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Date: 19th February 2016

Dear Dr Akihiko Ito,

Re.: bg-2015-338 (author) - manuscript accepted with corrections

Thank you very much for accepting our manuscript for publication. The response to your comments is given underneath this letter. We hope that we have addressed the comments to meet your satisfaction. Our response is highlighted in bold.

Yours sincerely

Mr Rahul Raj
(on behalf of all authors)

Your comments:

Table 1: Unit of Rb is g CO2 m–2 s–1. Is this correct? Reco takes mg CO2 m–2 s–1 and GPP takes g C m–2 s–1. Why not use the same unit for these fluxes?

Authors: The unit of R_b is correct in Table 1. The values of R_b were taken from the literature, where its unit is reported in g CO_2 m^{-2} s^{-1}. Therefore we mentioned R_b in this unit in Table 1. Our purpose was to calculate the values of r_0 (ecosystem respiration at 0 °C) from R_b (Eq. 7 in the manuscript). We calculated the values of r_0 (P13 L5-12 in the manuscript) in the unit of mg CO_2 m^{-2} s^{-1}. This unit is the same as the unit of parameter A_{max} (photosynthetic capacity at light saturation).

We have reported the unit of half-hourly GPP in mg C m^{-1} s^{-1} and daily GPP in g C m^{-1} d^{-1} (Fig. 3 in the manuscript) so that it could be directly compared to the output of process based simulator such as BIOME-BGC, where GPP is expressed in the unit of g C m^{-1} d^{-1}, in the future at the study site. We have clarified this in the manuscript (P7 L12-15).

We apologize that we have written the unit of daily GPP in g C m^{-1} s^{-1} in Table 1. We have corrected this to g C m^{-1} d^{-1}.

Figures 1, 2, 6, and 7: Please enlarge the sequential figure symbols (e.g., (a), (b)).

Authors: We have enlarged the sequential figure symbols.