

Comparative Analyses: Negative Binomial									
Comparison	Model	Variable	Effect	95% CI	P-Value	AIC	BIC	LogLik	Deviance
≤5 vs >5 years old	M1	>5 years old	2.02	1.77 - 2.31	< 2x10 ⁻¹⁶	1414.0	1432.0	-701.1	1402.2
		Month	0.99	0.97 - 1.01	0.3180				
	M3	>5 years old	1.99	1.77 - 2.25	< 2x10 ⁻¹⁶	1210.2	1244.8	-593.1	1186.2
		Month	0.98	0.96 - 1.01	0.1675				
		Mean Temperature	0.90	0.78 - 1.04	0.1380				
		Lag1 Temperature	0.94	0.83 - 1.07	0.3416				
		Lag2 Temperature	1.05	0.92 - 1.20	0.4456				
		Mean Precipitation	0.97	0.94 - 0.99	0.0182				
		Lag1 Precipitation	1.01	0.98 - 1.03	0.6687				
Lag2 Precipitation	1.03	1.00 - 1.05	0.0255						
≤5 vs 6-15 years old	M2	6-15 years old	0.82	0.70 - 0.97	0.0206	1338.5	1356.3	-663.3	1326.5
		Month	0.99	0.96 - 1.01	0.2903				
	M4	6-15 years old	0.80	0.68 - 0.93	0.0037	1210.2	1244.8	-593.1	1186.2
		Month	0.98	0.95 - 1.01	0.1514				
		Mean Temperature	0.85	0.71 - 1.02	0.0753				
		Lag1 Temperature	0.95	0.81 - 1.11	0.5262				
		Lag2 Temperature	1.05	0.89 - 1.23	0.5769				
		Mean Precipitation	0.96	0.92 - 0.99	0.0185				
		Lag1 Precipitation	1.00	0.97 - 1.03	0.9440				
Lag2 Precipitation	1.03	1.00 - 1.07	0.0325						
Age-Specific Subgroup Analyses									
>5 years old	M5	Month	0.97	0.95 - 1.01	0.1969	698.7	722.8	-338.4	676.7
		Mean Temperature	0.84	0.68 - 1.03	0.0948				
		Lag1 Temperature	0.99	0.83 - 1.20	0.9326				
		Lag2 Temperature	1.01	0.84 - 1.21	0.9374				
		Mean Precipitation	0.96	0.92 - 1.00	0.0501				
		Lag1 Precipitation	1.02	0.97 - 1.05	0.5666				
		Lag2 Precipitation	1.03	1.00 - 1.07	0.0683				
6-15 years old	M6	Month	0.97	0.93 - 1.00	0.0738	591.5	615.5	-284.7	569.5
		Mean Temperature	0.73	0.57 - 0.93	0.0126				
		Lag1 Temperature	1.01	0.83 - 1.24	0.9014				
		Lag2 Temperature	0.99	0.80 - 1.22	0.9086				
		Mean Precipitation	0.94	0.90 - 0.99	0.0122				
		Lag1 Precipitation	1.00	0.96 - 1.04	0.9912				
		Lag2 Precipitation	1.05	1.00 - 1.09	0.0296				
Change Model Analyses									
≤5 vs >5 years old	M7	>5 years old	2.00	1.77 - 2.27	3x10 ⁻²⁹	1389.9	1410.7	-688.0	1375.9
		Month	0.93	0.90 - 0.95	7x10 ⁻⁷				
		Post High Precipitation	1.84	1.47 - 2.31	1x10 ⁻⁷				
≤5 vs 6-15 years old	M8	6-15 years old	0.80	0.69 - 0.94	5x10 ⁻³	1315.6	1336.3	-650.8	1301.6
		Month	0.91	0.88 - 0.95	1x10 ⁻⁶				
		Post High Precipitation	2.07	1.57 - 2.74	3x10 ⁻⁷				

Table 1. Summary of results from all the Negative Binomial mixed effect models. The first and second columns help identify which comparison (first column) is made by using a different model label (second column). Note that $M_i \neq M_j$ for $i \neq j$ as they were fit separately. [CI: Confidence Intervals, AIC: Akaike Information Criterion, BIC: Bayesian Information Criterion, LogLik: Negative Log-Likelihood]