Subseasonal hydrometeorological ensemble predictions in small- and medium-size mountainous catchments: Benefits of the NWP approach

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Supplement to the Manuscript
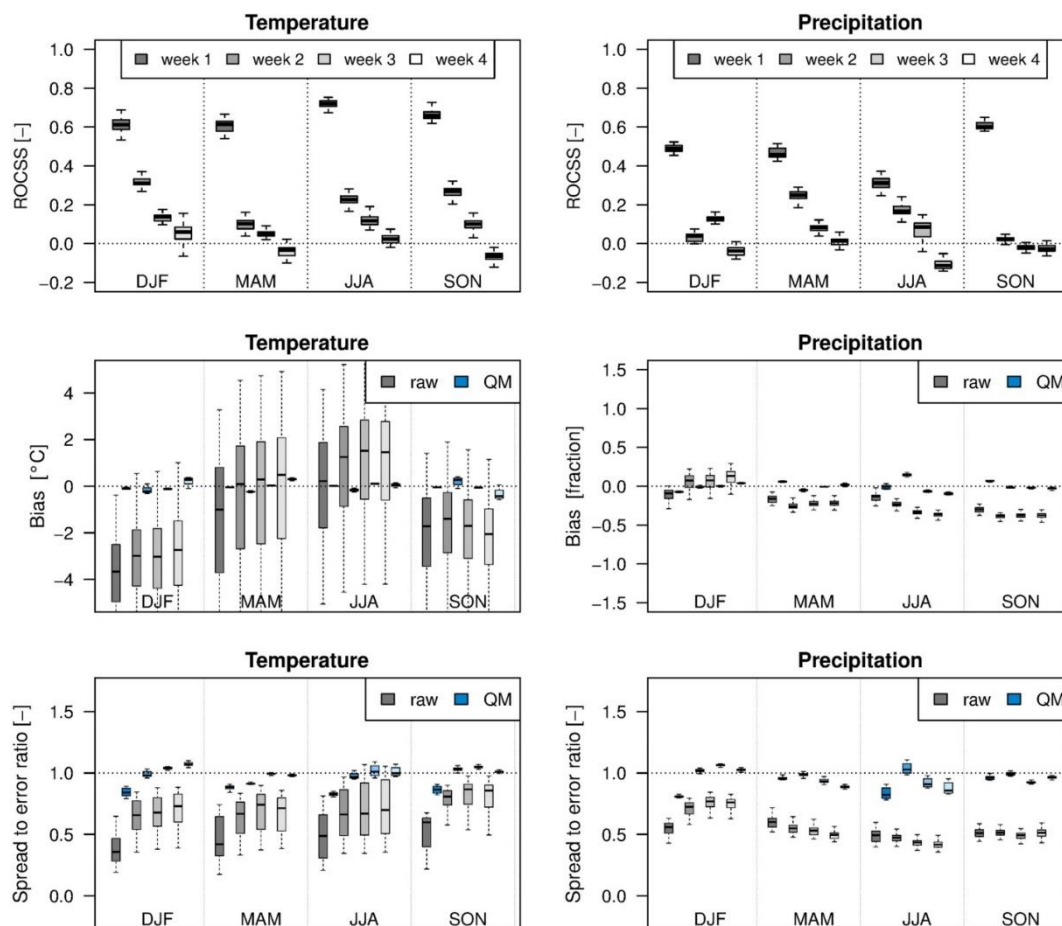
Figure S 1: ROCSS, Bias and Spread to error ratio for temperature and precipitation reforecast in the Verzasca catchment.
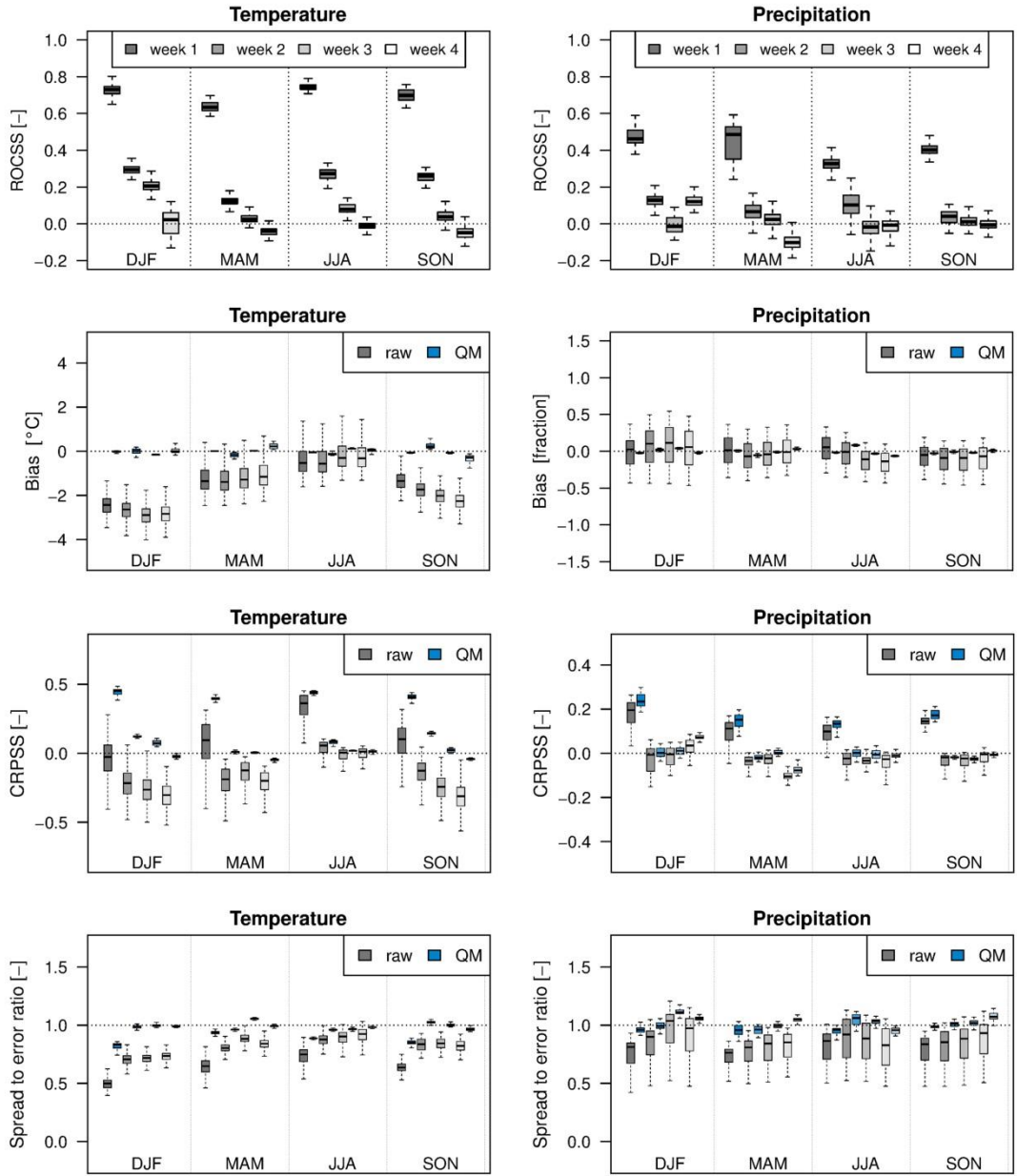
Figure S 2: Same as Figure S 1 but for the Thur catchment. In addition to Figure S1, the CRPSS is shown here as well.
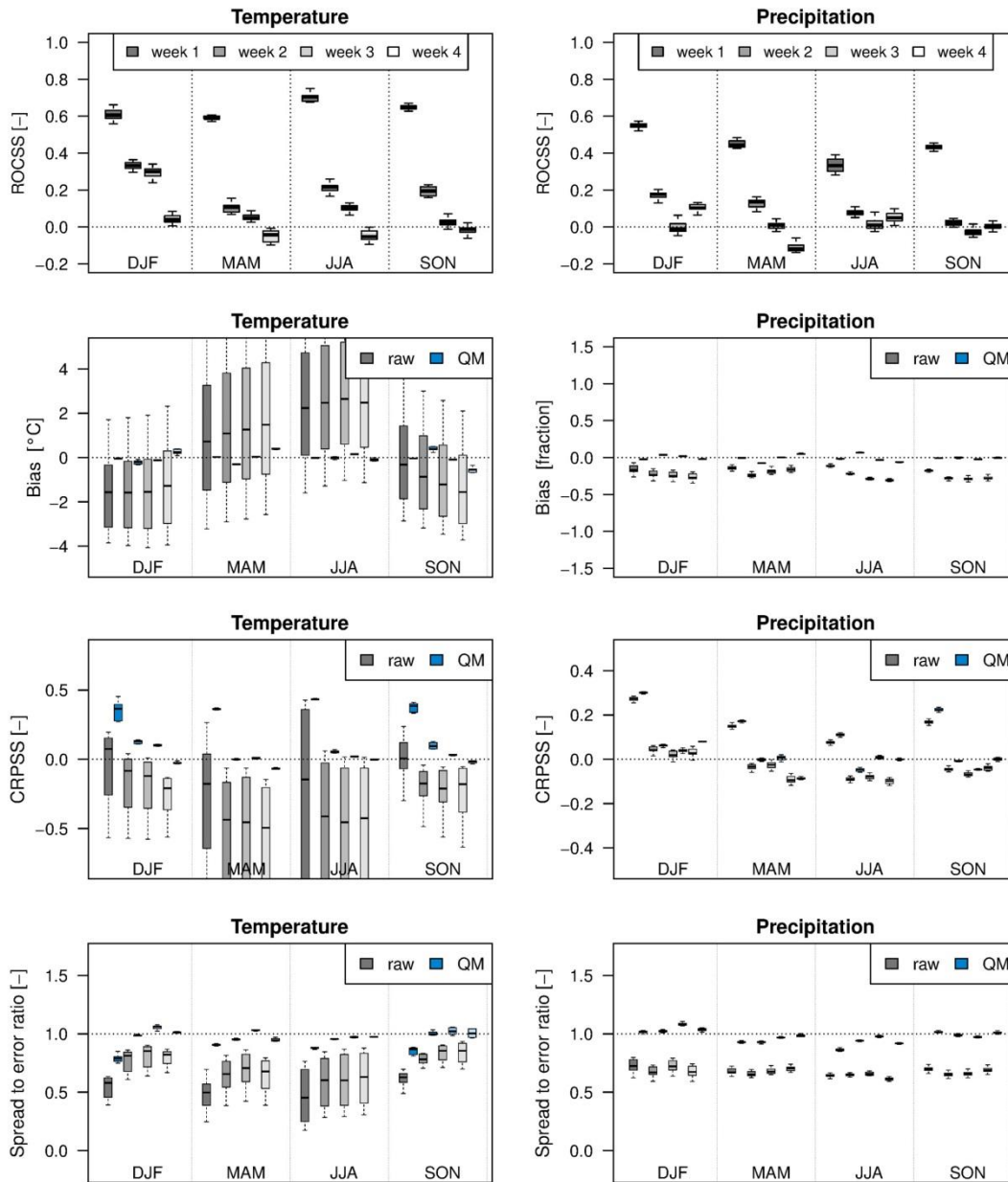
Figure S 3: Same as Figure S 2 but for the Klöntal catchment.
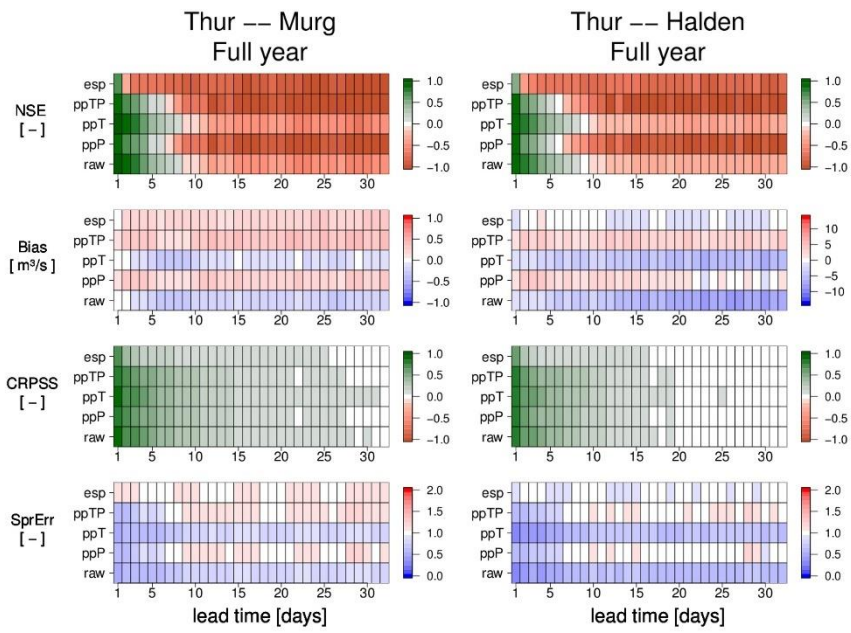
Figure S 4: As in Figure 4 but for the Thur subcatchments Murg and Halden.
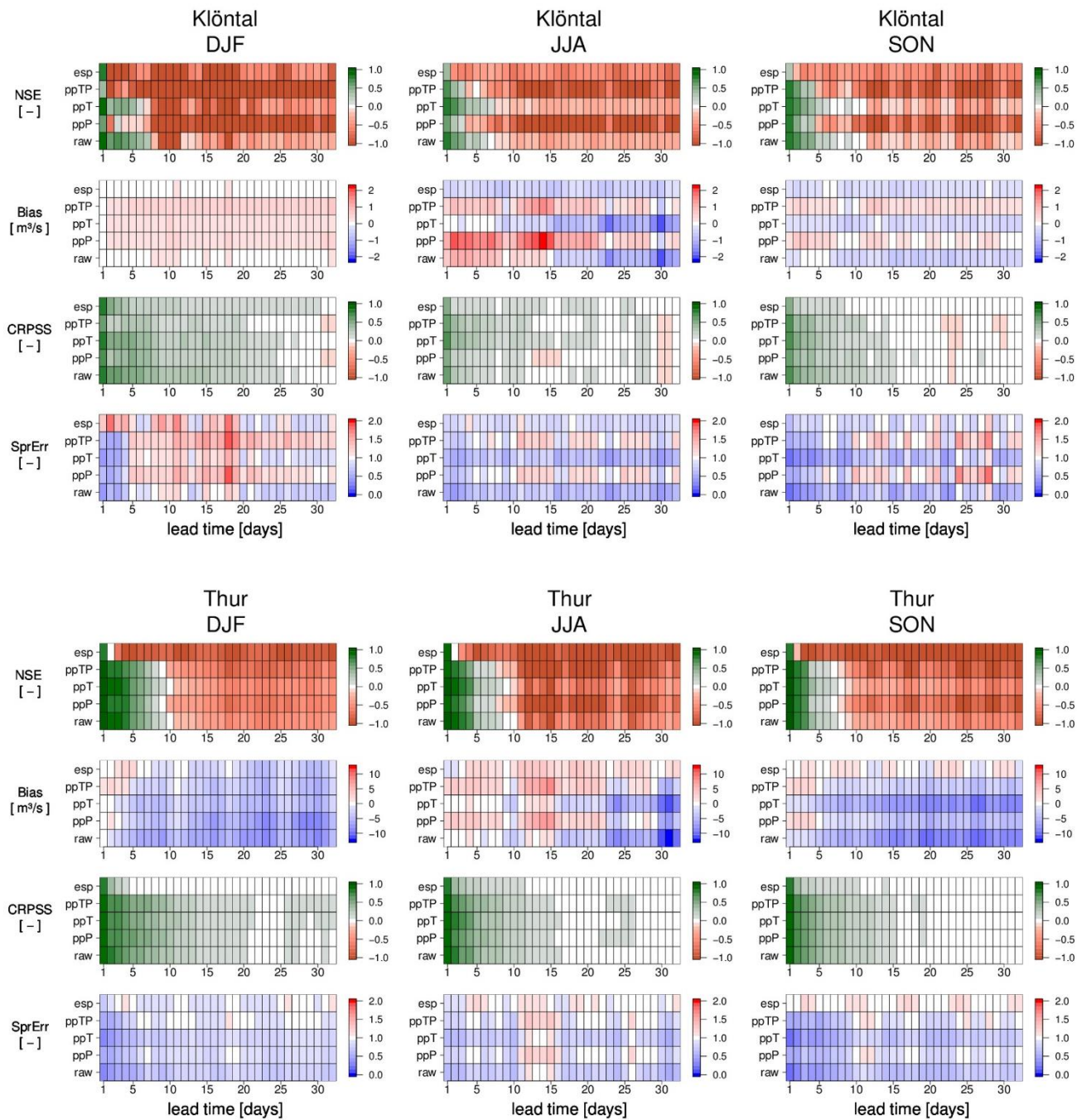
Figure S 5: As in Figure 6 but for the remaining seasons DJF, JJA and SON.
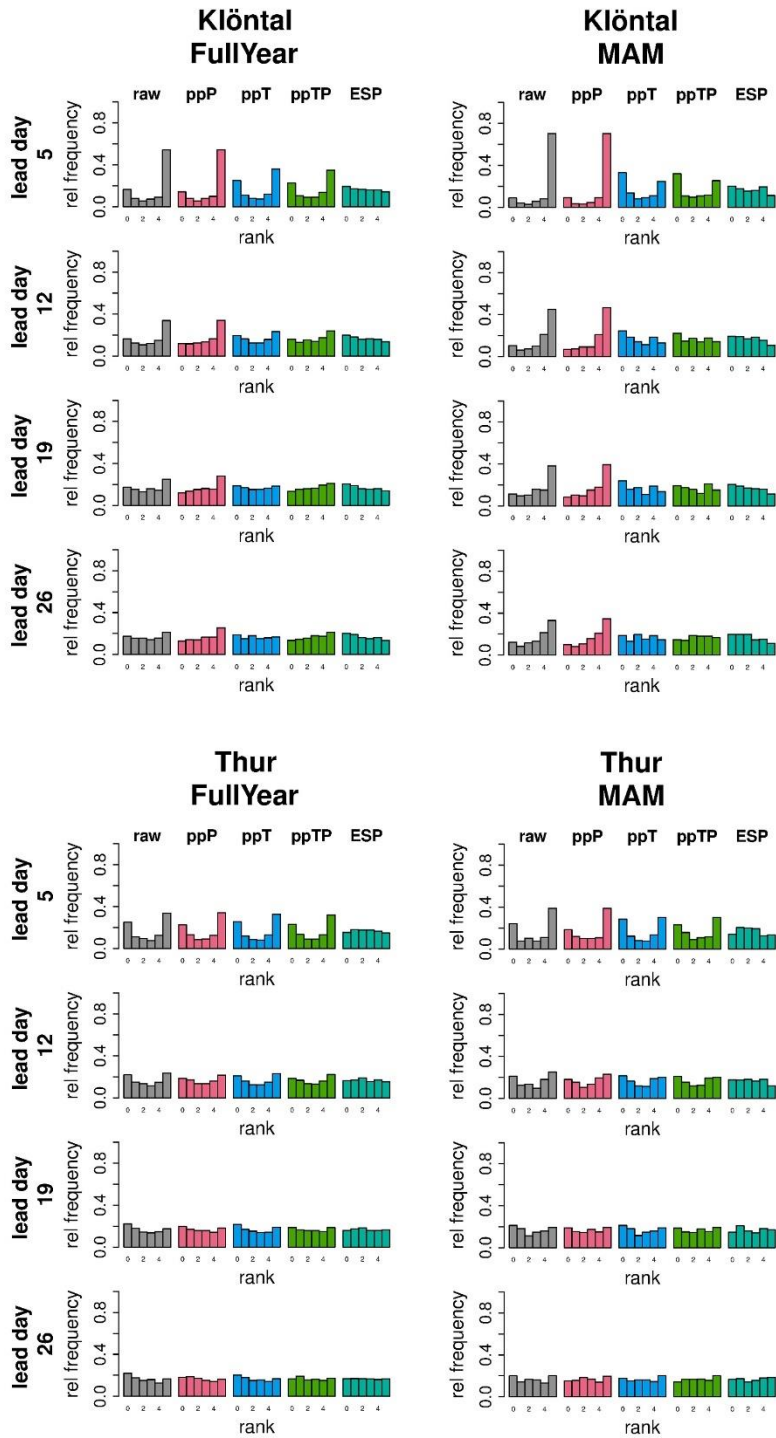
Figure S 6: As in Figure 7 but for the Klöntal and the Thur
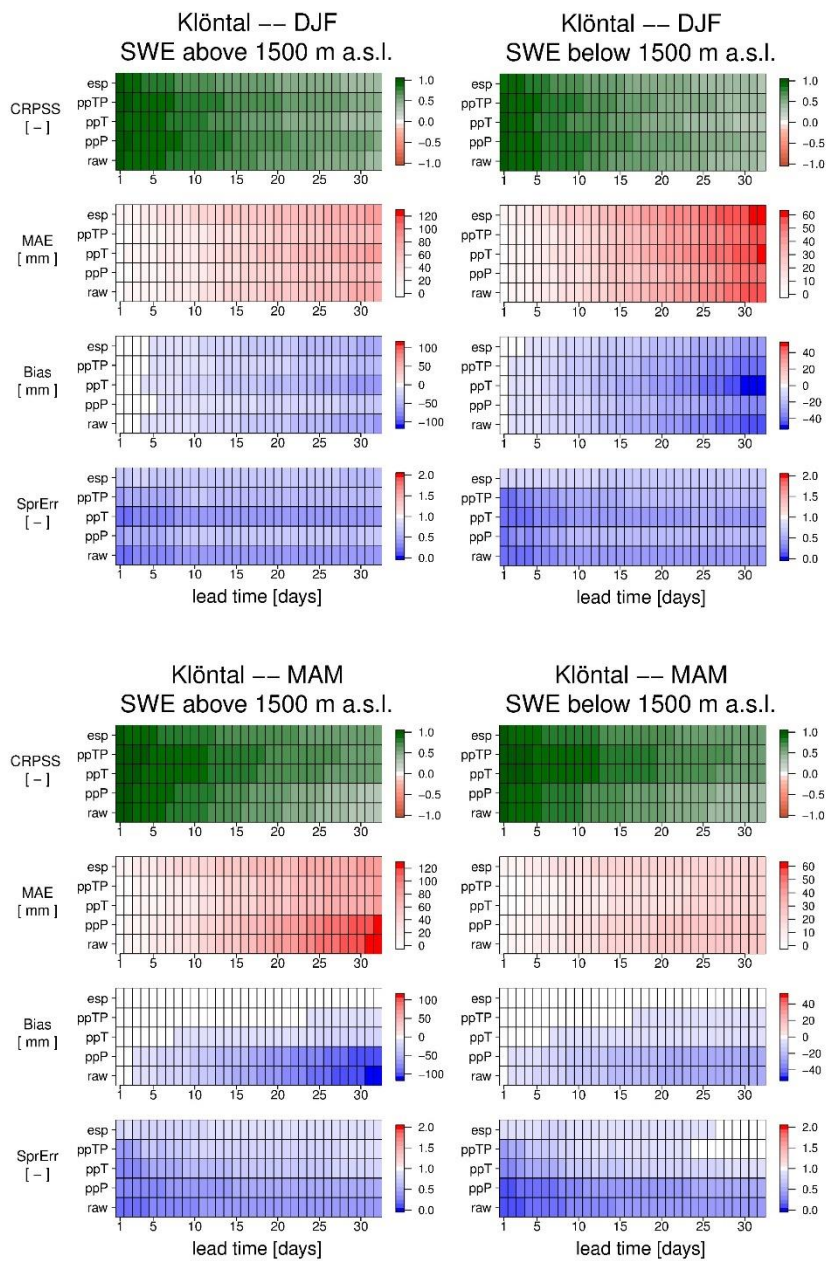
Figure S 7: As in Figure 8 but for DJF and MAM in the Klöntal catchment.
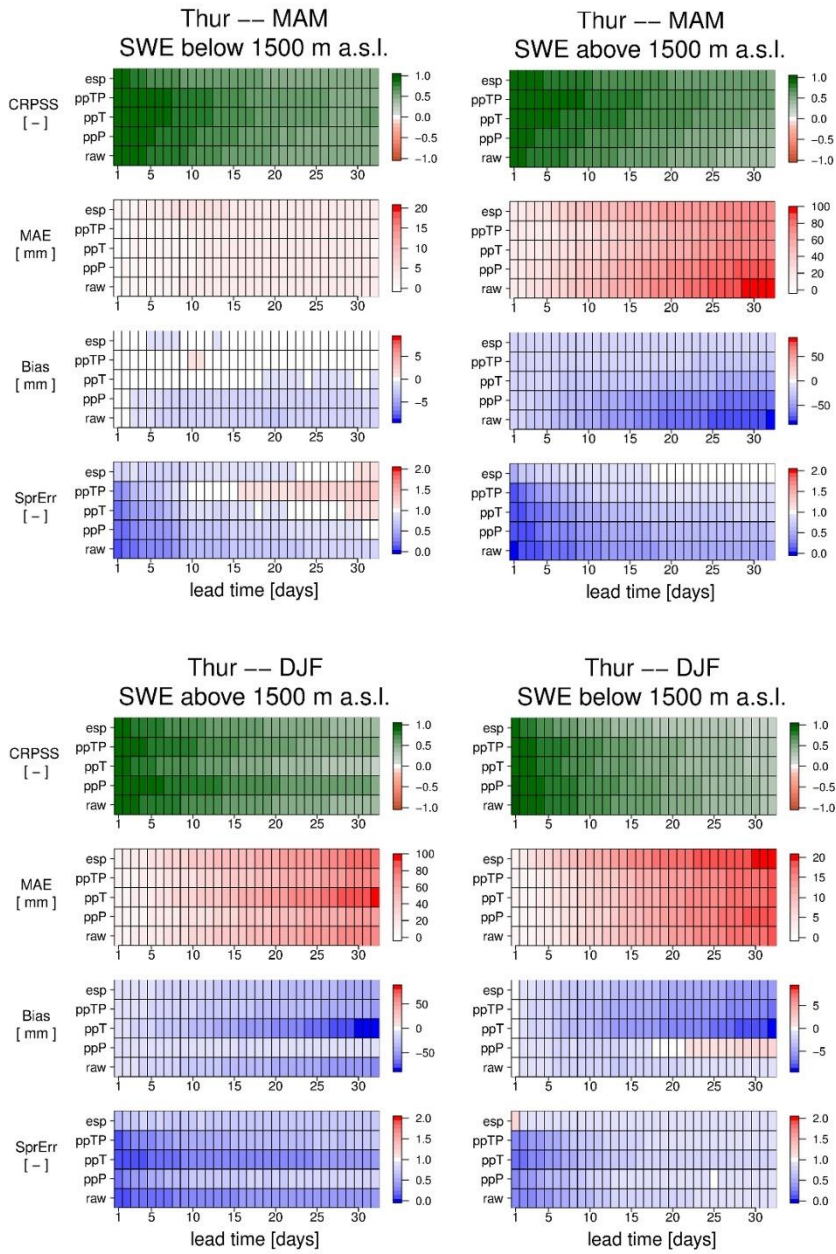
Figure S 8: As in Figure 8 but for DJF and MAM in the Thur catchment.
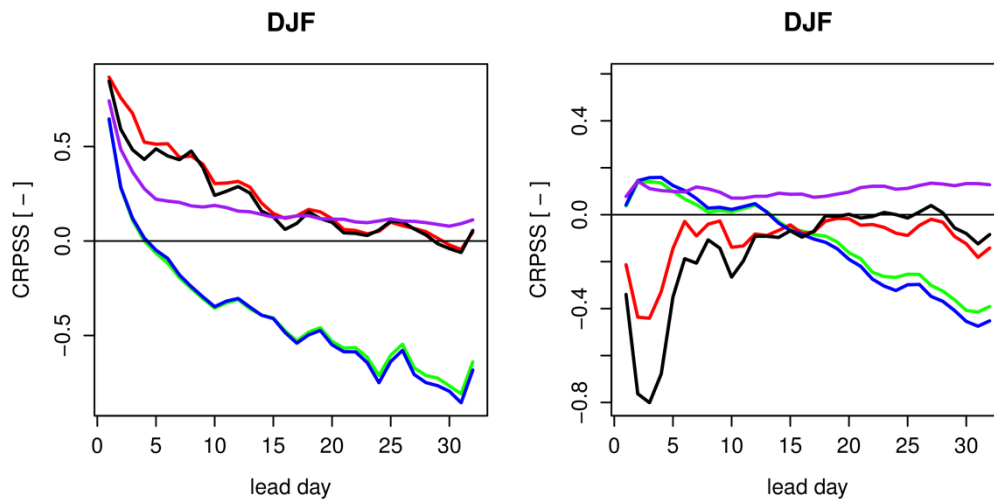
Figure S 9: CRPSS for the different prediction configurations ESP (purple), raw (green), ppP (blue), ppTG (red), ppTP (black). On the left for the predictions verified against the reference simulation and on the right verified against the real observations.

Verzasca, initialization date: 2009−02−05

Legend:
- ESP
- raw
- ppT
- ppP
- ppTG
- Ref
- Obs
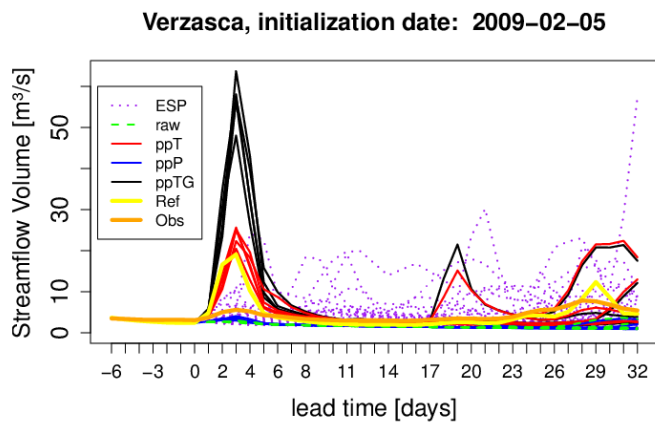
Figure S 10: Predicted streamflow for initialization date 2009-02-05 for all different versions (ESP, raw and pre-processed), the reference simulation and the observation. The initialization date is at lead day 0, prior to this day only the reference simulation and observations are plotted.
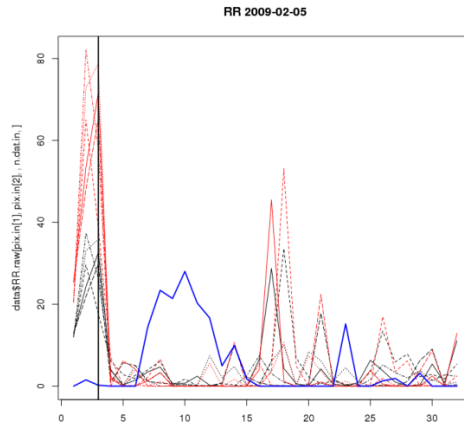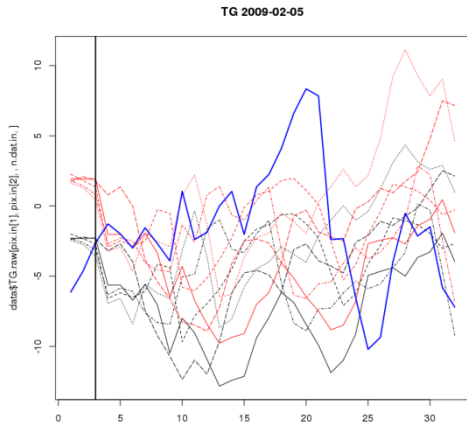
Figure S 11: Predicted raw (black) and corrected (red) reforecasts and corresponding observations (blue) for temperature on the left and precipitation on the right. The location is in the upper third of the catchment.