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Interactive comment on "Grazing effects on soil characteristics and vegetation of grassland in northern China" by Z. Wang et al.

Z. Wang et al.

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The authors wish to thank the two anonymous referees for providing detailed suggestions for improving our manuscript to make it clearer and more informative. The following responses and changes relate to the suggestions made by the two referees:

Anonymous Referee #2

In this study, Wang et al. evaluate the effects of different grazing intensities on soil and vegetation characteristics in a grassland area of Northern China. The manuscript is in general well written and the findings are somewhat interesting. However, there are some inconsistencies that should be addressed before being considered for final publication. Abstract. It is clear and concise and acceptable in its current form.

C1299

(1) Introduction. The authors provide references of previous studies dealing with different grazing intensities but these are very general. For example, in page 2285 from line 17 to 19, the authors state that 'the effects of livestock grazing on soil heterogeneity have not been consistent with some studies showing that overgrazing increased soil heterogeneity'. But what do you mean with 'soil heterogeneity' here?

Response: Soil heterogeneity here refers to SOC and TN being affected by grazing depending on the spatial scale. Changes in manuscript: This was rewritten to indicate the specific soil characteristics. (2) Again in this page from lines 20-24 the authors discuss spatial heterogeneity of vegetation and soil. Please, clarify these concepts. Do you mean spatial heterogeneity of SOC? Total N?

Response: The vegetation indicator used by Kröpel et al. (2013) was total vegetation cover, while the soil characteristics included TN, SOC (%), sand, silt and clay content, etc. Changes in manuscript: The manuscript was revised to indicate the specific results of Kröpel et al. (2013).

Interactive comment on Solid Earth Discuss., 7, 2283, 2015.