Table S1. Correlations between the variables "pollen type" and "airborne pollutant" for the period 2013-2017 and for each of the study zones, designated with the name of the stations in the Palinocam Network (significant results shaded in orange).

PALINOCAM NETWORK STATION	Airborne pollutant	Cupressa-ceae	Olea	Pinus	Platanus	Populus	Ulmus
ALCALÁ DE HENARES	Ozone (O_3)	-0.4004 (60) 0.0021	0.6671 (60) 0.0000	0.7410 (60) 0.0000	0.4107 (60) 0.0016	0.0031 (60) 0.9807	-0.1925 (60) 0.1392
	Nitrogen dioxide (NO_2)	0.2498 (60) 0.0551	-0.5604 (60) 0.0000	-0.6848 (60) 0.0000	-0.4447 (60) 0.0006	-0.0167 (60) 0.8978	0.2456 (60) 0.0592
	Particles <10µm (PM_{10})	-0.4416 (60) 0.0007	0.0486 (60) 0.7089	-0.2680 (60) 0.0395	-0.2153 (60) 0.0982	-0.3697 (60) 0.0045	-0.2882 (60) 0.0268
	Particles <2.5µm ($PM_{2.5}$)	ND	ND	ND	ND	ND	ND
	Carbon monoxide (CO)	0.4047 (60) 0.0019	-0.5149 (60) 0.0001	-0.6299 (60) 0.0000	-0.4416 (60) 0.0007	0.0762 (60) 0.5582	0.4044 (60) 0.0019
	Sulphur dioxide (SO_2)	0.5381 (60) 0.0000	-0.3596 (60) 0.0057	-0.1931 (60) 0.1379	0.0203 (60) 0.8763	0.2593 (60) 0.0464	0.3897 (60) 0.0028
ALCOBENDAS	Ozone (O_3)	-0.4145 (60) 0.0015	0.7066 (60) 0.0000	0.7060 (60) 0.0000	0.4807 (60) 0.0002	0.1760 (60) 0.1765	-0.0784 (60) 0.5470
	Nitrogen dioxide (NO_2)	0.3727 (60) 0.0042	-0.6436 (60) 0.0000	-0.7075 (60) 0.0000	-0.4835 (60) 0.0002	-0.2074 (60) 0.1112	0.0679 (60) 0.6022
	Particles <10µm (PM_{10})	-0.2179 (60) 0.0942	-0.1240 (60) 0.3408	-0.3467 (60) 0.0078	-0.3272 (60) 0.0119	-0.4246 (60) 0.0011	-0.4274 (60) 0.0010
	Particles <2.5µm ($PM_{2.5}$)	ND	ND	ND	ND	ND	ND
	Carbon monoxide (CO)	0.2901 (24) 0.1641	-0.5538 (24) 0.0079	-0.5512 (24) 0.0082	-0.3475 (24) 0.0956	0.0995 (24) 0.6632	0.1941 (24) 0.3519
	Sulphur dioxide (SO_2)	0.0252 (24) 0.9037	-0.0502 (24) 0.8096	-0.1740 (24) 0.4041	0.2469 (24) 0.2364	0.0259 (24) 0.9011	-0.1027 (24) 0.6223
ARANJUEZ	Ozone (O_3)	-0.4742 (60) 0.0003	0.7608 (60) 0.0000	0.6831 (60) 0.0000	0.3319 (60) 0.0108	0.0670 (60) 0.6070	-0.1388 (60) 0.2864
	Nitrogen dioxide (NO_2)	0.2418 (60) 0.0633	-0.5914 (60) 0.0000	-0.7288 (60) 0.0000	-0.4061 (60) 0.0018	-0.2320 (60) 0.0748	-0.0464 (60) 0.7216
	Particles <10µm (PM_{10})	-0.6167 (60) 0.0000	0.1818 (60) 0.1625	-0.0762 (60) 0.5584	-0.2411 (60) 0.0641	-0.4151 (60) 0.0014	-0.5084 (60) 0.0001
	Particles <2.5µm ($PM_{2.5}$)	ND	ND	ND	ND	ND	ND

COSLADA	Carbon monoxide (CO)	ND	ND	ND	ND	ND	ND
	Sulphur dioxide (SO$_2$)	ND	ND	ND	ND	ND	ND
	Ozone (O$_3$)	-0.5451 (60) 0.0000	0.6921 (60) 0.0000	0.6495 (60) 0.0000	0.3520 (60) 0.0069	0.0625 (60) 0.6312	-0.0989 (60) 0.4475
	Nitrogen dioxide (NO$_2$)	0.3637 (60) 0.0052	-0.6667 (60) 0.0000	-0.4981 (60) 0.0001	-0.3105 (60) 0.0171	-0.0358 (60) 0.7836	0.0991 (60) 0.4467
	Particles <10µm (PM$_{10}$)	-0.0390 (60) 0.7648	-0.2963 (60) 0.0229	-0.4581 (60) 0.0004	-0.5637 (60) 0.0000	-0.2905 (60) 0.0257	-0.2769 (60) 0.0334
	Particles <2.5µm (PM$_{2.5}$)	ND	ND	ND	ND	ND	ND
	Carbon monoxide (CO)	ND	ND	ND	ND	ND	ND
	Sulphur dioxide (SO$_2$)	0.4488 (24) 0.0314	-0.4563 (24) 0.0286	-0.3724 (24) 0.0741	-0.1431 (24) 0.4924	0.1500 (24) 0.4719	0.4749 (24) 0.0228
MADRID FACULTY OF PHARMACY	Ozone (O$_3$)	-0.4353 (60) 0.0008	0.7548 (60) 0.0000	0.5909 (60) 0.0000	0.6646 (60) 0.0000	0.3047 (60) 0.0192	-0.0974 (60) 0.4542
	Nitrogen dioxide (NO$_2$)	0.0434 (60) 0.7389	-0.4224 (60) 0.0012	-0.3497 (60) 0.0072	-0.4630 (60) 0.0004	-0.3934 (60) 0.0025	-0.1582 (60) 0.2244
	Particles <10µm (PM$_{10}$)	-0.3120 (60) 0.0166	0.3290 (60) 0.0115	0.1547 (60) 0.2347	0.1410 (60) 0.2788	-0.2358 (60) 0.0701	-0.4238 (60) 0.0011
	Particles <2.5µm (PM$_{2.5}$)	-0.0440 (60) 0.7353	-0.0480 (60) 0.7126	-0.1299 (60) 0.3185	-0.2013 (60) 0.1220	-0.3543 (60) 0.0065	-0.3328 (60) 0.0106
	Carbon monoxide (CO)	0.3702 (60) 0.0045	-0.4305 (60) 0.0009	-0.2322 (60) 0.0746	-0.3702 (60) 0.0045	-0.0518 (60) 0.6905	0.1722 (60) 0.1859
	Sulphur dioxide (SO$_2$)	0.0898 (60) 0.4903	-0.2245 (60) 0.0846	-0.1901 (60) 0.1443	-0.2600 (60) 0.0458	-0.0928 (60) 0.4759	0.0123 (60) 0.9247
MADRID SALAMANCA DISTRICT	Ozone (O$_3$)	-0.3685 (60) 0.0047	0.7984 (60) 0.0000	0.7084 (60) 0.0000	0.3515 (60) 0.0069	0.0690 (60) 0.5960	0.0008 (60) 0.9949
	Nitrogen dioxide (NO$_2$)	0.3167 (60) 0.0150	-0.7325 (60) 0.0000	-0.6283 (60) 0.0000	-0.3428 (60) 0.0085	-0.0935 (60) 0.4725	-0.0163 (60) 0.9004
	Particles <10µm (PM$_{10}$)	-0.2336 (60) 0.0727	0.1854 (60) 0.1544	0.0720 (60) 0.5803	-0.1621 (60) 0.2131	-0.3496 (60) 0.0072	-0.2841 (60) 0.0291
	Particles <2.5µm (PM$_{2.5}$)	ND	ND	ND	ND	ND	ND

Region	Pollutant						
	Carbon monoxide (CO)	0.3739 (60) 0.0041	-0.4658 (60) 0.0003	-0.3904 (60) 0.0027	-0.1854 (60) 0.1544	-0.0315 (60) 0.8089	0.0498 (60) 0.7023
	Sulphur dioxide (SO2)	0.2844 (60) 0.0289	-0.4886 (60) 0.0002	-0.3743 (60) 0.0040	-0.1317 (60) 0.3136	-0.0397 (60) 0.7604	0.0607 (60) 0.6408
MADRID CITY HALL	Ozone (O3)	-0.3864 (59) 0.0033	0.7151 (59) 0.0000	0.6351 (59) 0.0000	0.4573 (59) 0.0005	0.0480 (59) 0.7146	-0.0795 (59) 0.5451
	Nitrogen dioxide (NO2)	0.2438 (59) 0.0633	-0.6468 (59) 0.0000	-0.6577 (59) 0.0000	-0.4878 (59) 0.0002	-0.2129 (59) 0.1049	-0.0438 (59) 0.7387
	Particles <10µm (PM10)	-0.4729 (59) 0.0003	0.2475 (59) 0.0595	0.0803 (59) 0.5410	-0.0509 (59) 0.6981	-0.4681 (59) 0.0004	-0.5004 (59) 0.0001
	Particles <2.5µm (PM2.5)	-0.1355 (59) 0.3022	-0.2139 (59) 0.1034	-0.4130 (59) 0.0017	-0.3860 (59) 0.0033	-0.4970 (59) 0.0002	-0.3328 (59) 0.0113
	Carbon monoxide (CO)	0.3225 (59) 0.0140	-0.5770 (59) 0.0000	-0.5475 (59) 0.0000	-0.3706 (59) 0.0048	0.0283 (59) 0.8295	0.1565 (59) 0.2334
	Sulphur dioxide (SO2)	-0.0358 (59) 0.7849	-0.2180 (59) 0.0968	-0.3315 (59) 0.0116	-0.1779 (59) 0.1755	-0.2447 (59) 0.0624	0.0173 (59) 0.8955
GETAFE	Ozone (O3)	-0.4767 (59) 0.0003	0.7877 (59) 0.0000	0.7203 (59) 0.0000	0.4058 (59) 0.0020	0.0191 (59) 0.8845	-0.1860 (59) 0.1567
	Nitrogen dioxide (NO2)	0.3910 (59) 0.0029	-0.7006 (59) 0.0000	-0.6800 (59) 0.0000	-0.3554 (59) 0.0068	-0.0837 (59) 0.5240	0.1211 (59) 0.3563
	Particles <10µm (PM10)	-0.0345 (59) 0.7925	-0.1430 (59) 0.2762	-0.2359 (59) 0.0724	-0.1536 (59) 0.2421	-0.2630 (59) 0.0452	-0.2483 (59) 0.0587
	Particles <2.5µm (PM2.5)	ND	ND	ND	ND	ND	ND
	Carbon monoxide (CO)	ND	ND	ND	ND	ND	ND
	Sulphur dioxide (SO2)	ND	ND	ND	ND	ND	ND
LEGANÉS	Ozone (O3)	-0.3883 (60) 0.0029	0.6758 (60) 0.0000	0.7780 (60) 0.0000	0.4237 (60) 0.0011	0.1643 (60) 0.2069	-0.1654 (60) 0.2040
	Nitrogen dioxide (NO2)	0.2876 (60) 0.0272	-0.5622 (60) 0.0000	-0.6954 (60) 0.0000	-0.3778 (60) 0.0037	-0.2256 (60) 0.0831	0.0913 (60) 0.4830
	Particles <10µm (PM10)	-0.0606 (60) 0.6417	-0.0900 (60) 0.4896	-0.2630 (60) 0.0434	-0.3321 (60) 0.0107	-0.2879 (60) 0.0270	-0.2370 (60) 0.0687
	Particles <2.5µm (PM2.5)	ND	ND	ND	ND	ND	ND

PALINOCAM NETWORK STATION	Airborne pollutant						
LAS ROZAS	Carbon monoxide (CO)	ND	ND	ND	ND	ND	ND
	Sulphur dioxide (SO$_2$)	ND	ND	ND	ND	ND	ND
	Ozone (O$_3$)	-0.5415 (60) 0.0000	0.7367 (60) 0.0000	0.7456 (60) 0.0000	0.4916 (60) 0.0000	-0.0045 (60) 0.9726	-0.1109 (60) 0.3945
	Nitrogen dioxide (NO$_2$)	0.4061 (60) 0.0018	-0.5722 (60) 0.0000	-0.5886 (60) 0.0000	-0.3648 (60) 0.0051	-0.1189 (60) 0.3610	0.0377 (60) 0.7723
	Particles <10µm (PM$_{10}$)	-0.2406 (60) 0.0646	0.2900 (60) 0.0259	-0.0228 (60) 0.8609	-0.1361 (60) 0.2959	-0.3613 (60) 0.0055	-0.2229 (60) 0.0868
	Particles <2.5µm (PM$_{2.5}$)	ND	ND	ND	ND	ND	ND
	Carbon monoxide (CO)	ND	ND	ND	ND	ND	ND
	Sulphur dioxide (SO$_2$)	ND	ND	ND	ND	ND	ND
VILLALBA	Ozone (O$_3$)	-0.4260 (60) 0.0011	0.7016 (60) 0.0000	0.5962 (60) 0.0000	0.4781 (60) 0.0002	0.1182 (60) 0.3639	-0.1238 (60) 0.3417
	Nitrogen dioxide (NO$_2$)	0.1519 (60) 0.2434	-0.4994 (60) 0.0001	-0.4563 (60) 0.0005	-0.4876 (60) 0.0002	-0.2112 (60) 0.1048	-0.0004 (60) 0.9976
	Particles <10µm (PM$_{10}$)	-0.4339 (24) 0.0374	0.0360 (24) 0.8630	0.1635 (24) 0.4330	-0.1441 (24) 0.4895	-0.3529 (24) 0.0905	-0.4186 (24) 0.0447
	Particles <2.5µm (PM$_{2.5}$)	0.1837 (60) 0.1582	-0.0853 (60) 0.5124	-0.1281 (60) 0.3250	-0.0987 (60) 0.4484	-0.1577 (60) 0.2259	-0.0220 (60) 0.8659
	Carbon monoxide (CO)	0.6652 (24) 0.0014	-0.5039 (24) 0.0157	-0.4739 (24) 0.0230	-0.0597 (24) 0.7745	0.2133 (24) 0.3064	0.5512 (24) 0.0082
	Sulphur dioxide (SO$_2$)	0.5016 (60) 0.0001	-0.2101 (60) 0.1066	-0.1236 (60) 0.3424	0.1375 (60) 0.2908	0.3054 (60) 0.0190	0.3459 (60) 0.0079

ϱ: Correlation (Spearman); (Sample size); *p*-value (in red when *p*<0.05); **ND**: no data are available for this variable for this station.

Table S2. Correlations between the variables "pollen type" and "airborne contaminant" in the five study zones where the values for airborne pollutants in the table differ from the mean in the different year levels specified (significant results shaded in orange):

PALINOCAM NETWORK STATION	Airborne pollutant (by years)	Cupressaceae	Olea	Pinus	Platanus	Populus	Ulmus
ALCOBENDAS	SO$_2$ 2013	0.2378 (12) 0.4304	-0.3481 (12) 0.2483	-0.6515 (12) 0.0307	-0.7146 (12) 0.0186	-0.4367 (12) 0.1475	0.0858 (12) 0.7760

	SO$_2$ 2014	0.0280 (12) 0.9261	-0.6199 (12) 0.0398	-0.3986 (12) 0.1862	-0.3408 (12) 0.2583	0.1285 (12) 0.6700	-0.1816 (12) 0.5469
COSLADA	PM$_{10}$ 2013	0.0629 (12) 0.8346	-0.1761 (12) 0.5593	-0.6294 (12) 0.0369	-0.5730 (12) 0.0574	-0.5908 (12) 0.0501	-0.1248 (12) 0.6789
	PM$_{10}$ 2014, 2015 and 2017	0.0278 (36) 0.8694	-0.3782 (36) 0.0252	-0.4512 (36) 0.0076	-0.4953 (36) 0.0034	-0.2223 (36) 0.1884	-0.2785 (36) 0.0994
	PM$_{10}$ 2016	-0.3077 (12) 0.3075	-0.0234 (12) 0.9381	-0.5639 (12) 0.0614	-0.7619 (12) 0.0115	-0.3952 (12) 0.1899	-0.7018 (12) 0.0199
MADRID FACULTY OF PHARMACY	NO$_2$ 2013	-0.2238 (12) 0.4580	-0.3521 (12) 0.2429	-0.4056 (12) 0.1786	-0.5254 (12) 0.0814	-0.5376 (12) 0.0746	-0.3743 (12) 0.2144
	NO$_2$ 2014	0.1399 (12) 0.6427	-0.5873 (12) 0.0514	-0.6503 (12) 0.0310	-0.6084 (12) 0.0436	-0.3216 (12) 0.2861	-0.0141 (12) 0.9626
	NO$_2$ 2017	0.1748 (12) 0.5620	-0.4578 (12) 0.1290	-0.1259 (12) 0.6763	-0.5804 (12) 0.0542	-0.3471 (12) 0.2496	-0.2136 (12) 0.4788
	NO$_2$ 2015 and 2016	0.1957 (24) 0.3481	-0.6305 (24) 0.0025	-0.4304 (24) 0.0390	-0.5658 (24) 0.0067	-0.5069 (24) 0.0151	-0.2407 (24) 0.2484
MADRID FACULTY OF PHARMACY	CO 2013, 2014, 2016 and 2017	0.3079 (48) 0.0348	-0.4096 (48) 0.0050	-0.2496 (48) 0.0870	-0.3916 (48) 0.0073	-0.0859 (48) 0.5561	0.1478 (48) 0.3108
	CO 2015	0.8392 (12) 0.0054	-0.8827 (12) 0.0034	-0.4336 (12) 0.1504	-0.3846 (12) 0.2021	-0.0653 (12) 0.8286	0.4133 (12) 0.1704
MADRID FACULTY OF PHARMACY	SO$_2$ 2013, 2014 and 2017	0.0774 (36) 0.6472	-0.4765 (36) 0.0048	-0.4949 (36) 0.0034	-0.4705 (36) 0.0054	-0.2485 (36) 0.1415	0.0808 (36) 0.6327
	SO$_2$ 2015 and 2016	0.4817 (24) 0.0209	-0.1227 (24) 0.5563	-0.0643 (24) 0.7576	-0.0913 (24) 0.6614	0.1380 (24) 0.5081	0.1872 (24) 0.3692
MADRID SALAMANCA DISTRICT	PM$_{10}$ 2016	-0.1049 (12) 0.7279	-0.4912 (12) 0.1033	-0.5359 (12) 0.0755	-0.6976 (12) 0.0207	-0.3553 (12) 0.2386	0.0000 (12) 1.0000
	PM$_{10}$ 2017	0.3007 (12) 0.3186	0.1649 (12) 0.5844	0.4448 (12) 0.1401	-0.1885 (12) 0.5318	0.5684 (12) 0.0594	0.3695 (12) 0.2204
	PM$_{10}$ 2013, 2014 and 2015	-0.4653 (36) 0.0059	0.2810 (36) 0.0965	0.1418 (36) 0.4015	-0.0942 (36) 0.5772	-0.6834 (36) 0.0001	-0.6318 (36) 0.0002
MADRID SALAMANCA DISTRICT	CO 2014	-0.0070 (12) 0.9815	-0.4794 (12) 0.1118	-0.4333 (12) 0.1507	-0.4319 (12) 0.1520	-0.5539 (12) 0.0662	-0.4687 (12) 0.1201
	CO 2015	0.3357 (12) 0.2656	-0.5148 (12) 0.0877	-0.4588 (12) 0.1281	-0.4452 (12) 0.1398	0.5684 (12) 0.0594	-0.2651 (12) 0.3792

MADRID CITY HALL	CO **2013, 2016 and 2017**	0.4432 (36) 0.0087	-0.5672 (36) 0.0008	-0.4735 (36) 0.0051	-0.2801 (36) 0.0974	0.1519 (36) 0.3688	0.2058 (36) 0.2235
	SO₂ **2013**	-0.4909 (11) 0.1206	0.1193 (11) 0.7060	-0.1727 (11) 0.5849	-0.3280 (11) 0.2996	-0.6989 (11) 0.0271	-0.7931 (11) 0.0121
	SO₂ **2014**	0.3706 (12) 0.2190	-0.3630 (12) 0.2286	-0.0210 (12) 0.9445	0.0385 (12) 0.8983	0.2996 (12) 0.3205	0.4755 (12) 0.1148
	SO₂ **2017**	-0.2382 (12) 0.4296	-0.2316 (12) 0.4424	-0.1541 (12) 0.6092	-0.2667 (12) 0.3836	-0.4730 (12) 0.1167	-0.5639 (12) 0.0614
	SO₂ **2015 and 2016**	-0.0087 (24) 0.9667	-0.5980 (24) 0.0041	-0.6886 (24) 0.0010	-0.4710 (24) 0.0239	-0.5401 (24) 0.0096	-0.0950 (24) 0.6486

ϱ: Correlation (Spearman); (Sample size); p-value (in red when $p<0.05$).