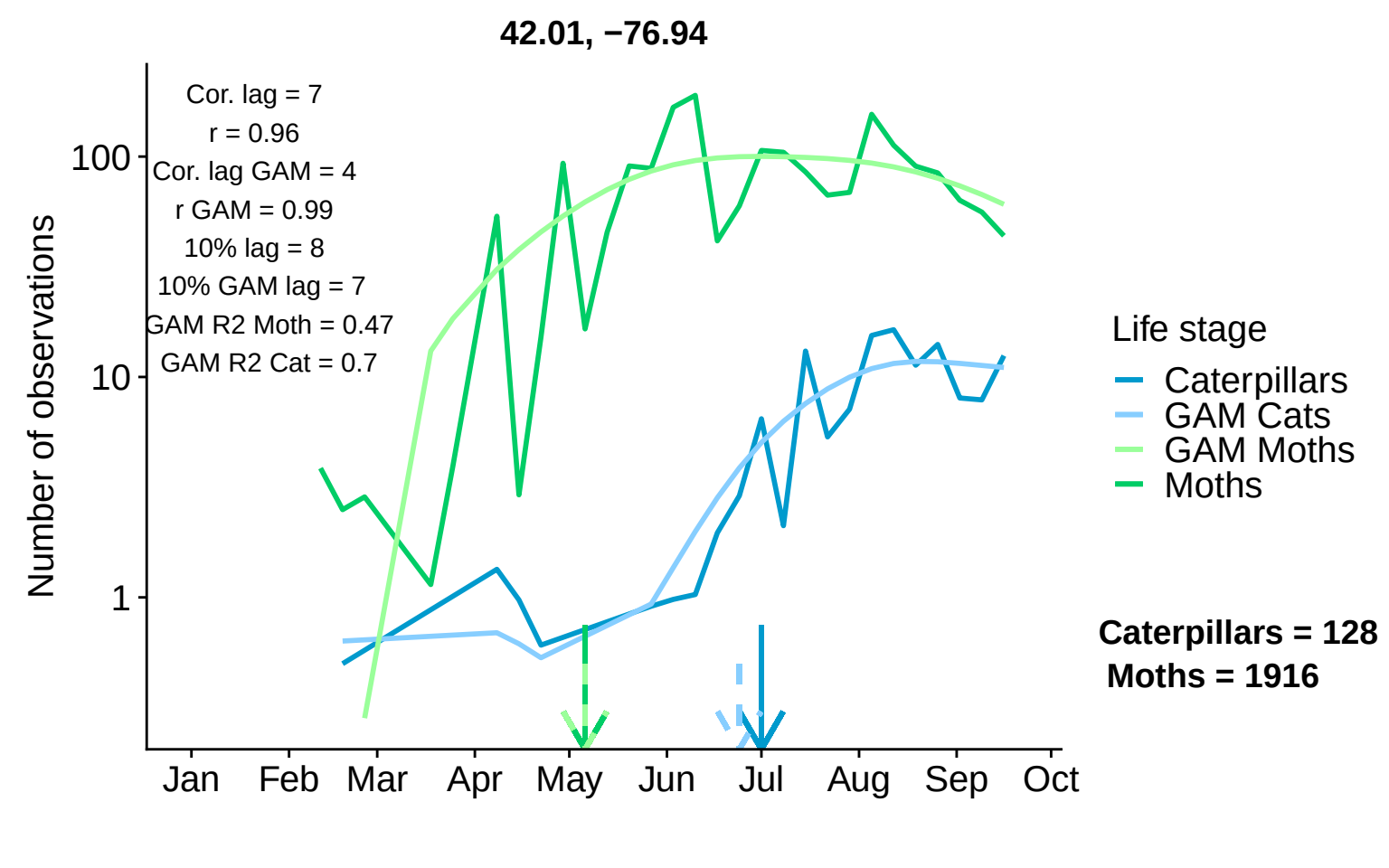

43.78, −75
Cor. lag = 6
r = 0.89
Cor. lag GAM = 6
r GAM = 1
10% lag = 3
10% GAM lag = 2
GAM R2 Moth = 0.57
GAM R2 Cat = 0.62
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 141
Moths = 2934

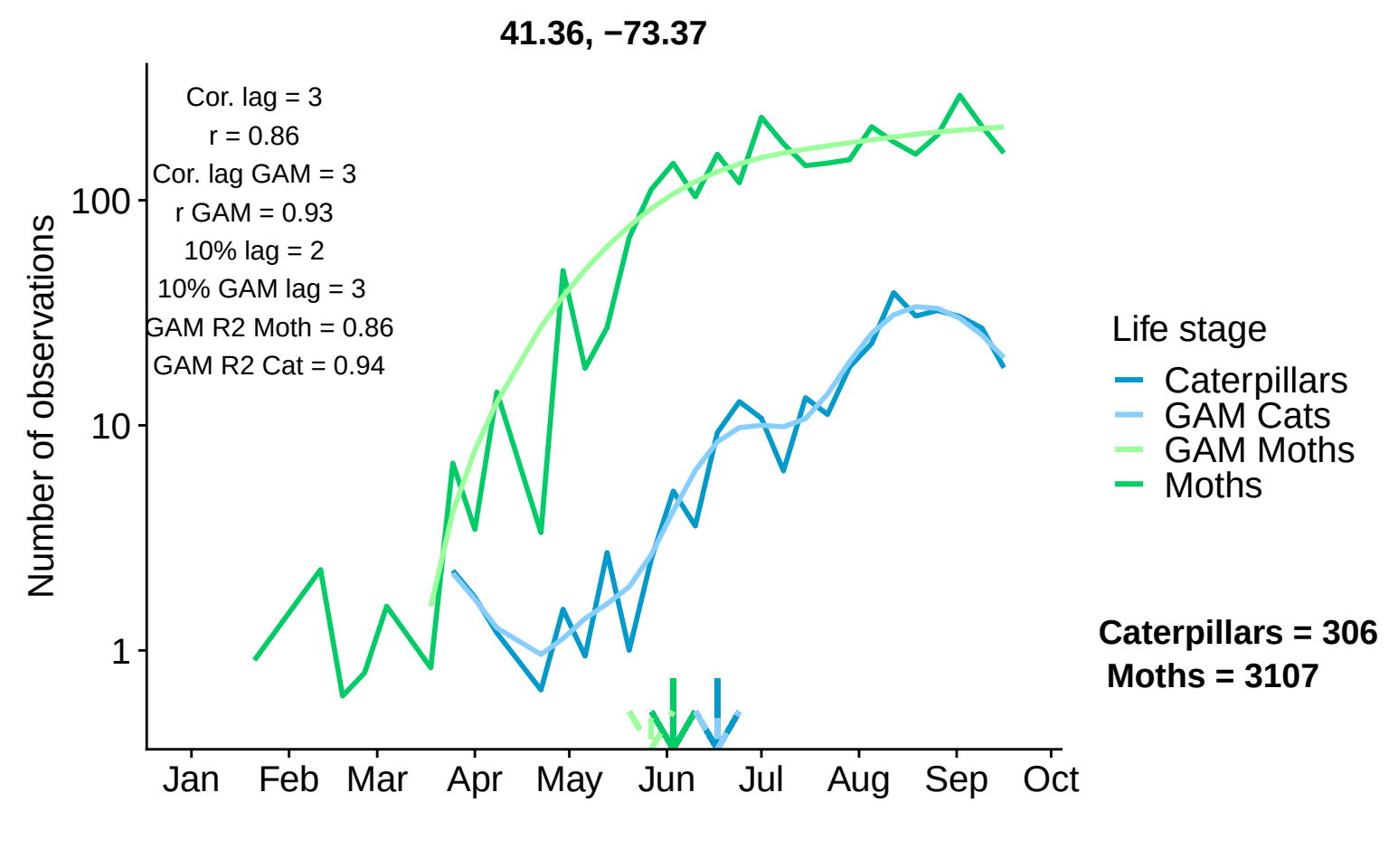

43.13, −71.36
Cor. lag = 4
r = 0.86
Cor. lag GAM = 4
r GAM = 0.95
10% lag = 2
10% GAM lag = 2
GAM R2 Moth = 0.89
GAM R2 Cat = 0.92
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 364
Moths = 3858

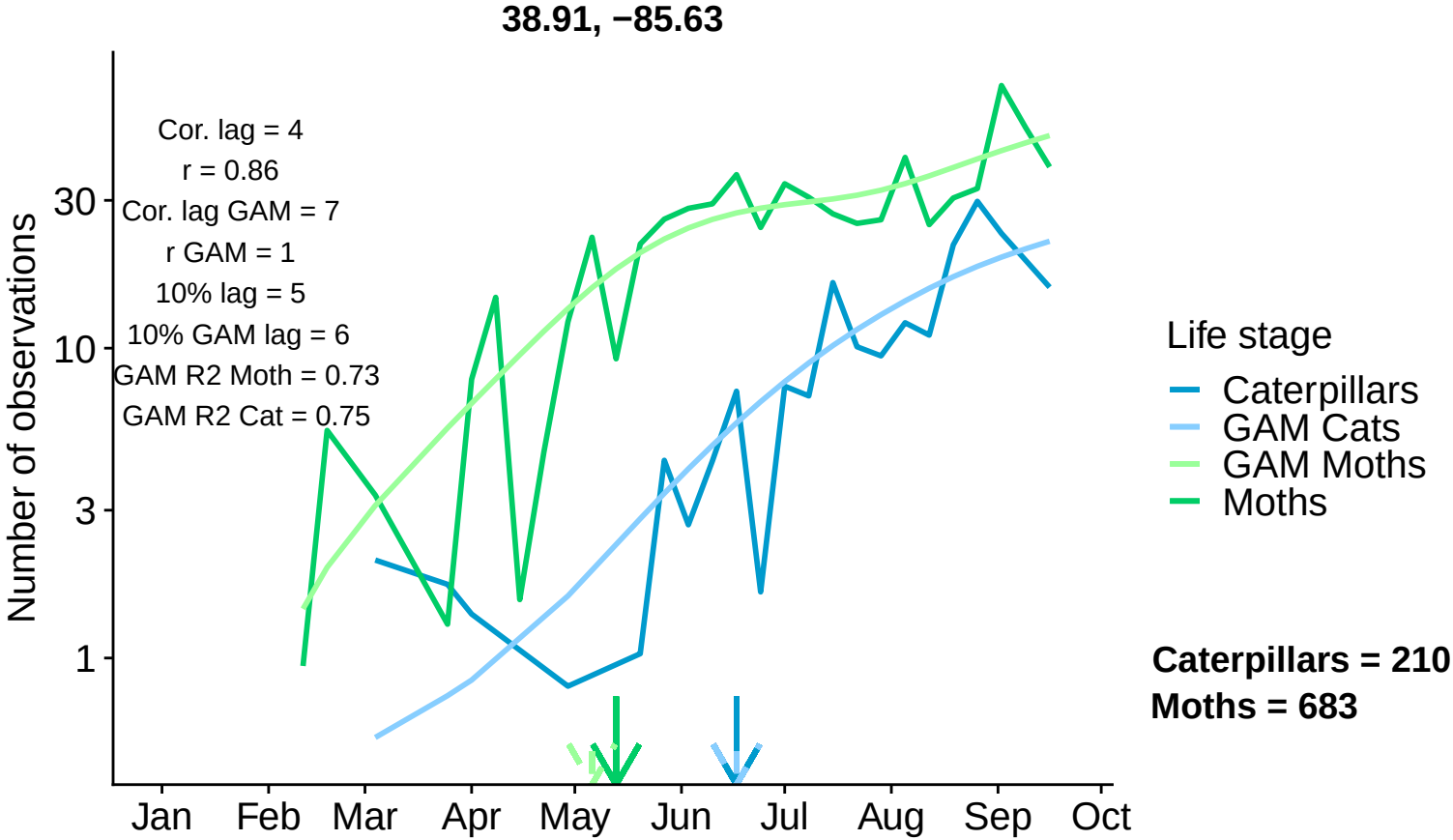

40.68, −87.6
Cor. lag = 6
r = 1
Cor. lag GAM = 6
r GAM = 1
10% lag = 0
10% GAM lag = 1
GAM R2 Moth = 0.84
GAM R2 Cat = 0.77
Number of observations
30
10
3
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 226
Moths = 695

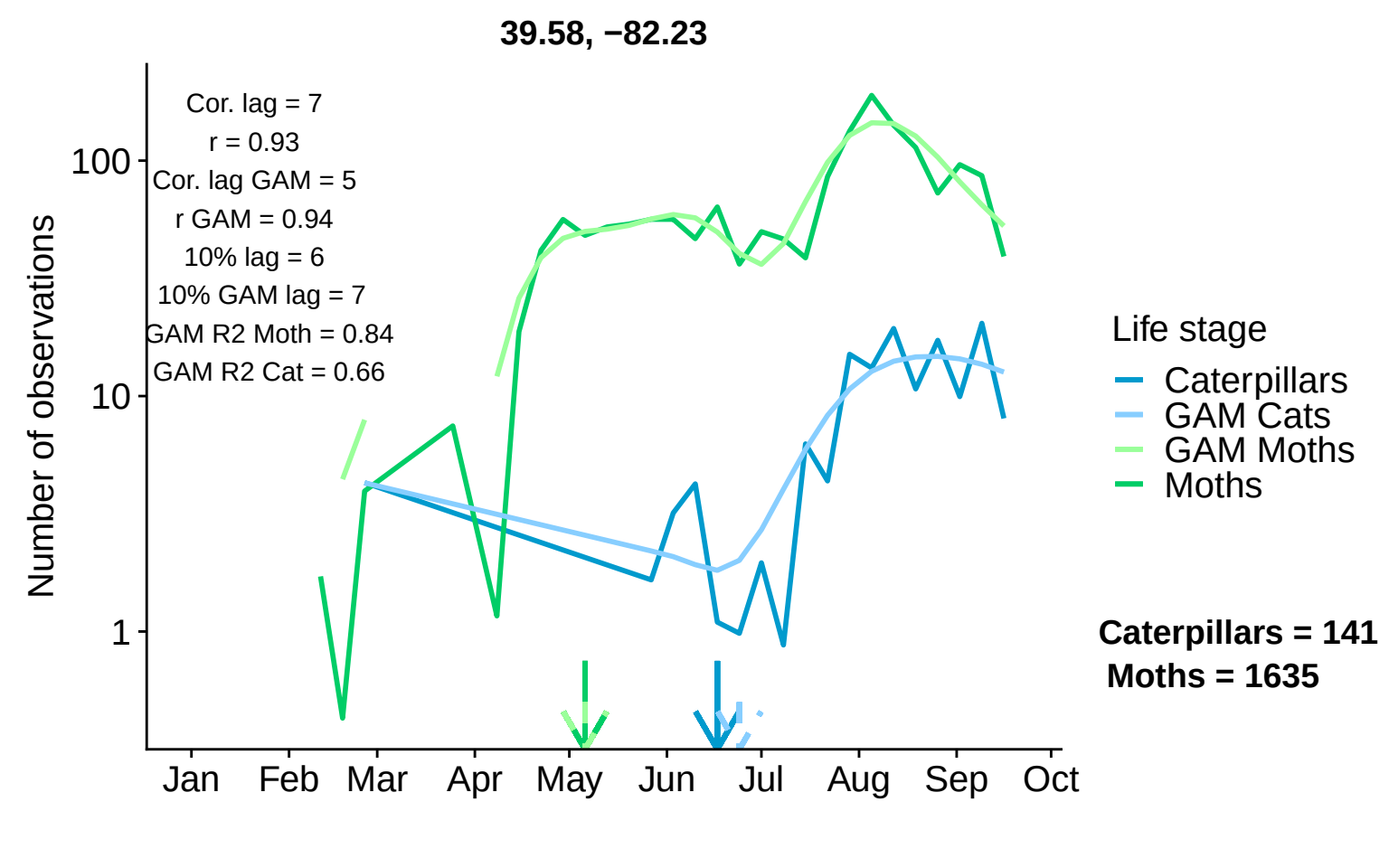

41.36, −84.13
Cor. lag = 1
r = 0.71
Cor. lag GAM = 0
r GAM = 0.94
10% lag = 1
10% GAM lag = 1
GAM R2 Moth = 0.55
GAM R2 Cat = 0.83
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 234
Moths = 1174

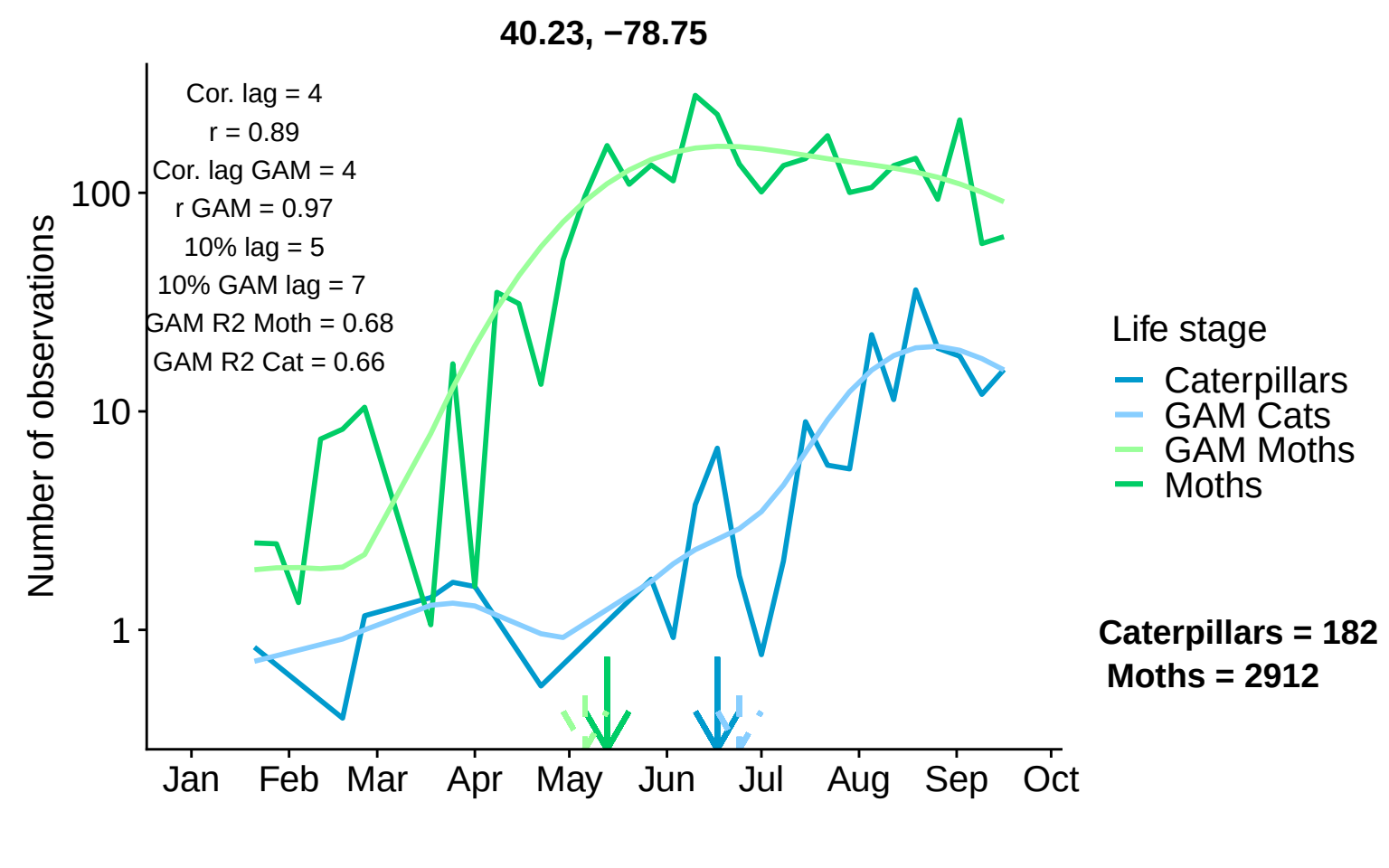

42.01, −80.56
Cor. lag = 7
r = 1
Cor. lag GAM = 3
r GAM = 0.97
10% lag = 2
10% GAM lag = 1
GAM R2 Moth = 0.93
GAM R2 Cat = 0.82
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 336
Moths = 2660

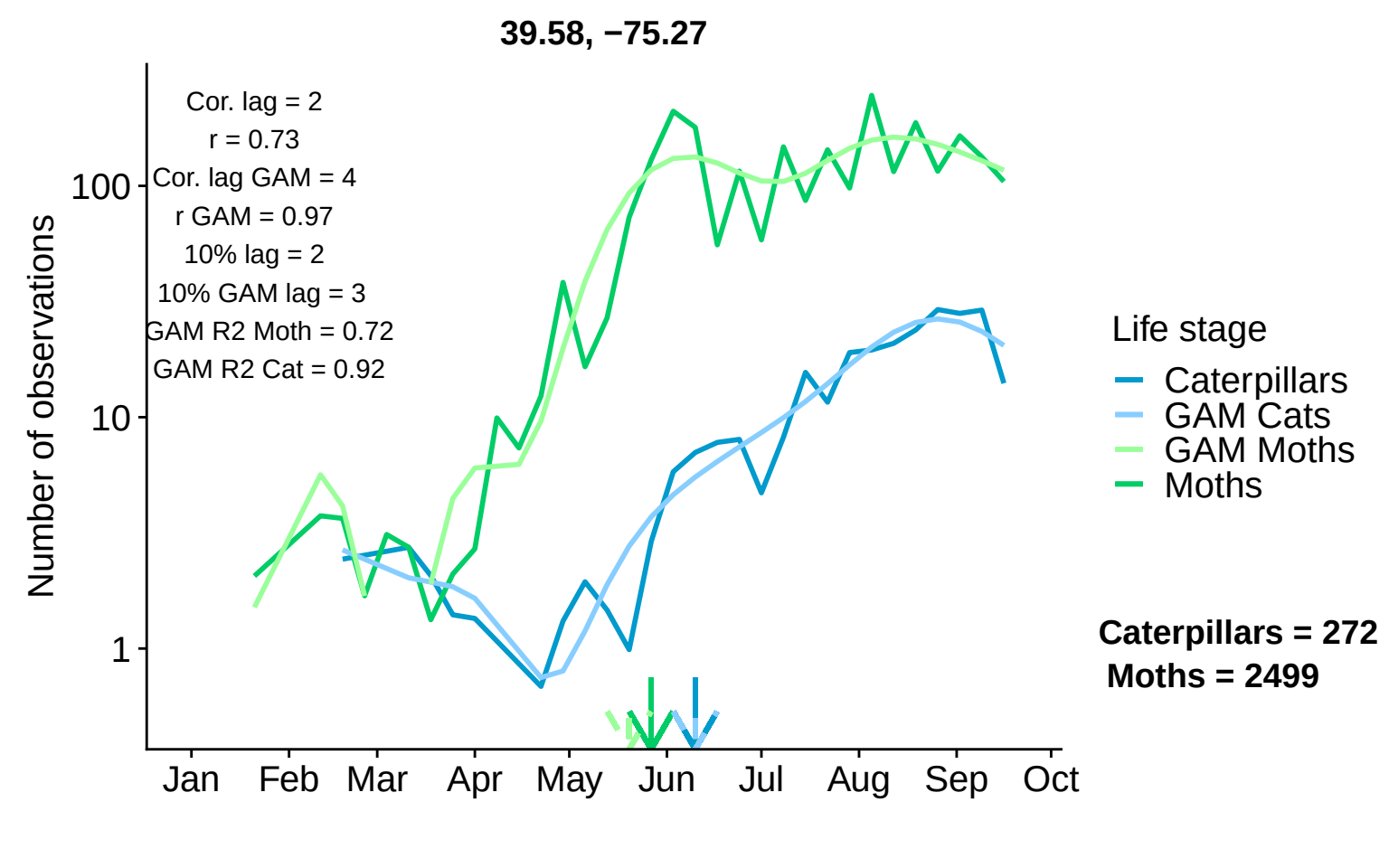

42.01, −76.94
Cor. lag = 7
r = 0.96
Cor. lag GAM = 4
r GAM = 0.99
10% lag = 8
10% GAM lag = 7
GAM R2 Moth = 0.47
GAM R2 Cat = 0.7
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 128
Moths = 1916

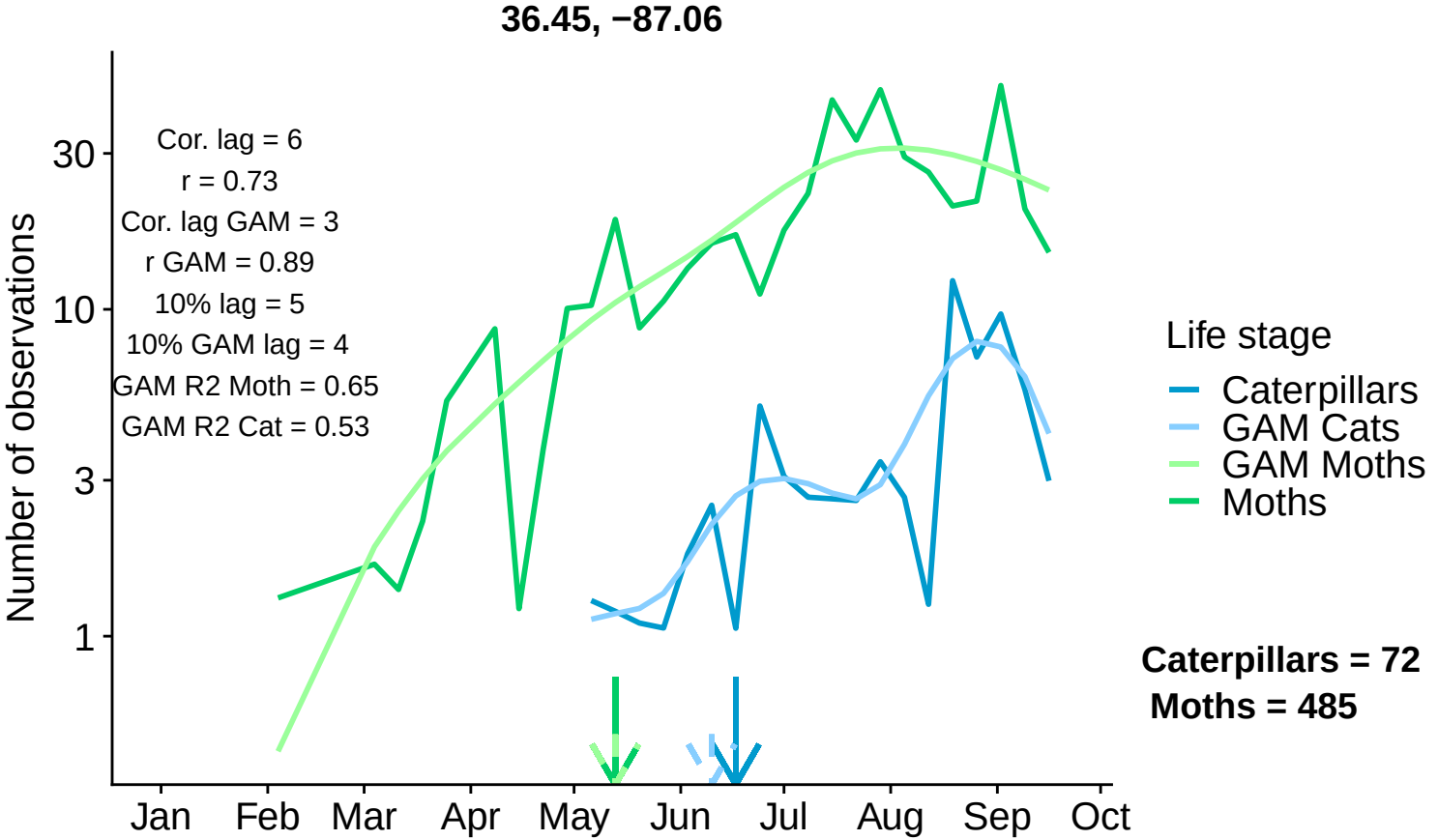

41.36, −73.37
Cor. lag = 3
r = 0.86
Cor. lag GAM = 3
r GAM = 0.93
10% lag = 2
10% GAM lag = 3
GAM R2 Moth = 0.86
GAM R2 Cat = 0.94
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 306
Moths = 3107

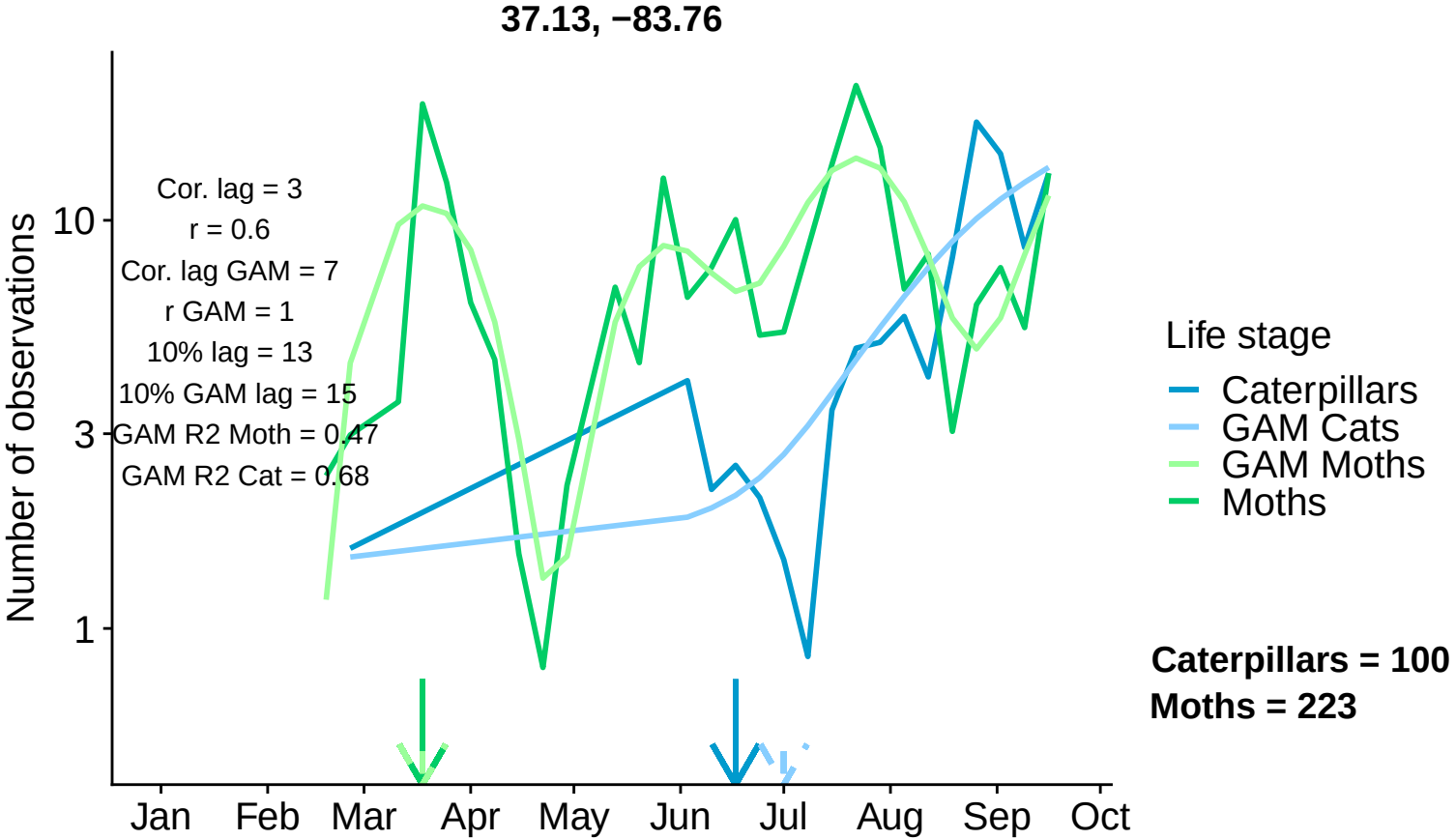

38.91, −85.63
Cor. lag = 4
r = 0.86
Cor. lag GAM = 7
r GAM = 1
10% lag = 5
10% GAM lag = 6
GAM R2 Moth = 0.73
GAM R2 Cat = 0.75
Number of observations
30
10
3
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 210
Moths = 683

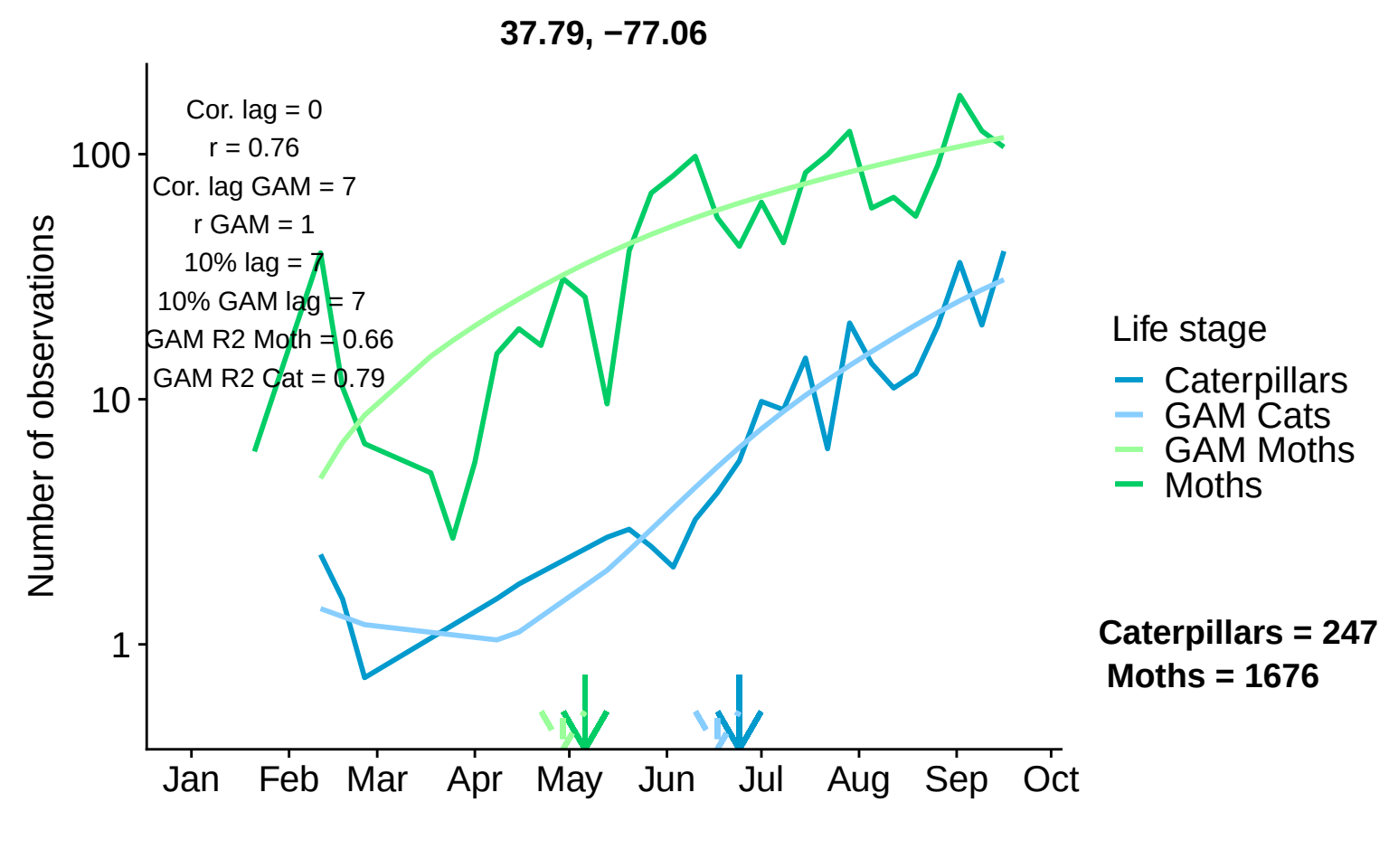

39.58, −82.23
Cor. lag = 7
r = 0.93
Cor. lag GAM = 5
r GAM = 0.94
10% lag = 6
10% GAM lag = 7
GAM R2 Moth = 0.84
GAM R2 Cat = 0.66
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 141
Moths = 1635

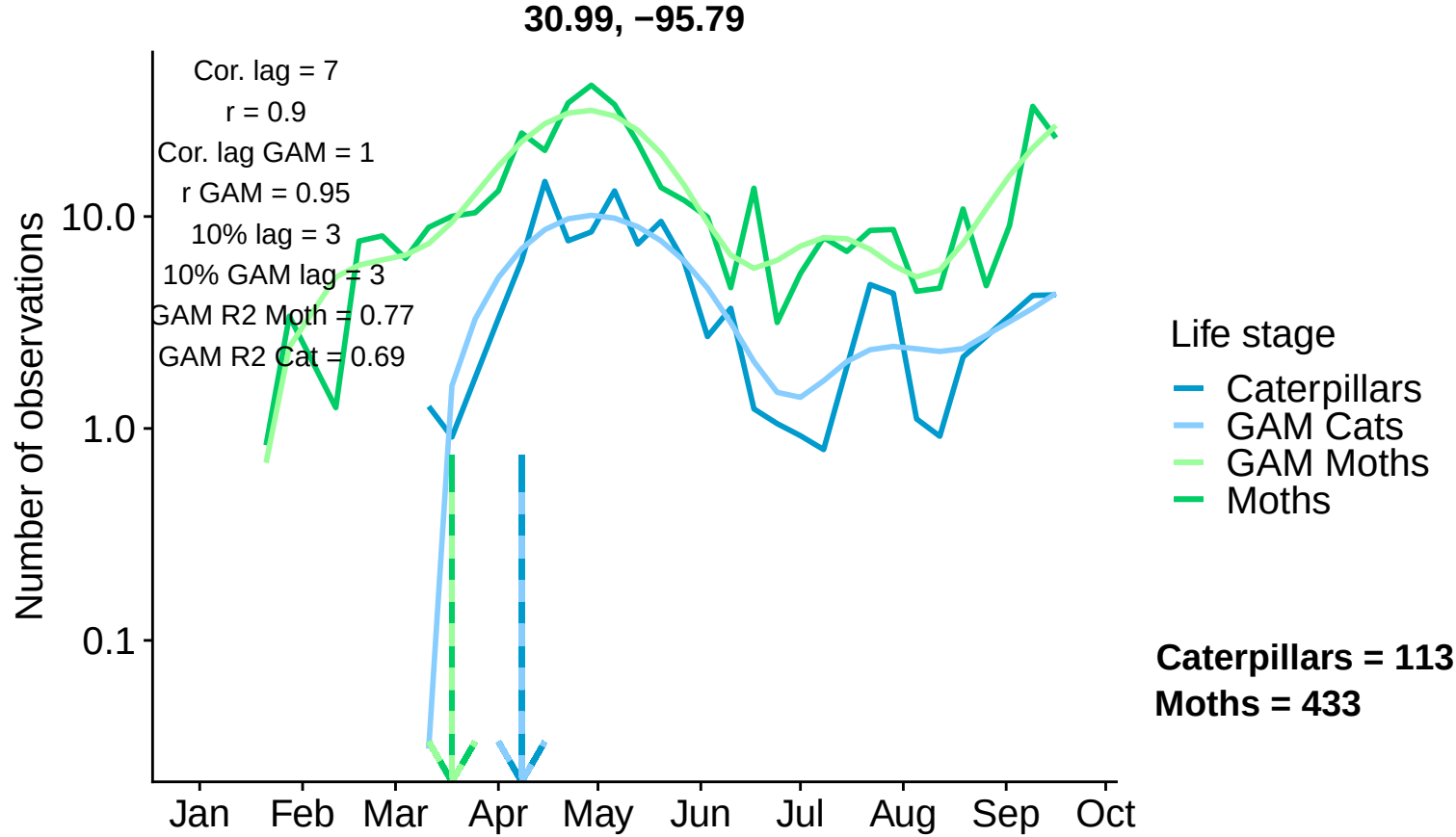

40.23, −78.75
Cor. lag = 4
r = 0.89
Cor. lag GAM = 4
r GAM = 0.97
10% lag = 5
10% GAM lag = 7
GAM R2 Moth = 0.68
GAM R2 Cat = 0.66
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 182
Moths = 2912

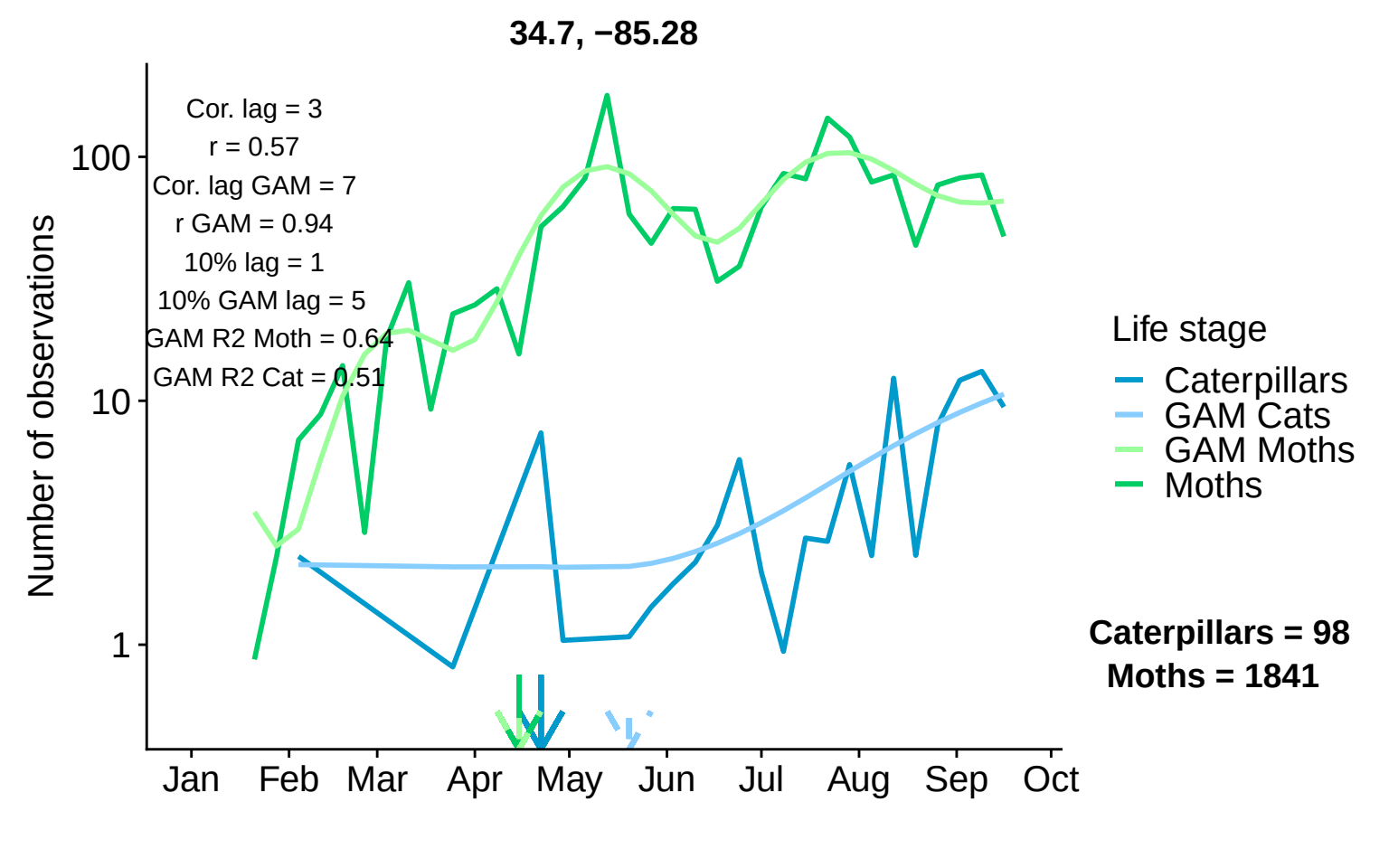

39.58, −75.27
Cor. lag = 2
r = 0.73
Cor. lag GAM = 4
r GAM = 0.97
10% lag = 2
10% GAM lag = 3
GAM R2 Moth = 0.72
GAM R2 Cat = 0.92
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 272
Moths = 2499

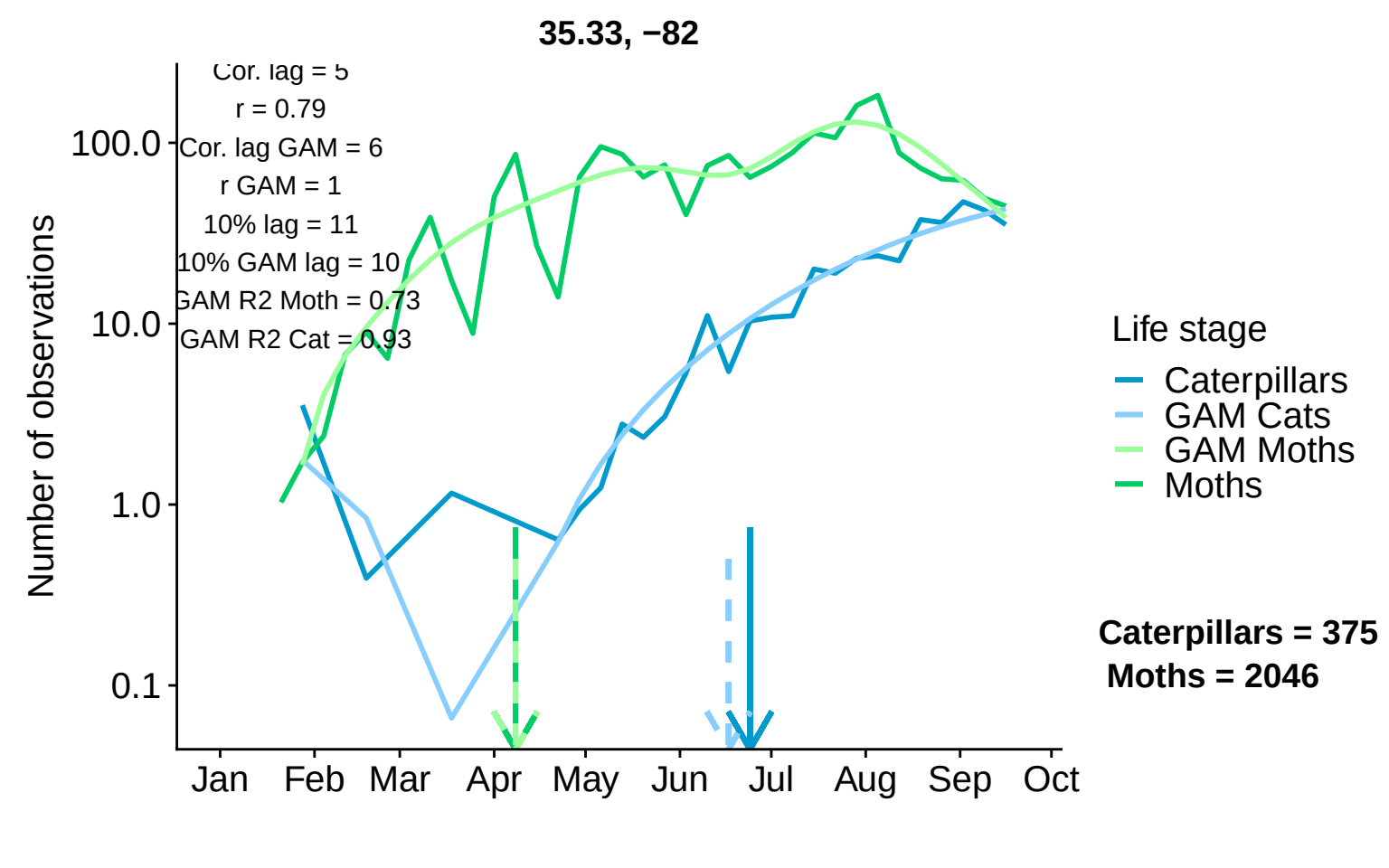

36.45, −87.06
Cor. lag = 6
r = 0.73
Cor. lag GAM = 3
r GAM = 0.89
10% lag = 5
10% GAM lag = 4
GAM R2 Moth = 0.65
GAM R2 Cat = 0.53
Number of observations
30
10
3
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 72
Moths = 485

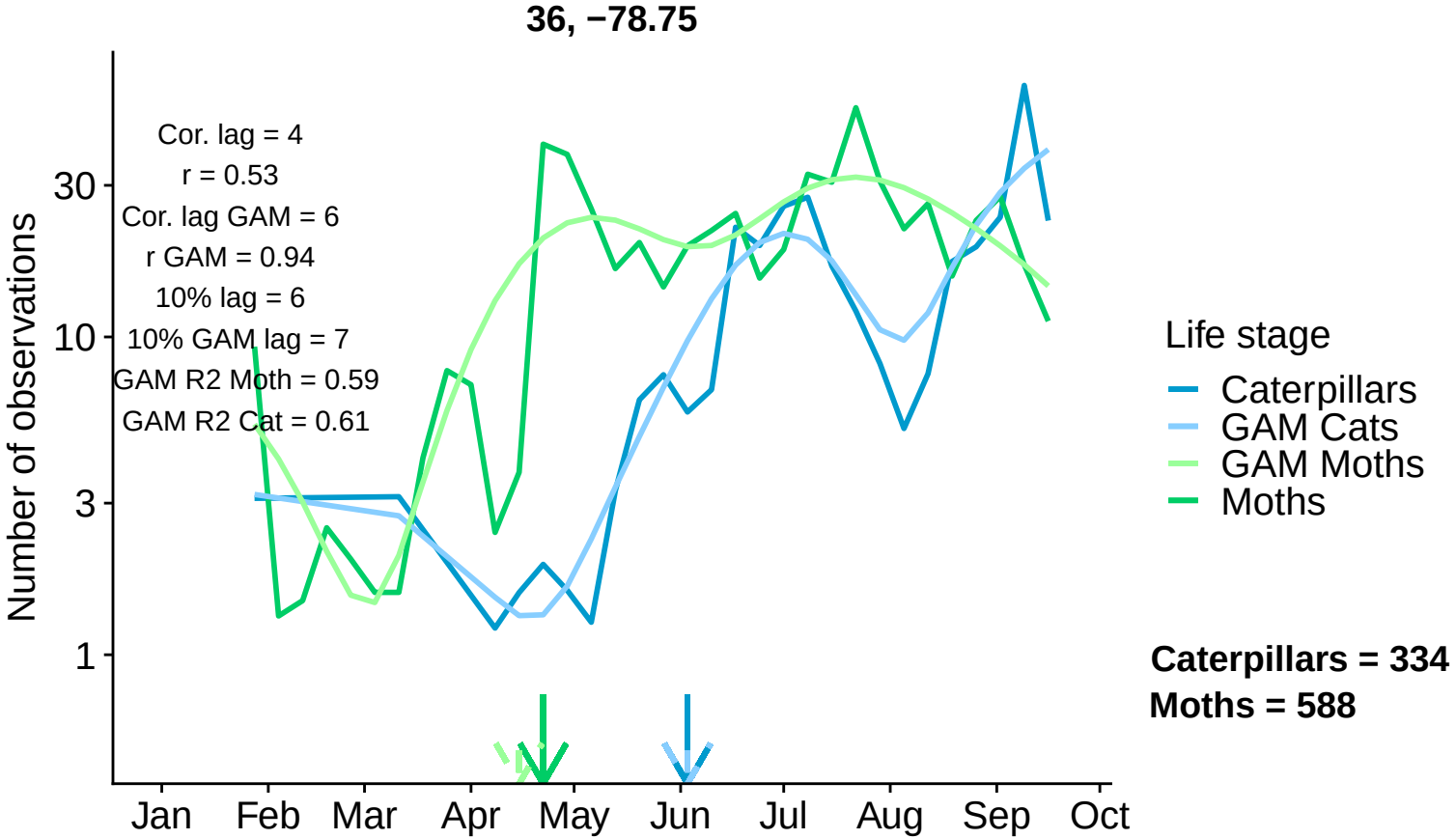

37.13, −83.76
Number of observations
10
3
1
Cor. lag = 3
r = 0.6
Cor. lag GAM = 7
r GAM = 1
10% lag = 13
10% GAM lag = 15
GAM R2 Moth = 0.47
GAM R2 Cat = 0.68
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 100
Moths = 223

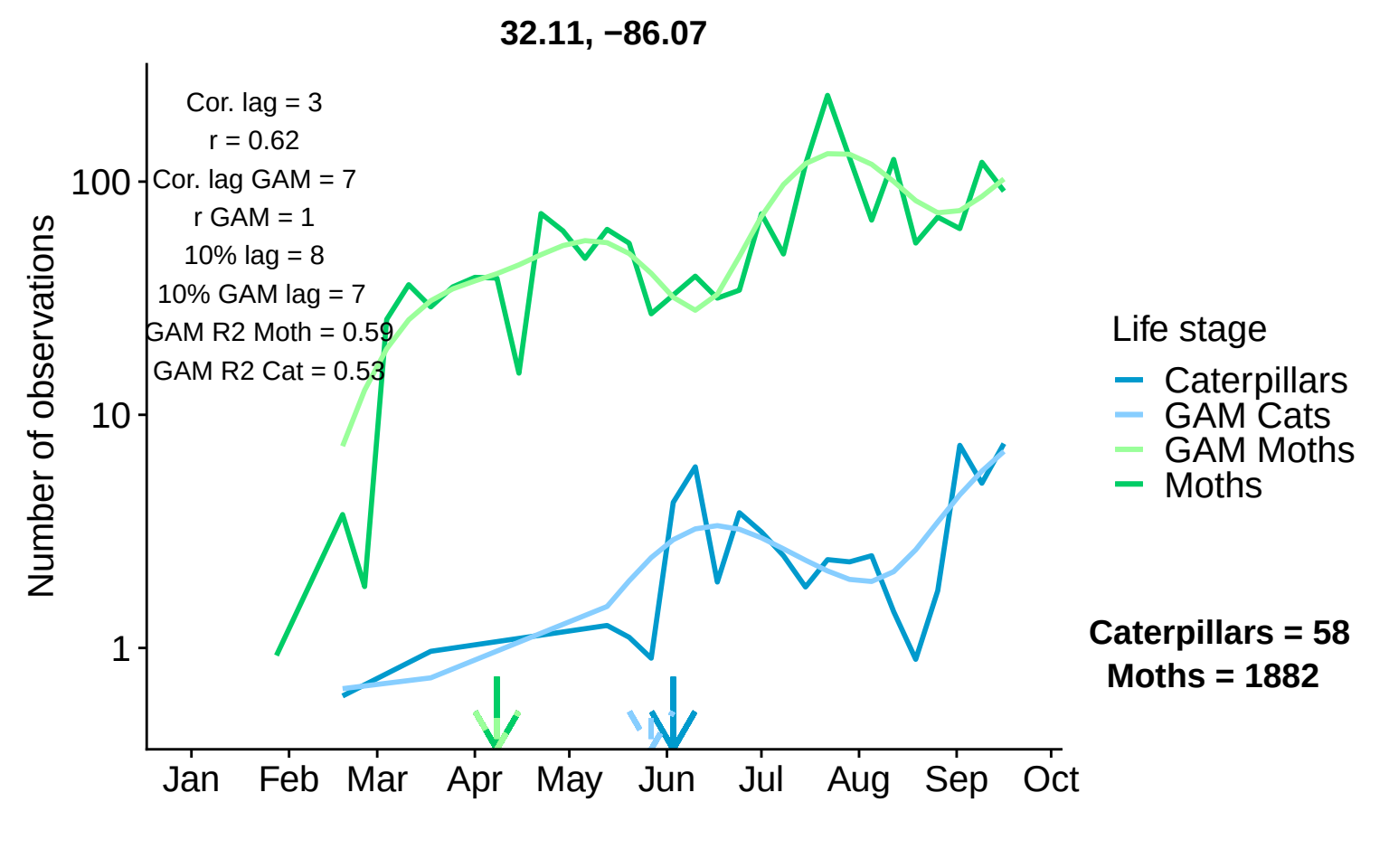

37.79, −77.06
Cor. lag = 0
r = 0.76
Cor. lag GAM = 7
r GAM = 1
10% lag = 7
10% GAM lag = 7
GAM R2 Moth = 0.66
GAM R2 Cat = 0.79
Number of observations
100
10
1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 247
Moths = 1676

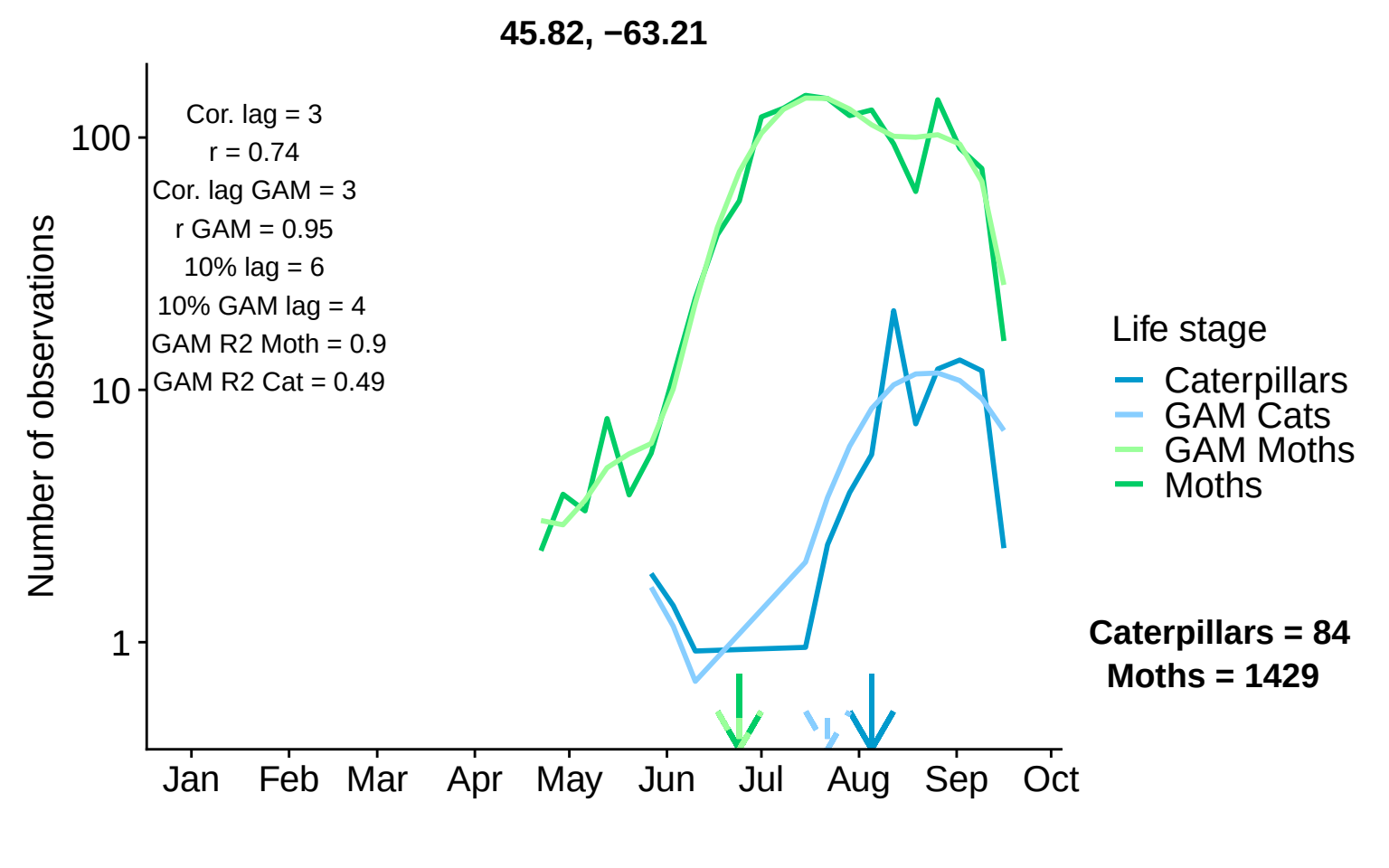

30.99, −95.79
Cor. lag = 7
r = 0.9
Cor. lag GAM = 1
r GAM = 0.95
10% lag = 3
10% GAM lag = 3
GAM R2 Moth = 0.77
GAM R2 Cat = 0.69
Number of observations
10.0
1.0
0.1
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Life stage
Caterpillars
GAM Cats
GAM Moths
Moths
Caterpillars = 113
Moths = 433


34.7, −85.28
Cor. lag = 3
r = 0.57
Cor. lag GAM = 7
r GAM = 0.94
10% lag = 1
10% GAM lag = 5
GAM R2 Moth = 0.64
GAM R2 Cat = 0.51
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 = 98
Moths = 1841


35.33, −82
Cor. lag = 5
r = 0.79
Cor. lag GAM = 6
r GAM = 1
10% lag = 11
10% GAM lag = 10
GAM R2 Moth = 0.73
GAM R2 Cat = 0.93
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 = 375
Moths = 2046


36, −78.75
Cor. lag = 4
r = 0.53
Cor. lag GAM = 6
r GAM = 0.94
10% lag = 6
10% GAM lag = 7
GAM R2 Moth = 0.59
GAM R2 Cat = 0.61
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 = 334
Moths = 588


32.11, −86.07
Cor. lag = 3
r = 0.62
Cor. lag GAM = 7
r GAM = 1
10% lag = 8
10% GAM lag = 7
GAM R2 Moth = 0.59
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 = 58
Moths = 1882


45.82, −63.21
Cor. lag = 3
r = 0.74
Cor. lag GAM = 3
r GAM = 0.95
10% lag = 6
10% GAM lag = 4
GAM R2 Moth = 0.9
GAM R2 Cat = 0.49
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 = 84
Moths = 1429