

Corrigendum to

“Development of probability distributions for regional climate change from uncertain global mean warming and an uncertain scaling relationship” published in Hydrol. Earth Syst. Sci., 11, 1097–1114, 2007

B. Hingray¹, A. Mezghani¹, and T. A. Buishand²

¹Laboratory of Hydrology and Land Improvement, Swiss Federal Institute of Technology, Lausan, Switzerland

²Royal Netherlands Meteorological Institute (KNMI), De Bilt, The Netherlands

Figure 5 is not shown in the published manuscript. The figure is given below:

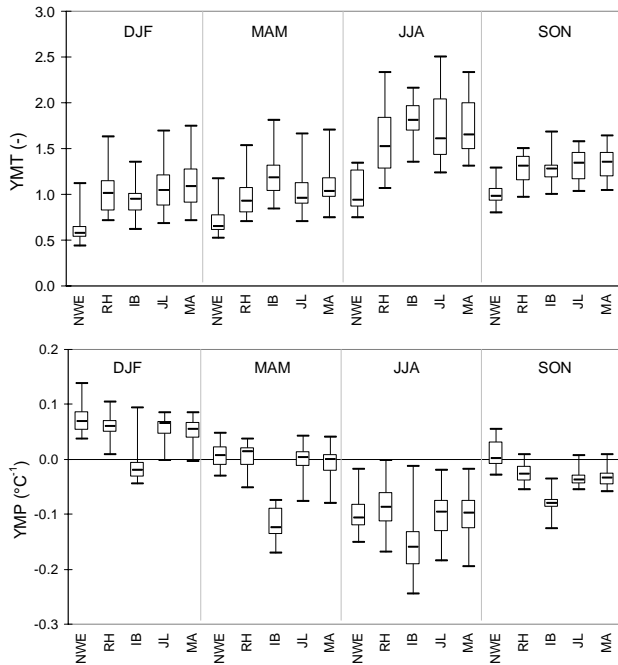


Fig. 5. Box plots of seasonal scaling ratios for the five SWURVE CSRs. Each box plot displays the variation of the seasonal scaling ratio in the 19 RCM experiments of the PRUDENCE project. The whiskers represent the smallest and largest scaling ratio, the lower and upper limits of the box represent the 25/75th percentiles, and the horizontal line in the box represents the 50th percentile (median) of the scaling ratio. Top: absolute temperature changes per degree global mean warming (YMT); bottom: relative precipitation changes per degree global mean warming (YMP).

Correspondence to: B. Hingray
 (benoit.hingray@gmail.com)

Page 1113, in Appendix B: Estimation of σ_a^2 and σ_b^2

Some “thick dots” are missing as subscripts of the y ’s in the line above Eqn. (B4) and the line above Eqn. (B6). The corrected text is:

For the sums $y_{i\bullet}$ and $y_{\bullet\bullet}$ we can write:

$$y_{i\bullet} = n_{i\bullet}\mu + n_{i\bullet}a_i + \sum_{j=1}^B n_{ij}b_j + \sum_{j=1}^B n_{ij}e_{ij} \quad (\text{B4})$$

$$y_{\bullet\bullet} = n\mu + \sum_{i=1}^A n_{i\bullet}a_i + \sum_{j=1}^B n_{\bullet j}b_j + \sum_{i=1}^A \sum_{j=1}^B n_{ij}e_{ij} \quad (\text{B5})$$

with $n_{\bullet j} = \sum_{i=1}^A n_{ij}$, the number of simulations with the j th RCM.

Then it follows for the variances of $y_{i\bullet}$ and $y_{\bullet\bullet}$:

$$\text{var } y_{i\bullet} = n_{i\bullet}^2 \sigma_a^2 + n_{i\bullet} \sigma_b^2 + n_{i\bullet} \sigma_{e,i}^2 + n_{i\bullet} (n_{i\bullet} - 1) \rho_{e,i} \sigma_{e,i}^2 \quad (\text{B6})$$

$$\begin{aligned} \text{var } y_{\bullet\bullet} = & \sum_{i=1}^A n_{i\bullet}^2 \sigma_a^2 + \sum_{j=1}^B n_{\bullet j}^2 \sigma_b^2 + \sum_{i=1}^A n_{i\bullet} \sigma_{e,i}^2 \\ & + \sum_{i=1}^A n_{i\bullet} (n_{i\bullet} - 1) \rho_{e,i} \sigma_{e,i}^2 \end{aligned} \quad (\text{B7})$$