

Interactive comment on “Ecohydrological Optimality in Northeast China Transect” by Q. Li et al.

Anonymous Referee #2

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The manuscript entitled "Ecohydrological Optimality in Northeast China Transect" by Li et al. used remote sensing data from Northeast China Transect to test Eagleson's ecohydrological optimality theory. This is an interesting study with great potentials. However, I feel the current version failed to flesh out the novelty of this work and significant re-work is needed. For example, whether the optimality theory has been applied to such a mega-transect in the past? What're the implications of a successful application of the theory (e.g., future predictions)? In addition, a sensitivity test could be conducted to investigate the sensitivity of each input parameters in the water demand curve. This will inform the later analyses using remote sensed data.

Specific comments:

Page 3 Line 24 The determination of NDVI_{max} is not very clear.

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Page 4 Line 10-12 The definition of canopy conductance is different between the description and the equation. It should be double-checked.

Page 4 Line 16-24 The equation 3 needs a reference

Page 7 "specie" should be "species"

Considering the length of the manuscript, the number of figures could be significantly reduced. Many figures could be combined such as Figure 1 and Figure 2, Figure 4, 5 and 6.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., doi:10.5194/hess-2016-235, 2016.