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Interactive comment on "Hydrological soil properties control tree regrowth after forest disturbance in the forest-steppe of central Mongolia" *by* Florian Schneider et al.

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Thank you for the valuable comments. We will reply to each comment below.

Specific comments:

1) We agree with your statement. It is difficult to draw conclusions from an uneven comparison without statistical prove. 2)We will add specific information in the methods to clarify this problem. The numbers are different, because we took undisturbed samples for pF curve measurements wherever possible, but high amounts of rock-fragments did not allow for taking undisturbed samples in some profiles. As this resulted in dif-

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ferent numbers, we avoided a statistical analysis. We decided only to present a site-wise comparison with the purpose just to underline the already described significant difference in soil properties. We present the entire data set to avoid any bias. The different numbers of measurements of hydraulic conductivity and field capacity result from the in-situ measurements of hydraulic conductivity. These allowed us to generate hydraulic-conductivity data also for profiles where cylinder sampling was not possible. 3) Thanks for pointing to these difficulties. We will increase the readability of this figure: We will generate site numbers and will write those under the profiles in Figure 8. This will make it easier for the reader to compare e.g., DWIR at site 1 with DNOR at site 1. We think that a statistical analysis of this data is not feasible in this case, because of the unequal representation of the different vegetation categories and the comparably low number of measurements. In order to enable statistical treatment of the plant-available field capacities, we can in addition calculate plant-available field capacity for all profiles (based on texture, humus content and rock-fragment content), and present the results in the same way as we present the texture data in Figs. 4 and 5. This might be the most meaningful way forward, as actually, the trees do not respond directly to the different sand and silt contents that are shown in Figs. 4 and 5, but they respond to the different plant-available field capacities that result from these textural differences.

Technical comment:

Yes, some authors regard ecotones as narrow belts, but others use the term in the same way we do, i.e., for the spatial-transition character of the Mongolian forest-steppe. The reference list of our manuscript also includes several papers written by ecologists who use the term “ecotone” for the Mongolian forest-steppe (Dulamsuren et al., 2009, 2011; Sankey et al., 2006) Therefore, we prefer to keep the term. We will add details on the measurement of the pF curves, from which we obtained plant-available field capacity in the methods part.

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