Figure S1: Daily emissions in the entire domain (top), in the Nordic region (middle) and outside it (bottom), for the wetland (left) and non-wetland (right) CH_4 emissions, including the two LUMIA-Lprior+corr and LUMIA-Lpost+corr sensitivity inversions.
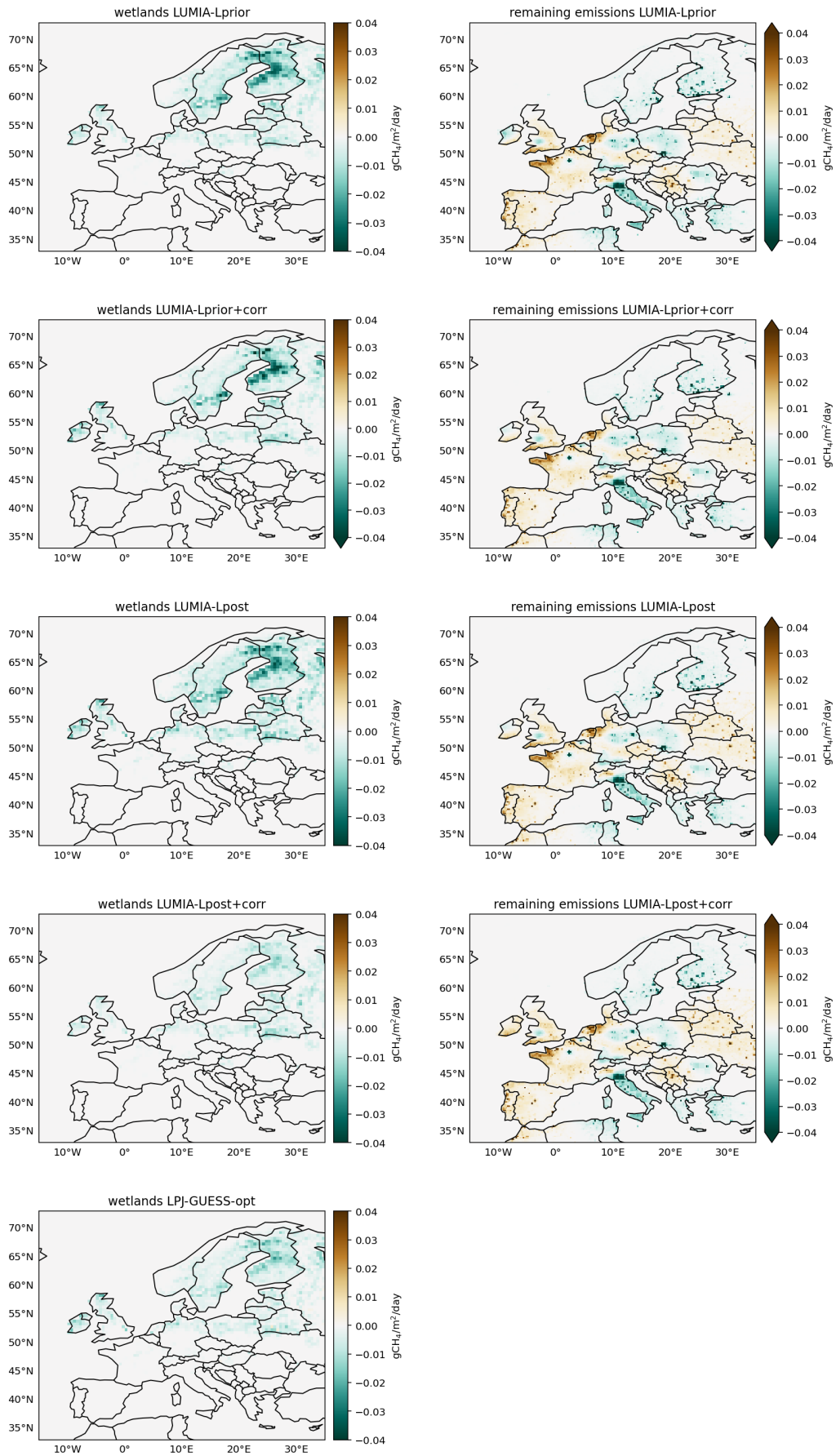
Figure S2: Emission adjustments for wetlands (left) and non-wetlands (right) in the five data-informed simulations, compared to the unoptimized LPJ-GUESS model (LPJ-GUESS-unopt).
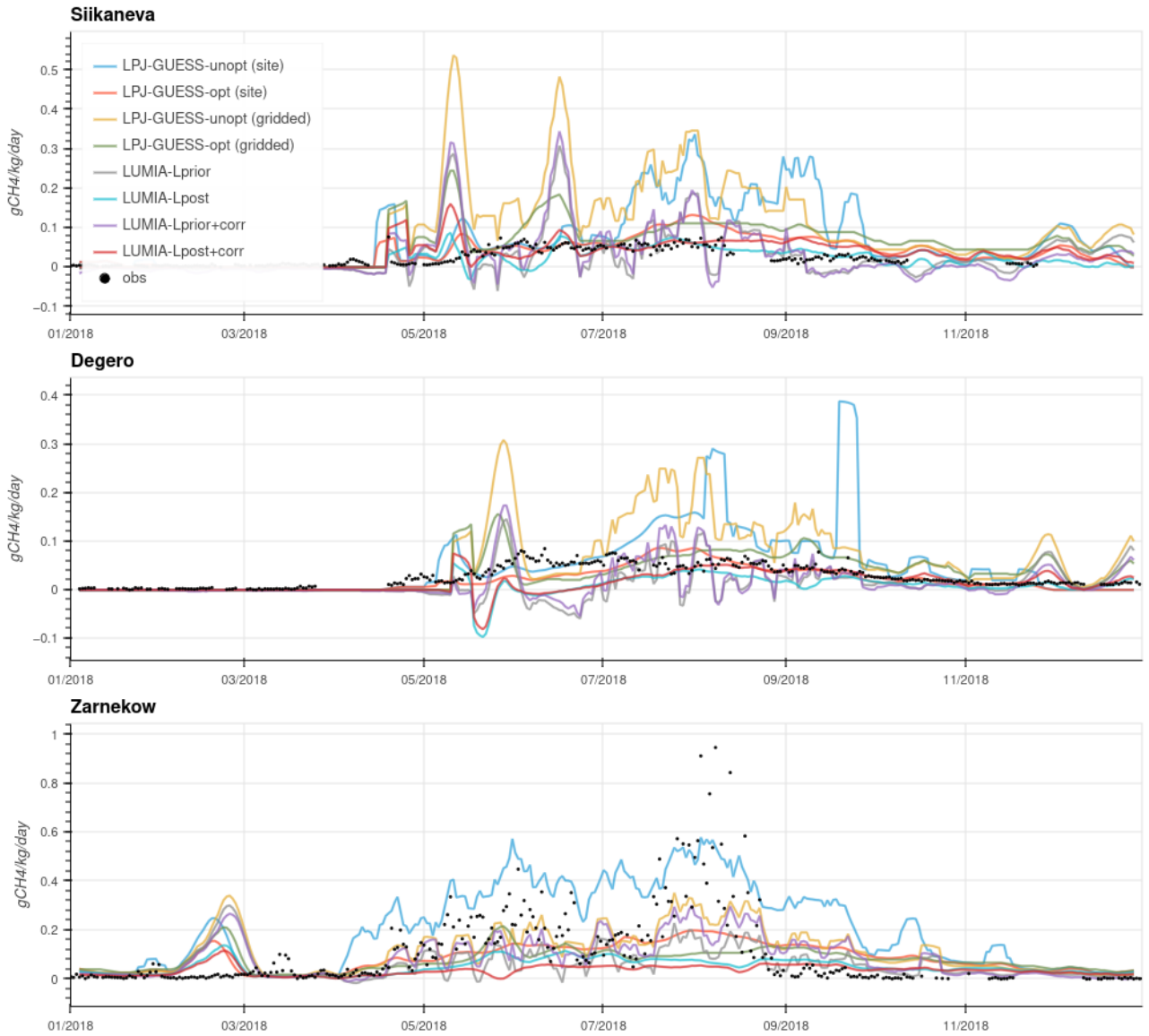
Figure S3: Modelled (solid lines) and observed (dots) methane emissions at three sites within the Nordic region, including the two LUMIA-Lprior+corr and LUMIA-Lpost+corr sensitivity inversions. The figure shows 7-days rolling average. See Figure SI 4 for a non-smoothed version

Figure S4: Modelled (solid lines) and observed (dots) methane emissions at three sites within the Nordic region, including the two LUMIA-Lprior+corr and LUMIA-Lpost+corr sensitivity inversions.
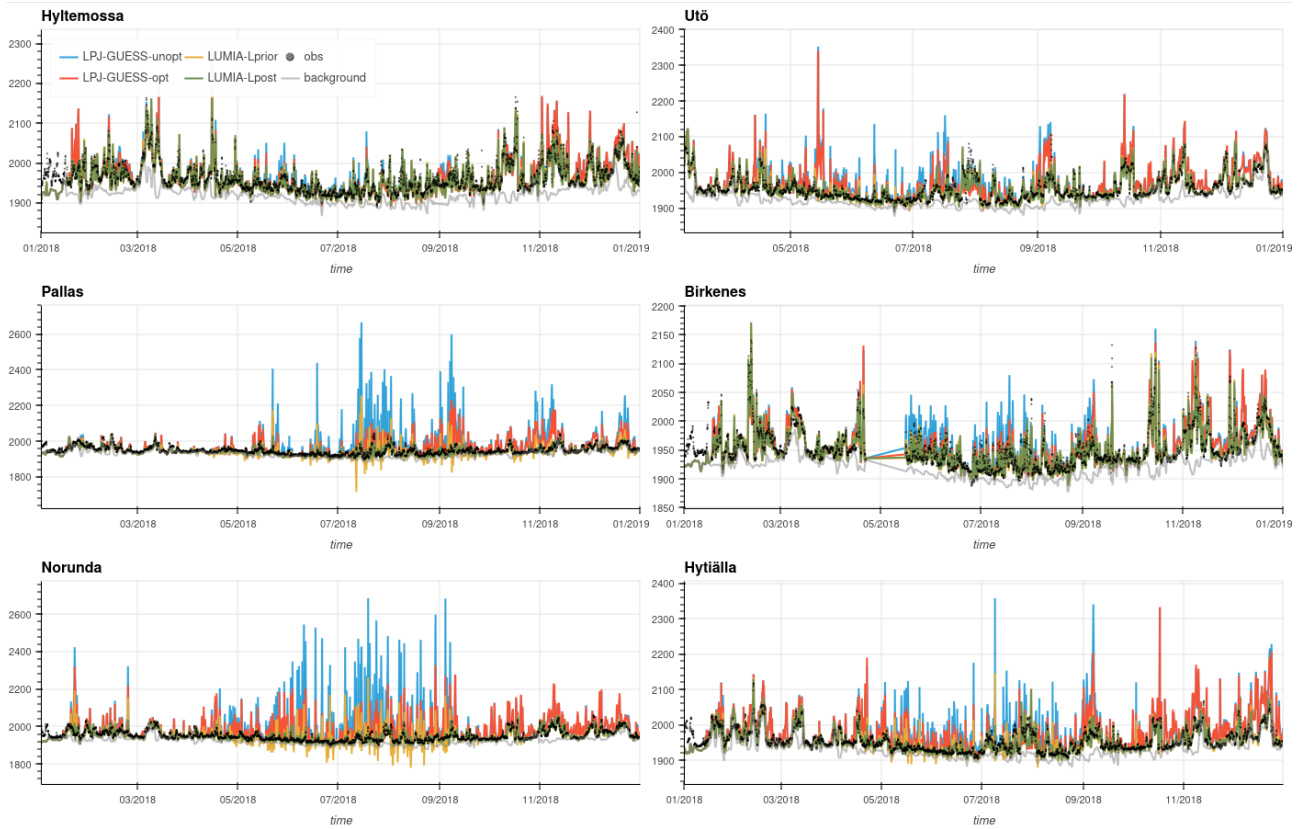
Figure S5: Modelled (solid lines) and observed (dots) CH_4 mixing ratio at the six observation sites within the Nordic region.
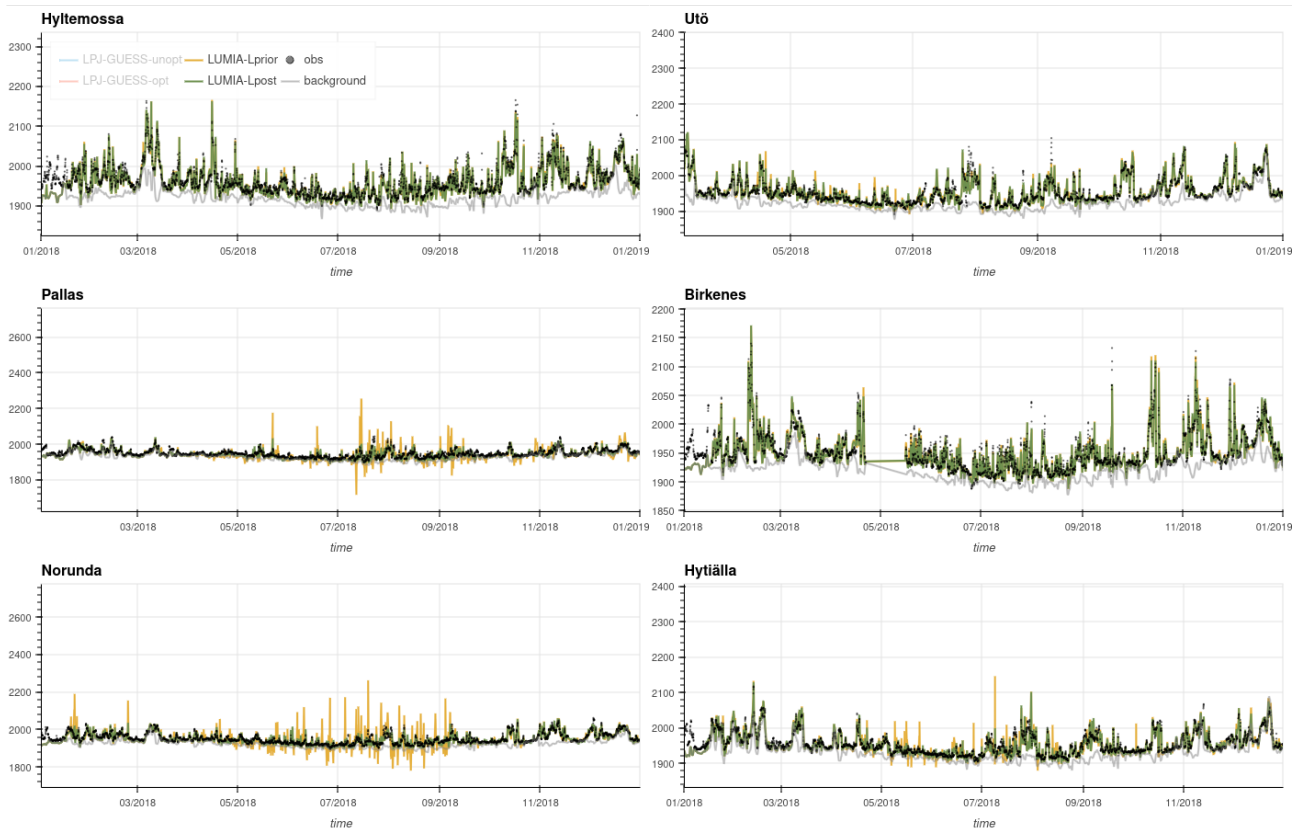

Figure S6: Same as Figure SI 5, but showing only the LUMIA posteriors