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Discussions

Interactive comment on "Net primary production of Chinese fir plantation ecosystems and its relationship to climate" *by* L. Wang et al.

Anonymous Referee #1

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Review of bgd-11-5639-2014 General comments The present study attempts to evaluate the spatial and temporal patterns of NPP of Chinese fir and its relationship with precipitation and temperature during 2000-2010. They used MODIS GPP/NPP product for the analysis. Although I am not a fan of MODIS GPP product, I think it's OK for the study. The results are quite meaningful because Chinese fir plantation ecosystem is very important for the economy and carbon balance of China. And eventually their research results might be presented in a sufficiently rigorous manner to be publishable. In its present form, however, this manuscript has some problems. First, the Abstract is really not clear, and need to read the manuscript to understand the main points of this study. It need be more polished for better understanding. Secondly, much more information is needed about how to identify the Chinese fir from the global land cover data set. I think there is no Chinese fir vegetation type in the original Glabal Landcover

2000 dataset. This is very important for their whole analysis. Third, it's not good idea to use the station climatic data for the regional analysis. It's better to use gridded reanalysis data to do such work. Last, since there were several drought and other extreme events in their study area during last decade, they need analysis the impacts of these events on decreasing trends of NPP of Chinese fir. Specific & minor points (reference is made to page P and line L numbers): Abstract As I said above, the abstract need to rewrite. P1 L2: the climate: need specific of temperature and precipitation. P1 L5: Need speficy the MODIS GPP/NPP product. P1 L6-8: This is really hard to understand if you don't know the study area. P1 L18-19: delete which could ... in rainfall. Methods P4 L1-11: You don't need such detail about the algrithm of MODIS GPP product. P4, 2.2.2 Land cover data: Need more information how you identify the Chinese fir vegetation type. P5 2.2.3 Need check the reanalysis data. It is really risky to interpolate to 1km grid with 41 stations. At least, you need compare it with some reanalysis grid data. P6 2.4 Need give more information about zonal analysis. It's not clear here. P6 L12: 'while a low R value represents the oposite'. Are you sure? Shouldn't negative R value? P6 L19: invaluable -> valuable Results P7 L3-4: 'It is evident... north and west'. How? P7 L18-20: two 'second highest'? P8 L 11-12: don't need this sentence. P9 L1: what's hydrothermal zonal gradients? Need explain this in the methods. Discussion P12 4.2: See general comments. Some analysis of drought effects need to be done. In addition, for the decreasing trends of NPP, how about deforestation or harvest impacts?