



Supplement of

Multi-annual modes in the 20th century temperature variability in reanalyses and CMIP5 models

Heikki Järvinen et al.

Correspondence to: Heikki Järvinen (heikki.j.jarvinen@helsinki.fi)

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S1 Decompositions of models

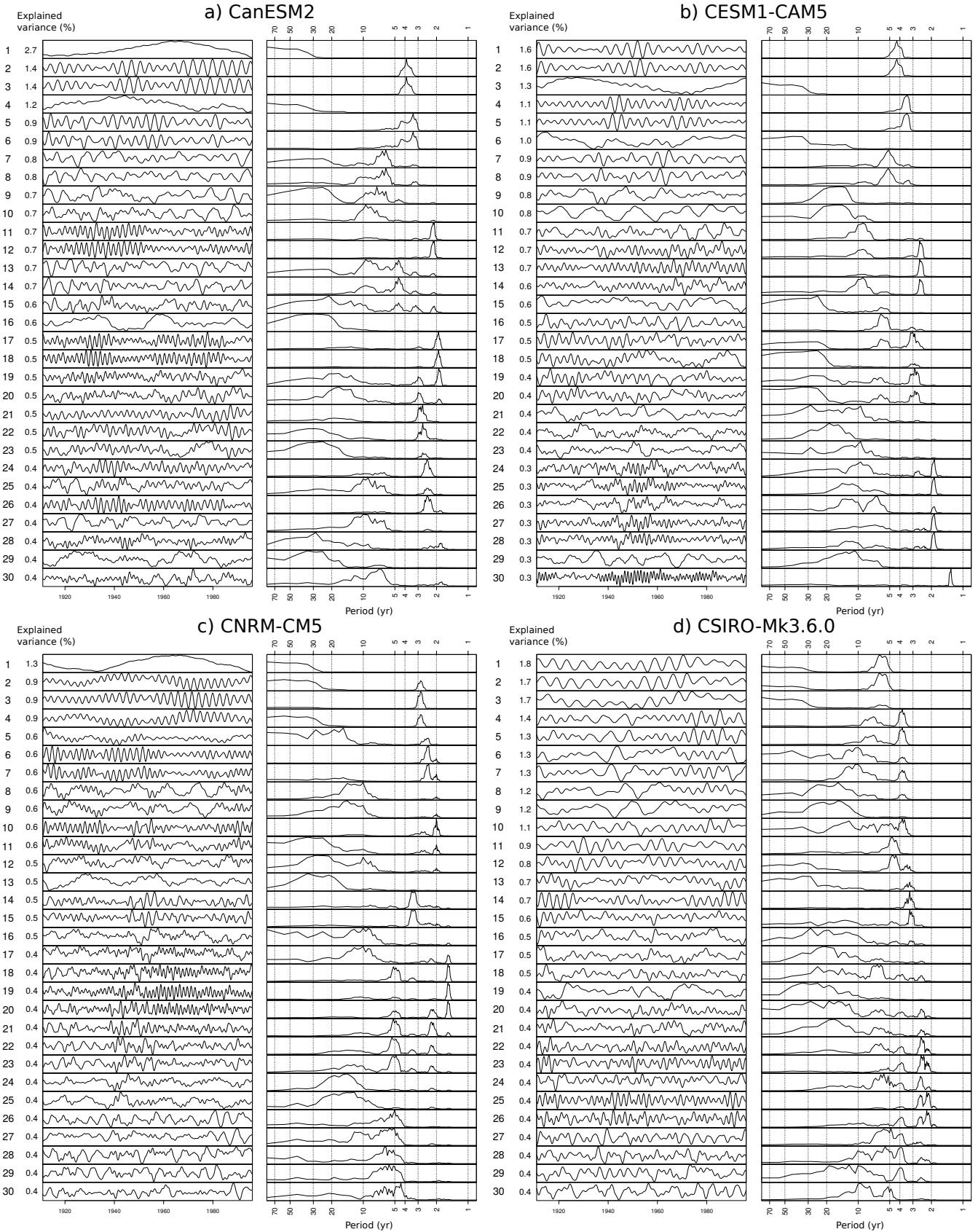


Figure S1: Models a, b, c and d: ST-PCs of monthly near-surface temperature 1901–2005 and their spectra. The components are ordered according to the explained variance (%).

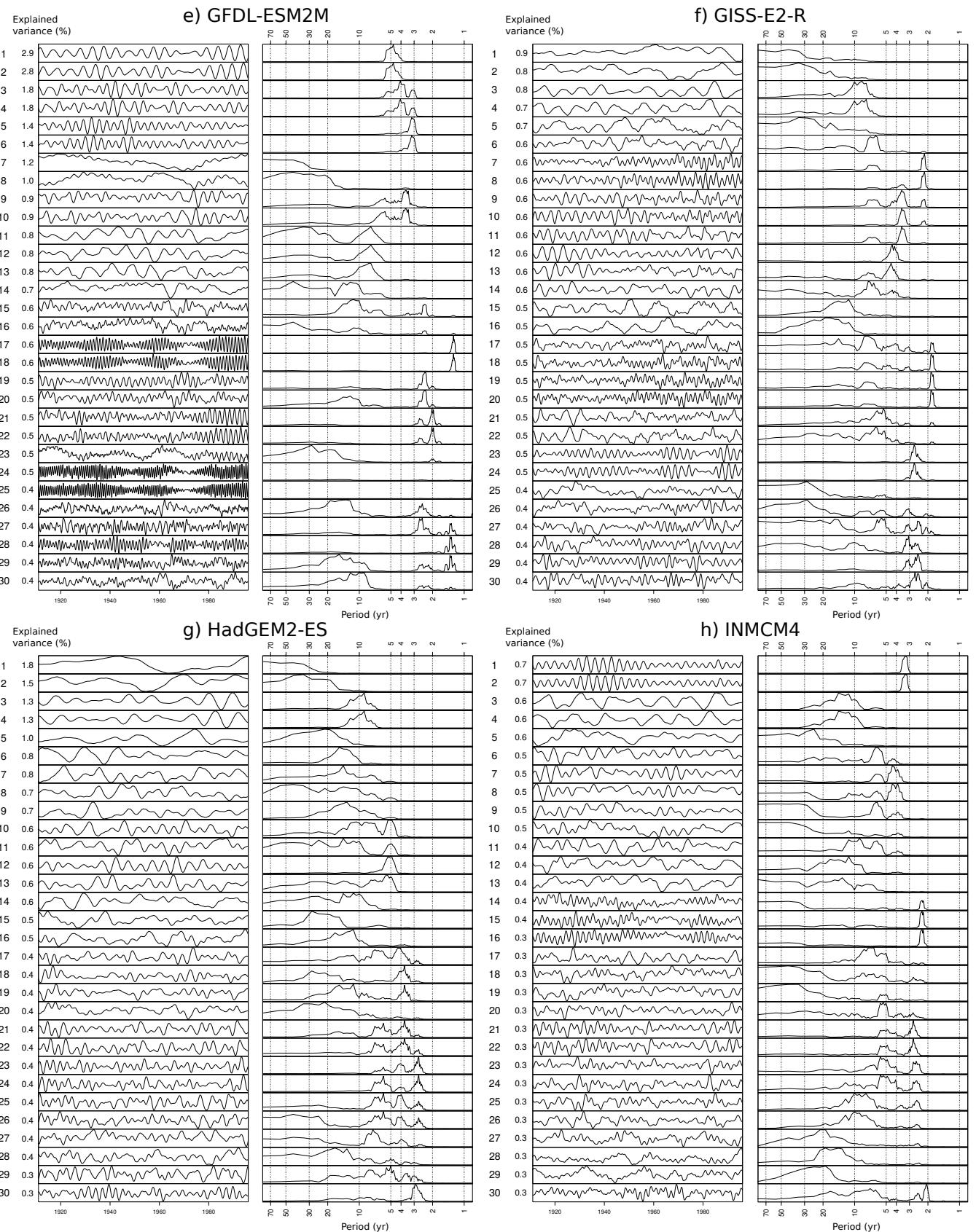


Figure S1 (continued): Models e, f, g and h.

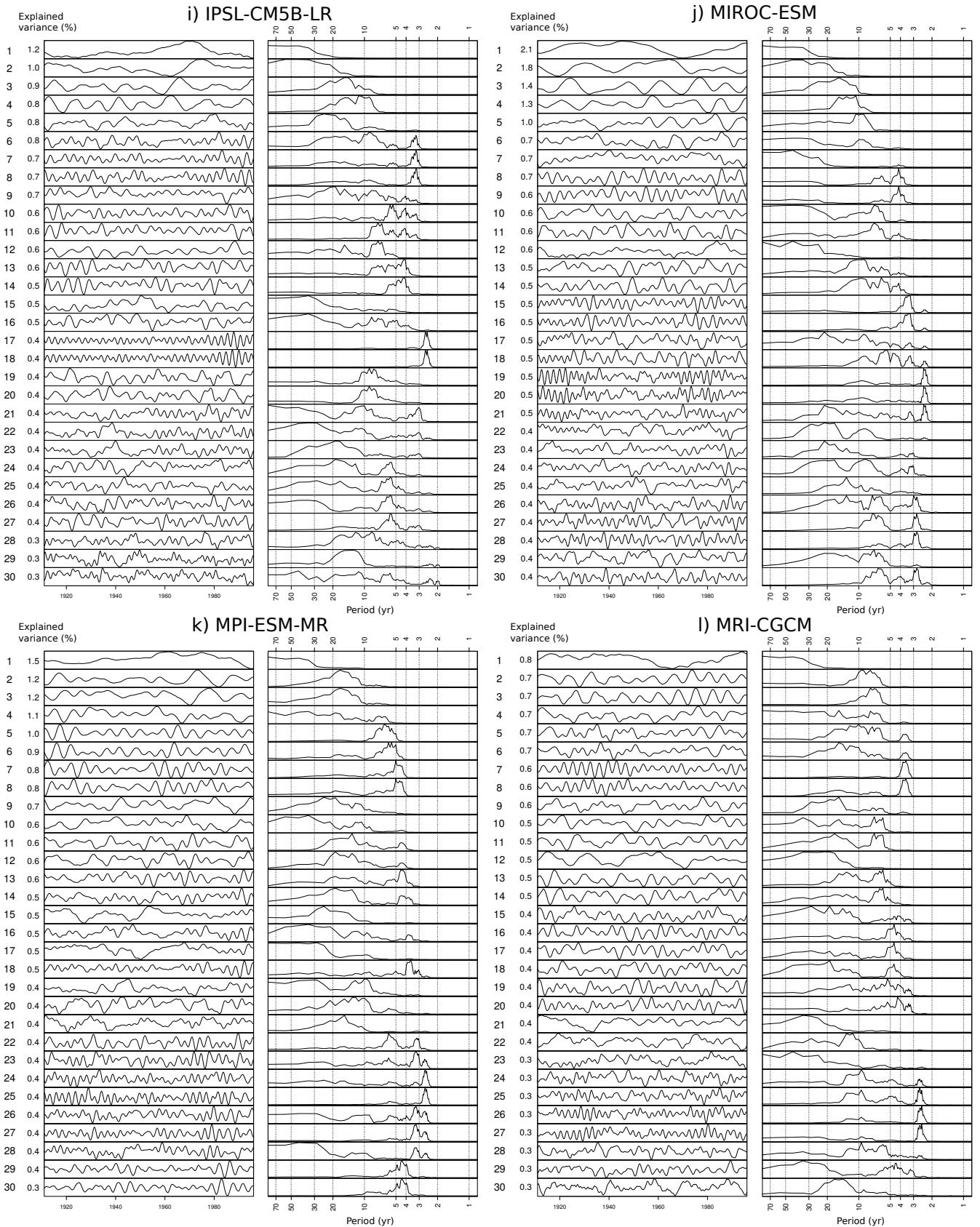


Figure S1 (continued): Models i, j, k and l.

S2 Significance tests of models

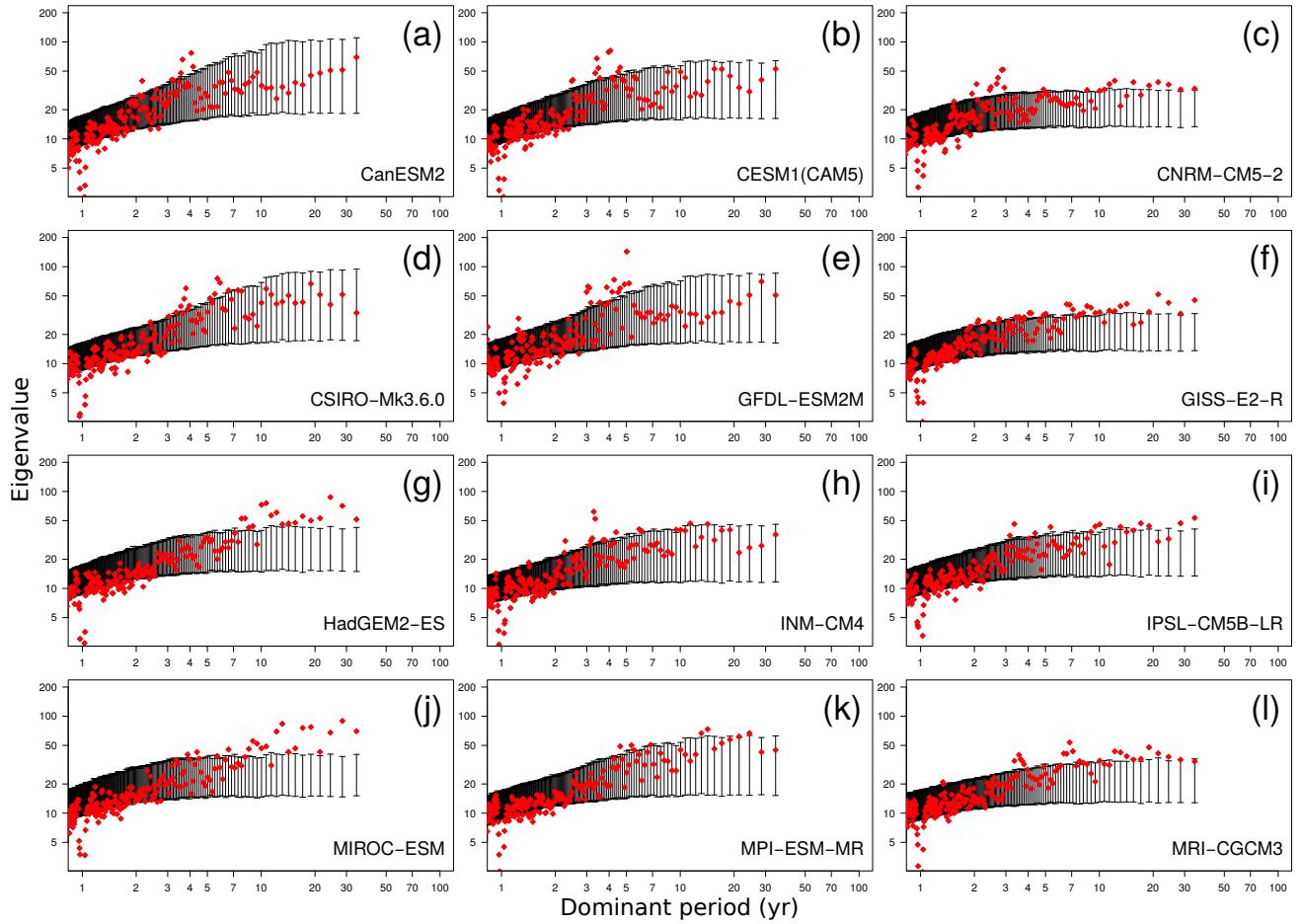


Figure S2: Significance test of the CMIP5 model eigenvalues against the red-noise null-hypothesis. Shown are the data eigenvalues (red squares) and the 2.5th and 97.5th percentiles of the eigenvalue distribution of the red-noise surrogates (vertical bars).

S3 Phase composites of the 3–4 yr variability modes

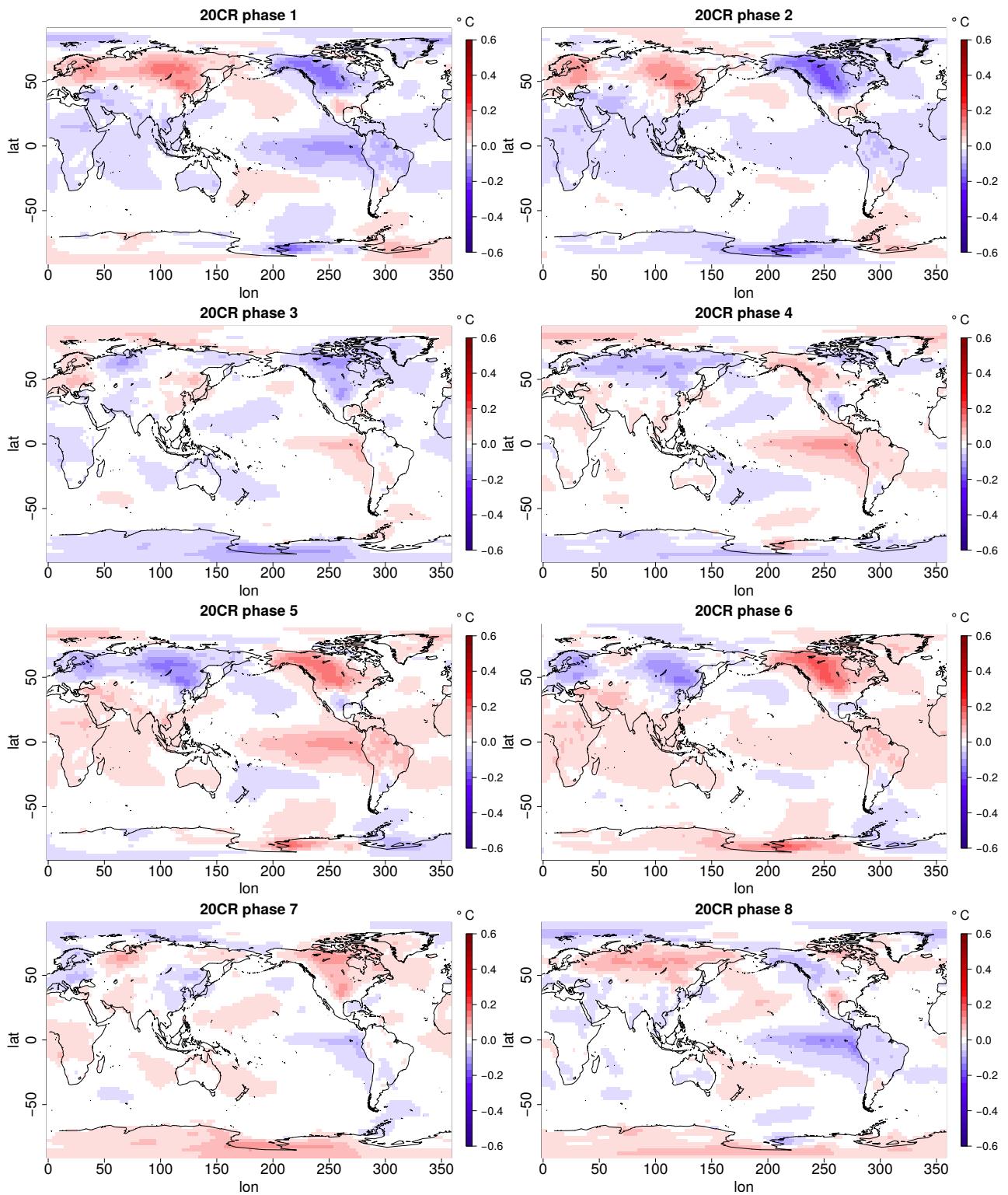


Figure S3: 20CR phase 1–8 composite figures of the 3–4 yr variability mode; ST-PC pair 7–8.

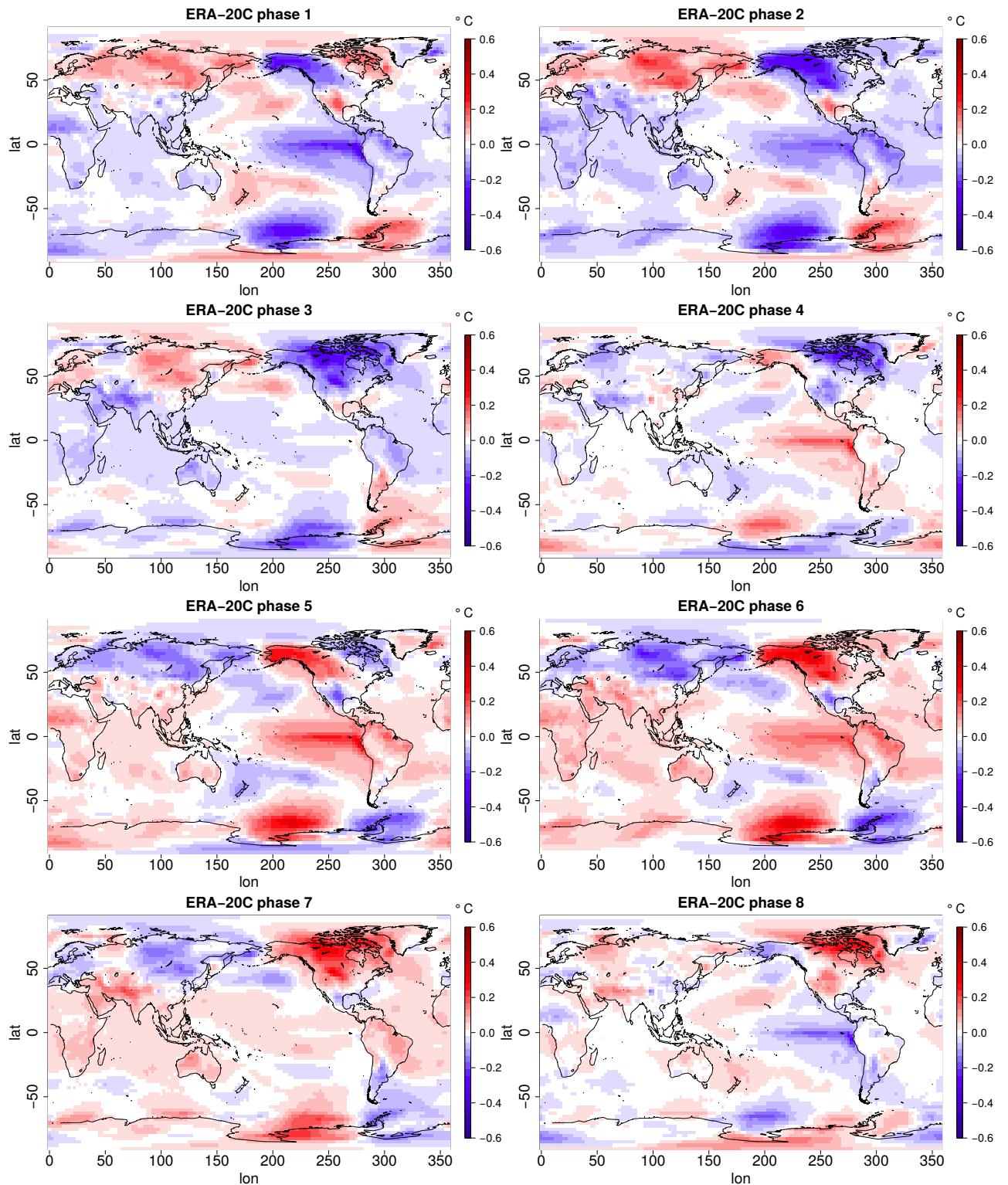


Figure S4: ERA-20C phase 1–8 composite figures of the 3–4 yr variability mode; ST-PC pair 7–8. (Same as Figure 6 in the article.)

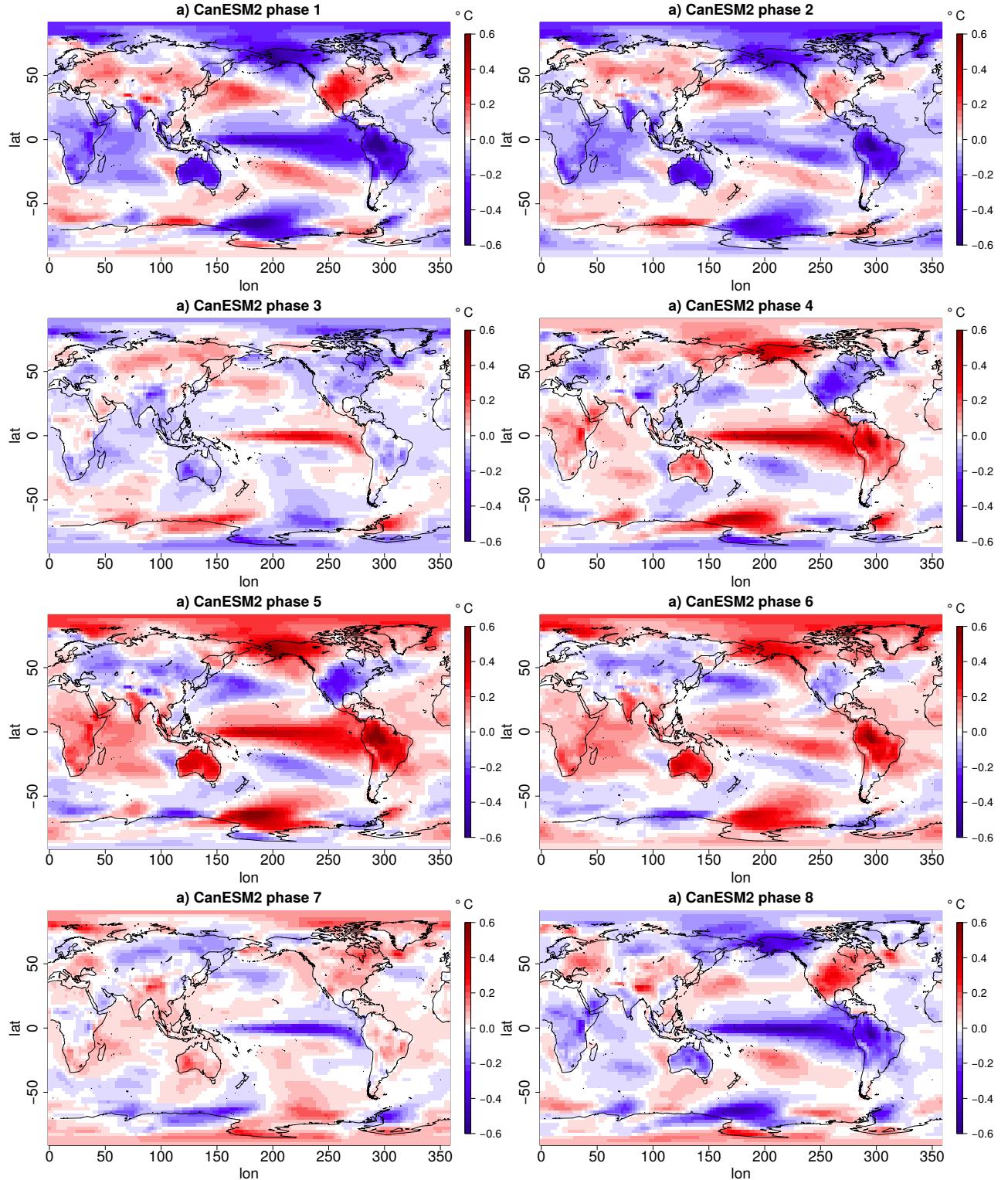


Figure S5: As Figure S3 but now for model a; ST-PC pair 2–3.

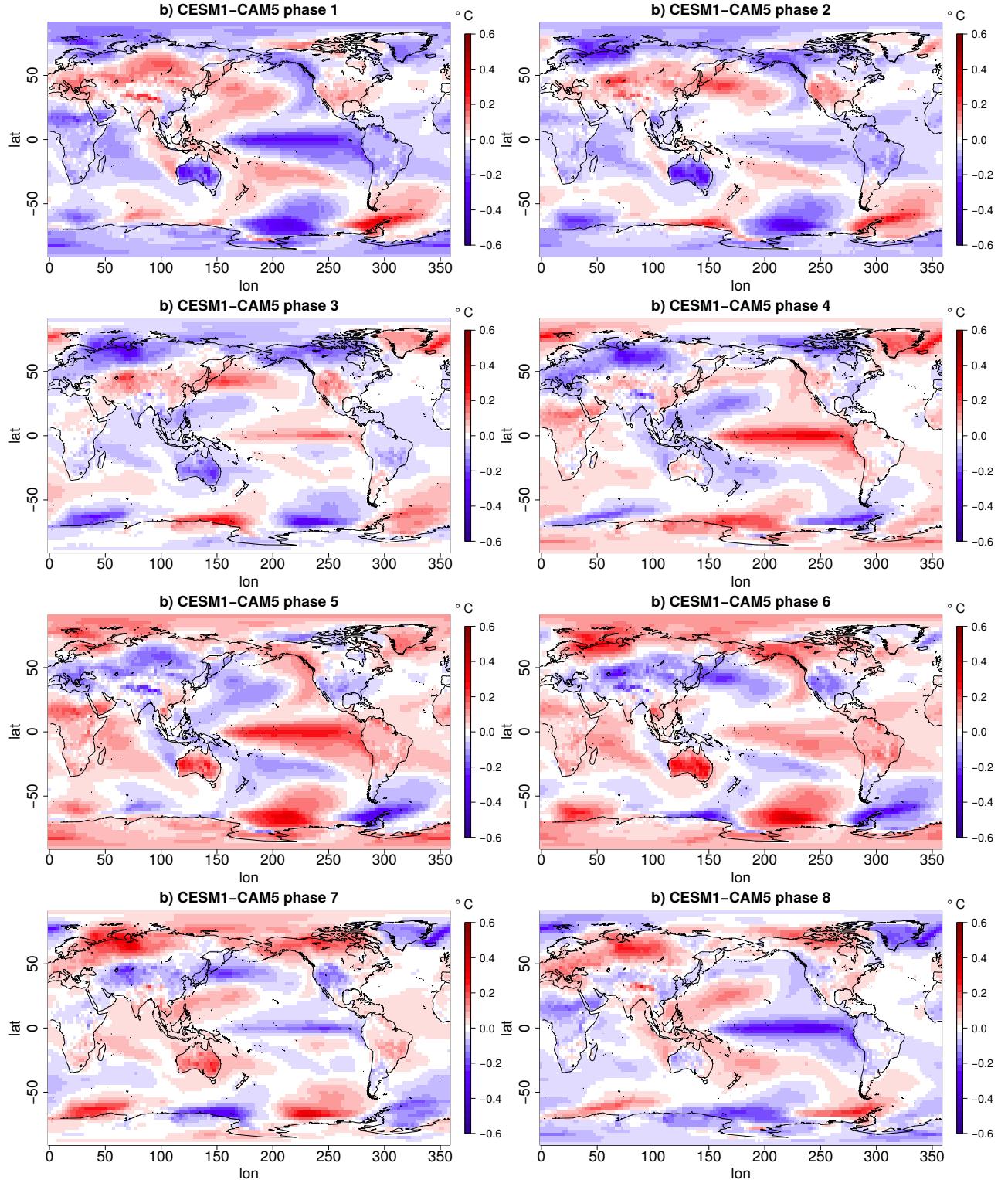


Figure S6: As Figure S3 but now for model b; ST-PC pair 4–5.

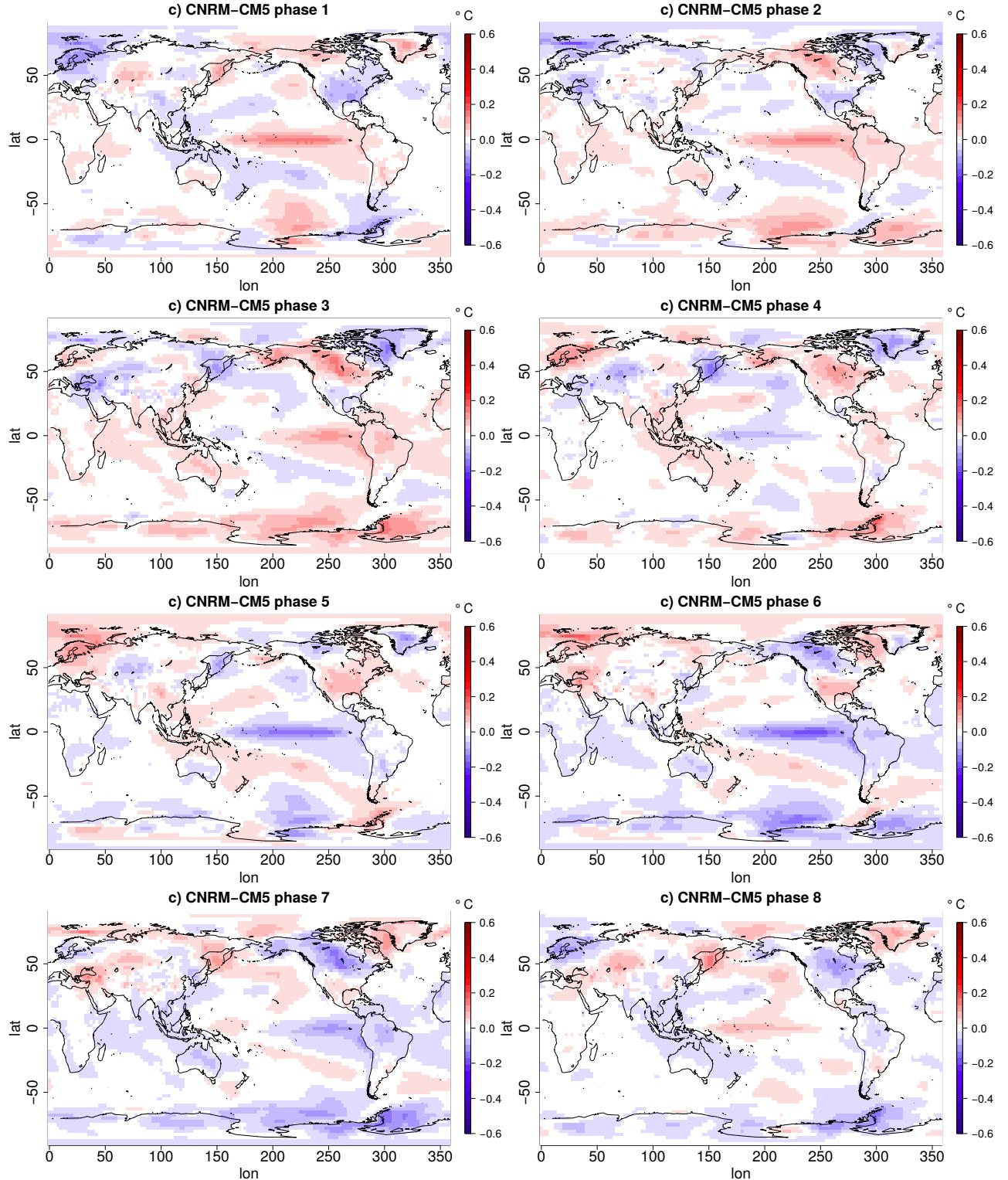


Figure S7: As Figure S3 but now for model c; ST-PC pair 14–15.

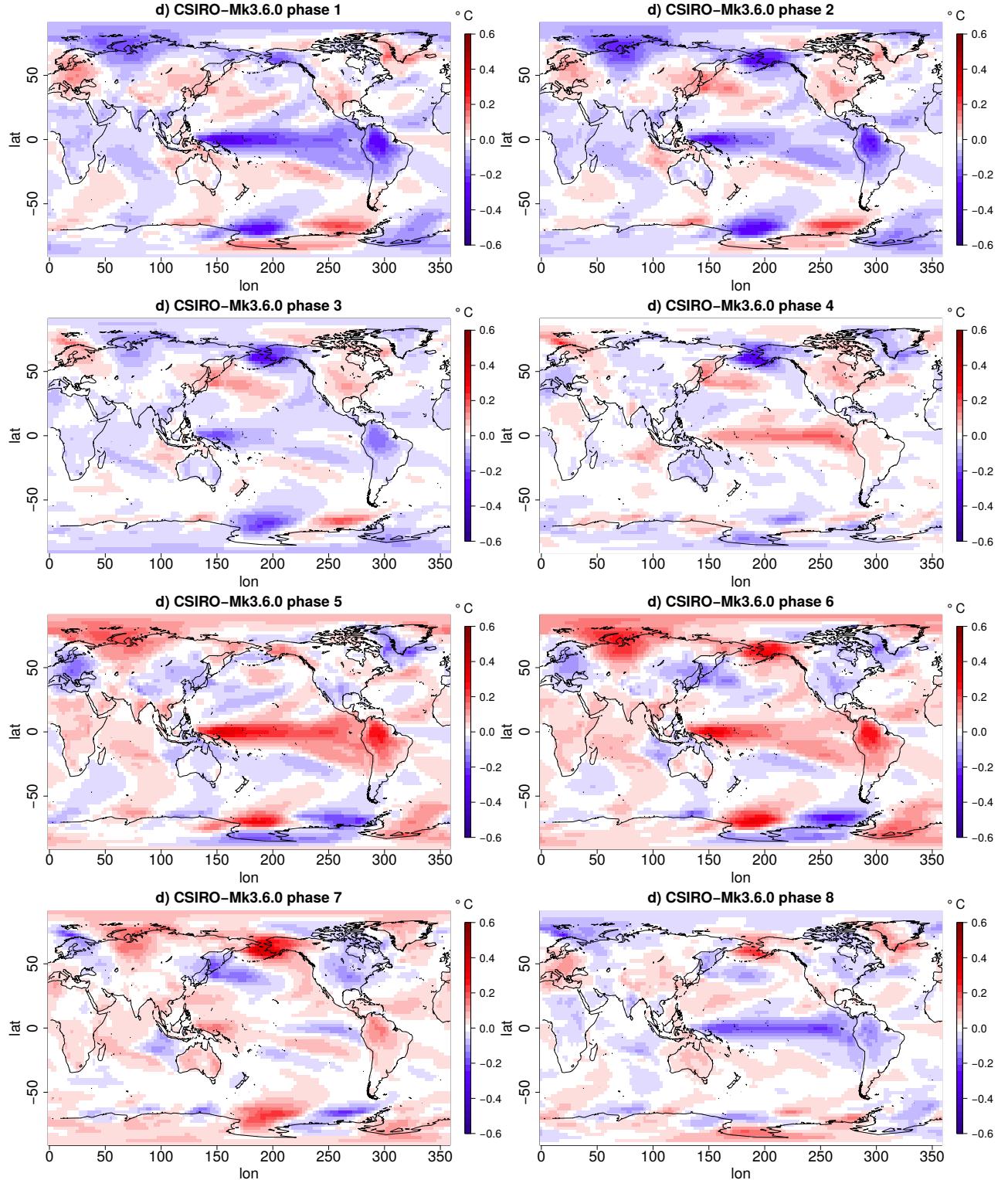


Figure S8: As Figure S3 but now for model d; ST-PC pair 4–5.

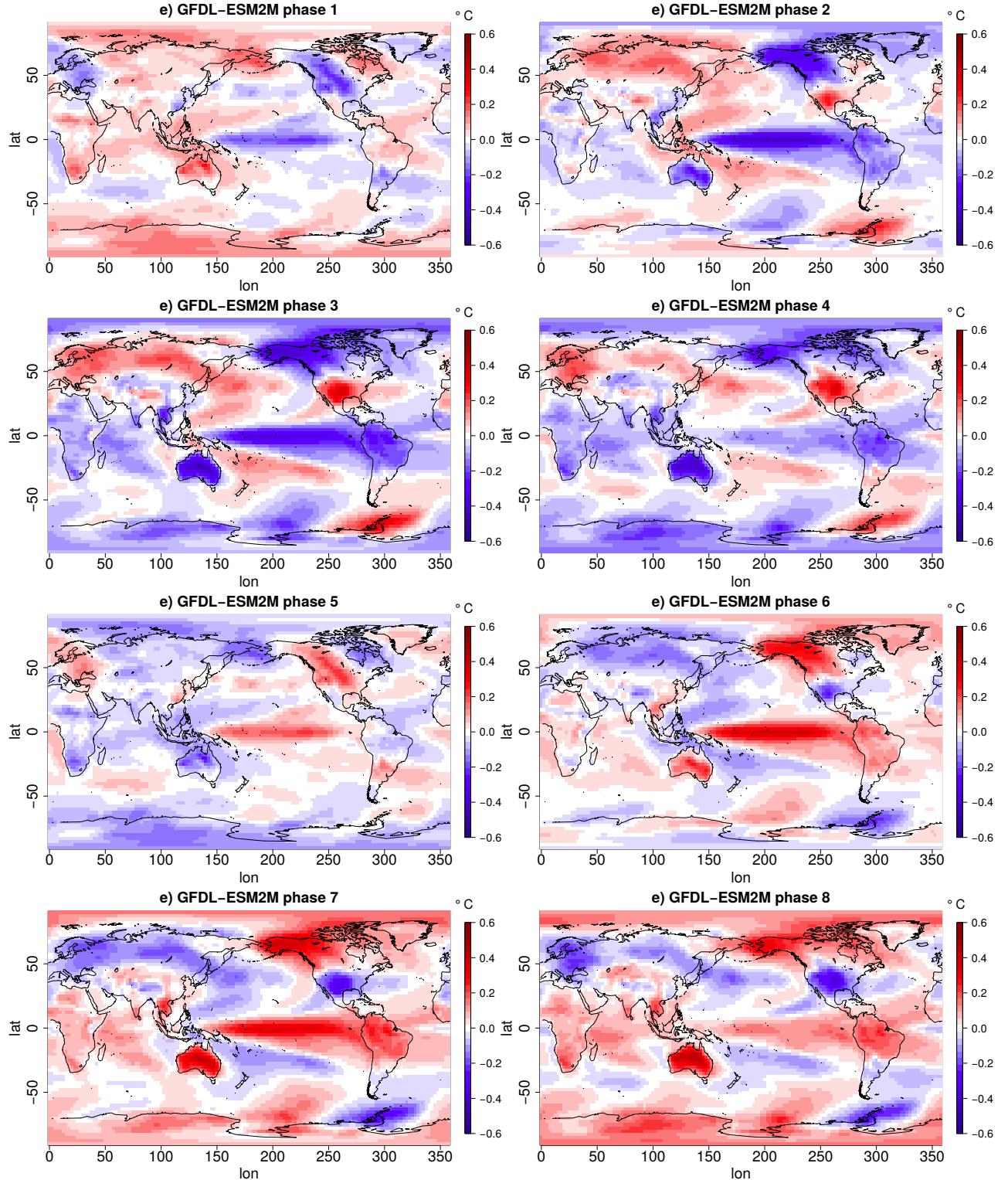


Figure S9: As Figure S3 but now for model e; ST-PC pair 5–6.

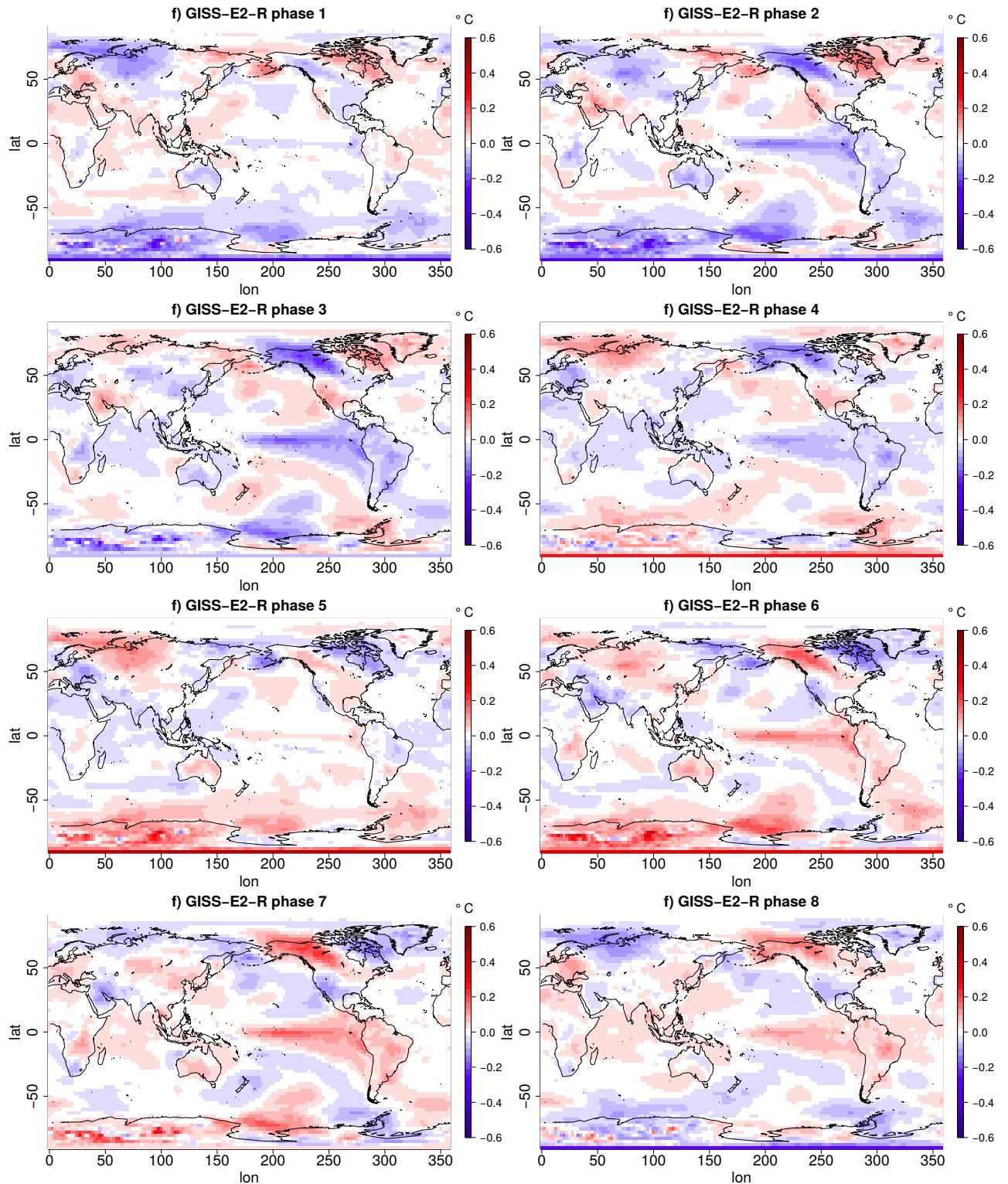


Figure S10: As Figure S3 but now for model f; ST-PC pair 10–11.

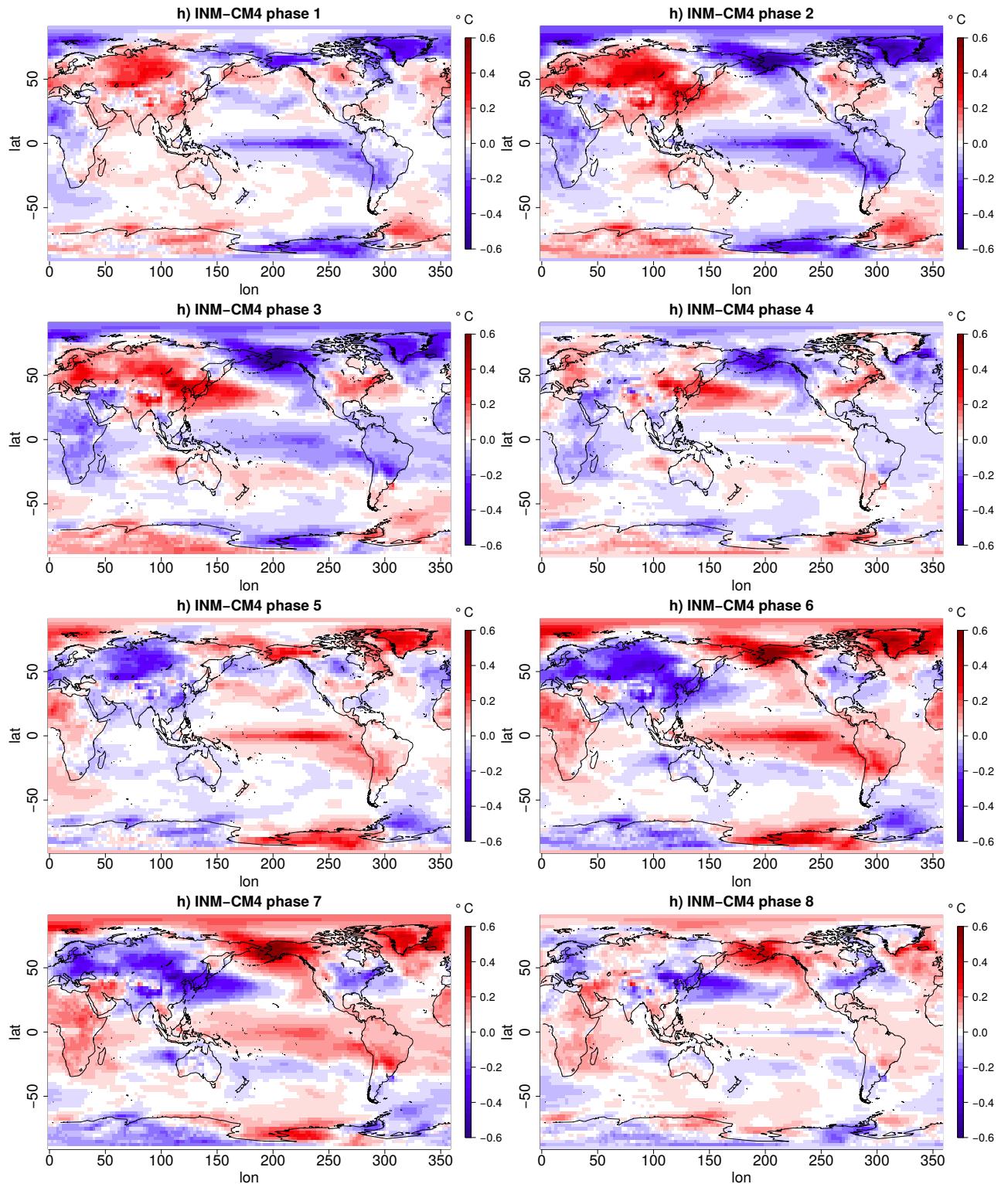


Figure S11: As Figure S3 but now for model h; ST-PC pair 1–2.

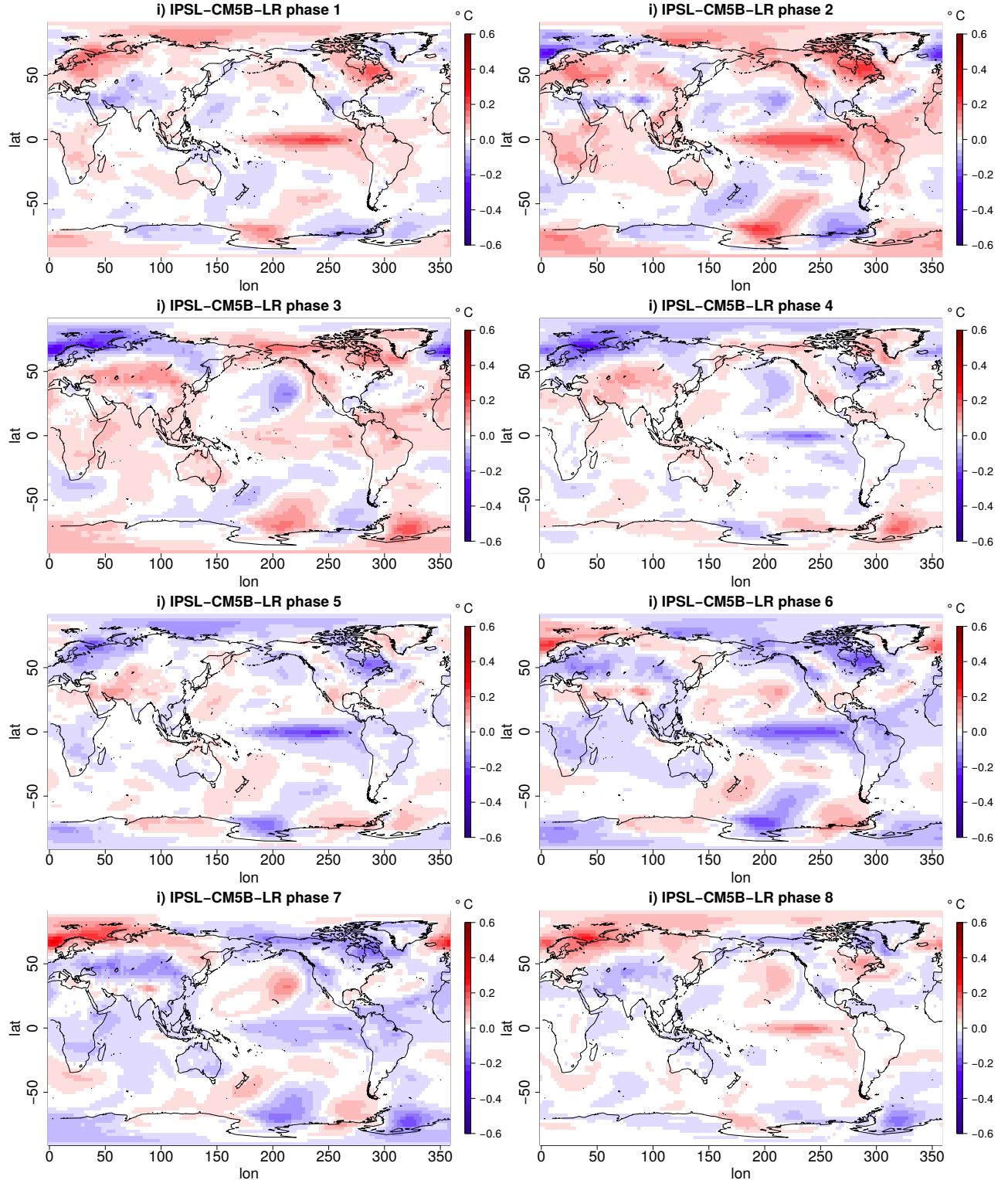


Figure S12: As Figure S3 but now for model i; ST-PC pair 7–8.

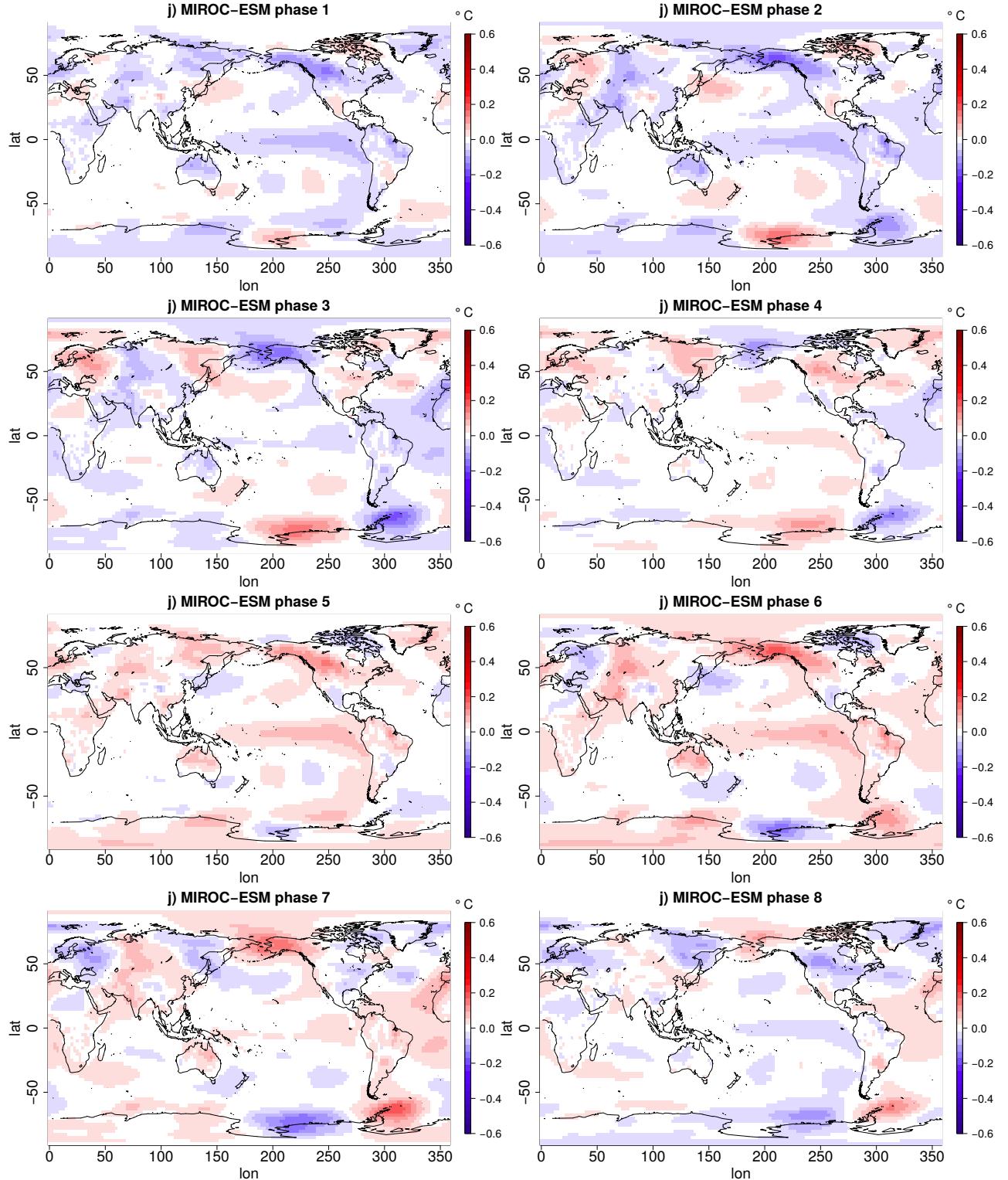


Figure S13: As Figure S3 but now for model j; ST-PC pair 15–16.

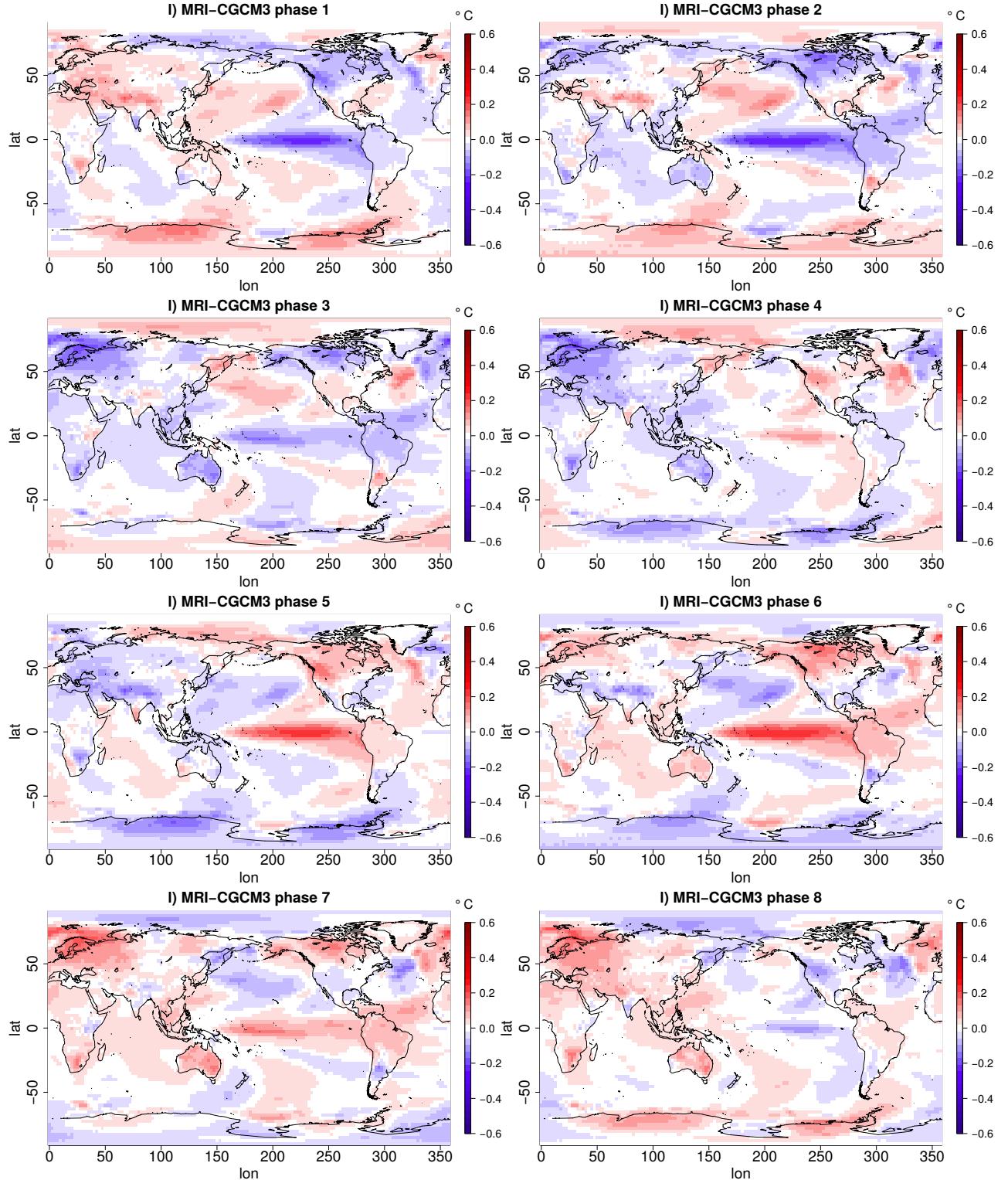


Figure S14: As Figure S3 but now for model 1; ST-PC pair 7–8.