

**Response:** Dear editor, thank you so much for the detailed check on our revision. Please see below our responses. We hope that our revised paper is ready for publication.

1. All figures with different lines for percentiles: Percentile values should range 10, 20, ..., 90 instead of 0.1, 0.2, ..., 0.9.

**Response:** We have now updated the figures in the main text (P29-30 in the revised manuscript) and the supplementary figure file (Page 3-4) as suggested.

2. This comment from Reviewer 2 was not addressed: "Lines 138-139: a function of the tissue water content? Why water content? Shouldn't it be xylem pressure?"

**Response:** Thank you for pointing this out. We have now updated it as water potential (Line 155, page 8 in the revised manuscript).

3. You mention addressing this comment from Reviewer 2, but I can't find where you did so: "Line 245: branches are most vulnerable... How about leaves? Does this branch mean stem and leaf?"

**Response:** We have added the following sentence to the revised manuscript (Lines 396-400, Page 19): The HDYRO model only considers the stem node (Fig. 1) without explicitly simulating the branch. In this analysis, we calculated the branch vulnerability by using the PLC curve of xylem and the leaf water potential, which approximates the water potential at the tip of the branch. The model does not explicitly consider xylary or extraxylary resistance within and outside the leaf midrib.

4. L230: Please mention that both  $g_s$  and  $g_0$  are multiplied by this stress factor.

**Response:** We have reworded the sentence as "Stomatal conductance (i.e., both  $g_0$  and  $g_1$ ) is further modified by a plant water stress factor...", in Line 230-231, Page 12 in the revised manuscript.

5. I'm confused about Reviewer 2's comment, "Line 311:  $\epsilon_{node}$ , you need to be consistent with ths symbols (you provided two for the same parameter in Table 1)". I only see one symbol for that parameter in Table 1. I'm also confused about your response, in which you change the name from  $\epsilon_{node}$  to  $\epsilon_{node\_root}$  in the text but not the table.

**Response:** Several hydraulic parameters are used for different nodes of the plant including leaf, stem, transporting root (troot), and absorbing root (aroot). To avoid the confusion, we have now updated the table to list all the specific nodes for one hydraulic traits. For example, for saturated water content, we have listed  $\theta_{node\_leaf}$ ,  $\theta_{node\_stem}$ ,  $\theta_{node\_troot}$ ,  $\theta_{node\_aroot}$  in the parenthesis and provided Note 1 below the table to clarify (Page 36 in the revised manuscript).