

Trend Analysis and Spatial Source Attribution of Surface Ozone in Chaozhou, China

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Abbreviations Index

air quality index (AQI)

analysis of variance (ANOVA)

daily maximum 8-hour moving average ozone (MDA8 O₃)

hybrid single-particle Lagrangian integrated trajectory (HYSPLIT)

Kolmogorov-Zurbenko (KZ)

potential source contribution function (PSCF)

Pearl River Delta (PRD)

trajectory sector analysis (TSA)

Caption for All the Figures/Tables

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Figure S2. The backward trajectory during the first 6 h at study site.

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Figure S9. NWVOC (a) and NO_x (b) emissions in the area surrounding the study site in 2020 (Data source: MEIC emission data for China, <http://meicmodel.org.cn/>).

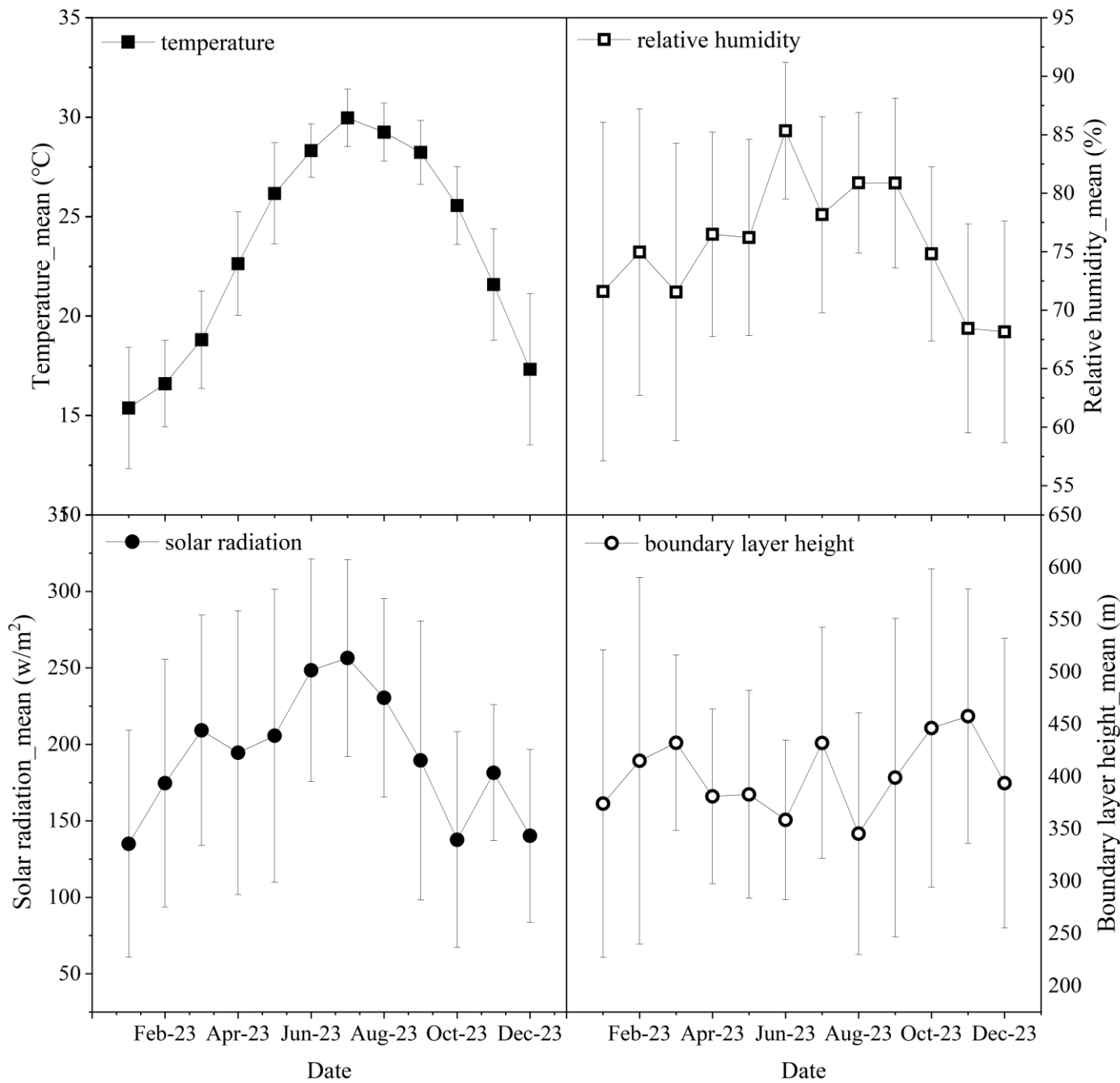


Figure S1. Monthly meteorological data of Chaozhou city in 2023.

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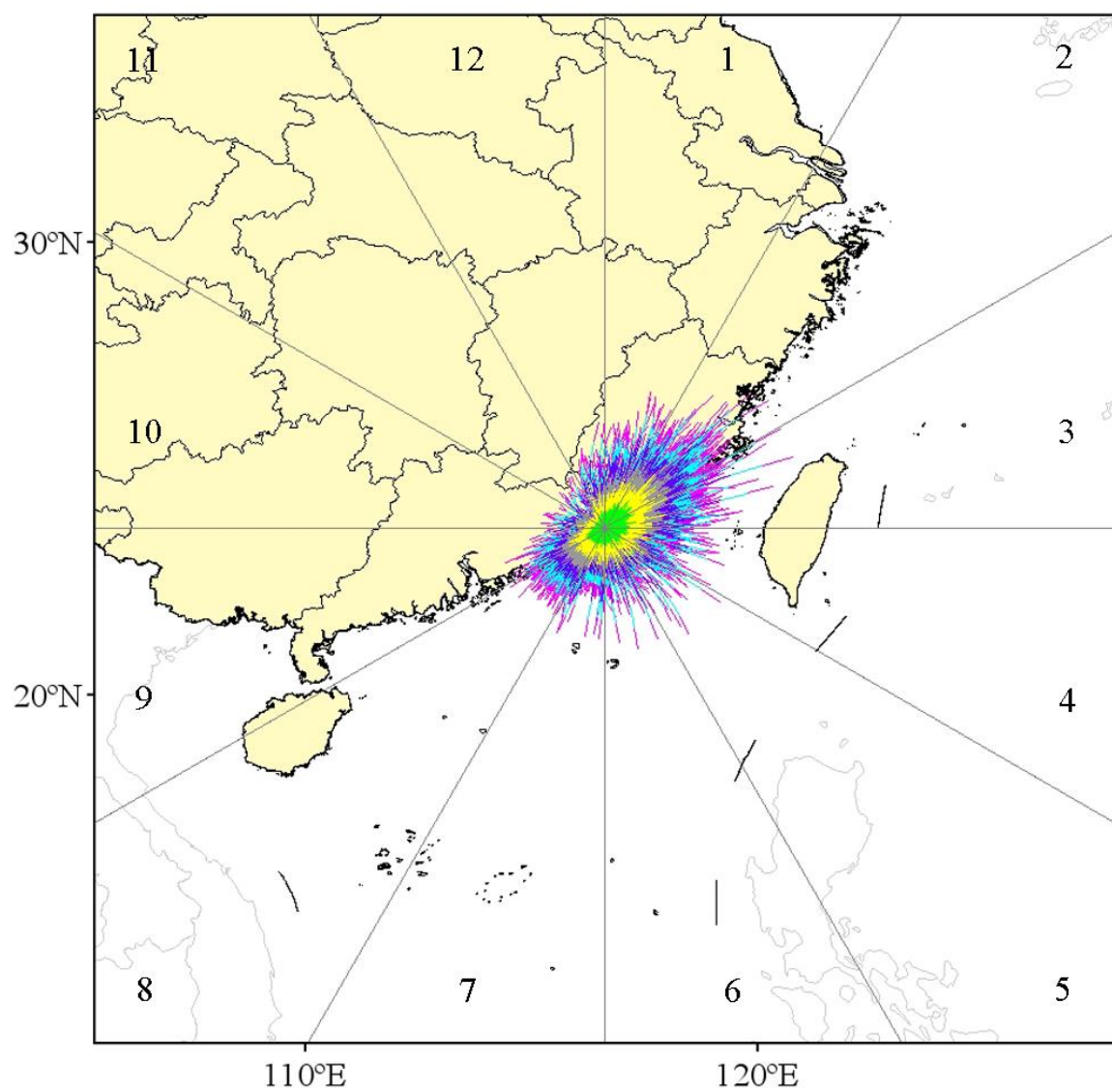


Figure S2. The backward trajectory during the first 6 h at study site.

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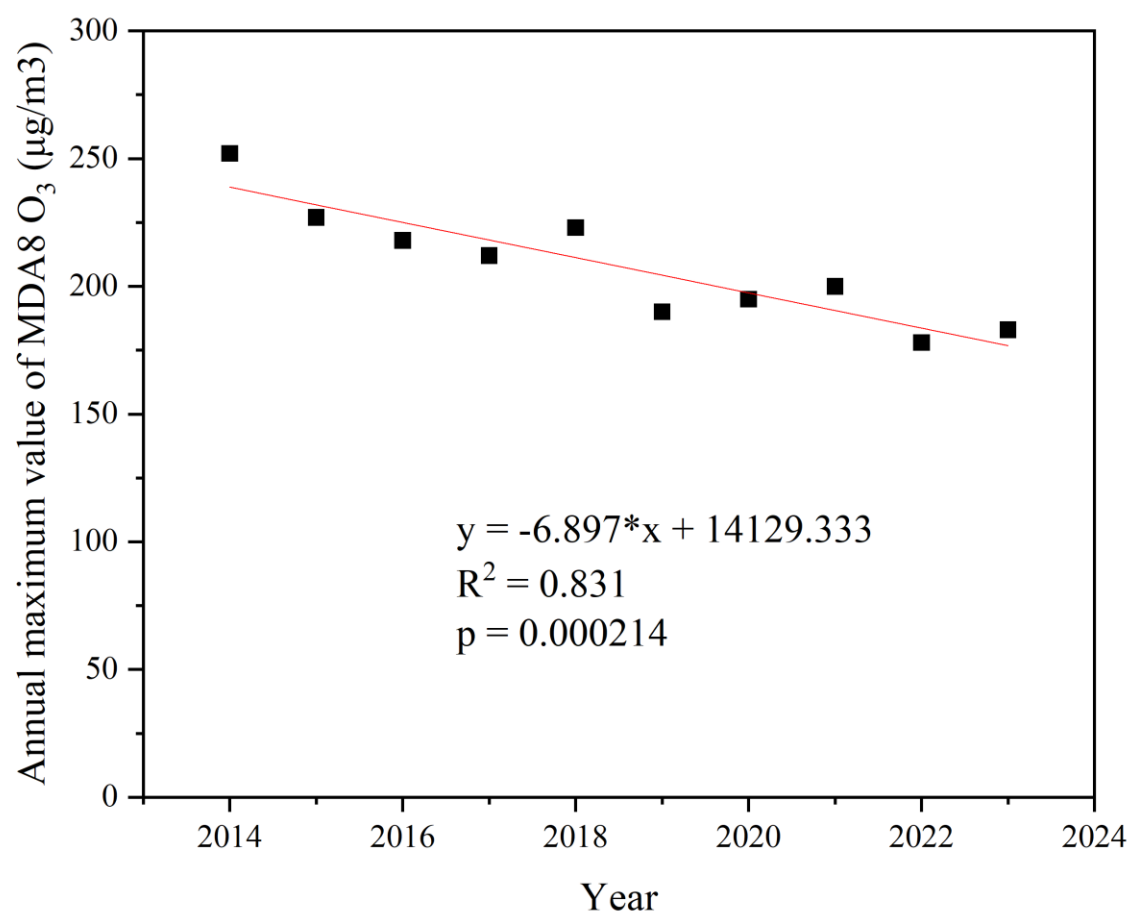
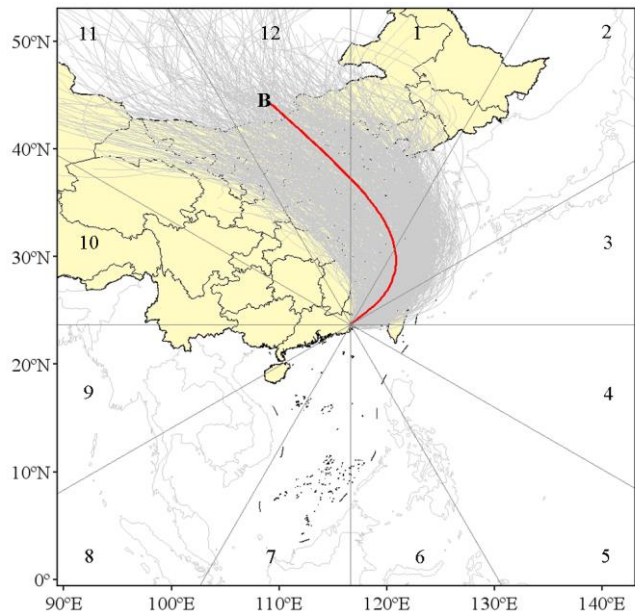
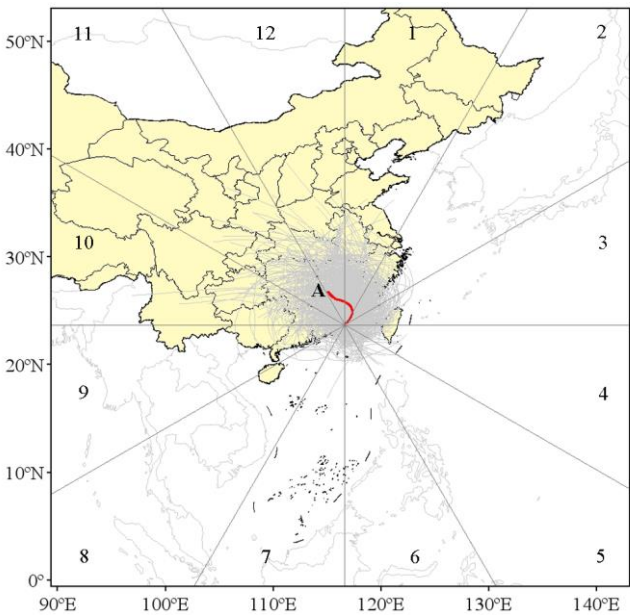


Figure S3. A linear regression analysis of the annual maximum values of MDA8 O₃.

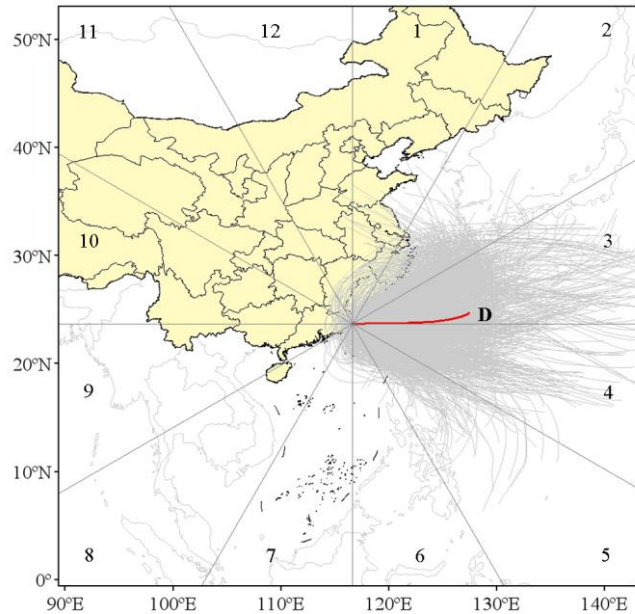
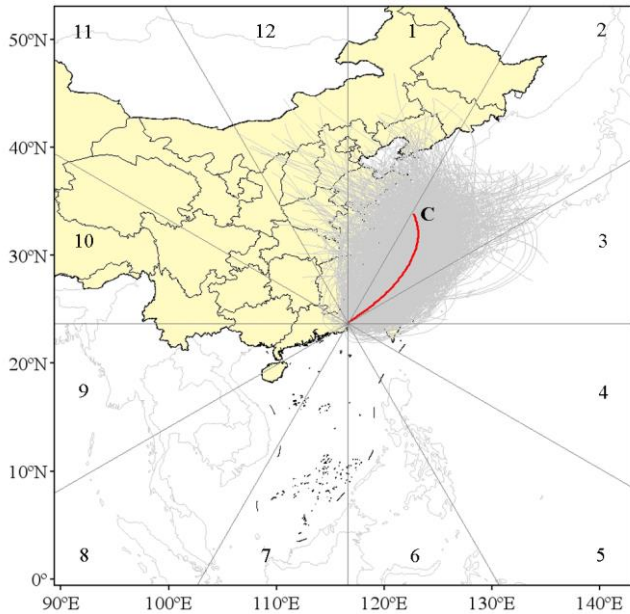
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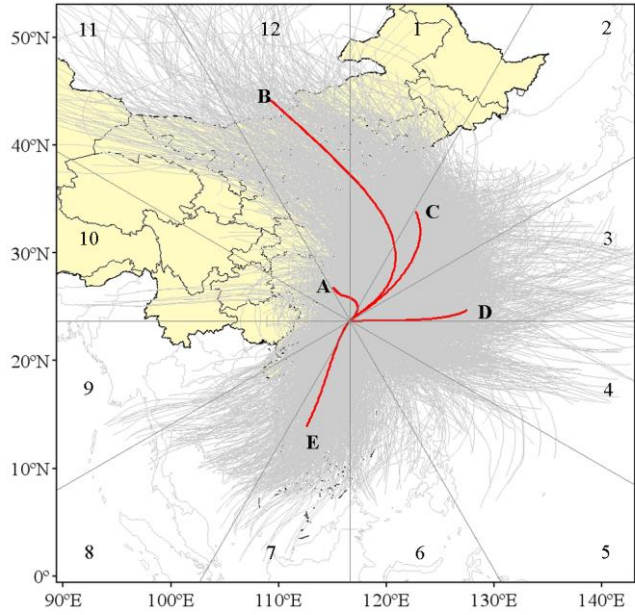
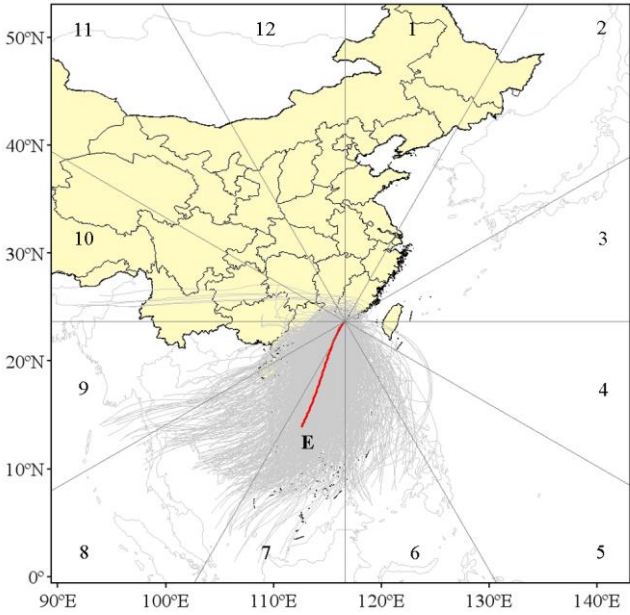
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Figure S4. Backward trajectories for different clusters at the study site from 1 January 2020 to 31 December 2023.

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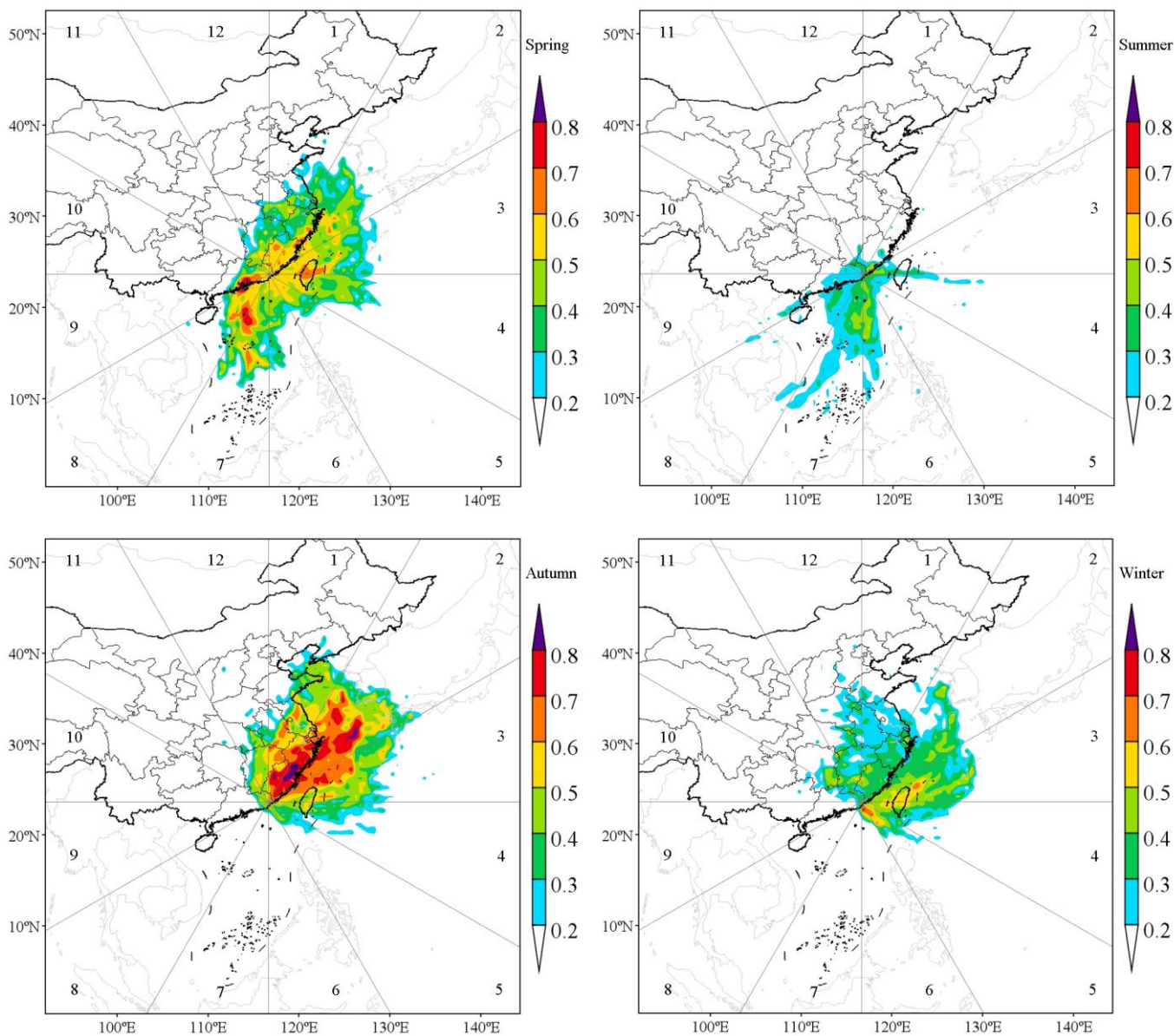


Figure S5. Seasonal distribution map of PSCF values for MAD8 O₃.

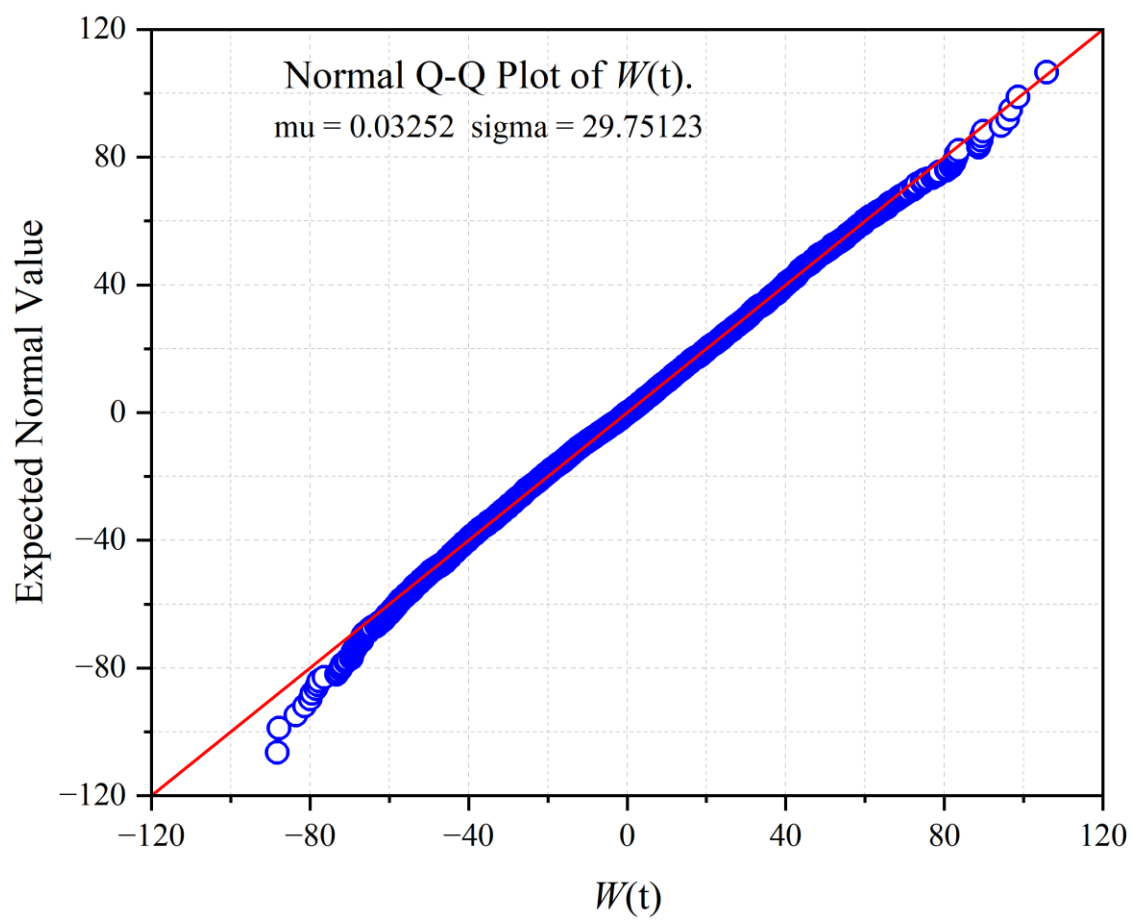


Figure S6. A quantile-quantile (Q-Q) plot of $W(t)$.

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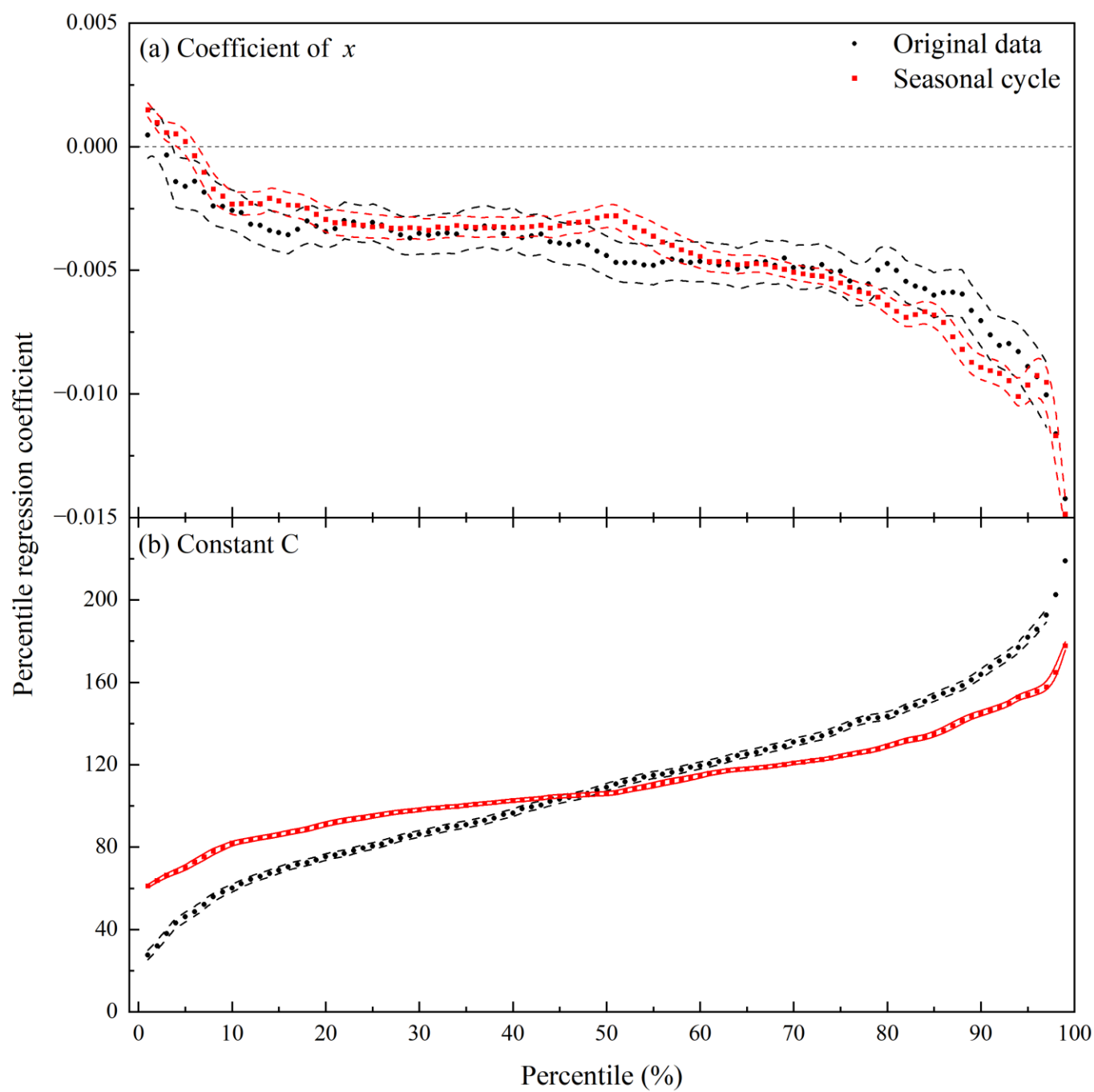


Figure S7. Percentile regression coefficient of O_3 ((a) coefficient of independent variable x ; (b) Constant C).

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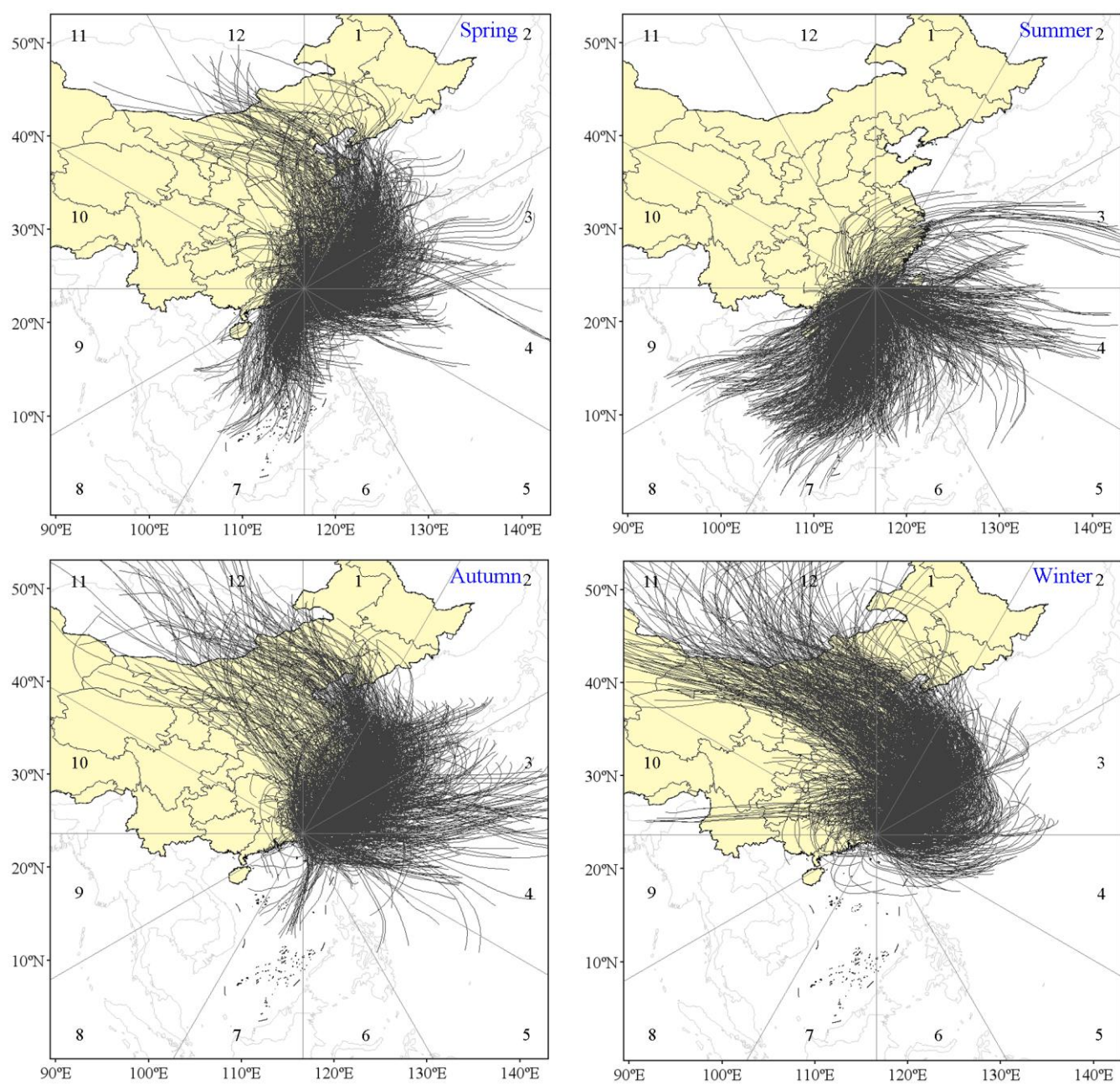


Figure S8. Backward trajectories at study site for each season, from 1 January 2020 to 31 December 2023.

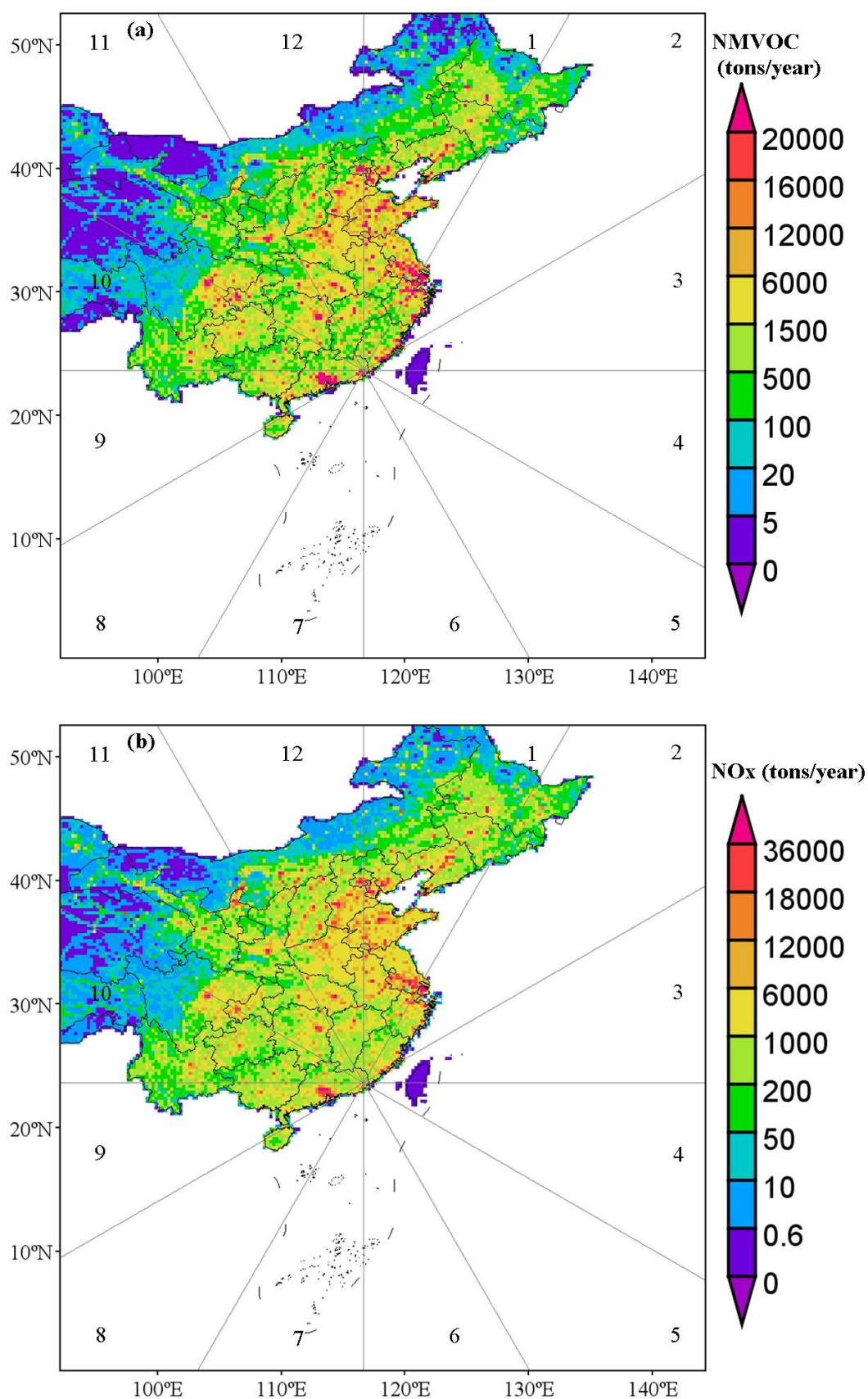


Figure S9. NWVOC (a) and NOx (b) emissions in the area surrounding the study site in 2020 (Data source: MEIC emission data for China, <http://meicmodel.org.cn>).