Supplementary material for: Influence of modelled soil biogenicNO emissions on related trace gases and the atmospheric oxidizing efficiency

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Abstract

In this document you can find figures with absolute differences in the LT column mixing ratio/concentration of relevant tracers and some additional plots, which were not included in the article.
Figure 1: Scatterplot of difference in the tracer mixing ratio/concentration (HNOS - BASE) versus soil NO emission. Naming of each plot: “tracer” “start date” “end date” “column height” (-1 for surface layer; 500 up to 500hPa) “domain” (G: global, N: 30–60degnorth, S: 30–60degsouth, T: 30deg southth–30deg north)
Figure 1: Continued. Naming of each plot: “tracer” “start date” “end date” “column height” (-1 for surface layer; 500 up to 500hPa) “domain” (G: global, N: 30–60degnorth, S: 30–60degsouth, T: 30degsouth–30degnorth)
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Figure 2: Absolute difference (NOBIONO – BASE) of the lower tropospheric column mixing ratio of NO$_x$ in pmol mol$^{-1}$ averaged for a) December, January, February and b) June, July and August.
Figure 3: Absolute difference (NOBIONO – BASE) of zonal mean mixing ratio of NO\textsubscript{x} in \textit{pmol mol\textsuperscript{-1}} averaged for a) December, January, February and b) June, July and August
Figure 4: Absolute difference (REDOTHER – BASE) of the lower tropospheric column mixing ratio of NO\textsubscript{x} in pmol mol\textsuperscript{-1} averaged for a) December, January, February and b) June, July and August
Figure 5: Absolute difference (REDOTHER – BASE) of zonal mean mixing ratio of NO\textsubscript{x} in pmol/mol averaged for a) December, January, February and b) June, July and August.
Figure 6: Absolute difference (NOBIONO – BASE) of the lower tropospheric column mixing ratio of PAN in \( \text{pmol mol}^{-1} \) averaged for a) December, January, February and b) June, July and August.
Figure 7: Absolute difference (NOBIONO – BASE) of zonal mean mixing ratio of PAN in pmol mol\(^{-1}\) averaged for a) December, January, February and b) June, July and August
Figure 8: Absolute difference (REDOTHER – BASE) of the lower tropospheric column mixing ratio of PAN in $\text{pmol mol}^{-1}$ averaged for a) December, January, February and b) June, July and August.
Figure 9: Absolute difference (REDOTHER – BASE) of zonal mean mixing ratio of PAN in \( \text{pmol mol}^{-1} \) averaged for a) December, January, February and b) June, July and August.
Figure 10: Absolute difference (NOBIONO – BASE) of the lower tropospheric column mixing ratio of HNO$_3$ in pmol/m$^2$ averaged for a) December, January, February and b) June, July and August.
Figure 11: Absolute difference (NOBIONO – BASE) of zonal mean mixing ratio of HNO$_3$ in pmol mol$^{-1}$ averaged for a) December, January, February and b) June, July and August.
Figure 12: Absolute difference (REDOTHER – BASE) of the lower tropospheric column mixing ratio of HNO$_3$ in pmol mol$^{-1}$ averaged for a) December, January, February and b) June, July and August.
Figure 13: Absolute difference (REDOTHER – BASE) of zonal mean mixing ratio of HNO$_3$ in \textit{pmol mol}$^{-1}$ averaged for a) December, January, February and b) June, July and August
Figure 14: Absolute difference (NOBIONO – BASE) of the lower tropospheric column mixing ratio of O$_3$ in $\text{nmol mol}^{-1}$ averaged for a) December, January, February and b) June, July and August.
Figure 15: Absolute difference (NOBIONO – BASE) of zonal mean mixing ratio of O$_3$ in mol/mol averaged for a) December, January, February and b) June, July and August
Figure 16: Absolute difference (REDOOTHER – BASE) of the lower tropospheric column mixing ratio of O$_3$ in $\text{nmol mol}^{-1}$ averaged for a) December, January, February and b) June, July and August
Figure 17: Absolute difference (REDOther – BASE) of zonal mean mixing ratio of $O_3$ in $\text{nmol mol}^{-1}$ averaged for a) December, January, February and b) June, July and August.
Figure 18: Absolute difference (NOBIONO – BASE) of the lower tropospheric column mixing ratio of OH in $10^3$ molec cm$^{-3}$ averaged for a) December, January, February and b) June, July and August
Figure 19: Absolute difference (NOBIONO – BASE) of zonal mean mixing ratio of OH in $10^3 \text{molec cm}^{-3}$ averaged for a) December, January, February and b) June, July and August.
Figure 20: Absolute difference (REDOTHER – BASE) of the lower tropospheric column mixing ratio of OH in $10^3 \text{molec cm}^{-3}$ averaged for a) December, January, February and b) June, July and August
Figure 21: Absolute difference (REDOHER – BASE) of zonal mean mixing ratio of OH in $10^3$ molec cm$^{-3}$ averaged for a) December, January, February and b) June, July and August.