

Table S1: Comparison of AICs of models with variables and varying time lags

Formula: gam(Aaefem~offset(LNtraps)+s(variable), family=nb())

Model	Variable	Estimate	Standard Error	Chi.sq	p-value	AIC
Models with variable explanatory Temperature minimum						
Tmin	<i>Intercept</i>	-1.15	0.08		<0.001	1857
	<i>s (Tmin)</i>	Smooth		151.5	<0.001	
Tmin1	<i>Intercept</i>	-1.23	0.08		<0.001	1832
	<i>s (Tmin_{t-1})</i>	Smooth		217.9	<0.001	
Tmin2	<i>Intercept</i>	-1.29	0.07		<0.001	1814
	<i>s (Tmin_{t-2})</i>	Smooth		275.3	<0.001	
Tmin3	<i>Intercept</i>	-1.34	0.07		<0.001	1798
	<i>s (Tmin_{t-3})</i>	Smooth		323.5	<0.001	
Tmin4	<i>Intercept</i>	-1.42	0.06		<0.001	1764
	<i>s (Tmin_{t-4})</i>	Smooth		463.4	<0.001	
Models with variable explanatory Temperature mean						
Tmean	<i>Intercept</i>	-1.07	0.09		<0.001	1879
	<i>s (Tmean)</i>	Smooth		106	<0.001	
Tmean1	<i>Intercept</i>	-1.16	0.08		<0.001	1854
	<i>s (Tmean_{t-1})</i>	Smooth		162.7	<0.001	
Tmean2	<i>Intercept</i>	-1.23	0.08		<0.001	1835
	<i>s (Tmean_{t-2})</i>	Smooth		218.4	<0.001	
Tmean3	<i>Intercept</i>	-1.30	0.07		<0.001	1810
	<i>s (Tmean_{t-3})</i>	Smooth		286.2	<0.001	
Tmean4	<i>Intercept</i>	-1.40	0.06		<0.001	1769
	<i>s (Tmean_{t-4})</i>	Smooth		443.2	<0.001	

Models with variable explanatory Temperature maximum						
Tmax	<i>Intercept</i>	-0.87	0.10		<0.001	1916
	<i>s (Tmax)</i>	Smooth		26.73	<0.001	
Tmax1	<i>Intercept</i>	-0.93	0.09		<0.001	1906
	<i>s (Tmax_{t-1})</i>	Smooth		43.18	<0.001	
Tmax2	<i>Intercept</i>	-0.96	0.09		<0.001	1900
	<i>s (Tmax_{t-2})</i>	Smooth		54.1	<0.001	
Tmax3	<i>Intercept</i>	-1.04	0.09		<0.001	1884
	<i>s (Tmax_{t-3})</i>	Smooth		85.12	<0.001	
Tmax4	<i>Intercept</i>	-1.14	0.08		<0.001	1860
	<i>s (Tmax_{t-4})</i>	Smooth		140	<0.001	
Models with variable explanatory humidity						
Hum	<i>Intercept</i>	-0.88	0.10		<0.001	1923
	<i>s (Hum)</i>	Smooth		25.56	<0.001	
Hum1	<i>Intercept</i>	-0.91	0.10		<0.001	1916
	<i>s (Hum_{t-1})</i>	Smooth		36.32	<0.001	
Hum2	<i>Intercept</i>	-0.95	0.09		<0.001	1908
	<i>s (Hum_{t-2})</i>	Smooth		51.05	<0.001	
Hum3	<i>Intercept</i>	-0.980	0.09		<0.001	1901
	<i>s (Hum_{t-3})</i>	Smooth		65.14	<0.001	
Hum4	<i>Intercept</i>	-0.99	0.09		<0.001	1898
	<i>s (Hum_{t-4})</i>	Smooth		70.67	<0.001	
Models with variable explanatory Rain						
Rain	<i>Intercept</i>	-0.77	0.11		<0.001	1937
	<i>s (Rain)</i>	Smooth		2.14	0.145	
Rain1	<i>Intercept</i>	-0.78	0.11		<0.001	1934
	<i>s (Rain_{t-1})</i>	Smooth		6.21	0.0162	

Rain2	<i>Intercept</i>	-0.77	0.11		<0.001	1937
	<i>s (Rain_{t-2})</i>	Smooth		4.54	0.135	
Rain3	<i>Intercept</i>	-0.77	0.11		<0.001	1938
	<i>s (Rain_{t-3})</i>	Smooth		3.25	0.246	
Rain4	<i>Intercept</i>	-0.76	0.11		<0.001	1938
	<i>s (Rain_{t-4})</i>	Smooth		2.12	0.396	
