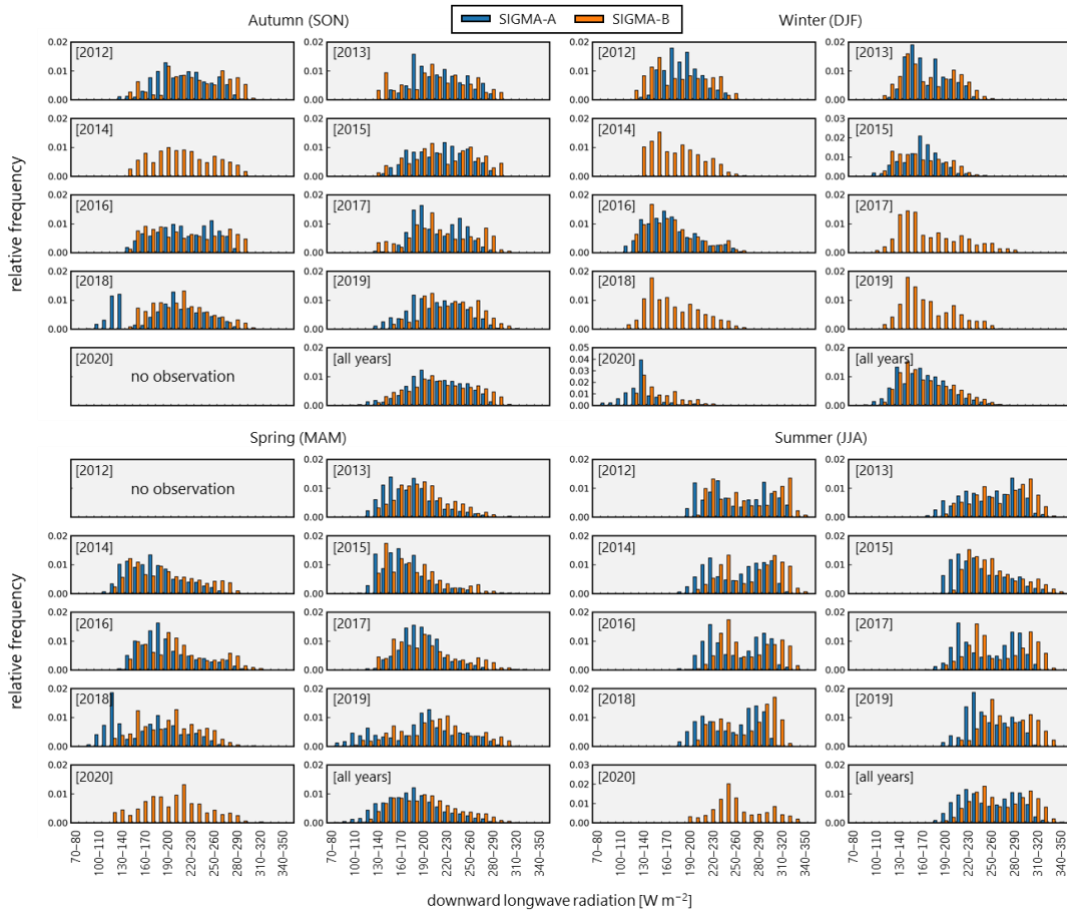
1   **Supplementary materials**

3   Figure S1. Histograms of downward longwave radiation (LW_d) in each season and year at the SIGMA-

4   A (blue) and SIGMA-B (orange) sites. If more than half of the observation data were masked, the data

5   were not plotted.

6

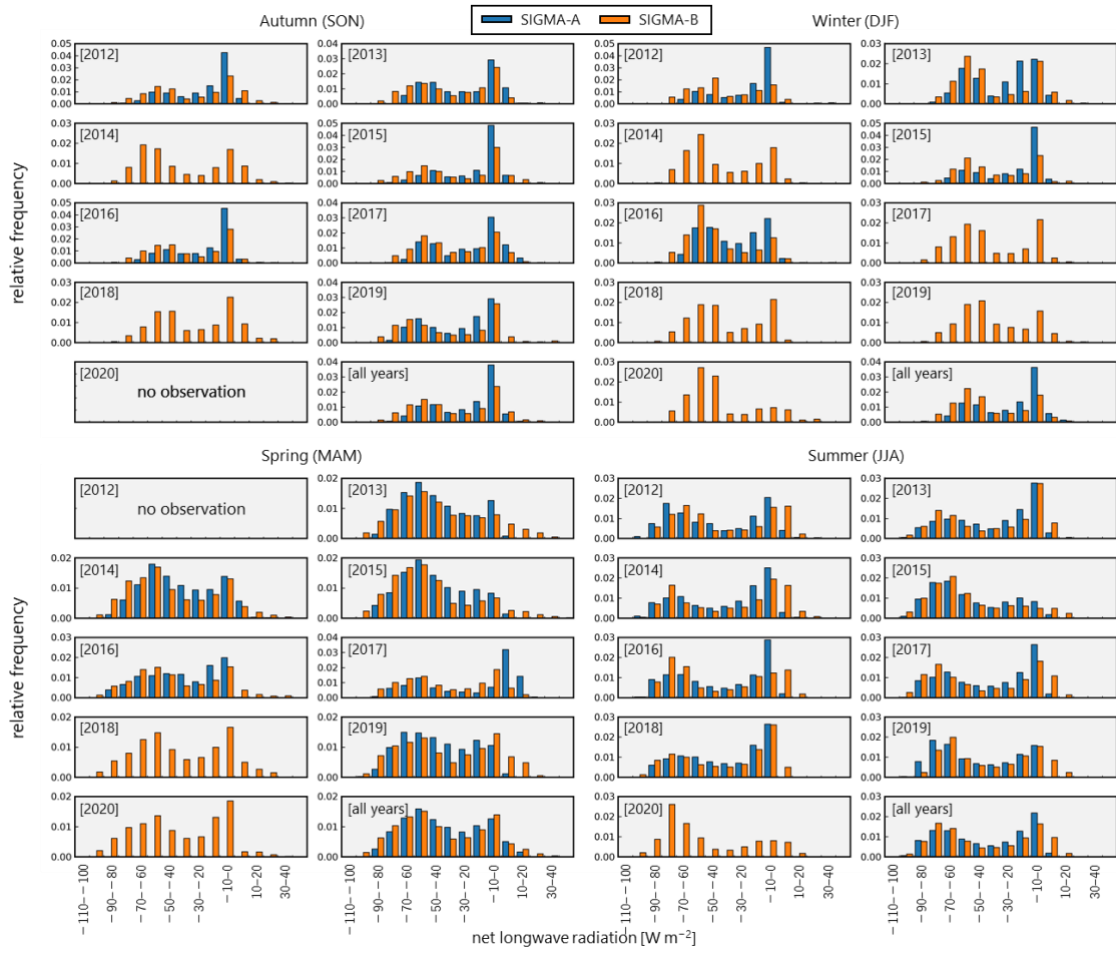



Figure S2. Histograms of net longwave radiation (LW_{net}) in each season and year at the SIGMA-A

(blue) and SIGMA-B (orange) sites.