Interactive comment on "Application of a new productivity coupling hydrothermal factors (PCH) model for evaluating net primary productivity of grassland in Southern China" *by* Zheng-Guo Sun et al.

Zheng-Guo Sun et al.

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Dear Dr. Antonio Jordán, I am very grateful for your helpful comments on the figures of the article. The comments will be beneficial to the improvement of the article and my professional development. According to your comments, the figures have been improved. Then on behalf of my co-authors, I will resubmit the processed figures to the Copernicus Office. Thanks a lot. Yours Sincerely,

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Please also note the supplement to this comment:
http://www.solid-earth-discuss.net/se-2016-148/se-2016-148-AC1-supplement.pdf

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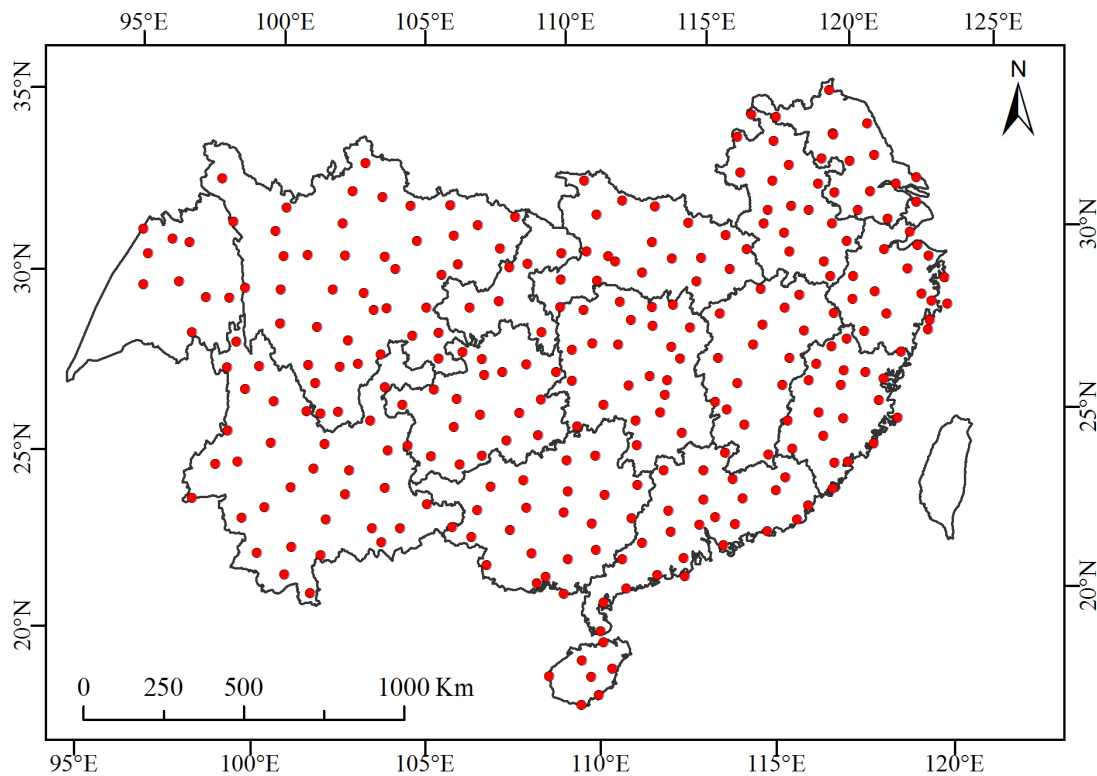
Fig. 1. Study area and meteorological stations in Southern China (the black boundary-lines indicate the provincial boundary; the red dots represent the locations of the meteorological stations).
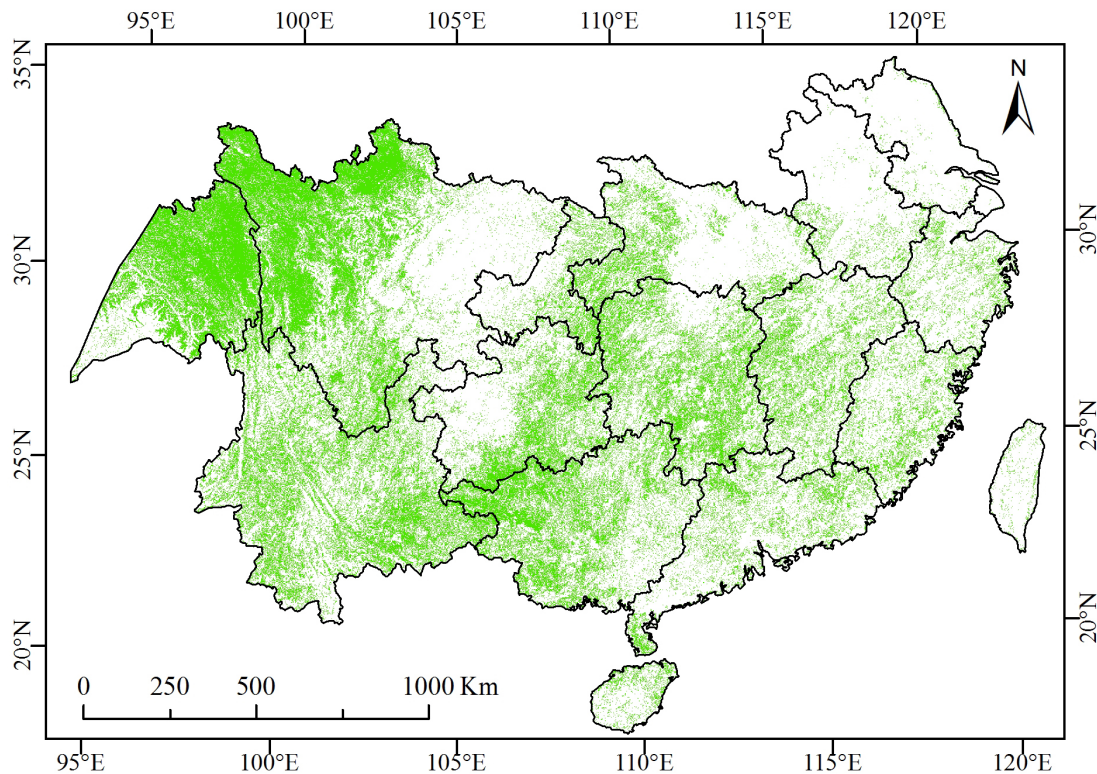
Fig. 2. The distribution map of grasslands of Southern China (the green zone represents the grassland area, and the colorless region represents the non-grassland of the study area).

Simulated NPP (gC.m^{-2}.a^{-1})

Observed NPP (gC.m^{-2}.a^{-1})
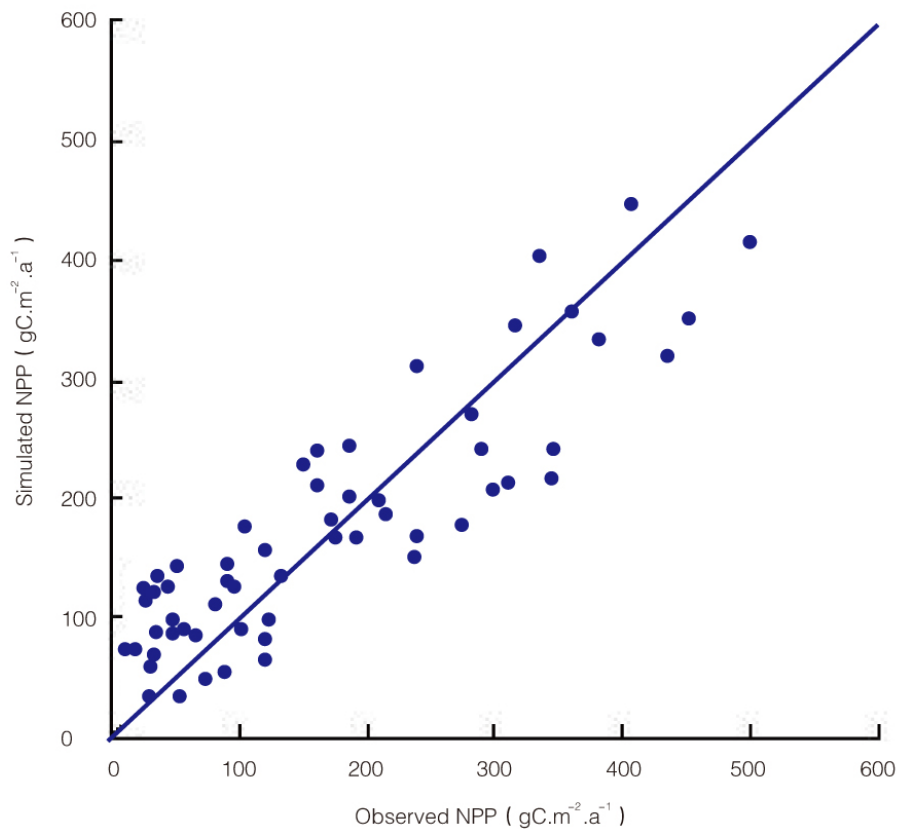
Fig. 3. Comparison between simulated and observed grassland NPP (net primary productivity) of Southern China.
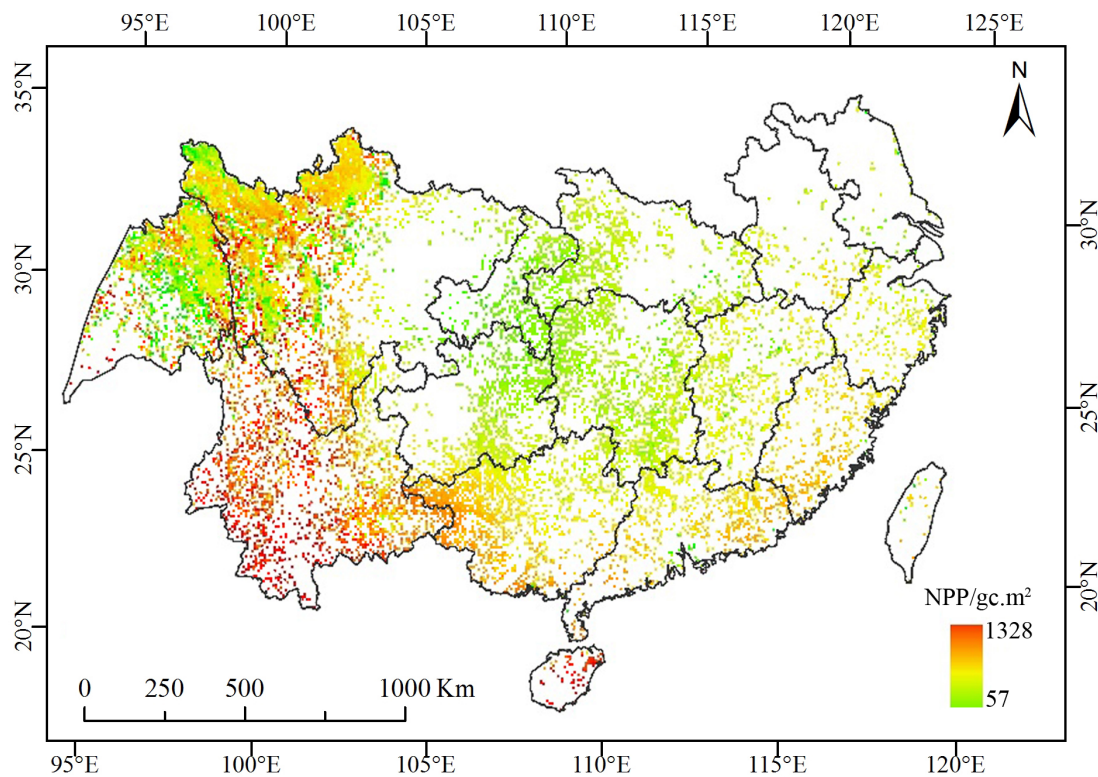
Fig. 4. Spatial characteristics of grassland NPP of Southern China from 2003 to 2014.

The chart shows NPP (gC.m⁻²) on the y-axis ranging from 300 to 600, and Year on the x-axis from 2004 to 2014.

Legend:
- Mean annual NPP
- Mean of 12 years
- Trend of mean annual NPP

$$y = 3.485x - 6517.6$$
$$R^2 = 0.2256$$
$$P = 0.0425$$
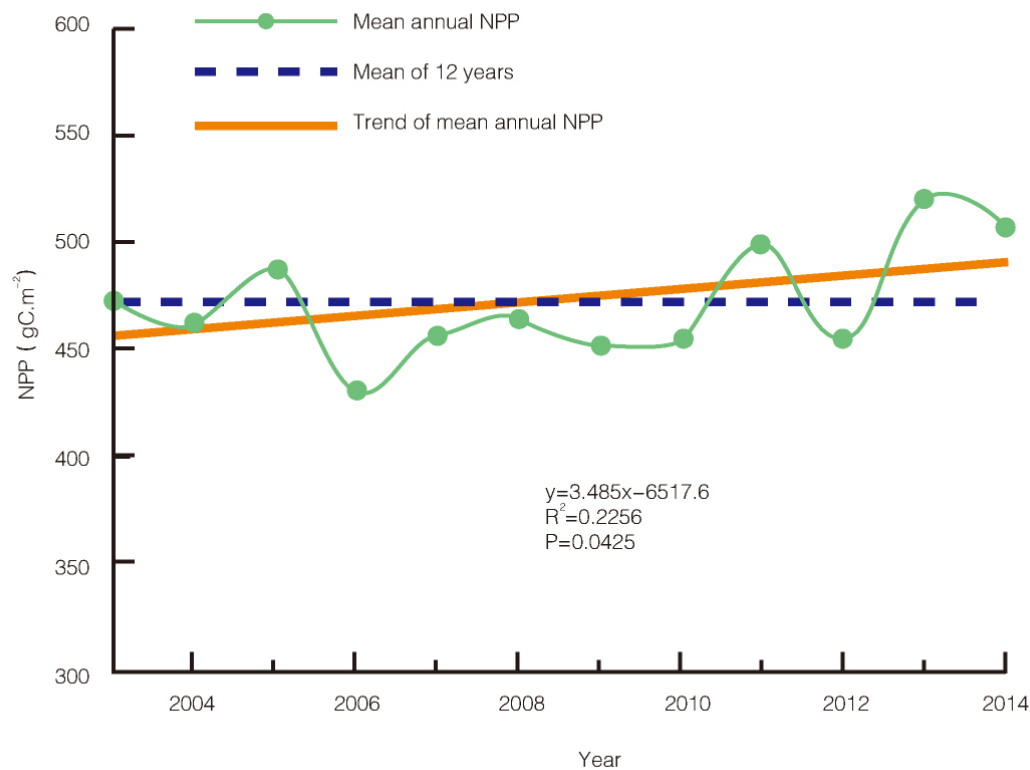
Fig. 5. The inter-annual variation of grassland NPP of Southern China from 2003 to 2014.