

SUPPLEMENTARY INFORMATION

RECEPTOR MODELLING OF SECONDARY AND CARBONACEOUS PARTICULATE MATTER AT A SOUTHERN U.K. SITE

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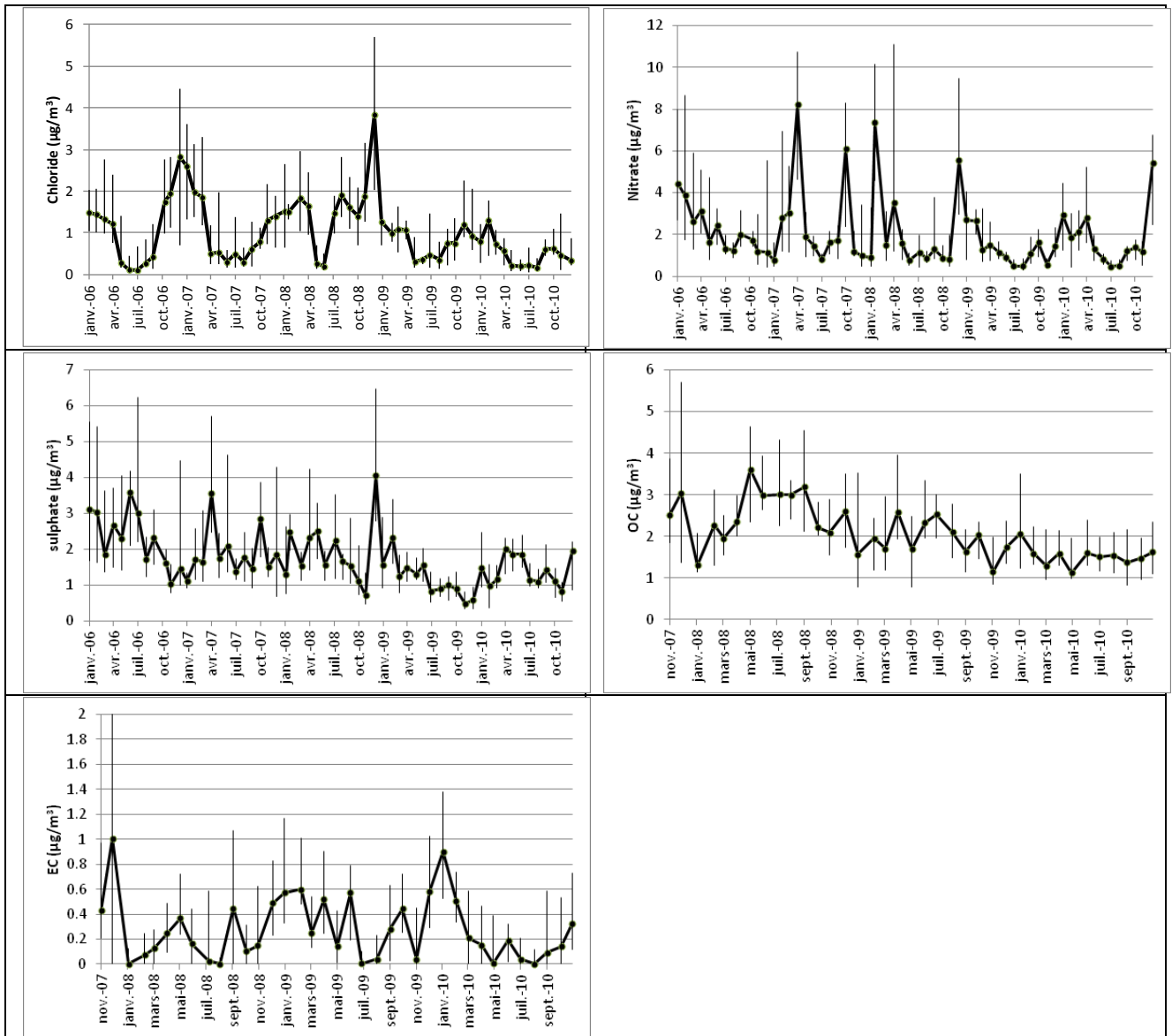


Figure S1: Monthly median concentrations of chloride, nitrate, sulphate, organic carbon, and elemental carbon from 2006 to 2010 at Harwell. The interquartile range is also presented

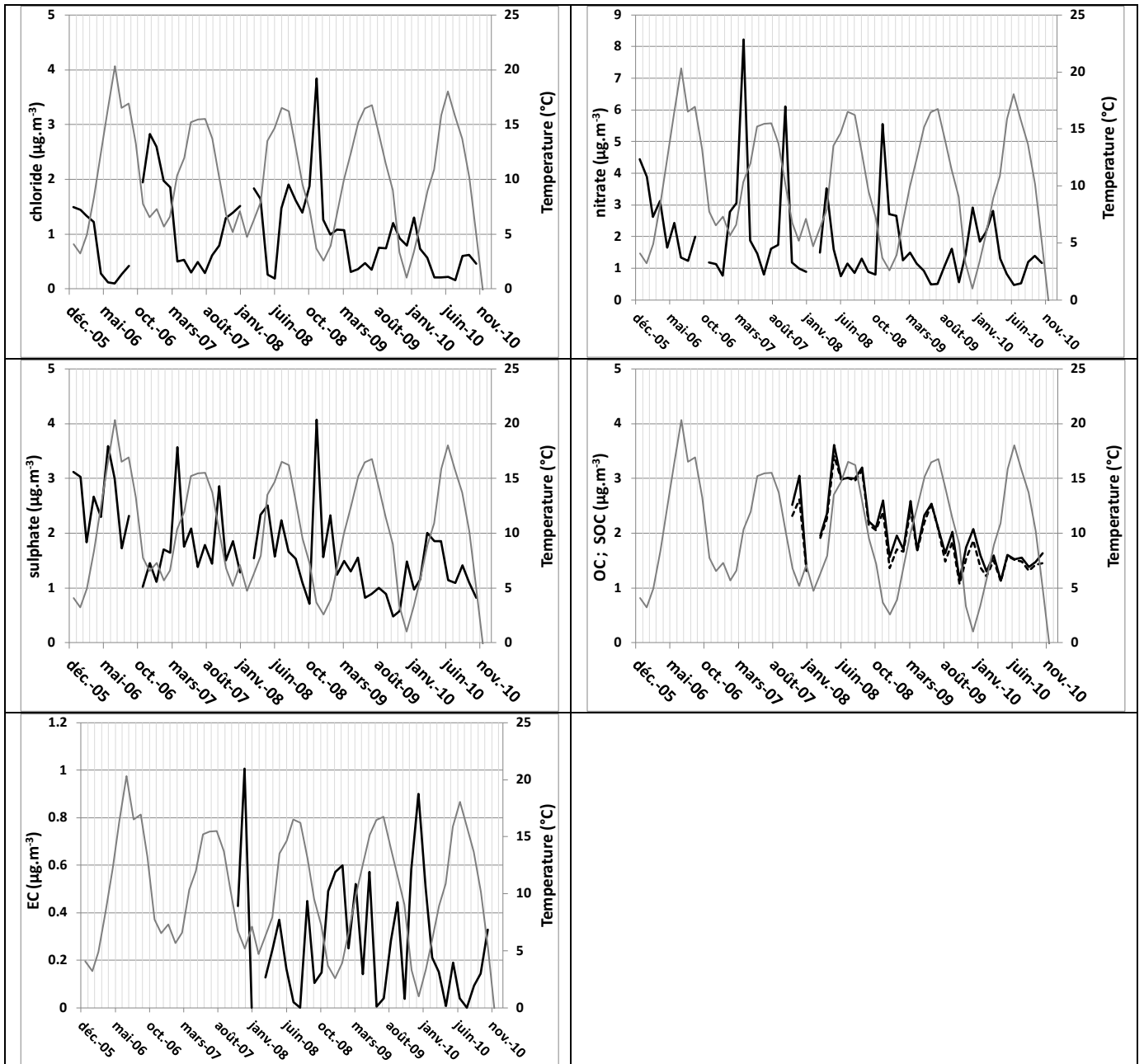
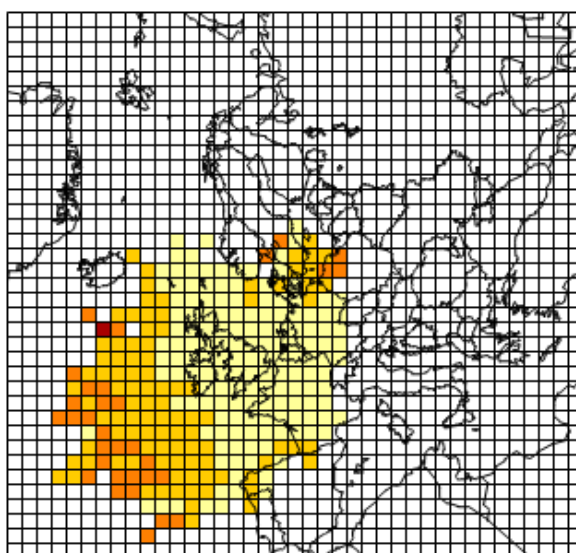
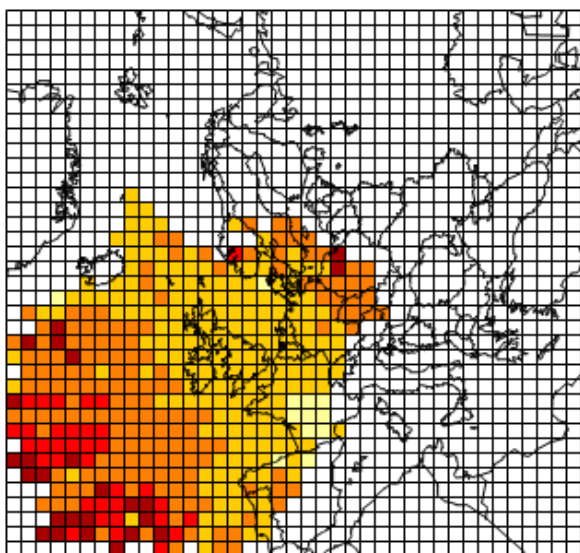


Figure S2: Evolution of the monthly concentration of chloride, nitrate, sulphate, OC, SOC and EC and of the monthly temperature (in grey) at Harwell from 2006 to 2010

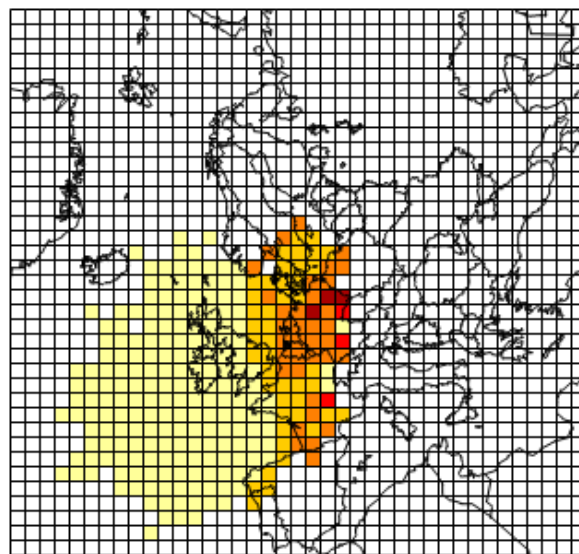
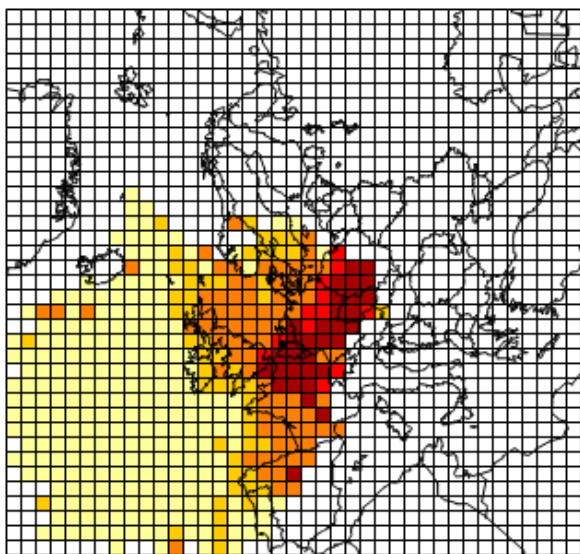


Cold season

Warm season

below $0.7 \mu\text{g}/\text{m}^3$
 $0.7 - 1.5 \mu\text{g}/\text{m}^3$
 $1.5 - 2.5 \mu\text{g}/\text{m}^3$
 $2.5 - 3 \mu\text{g}/\text{m}^3$
 above $3 \mu\text{g}/\text{m}^3$

Figure S3: Concentration field map of Chloride applied to Cold and Warm seasons data

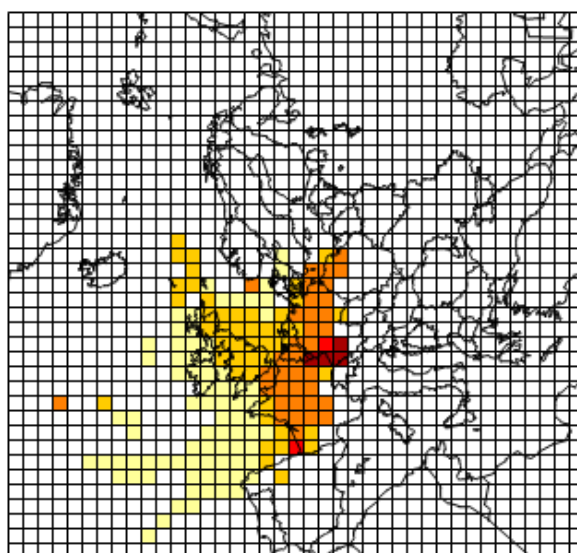
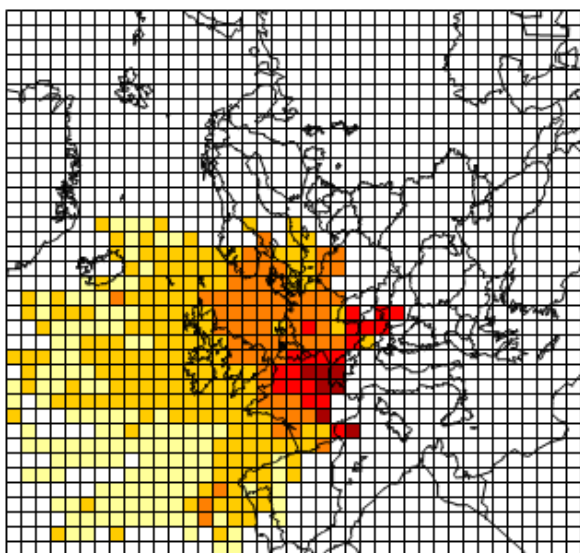


Cold season

Warm season

below $1.5 \mu\text{g}/\text{m}^3$
 $1.5 - 2 \mu\text{g}/\text{m}^3$
 $2 - 4 \mu\text{g}/\text{m}^3$
 $4 - 5 \mu\text{g}/\text{m}^3$
 above $5 \mu\text{g}/\text{m}^3$

Figure S4: Concentration field map of Nitrate applied to Cold and Warm seasons data

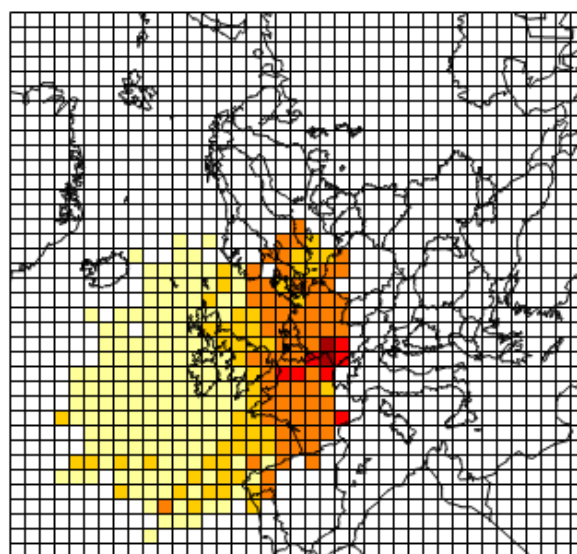
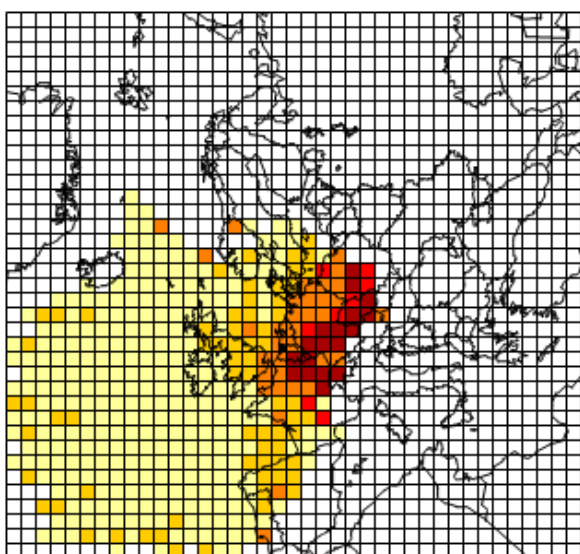


Cold season

Warm season

below $0.1 \mu\text{g}/\text{m}^3$
 $0.1 - 0.5 \mu\text{g}/\text{m}^3$
 $0.5 - 1 \mu\text{g}/\text{m}^3$
 $1 - 2 \mu\text{g}/\text{m}^3$
 above $2 \mu\text{g}/\text{m}^3$ (cold), $1.2 \mu\text{g}/\text{m}^3$ (warm)

Figure S5: Concentration field map of EC applied to Cold and Warm seasons data

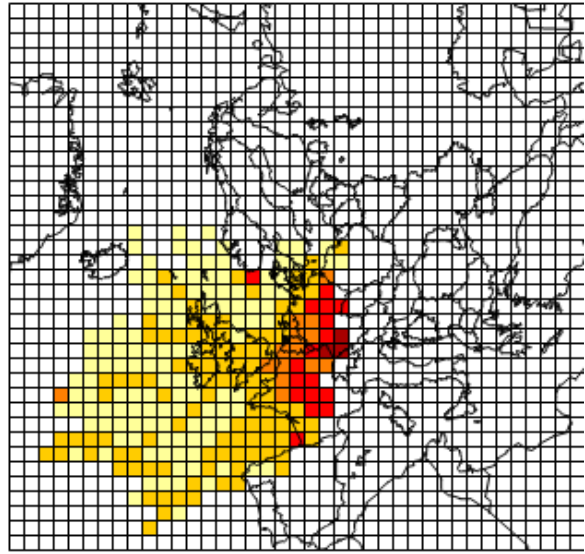
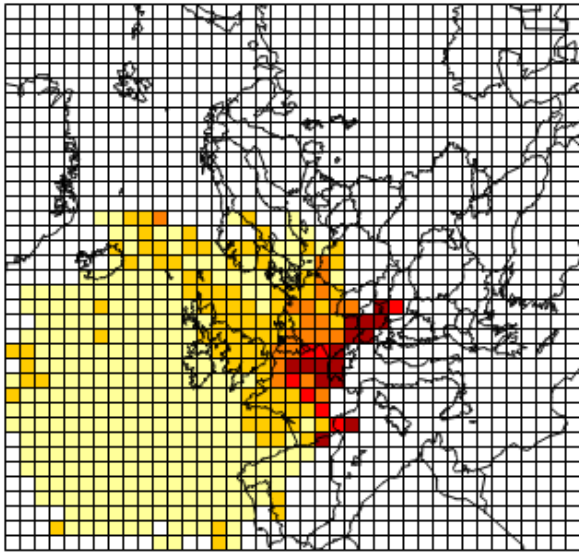


Cold season

Warm season

below $1.5 \mu\text{g}/\text{m}^3$
 $1.5 - 2 \mu\text{g}/\text{m}^3$
 $2 - 4 \mu\text{g}/\text{m}^3$
 $4 - 5 \mu\text{g}/\text{m}^3$
 above $5 \mu\text{g}/\text{m}^3$ (cold), $4.6 \mu\text{g}/\text{m}^3$ (warm)

Figure S6: Concentration field map of Sulphate applied to Cold and Warm seasons data

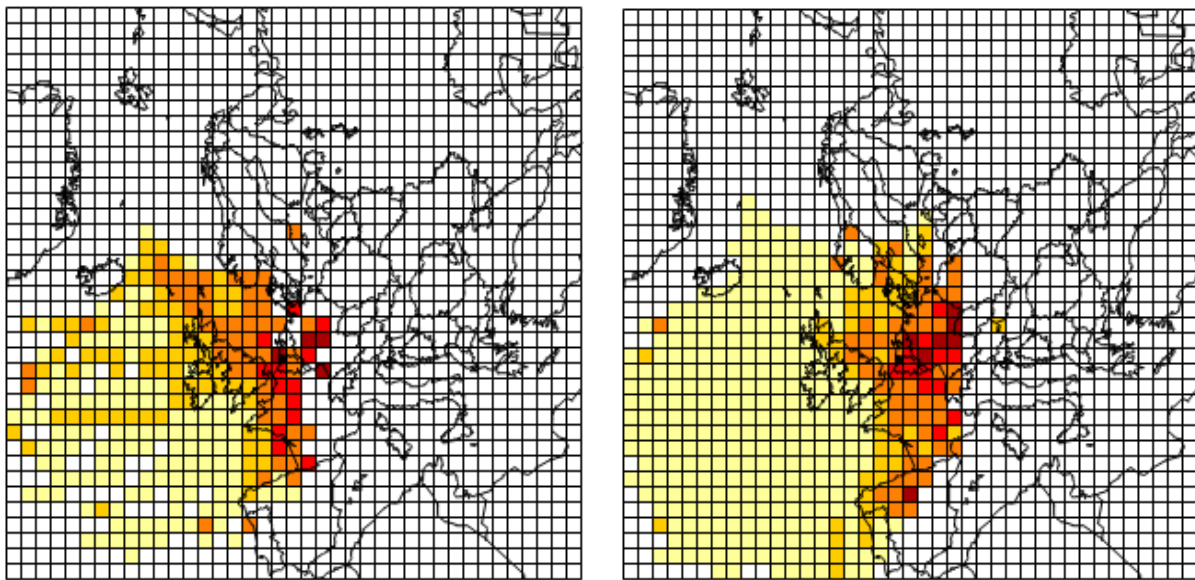


Cold season

Warm season

□ below 2 $\mu\text{g}/\text{m}^3$ □ 2–3 $\mu\text{g}/\text{m}^3$ □ 3–4 $\mu\text{g}/\text{m}^3$ □ 4–5 $\mu\text{g}/\text{m}^3$ □ above 5 $\mu\text{g}/\text{m}^3$ (cold), 4.9 $\mu\text{g}/\text{m}^3$ (warm)

Figure S7: Concentration field map of OC applied to Cold and Warm seasons data



(a)

(b)

below $0.1 \mu\text{g}/\text{m}^3$
 $0.1 - 0.3 \mu\text{g}/\text{m}^3$
 $0.3 - 0.7 \mu\text{g}/\text{m}^3$
 $0.7 - 1 \mu\text{g}/\text{m}^3$
 above $1 \mu\text{g}/\text{m}^3$

below $1.5 \mu\text{g}/\text{m}^3$
 $1.5 - 2 \mu\text{g}/\text{m}^3$
 $2 - 4 \mu\text{g}/\text{m}^3$
 $4 - 5 \mu\text{g}/\text{m}^3$
 above $5 \mu\text{g}/\text{m}^3$

Figure S8: Concentration field maps of EC (a) and Nitrate (b) computed without data associated with trajectories that have crossed the London conurbation or associated with winds blowing from the A34 highway