Supplementary Table 1

Model statistics and significance levels for the polynomial linear regression of days above high pollen threshold as a function of SPIn for six allergenic pollen types for the last 16 years (2007-2022). Mugwort was not included due to lacking days reaching high thresholds.

Pollen Type	**Variable**	**Model Statistics**				
		Estimate	Std Error	t - value	P - value	Significance
Alder	(Intercept)	0.72	0.04	19.87	$< 1 \times 10^{-10}$	***
	poly(SPIn,2) 1	21.99	0.50	43.55	$< 1 \times 10^{-10}$	***
	poly(SPIn,2) 2	-0.88	0.50	-1.74	0.084	ns
Hazel	(Intercept)	0.10	0.01	7.89	$< 1 \times 10^{-10}$	***
	poly(SPIn,2) 1	7.65	0.18	41.81	$< 1 \times 10^{-10}$	***
	poly(SPIn,2) 2	-1.05	0.18	-5.75	3.62×10^{-8}	***
Willow	(Intercept)	0.59	0.05	12.72	$< 1 \times 10^{-10}$	***
	poly(SPIn,2) 1	21.36	0.65	33.02	$< 1 \times 10^{-10}$	***
	poly(SPIn,2) 2	-0.92	0.65	-1.43	0.155	ns
Birch	(Intercept)	4.46	0.15	30.08	$< 1 \times 10^{-10}$	***
	poly(SPIn,2) 1	69.65	2.06	33.87	$< 1 \times 10^{-10}$	***
	poly(SPIn,2) 2	-20.28	2.06	-9.86	$< 1 \times 10^{-10}$	***
Pine	(Intercept)	5.13	0.13	40.91	$< 1 \times 10^{-10}$	***
	poly(SPIn,2) 1	62.89	1.74	36.19	$< 1 \times 10^{-10}$	***
	poly(SPIn,2) 2	-16.79	1.74	-9.66	$< 1 \times 10^{-10}$	***
Grass	(Intercept)	1.62	0.09	17.82	$< 1 \times 10^{-10}$	***
	poly(SPIn,2) 1	56.47	1.26	44.84	$< 1 \times 10^{-10}$	***
	poly(SPIn,2) 2	-9.44	1.26	-7.50	$< 1 \times 10^{-10}$	***

Significance: P < 0.001 - '***', **P < 0.01 -** '**', **P < 0.05 -** '*', **P > 0.05 -** 'ns'

Abbreviation: SPIn - Seasonal Pollen Integral.