Dear Editors and Reviewers:

Thank you for your letter and for the reviewers' comments concerning our manuscript entitled "Fluid-solid interaction for the nonlinear pressure-flux relationship of bordered pits in *Platycladus orientalis*" (ID: forests-2774616). Those comments are all valuable and very helpful for revising and improving our paper and the important guiding significance of our research. We have studied the comments carefully and have made a correction which we hope to meet with approval. Revised portions are marked in red on the paper.

The main corrections in the paper and the response to the reviewer's comments are as follows:

Comment 1#: Lines 173-182: deformation and Hook's law is related to the following section named "Fluid-solid interaction" and it looks better to move it there for consistency.

Response: Fluid-solid interaction model consists of the fluid model predicting fluid flow, the solid model predicting structural deformation, and the interaction coupling between the fluid model and the solid model. The structure deformation and Hook's law(Lines 173-182) are the foundation of the solid model, although the elastic deformation was mentioned in the section for introducing the Fluid-solid interaction.

Comment 2#: Section 2.6 model verification: It sounds like the presented in the manuscript scheme is inferior to the previous Schulte's study, inferring the possible errors due to the presented method applied. From this, it becomes unclear what are the benefits to using the presented scheme in comparison to Schulte's approach.

Response: The comparison of the flow models between our study and the Schulte's study was aimed at verifying the flow model's reliability in our study, like the solid model was verified in our previous study[31]. In the development of models and simulation, verification was necessary to guarantee model confidence, with the comparison between the simulation and the experiment or between the simulations. As the modeling error was inevitable in all the modeling from 2D pictures to 3D structures, the deviation between our model and Schulte's model represented the repeatability of the flow model.

Comment 3#: In the Discussion there is a lot of repetition of the Results that could be avoided if it would be summarized in the Conclusions.

Response: In the original manuscript, the citation of some results in the discussion was aimed at interpreting and explaining the results. Some direct citations looked like the repetition of the results. In the revised discussion, the sentences were revised to avoid the repetition of the results.

Thank you very much for your comments and suggestions.