

CORRIGENDUM

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Corrigendum: Convergence of terrestrial plant production across global climate gradients

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It has come to our attention that in this Article, while translating the methods of Luo¹ (originally written in Chinese), we did not appreciate that plant age (a) and stand biomass (M_{tot}) had been used to calculate net primary production (NPP). Thus, while the Luo data are appropriate for our analyses that used climate and environmental variables as predictors of NPP, they are not appropriate for those that use plant age and/or stand biomass as independent predictors as in our theoretical model.

Consequently, we have removed the Luo data (our data index numbers 98–1206) from all analyses that involve age and biomass as predictors. This error has been corrected in the Supplementary Information to this Corrigendum, which contains revised versions of Table 1, Figs 1d, 3, 4, Extended Data Tables 2, 3, and Extended Data Figs 1, 3, 4. These revisions are based on the subset of our original source data file that excludes 'Source' rows containing 'Luo (1996); Ni et al. (2001)' (see Supplementary Information to this Corrigendum for the corrected source data file). We also include the first English translation and summary of the methodology from Luo¹, as previous studies have made the same error by correlating NPP with age or biomass using the Luo data^{2–5}.

Overall, this correction does not change our original interpretation of the results or the conclusions drawn in the Article. Furthermore, there is little effect on the parameter fits reported in our original Article. A few differences merit discussion here. First, our re-analyses strengthen our conclusions that growing season length (l_{gs}) is an important indirect driver of variation in NPP, as well as our rationale for calculation of growing season net primary production NPP/l_{gs} . (The corrected

Table 1 in the Supplementary Information to this Corrigendum shows that l_{gs} explains an even larger fraction of NPP than it did in our original analysis.) Second, our fitted estimates for activation energy (E) for NPP and NPP/l_{gs} (see corrected Table 1 in Supplementary Information to this Corrigendum) now have 95% confidence intervals that include the value of 0.32 eV proposed for photosynthesis⁶. This result should be interpreted with caution, however, given that the confidence intervals are wide and temperature still explains a relatively small amount of variation in NPP and NPP/l_{gs} . Third, the fitted mass-scaling exponents α for total NPP/l_{gs} and the aboveground woody component $\text{NPP}_{\text{AGW}}/l_{\text{gs}}$, while similar, have switched places in their correspondence to theoretical predictions of 0.6, with $\alpha = 0.47$ for NPP/l_{gs} (95% confidence interval = 0.36–0.58; see corrected Table 1 in the Supplementary Information to this Corrigendum) and $\alpha = 0.552$ for $\text{NPP}_{\text{AGW}}/l_{\text{gs}}$ (95% confidence interval = 0.374–0.729; see corrected Extended Data Table 3 in the Supplementary Information to this Corrigendum). A closer correspondence for $\text{NPP}_{\text{AGW}}/l_{\text{gs}}$ may be expected due to possible bias in sampling below ground biomass for estimates of NPP. We apologize for any confusion that this oversight may have caused to readers.

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Supplementary Information is available in the online version of the Corrigendum.

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