

## Supplementary material

**Table S1:** Summary pollen data for eight co-located passive samplers (A1, A2-D1, D2) and one Burkard spore trap. Passive samplers collected for 14 days each; The Burkard spore trap collected 24-hour samples, which were averaged over each two-week interval.

| Sampling period | Avg. Daily Air Temperature (°C) | Avg. Burkard Conc. (grains m <sup>-3</sup> ) | Passive Sampler Concentration (grains m <sup>-3</sup> ) |     |     |     |     |     |     |     |      | % CV | Avg. % Difference |
|-----------------|---------------------------------|----------------------------------------------|---------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|------|------|-------------------|
|                 |                                 |                                              | A1                                                      | A2  | B1  | B2  | C1  | C2  | D1  | D2  | Avg. |      |                   |
| 8/25-9/09       | 21                              | 270                                          | 217                                                     | 197 | 204 | 176 | 188 | 158 | 202 | 112 | 182  | 18   | 40                |
| 9/09-9/23       | 15                              | 37                                           | 41                                                      | 37  | 50  | 30  | 32  | 28  | 29  | 26  | 34   | 24   | 20                |
| 9/23-10/7       | 14                              | 27                                           | 22                                                      | 20  | 27  | 31  | 21  | 15  | 20  | 18  | 22   | 24   | 28                |
| 10/7-10/21      | 11                              | 21                                           | 19                                                      | 22  | 15  | 16  | 19  | n/a | 20  | 20  | 19   | 14   | 14                |

**Table S2:** Summary pollen data for two co-located passive samplers and one Burkard spore trap. Passive samplers collected for 5 days each; The Burkard spore trap collected 24-hour samples, which were averaged over each five-day interval. Precision was assessed by calculating the coefficient of variation between passive samplers, and accuracy was assessed by calculating the percent difference between the average passive concentration and average Burkard concentration over each sampling period.

| Sampling period | Avg. Daily Air Temperature (°C) | Avg. Burkard conc. (grains m <sup>-3</sup> ) | Passive sampler concentration (grains m <sup>-3</sup> , five-day average) |           |      | % CV | % Difference |
|-----------------|---------------------------------|----------------------------------------------|---------------------------------------------------------------------------|-----------|------|------|--------------|
|                 |                                 |                                              | Sampler 1                                                                 | Sampler 2 | Avg, |      |              |
| 4/16-4/21       | 8.3                             | 206                                          | 108                                                                       | 107       | 108  | 0.20 | 63           |
| 4/17-4/22       | 6.5                             | 182                                          | 70                                                                        | n/a       | 70   | n/a  | 90           |
| 4/18-4/23       | 6.0                             | 121                                          | 108                                                                       | 58        | 83   | 43   | 37           |
| 4/19-4/24       | 5.3                             | 71                                           | 60                                                                        | n/a       | 60   | n/a  | 16           |
| 4/20-4/25       | 6.2                             | 82                                           | 81                                                                        | 76        | 78   | 5.1  | 4.4          |
| 4/21-4/26       | 7.8                             | 117                                          | 129                                                                       | 93        | 111  | 23   | 5.6          |
| 4/22-4/27       | 12                              | 242                                          | 213                                                                       | 323       | 268  | 29   | 10           |
| 4/23-4/28       | 14                              | 418                                          | 469                                                                       | 379       | 424  | 15   | 1.4          |
| 4/24-4/29       | 16                              | 545                                          | 470                                                                       | 577       | 523  | 15   | 4.0          |
| 4/25-4/30       | 17                              | 606                                          | 681                                                                       | 816       | 749  | 13   | 21           |
| 5/1-5/6         | 17                              | 705                                          | 302                                                                       | 466       | 384  | 30   | 59           |
| 5/6-5/11        | 9.8                             | 314                                          | 179                                                                       | 249       | 214  | 23   | 38           |
| 5/11-5/16       | 12                              | 363                                          | 404                                                                       | 263       | 334  | 30   | 8.5          |

**Table S3:** Regression analysis summary of Spring 2021 data.

|                     | Slope      | Intercept   |
|---------------------|------------|-------------|
| Value               | 0.89       | -9.5        |
| Test statistic      | 6.0        | -0.17       |
| Standard error      | 0.15       | 54          |
| P-value             | 9.3e-05    | 0.87        |
| Confidence interval | (0.56-1.2) | (-129, 110) |