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This is a main contribution to the palaeoclimate and vegetation history of SE Europe and NE Mediterranean. I have no major comment on this paper. Study site is of great palaeoclimatic importance, data are well presented and data interpretations are mainly well established. However, there are many small errors in type setting and some ambiguities in the interpretation of the LGM and late-glacial climate conditions. I have suggested a few alternative interpretations and references that may help to give a still better interpretation.

Overall, the manuscript deserves to be published in CP after minor revision.

Minor corrections:

Page 4185: Line 18 → “Last” instead of “Late”

Page 4186: Line 25 → “Marmara” instead of “Marmar”

Page 4187: Line 13 → Family names are more conventionally written in non-italics (e.g. <http://www.botanicgardens.ie/educ/names3.pdf>)

Page 4187: Line 18 → “Western High” or “Western high”?

Page 4190: Line 7 → “late-glacial” instead of “late glacial”. This is to be consistent in using the same terminology all over the paper (in accordance with line 1 in page 4189)

Page 4190: Line 14 → Please write “percentage” in plural

Page 4190: Line 17 → reminder: Family names will better be in non-italic

Page 4190: Line 24 → Please write “deciduous” in non-italic

Page 4191: Line 1 → Please write “percentage” in plural

Page 4191: Line 6, 9 and 20 → reminder: Family names will better be in non-italic

Page 4191: Line 12 → Please write “deciduous” in non-italics

Page 4192: Line 1 → Please add “type” after *Sanguisorba minor*

Page 4192: Lines 16-30 → reminder: Family names will better be in non-italic

Page 4192: Lines 17 → Please write “deciduous” in non-italics

Page 4192: Line 20 → Do you mean “Asteroideae” by Asteraceae?

Page 4193: Line 7 → Please close the parenthesis after “ ...Spiniferites cruciformis)”, *Pediastrum* and freshwater ostracodes should be written separately.

Page 4193: Line 7 → *Hippophaë* can indicate the dominance of unstable slopes, soil erosion and fluvial activities (e.g. Kolstrup, 1980; Djamali et al., 2008). In forestry, it is cultivated to stabilize the slopes. In lower latitudes it forms a major constituent of the landscape during the Pleniglacial.

Kolstrup, E., 1980. Climate and stratigraphy in northwestern Europe between 30,000 B.P. and 13,000 B.P., with special reference to the Netherlands. Mededelingen Rijk Geologische Dienst 32, 181–253.

Djamali, M., de Beaulieu, J.-L., Shah-Hosseini, M., Andrieu-Ponel, V., Amini, A., Akhani, H. Leroy, S.A.G., Stevens, L., Alizadeh, H., Ponel, P., Brewer, S., 2008. A late Pleistocene long pollen record from Lake Urmia, NW Iran. Quaternary Research 69, 413-420.

Page 4194: Line 3 → I would be more careful using this statement: “e.g. colder and drier than the conditions during the LGM.”

Isn't the dominance of cool dinocysts an indication of more input of cold waters resulted from the melting of mountain glaciers or more snowfall in the Caucasus and Pontic region? Can the peak of *Artemisia* be related just to more snowfall? *Artemisia* is known to be favored by important amounts of snowfall. These are some reflections that the authors can consider in interpreting their spectra. The following paper shows that the traditional interpretation of *Artemisia* curves may not be completely reliable:

Subally, D., Quézel, P., 2002. Glacial or interglacial: Artemisia, a plant indicator with dual responses. Review of Palaeobotany and Palynology 120, 123-130.

Page 4194: Line 20 → Please write “deciduous” in non-italics

Page 4194: line 25 – 28 → Why the same argument is not the case with the former interval to account for the colder conditions of the Sea of Marmara during post-LGM compared to LGM?

Page 4195: Line 5-7 → or a change in the seasonality of precipitation? (see Stevens et al., 2001; 2006).

Page 4195: Line 11 → “findings” instead of “finding”

Page 4197: Line 10 → Please delete “at” before “only”

Page 4197: Line 10 → “*Centaurea* and Cichorioideae”

Page 4198: Lines 7-16 → Please also read the following paper:

Wright, H.E. Jr., Ammann, B., Stefanova, I., Atanassova, J., Margalitadze, N., Wick, L. et al., 2003. Late-glacial and early-Holocene dry climates from the Balkan Peninsula to southern Siberia. In: Tonkov S (ed.) Aspects of Palynology and Palaeoecology, Festschrift in Honour of Elissaveta Bozilova. PENSOFT Publishers, 127–136.

Page 4198: Lines 19-24 → Subtropical monsoon intensifications have been invoked to explain the long summer months in eastern and southern Mediterranean. Please consult these citations:

Magny, M., Peyron, O., Sadori, L., Ortu, E., Zanchetta, G., Vannièrè, B., Tinner, W., 2011. Contrasting patterns of precipitation seasonality during the Holocene in the south- and north-central Mediterranean. Journal of Quaternary Sciences doi: 10.1002/jqs.1543.

Djamali, M., Akhani, H., Andrieu-Ponel, V., Braconnot, P., Brewer, S., de Beaulieu, J.-L., Fleitmann, D., Fleury, J., Gasse, F., Guibal, F., Jackson, S.T., Lézine, A.-M., Médail, M., Ponel, P., Roberts, N., Stevens, L., 2010. Indian Summer Monsoon variations could have affected the early Holocene woodland expansion in the Near East. The Holocene 20, 813-820.

Page 4199: Lines 12-13 → *Chenopodiaceae*, *Cichorioideae*, and *Cerealina* should all be in non-italics.

Page 4200: Line 12 → Please add a comma after “However”

Page 4200: Lines 15-17 → *Ericaceae*, *Cerealina* and *Cichorioideae* should be in non-italics

Page 4201: Lines 5-6 → *Chenopodiaceae* and *Asteraceae* should be in non-italics. Do you mean “*Asteroideae*” subfamily by “*Asteraceae*”?

References:

Please note that shortened “Quaternary” in the journal citation is “Quat.” not “Quaternary”. This is found in the following link that is the basis of referencing of *Climate of the Past*. Please also check other journal abbreviations in this website.

<http://library.caltech.edu/reference/abbreviations/>

Page 4205: Line 32 → You have omitted “*Palaeocol.*”

Page 4208: Lines 2 and 5 → “*Palynol.*” not “*Palyno.*”