

1 Variability of soil moisture and sea surface temperatures
2 similarly important for warm-season land climate
3 in the Community Earth System Model

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Rene Orth¹ and Sonia I. Seneviratne¹

6 ¹Institute for Atmospheric and Climate Science, ETH Zurich, Universitätsstrasse 16, CH-8092
7 Zurich, Switzerland (rene.orth@env.ethz.ch)

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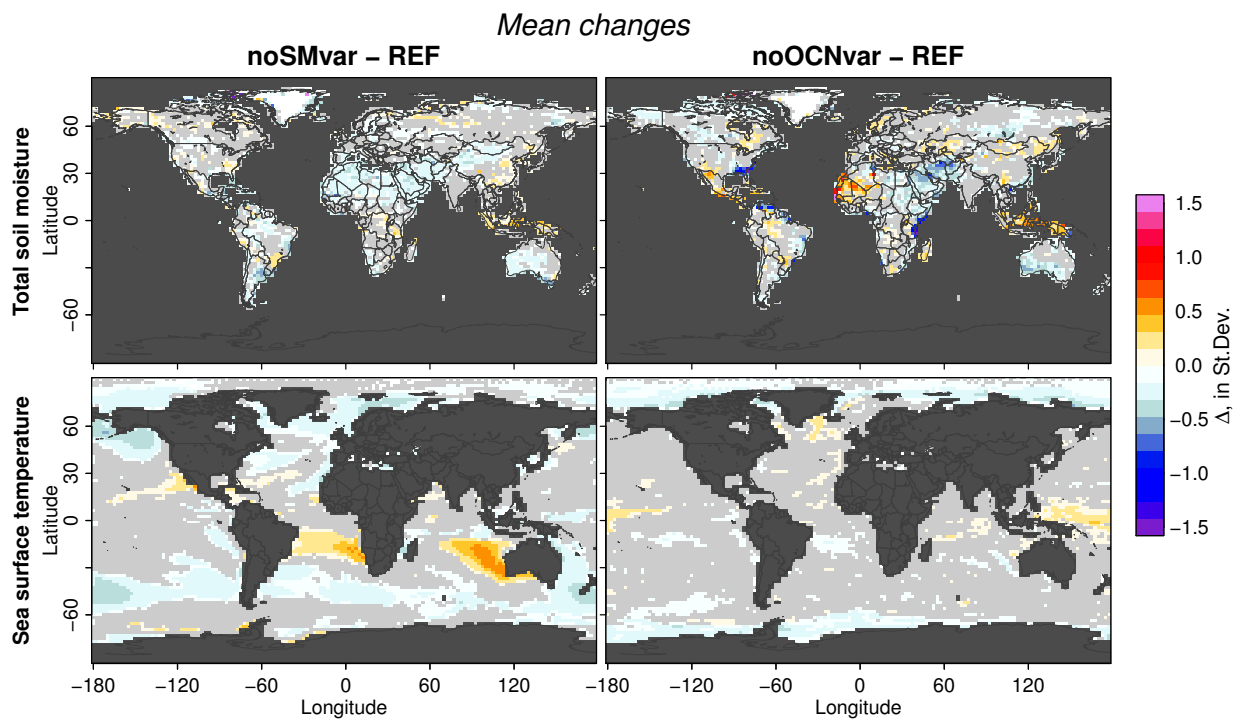


Figure S1: *Same as in Figure 3 but for mean changes in total soil moisture and sea surface temperature.*

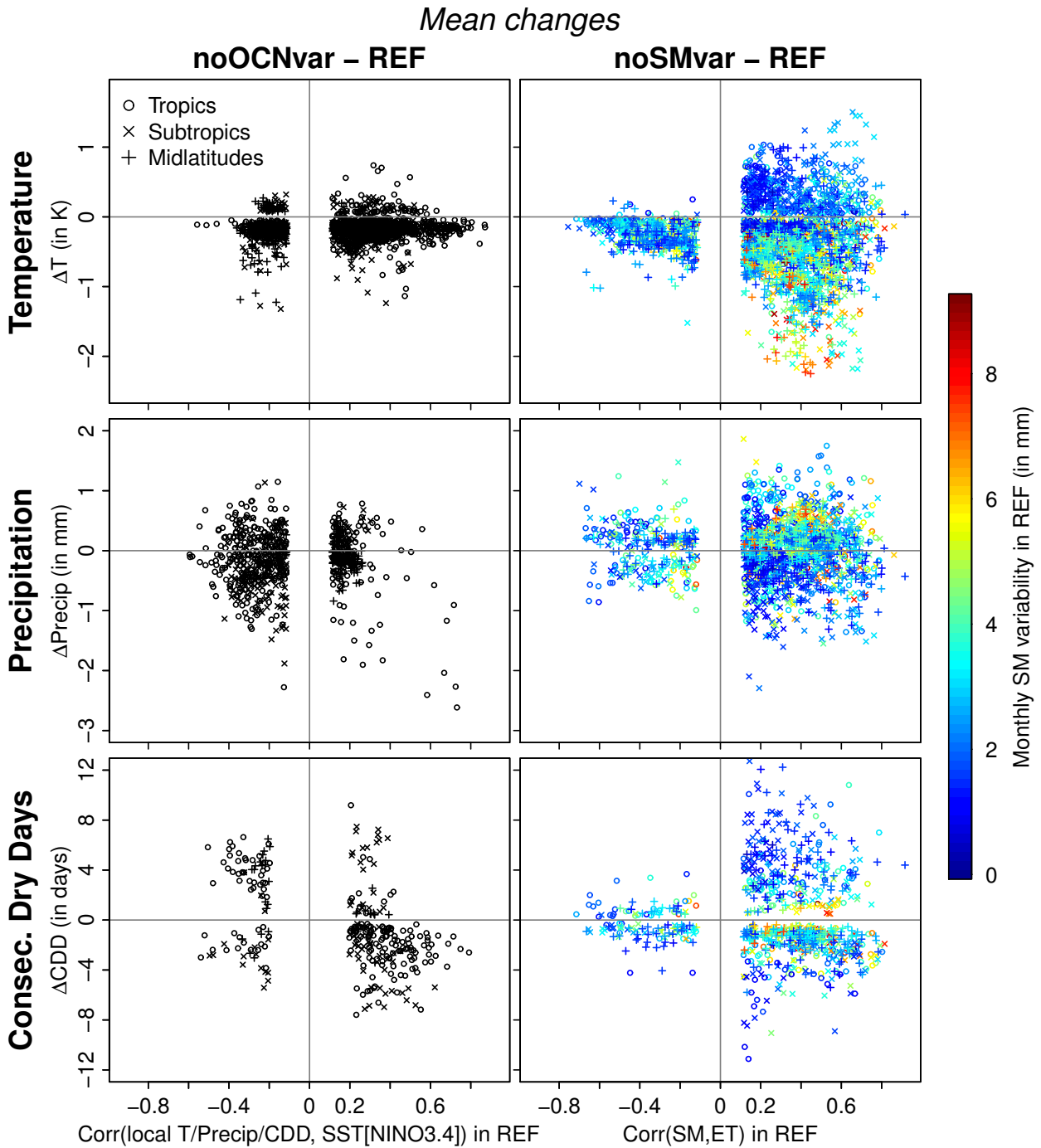


Figure S2: *Relating impact of removed SST variability on mean temperature and precipitation changes (Figure 3) to local coupling with ENSO (left), and relating corresponding impact of removed SM variability to land-atmosphere coupling strength and local SM variability (right). Different symbols refer to different latitudinal regions. Only grid cells with significant temperature and precipitation changes, respectively, and with significant correlation changes are considered.*

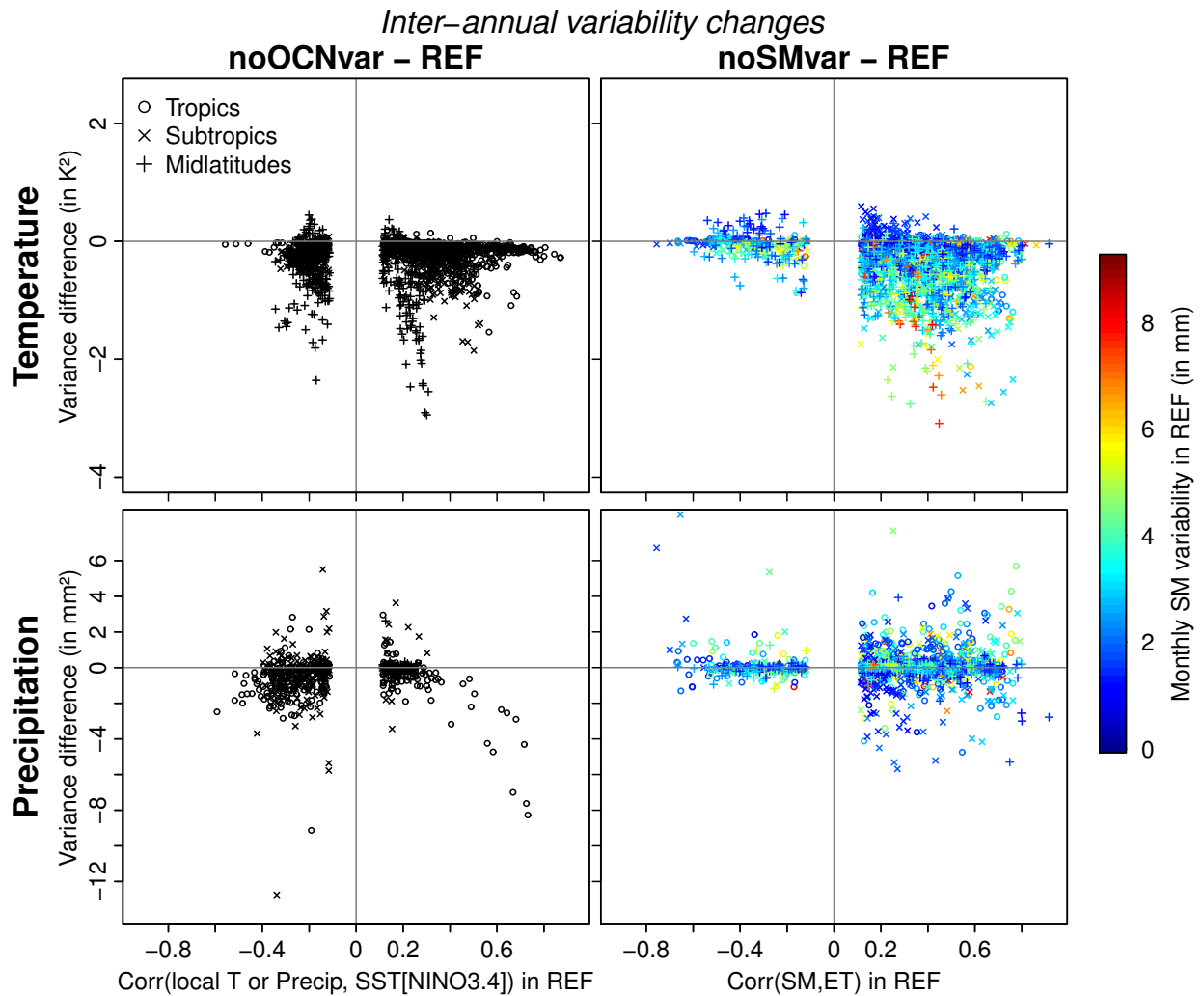


Figure S3: Same as in Figure S2, but for relative changes in land climate variability. Different symbols refer to different latitudinal regions. Only grid cells with significant changes in temperature and precipitation variability, respectively, and with significant correlation changes are considered.

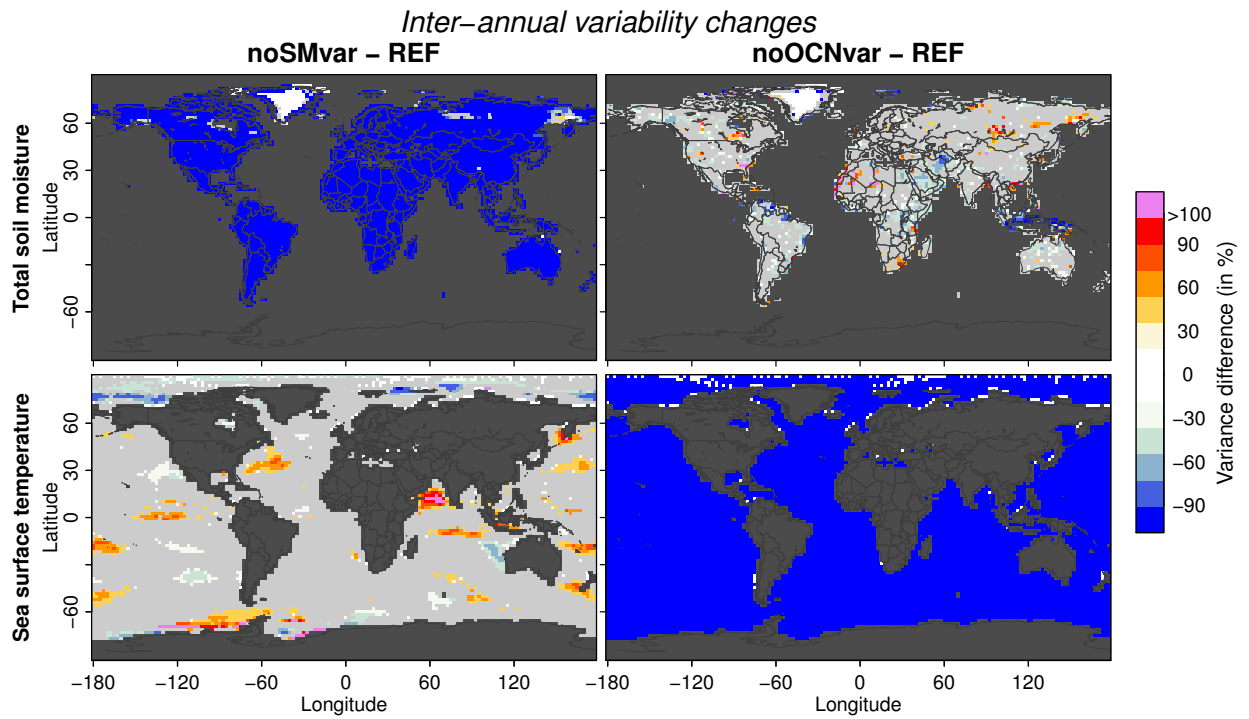


Figure S4: Same as in Figure 7 but for year-to-year variability changes in total soil moisture and sea surface temperature.

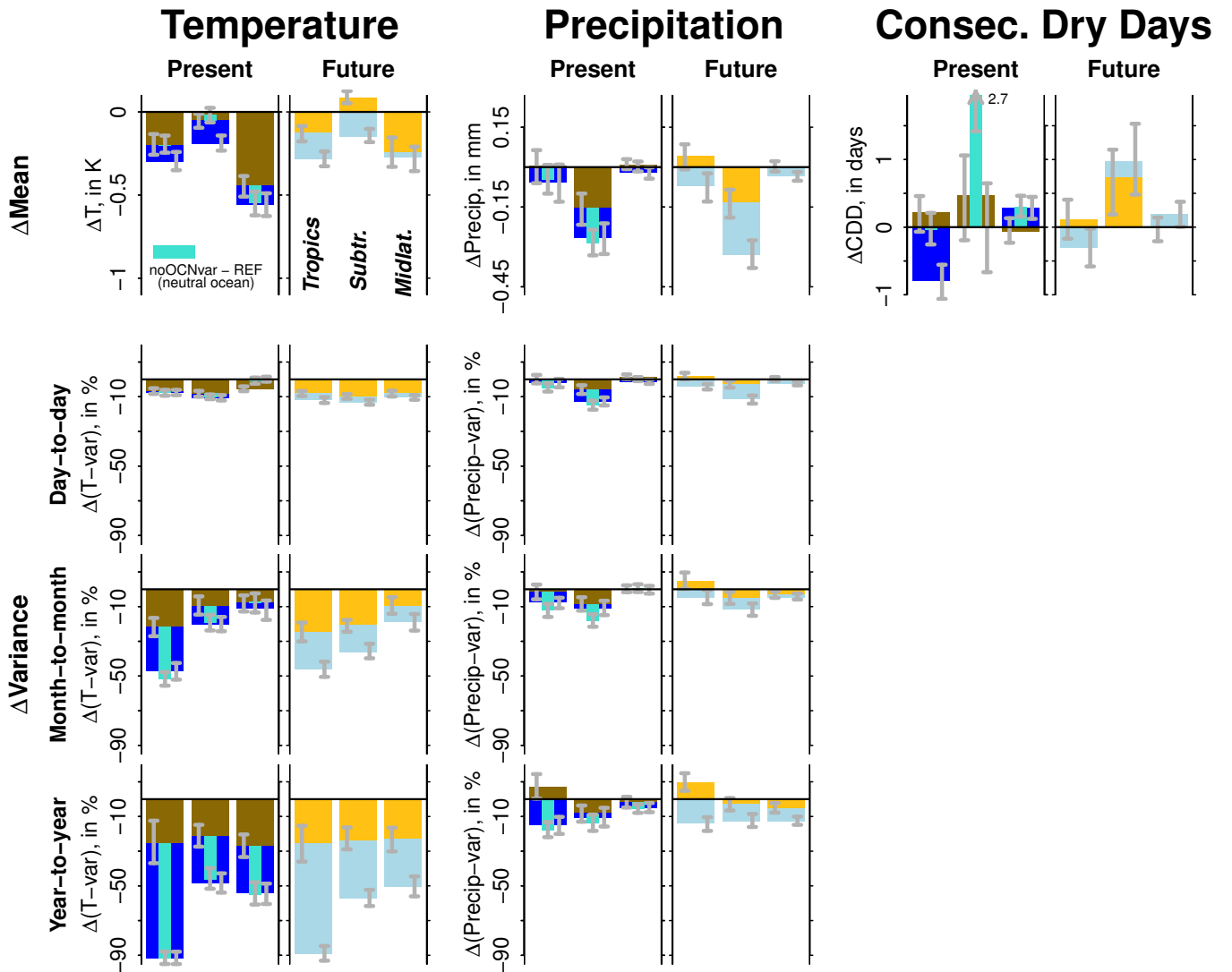


Figure S5: Same as in Figure 9, but for June-August instead of the location-dependent warm season.

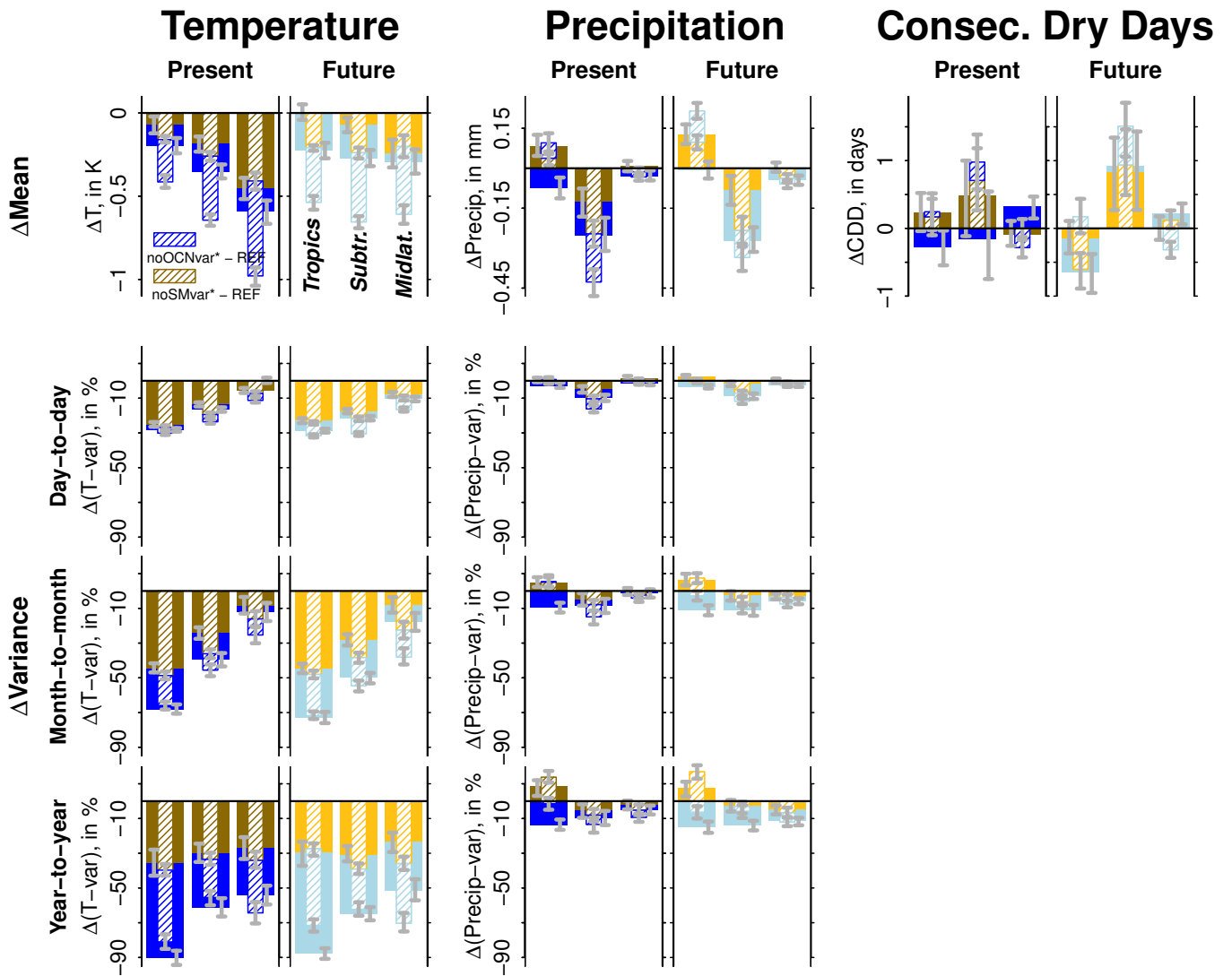


Figure S6: Same as in Figure 9, but additionally including results of the *noSMvar** and *noOCNvar** experiments (striped bars, same color scheme).