

THE LANCET Planetary Health

Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

Supplement to: Ziska L H, Makra L, Harry S K, et al. Temperature-related changes in airborne allergenic pollen abundance and seasonality across the northern hemisphere: a retrospective data analysis. *Lancet Planet Health* 2019; **3**: e123–30.

SUPPLEMENTAL MATERIALS

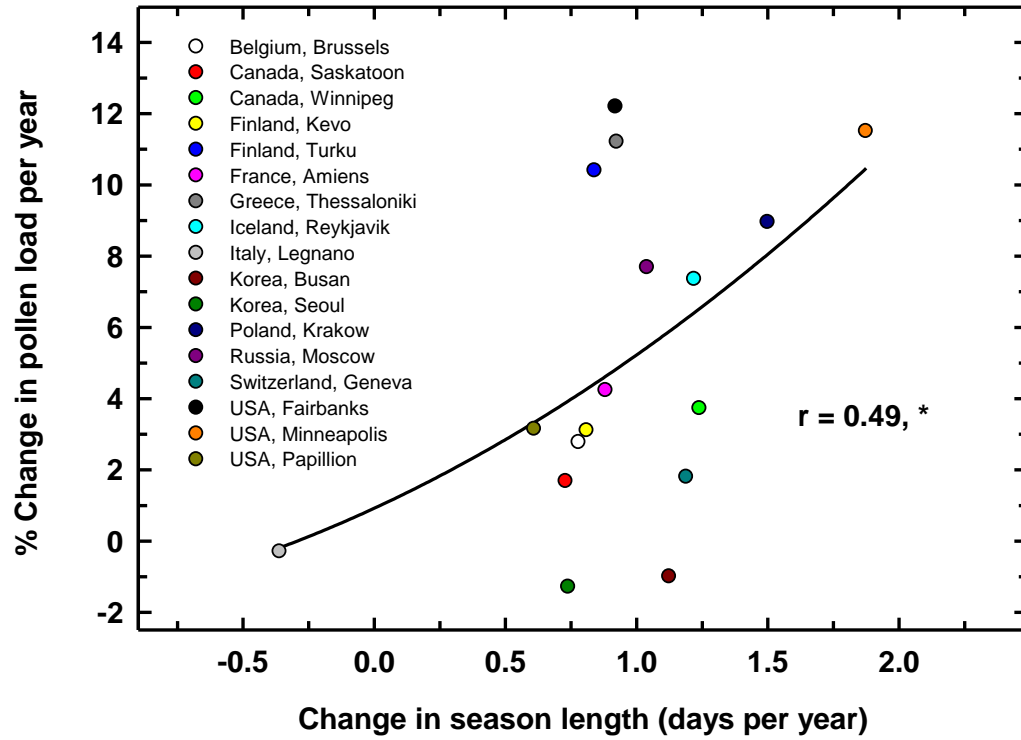


Fig. S1. Percent change in pollen load per year for 17 locations as a function of change in pollen season over time.
 $y = 3.405x + 0.898x^2 + 0.92$, $p = 0.035$

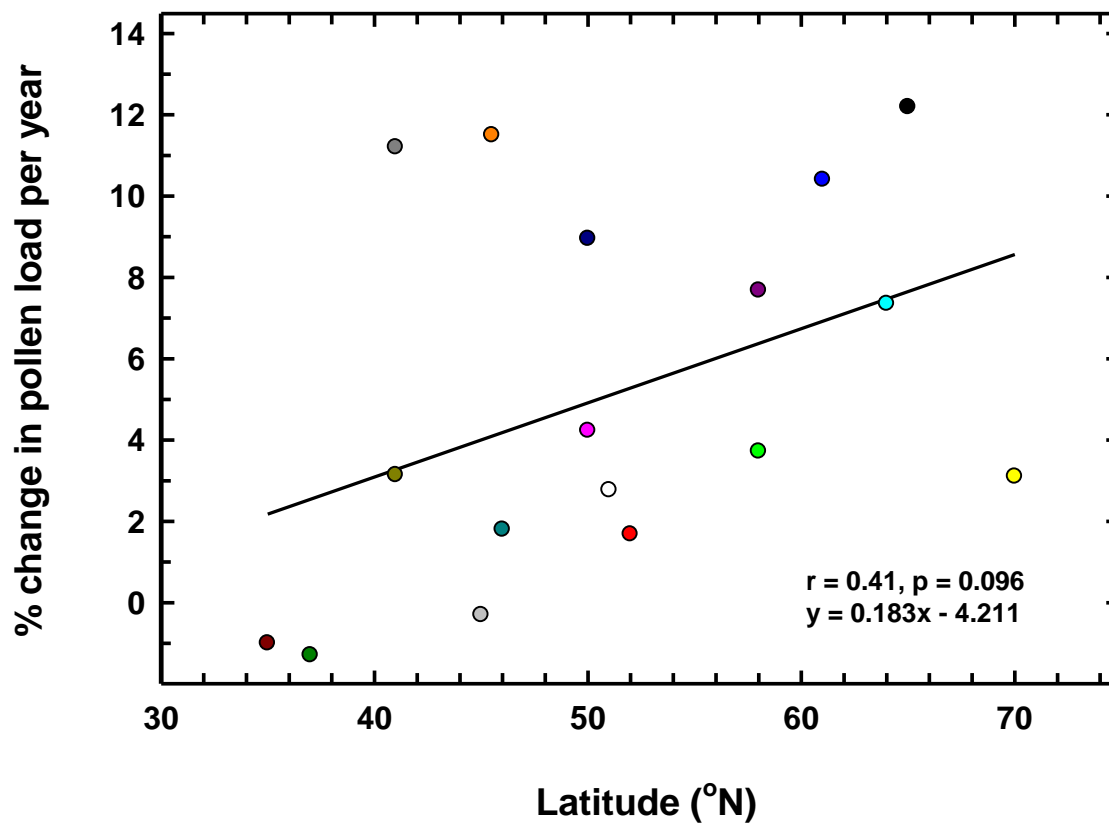


Fig. S2. Percent change in pollen load per year for 17 locations as a function of their latitude. Labels per location are as Figure S1. $y = 0.183x - 4.21$, $p = 0.096$

Table 1 (Supplemental). Family/Genera monitored for allergenic pollen by location.

Belgium, Brussels. *Alnus, Ambrosia, Artemisia, Betula, Carpinus, Chenopodiaceae, Corylus, Cupressaceae/Taxus, Fraxinus, Plantago, Platanus, Poaceae, Populus, Quercus, Rumex, Ulmus.*

Canada, Saskatoon. *Acer, Alnus, Ambrosia, Artemisia, Betula, Chenopodiaceae, Corylus, Cruciferae, Cupressaceae, Cyperaceae, Fraxinus, Gramineae, Pinaceae, Plantago, Populus, Quercus, Rosaceae, Rumex, Salix, Tilia, Ulmus, Urtica.*

Canada, Winnipeg. *Acer, Alnus, Ambrosia, Artemisia, Betula, Chenopodiaceae, Corylus, Cruciferae, Cupressaceae, Cyperaceae, Fraxinus, Gramineae, Pinaceae, Plantago, Populus, Quercus, Rosaceae, Rumex, Salix, Tilia, Ulmus, Urtica.*

Finland, Kevo. *Alnus, Artemisia, Betula, Chenopodiaceae, Corylus, Cupressus, Picea, Pinaceae, Poaceae, Populus, Quercus, Rumex, Salix, Ulmus, Urtica.*

Finland, Turku. *Alnus, Artemisia, Betula, Chenopodiaceae, Corylus, Juglandaceae, Pinaceae, Populus, Quercus, Rumex, Salix, Ulmus, Urtica.*

France, Amiens. *Acer, Aesculus, Ailanthus, Alnus, Ambrosia, Artemisia, Betula, Buxus, Cannabaceae, Caprifoliaceae, Carpinus, Castanea, Casuarina, Cedrus, Centaurea, Chenopodiaceae, Corylus, Cruciferae, Cupressaceae, Cyperaceae, Echium, Ericaceae, Euphorbiaceae, Fagus, Forsythia, Fraxinus, Ginkgo, Gramineae, Hypericaceae, Juglandaceae, Ligustrum, Liquidambar, Moraceae, Olea, Papaveraceae, Picea, Pinaceae, Plantago, Platanus, Populus, Quercus, Rosaceae, Rumex, Salix, Sambucus, Tamarix, Tilia, Typha, Ulmus, Urtica.*

Greece, Thessaloniki. *Alnus, Ambrosia, Artemisia, Betula, Carpinus, Chenopodiaceae, Corylus, Cupressaceae, Olea, Pinaceae, Plantago, Poaceae, Polygonaceae, Populus, Quercus, Ulmus, Urtica.*

Iceland, Reykjavik. *Apiaceae, Aster, Betula, Brassicaceae, Carex, Equisetum, Ericales, Galium, Juglandaceae, Juniperus, Leguminosae, Pinus, Plantago, Poaceae, Ranunculus, Rheum, Rosaceae, Rumex, Salix, Sambucus, Saxifraga, Taraxacum, Thalictrum, Urtica.*

Italy, Legnano. *Ambrosia, Artemisia, Betula, Chenopodiaceae, Corylus, Cupressaceae, Poaceae, Olea, Pinaceae, Plantago, Platanus, Populus, Quercus, Salicaceae, Ulmus, Urtica.*

Korea, Busan. *Ambrosia, Alnus, Artemisia, Betula, Chenopodiaceae, Corylus, Ginkgo, Humulus, Juniper, Quercus, Pinaceae, Poaceae, Populus, Ulmus.*

Korea, Seoul. *Ambrosia, Alnus, Artemisia, Betula, Chenopodiaceae, Corylus, Ginkgo, Humulus, Juniper, Quercus, Pinaceae, Poaceae, Populus, Ulmus.*

Poland, Krakow. *Acer, Aesculus, Alnus, Ambrosia, Artemisia, Asteraceae, Betula, Carpinus, Chenopodiaceae, Corylus, Fagus, Fraxinus, Juglandaceae, Juniperus, Picea, Pinaceae, Plantago, Poaceae, Populus, Quercus, Rosaceae, Rumex, Salix, Secale, Taxus, Tilia, Ulmus, Urtica.*

Switzerland, Geneva. *Alnus, Ambrosia, Artemisia, Betula, Carpinus, Corylus, Fagus Fraxinus, Pinus, Plantago, Platanus, Poaceae, Populus, Quercus, Rumex, Urtica.*

USA, Alaska, Fairbanks. *Alnus, Betula, Chenopodiaceae, Cyperaceae, Picea, Pinus, Poaceae, Populus, Salicaceae*

USA, Minnesota, Minneapolis. *Acer, Alnus, Ambrosia, Artemisia, Asteraceae, Betula, Cannabaceae, Carpinus, Carya, Castanea, Celtis, Chenopodiaceae, Corylus, Cupressaceae, Cyperaceae, Fagus, Fraxinus, Juglandaceae, Ligustrum, Liquidambar, Morus, Myrica, Plantago, Platanus, Pinaceae, Poaceae, Pseudotsuga, Quercus, Rumex, Salix, Tilia, Tsuga, Typha, Ulmus, Urtica.*

USA, Nebraska, Papillion. *Acer, Alnus, Ambrosia, Artemesia, Asteraceae, Betula, Cannabaceae, Carya, Celtis, Chenopodiaceae, Corylus, Cyperaceae, Fraxinus, Gramineae, Juglandaceae, Morus, Plantago, Platanus, Poaceae, Populus, Quercus, Rumex, Salix, Tilia, Typha, Ulmus, Urtica.*