

Corrigendum

PLAVCOVÁ E. and KYSELÝ J. Evaluation of daily temperatures in Central Europe and their links to large-scale circulation in an ensemble of regional climate models. *Tellus* **63A**, 763–781.

Due to a computational error, circulation types classified using the comparison of flow strength and flow vorticity in a given day (i.e. the straight, cyclonic, anticyclonic and hybrid types) were determined incorrectly. Obviously, this error changes results of the relative frequencies of these types over the studied period (part of Table 5) and the mean temperature anomalies on days falling into the circulation types (parts of Table 6 and Figs 11 and 12). Results for the directional types as well as the evaluation of temperatures simulated in RCMs stay unchanged.

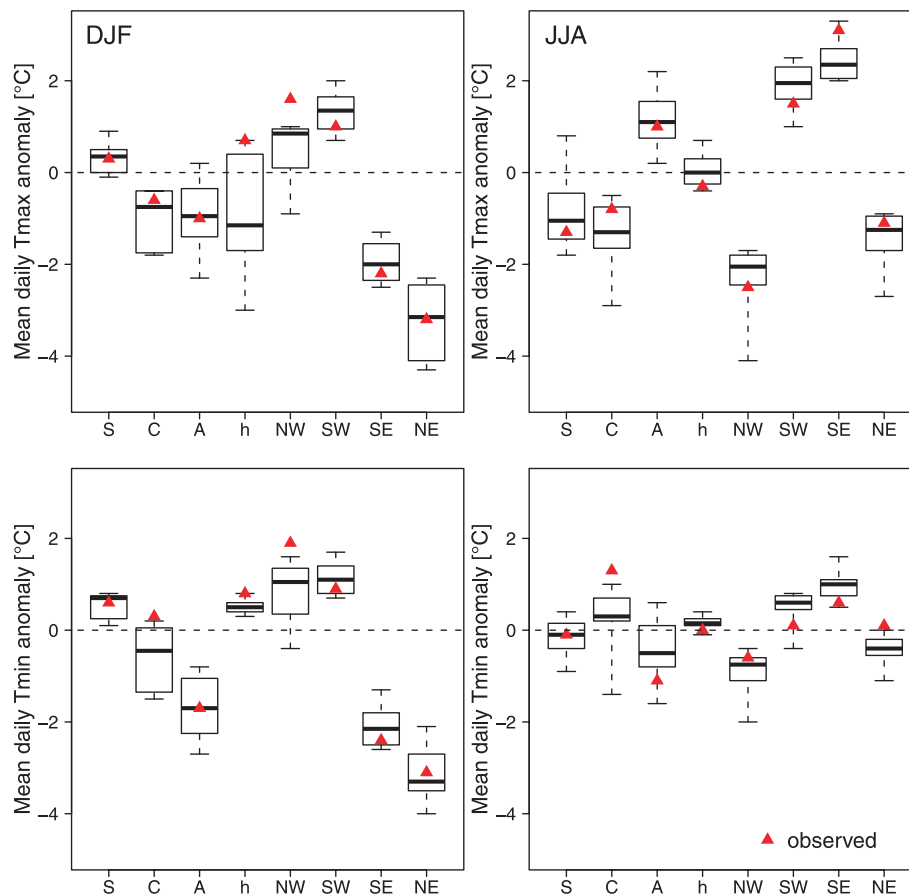
Revised Table 5 shows that after the correction, there are more/fewer days with straight flow in winter/summer, fewer days with cyclonic and anticyclonic types in winter, and an increase of anticyclonic types in summer in the ERA-40 data and all RCMs. However, the general patterns that RCMs underestimate straight flow in both seasons and underestimate/overestimate anticyclonic/cyclonic types in winter compared to ERA-40 remain unchanged. Since relative comparisons of the frequencies in the observed data and RCMs have been primarily discussed in the text, conclusions are unchanged.

Revisions in Table 5. Relative frequencies of circulation and directional types (in %) for classification calculated from circulation indices (Barry and Carleton, 2001; Blenkinsop et al., 2009) for the RCM simulations and the ERA-40 re-analysis over 1961–1990. Details on the classification are given in Section 2.4

DJF	straight	cyclonic	anticyclonic	hybrid	uncl.	NW	SW	SE	NE
ERA40	36.9	5.1	25.8	27.9					
hir_ec3	45.8	10.9	9.1	31.4					
rac_ec3	36.4	6.4	22.6	30.9					
rem_ec3	40.2	7.8	17.1	32.5					
reo_ec3	39.2	6.5	21.2	30.1					
rca_ec3	38.5	7.6	19.2	30.5					
rca_bcm	40.9	5.7	14.7	32.9					
rca_hd3	37.9	10.7	14.1	32.0					
rca_ERA	39.0	6.8	19.8	29.2					
JJA	straight	cyclonic	anticyclonic	hybrid	uncl.	NW	SW	SE	NE
ERA40	21.4	8.7	19.9	23.2					
hir_ec3	28.0	4.9	24.4	32.4					
rac_ec3	27.9	7.1	21.3	25.2					
rem_ec3	32.2	5.8	21.6	26.4					
reo_ec3	29.8	7.6	19.6	28.3					
rca_ec3	30.6	6.9	20.1	27.7					
rca_bcm	27.5	17.4	7.0	23.1					
rca_hd3	25.9	13.2	16.6	21.6					
rca_ERA	24.5	8.0	19.1	23.6					

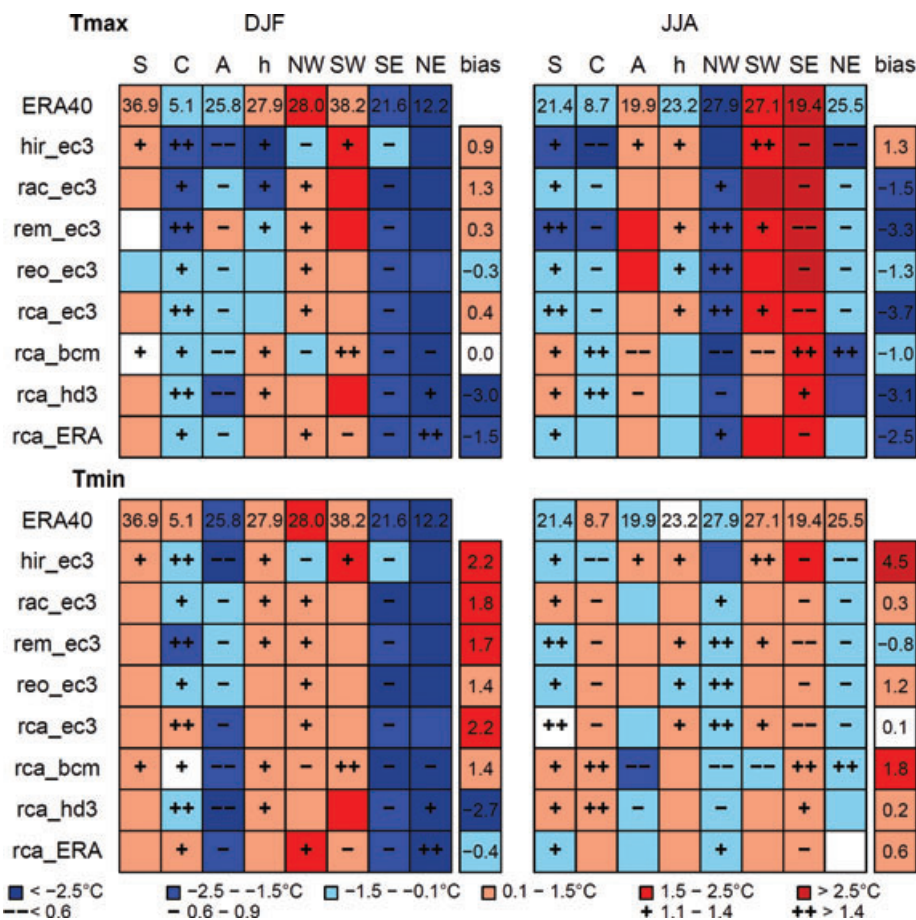
Revisions in Table 6. Mean daily Tmax and Tmin anomalies on days falling into individual circulation types over 1961–1990. The values were calculated for GriSt temperature data in the CL region and airflow indices from the ERA-40 sea level pressure data. Symbol * denotes the anomalies significantly different from zero at the 0.05 level; the critical values were estimated by block bootstrapping ($R = 10,000$, the same number and length of sequences of days falling into given types were resampled)

DJF	straight	cyclonic	anticyclonic	hybrid	NW	SW	SE	NE
Tmax [°C]	0.3	−0.6	−1.0*	0.7*				
Tmin [°C]	0.6*	0.3	−1.7*	0.8*				
JJA	straight	cyclonic	anticyclonic	hybrid	NW	SW	SE	NE
Tmax [°C]	−1.3*	−0.8*	1.0*	−0.3				
Tmin [°C]	−0.1	1.3*	−1.1*	−0.0				



Revised Fig. 11. Mean daily Tmax and Tmin anomalies on days falling into individual circulation types over 1961–1990 calculated for the CL region and airflow indices from the ERA-40 sea level pressure data (triangles) and for 8 RCMs (shown as boxplots). S – straight, C – cyclonic, A – anticyclonic, h – hybrid, NW – northwesterly, SW – southwesterly, SE – southeasterly, NE – northeasterly flow.

Revised Table 6 and Figs 11–12, however, indicate that there are changes in mean anomalies of Tmax and Tmin linked to these circulation types. The changes are in magnitude and significance of the anomaly, and in some cases in winter also in the sign of the anomaly. The most important change is for anticyclonic types in winter, when both mean Tmax and Tmin anomalies are significantly negative (in contrast to prior results when mean Tmax anomaly was positive). However, the pattern that Tmax is relatively warmer



Revised Fig. 12. Overview of temperature anomalies (represented by colours) on days falling into individual circulation types and biases in frequencies of circulation types, for observed and RCMs data, in the CL region over 1961–1990. Total temperature biases (in °C) in given seasons and for given variables are shown in the right columns. Relative frequencies of types (in %) for observed data (ERA-40) are shown in the first row of panels. Symbols + and - indicate the ratio between simulated and observed frequencies of the types (see legend).

in comparison to Tmin for anticyclonic types is still true. So, all the discussions in the text that the underestimation of anticyclonic types contributes to the underestimation of diurnal temperature range are valid for the correct data, too.

In Discussion (Section 5.3), the finding that temperature-circulation links are generally more pronounced for Tmax than Tmin stays true only for summer. No changes are needed in the Abstract and Conclusions of the paper.