Carbon cycle and climate effects of forcing from fire-emitted aerosols

Supplementary Data

Jean-Sébastien Landry\textsuperscript{1,3}, Antti-Ilari Partanen\textsuperscript{1,2} and H. Damon Matthews\textsuperscript{1}

\textsuperscript{1}Department of Geography, Planning and Environment, Concordia University, Montréal, Québec, Canada
\textsuperscript{2}Climate Change, Finnish Meteorological Institute, Helsinki, Finland
\textsuperscript{3}Currently at the Département de géomatique appliquée, Université de Sherbrooke, Sherbrooke, Québec, Canada

E-mail: jean-sebastien.landry@usherbrooke.ca

\textbf{Figure S1.} Same as Figure 1 of the main text, but for the minimum (a and b; simulation TR-30-MIN) or maximum (c and d; simulation TR-30-MAX) estimates of fire-emitted aerosols amount.
Figure S2. Same as Figure 1 of the main text, but for the sensitivity simulation assessing the impact of nudging meteorology (simulation TR-30-BG-M).
**Figure S3.** Same as Figure 2 of the main text, but for the minimum (a and b; simulation TR-30-MIN) or maximum (c and d; simulation TR-30-MAX) estimates of fire-emitted aerosols amount.
Figure S4. Same as Figure 1 of the main text, but for year 1850 and the best guess (a and b; simulation EQ-1000-BG), minimum (c and d; simulation EQ-1000-MIN), or maximum (e and f; simulation EQ-1000-MAX) estimates of fire-emitted aerosols amount.
Figure S5. Same as Figure 3 of the main text, but for the minimum estimate of fire-emitted aerosols amount (simulations EQ-1000-MIN and TR-1170-MIN).
Figure S6. Same as Figure 3 of the main text, but for the maximum estimate of fire-emitted aerosols amount (simulations EQ-1000-MAX and TR-1170-MAX).
Figure S7. Assessment of potential feedbacks between fire-emitted aerosols and the carbon cycle for the best guess (a), minimum (b), and maximum (c) estimates of fire-emitted aerosols amount. For each panel, results are mean values over 1991–2020 for the differences between TR-1170-X-F and TR-1170-X, where X stands for BG, MIN, or MAX.