

Manuscript: Climate simulations and pollen data reveal the distribution and connectivity of temperate tree populations in eastern Asia during the Last Glacial Maximum

Author(s): Suzanne Alice Ghislaine Leroy, Klaus Arpe, Uwe Mikolajewicz, and Jing Wu.

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Minor comments:

Line 83: *...a very low resolution of T31.*

Comment: what is T31? The readers know that they can find the details in the mentioned papers, but I suggest you specify what exactly this acronym means, especially for non-modellers. Please, explain briefly. Maybe you can already specify also the model resolution. (see next comment).

Line 97: *(corresponding to approx. 3.75°).* Comment: this is the T31 model resolution? you can move this above. (see previous comment).

Lines 135-136: *Lower CO₂ concentration in the atmosphere during the LGM has caused a decline of pollen production.* Comment: Can you add some references?

Line 164: CTR. Comment: please, specify what CTR is and its meaning. It is the first time you introduce it.

Line 164: (Dee et al. 2011; ECMWF-ERA. 2019) (ERA). Remove the space before (ERA).

Line 258: delete "." before away.

Line 261: delete "." the second dot after "in the other climatologies".

Line 283: Asia is missing after Eastern.

Line 288: I think a full stop is missing after "vegetation types".

Lines 288-290: *we add also a maximal winter temperature (T_{max}) which the climatological temperature must fall below to allow deciduous tree will grow, suggested by Sitch et al. (2003) and Roche et al. (2007).* Comment: please, rephrase the sentence.

Line 290: remove the space before (*Table 1*) and add a space before Sitch et al.

Line 484: after 5°C, a "(" is missing.

Line 496: *By extending the view of our investigation for the whole of Eurasia (Fig. 9).*

Comment: Where do the European pollen info come from? Maybe, it is better to specify.

Line 503: *Generally, the estimates of possible temperate deciduous tree growth in the LGM in eastern Asia.* Maybe in this sentence, it is missing "by model results?".

Line 504: Therefor "e" is missing.

Line 548: *future climate change.* Maybe it is better to delete "future" and write "on-going".

Comments to Figures and captions:

Fig. 1: if it is possible, make thinner the dashed grids and numbers not bold and a little bigger, would help for a better reading. Add °C close to the colour scale bands.

Fig. 3: add °C close to the scale.

Fig. 4: upper right panel and lower right panel: move 40°N a bit up, it is not aligned.

Fig. 6: 1) Please, correct the position of the latitudinal degrees at the left side of both panels.
2) Is there missing an explanation/colour scale? It does seem so, also considering the scale in Fig. 9.

Fig. 6 Caption. Instead of "*Darker colours*" maybe it is better to write green. I suggest you use a contour black line for each red marker to make them more visible. Instead of "otherwise filled markers" maybe it is better to write red markers.

Fig. 7: Please, make the markers of pollen sites a little bigger, especially the marker in Taiwan.

Caption of Fig. 7:

1- Areas with topography above the 850hPa level are erased. Erased or blue coloured?

2- Maybe it is better to specify also in the caption that the V10m are the north-easterly 10 m winds.

Fig. 9: please, add which is the unit of the colour scale.

Table 2a. It is better to enlarge the column with the Alt/depth in m.

Tables 2a and 2b: Check the double spaces in the author's list.

Fig. 8: is inserted twice with a slightly different caption.

General: Eastern and eastern before Asia are used both ways. Please, be consistent.

The style of the references should be checked.