

Interactive comment on “Imaging tropical peatlands in Indonesia using ground penetrating radar (GPR) and electrical resistivity imaging (ERI): implications for carbon stock estimates and peat soil characterization” by X. Comas et al.

Anonymous Referee #2

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This paper proposes an interesting method to assess carbon stock in a woody peatland. This journal seems to be the appropriate outlet for this paper. However, the paper needs major revisions for improvement its impact. The comments are described below:

1. Organization This paper has much content about technical method and its results on "Discussion". I think it is not a proper article. Please consider reconstructing this section into two sections, Methods and Discussion. Moreover, the paper lacks information about how to estimate peat thickness by using the GPR and ERI data. I suggest the authors should add more information in the Introduction and clearly explain it in

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Methods.

2. Introduction The paper is currently too “heavy” in “Introduction”. The authors should just briefly describe the importance of peatland and put the focus more on the methodology part, for example, about the conventional methods used for peatland and its technical problems, and also the estimation of peat thickness using the GPR and the ERI.

3. Objective The objective is not clear, because the estimation is not alluded on Introduction. I think that this paper will be more suitable for this journal if authors develop more accurate estimation by using the GPR and the ERI data in a woody peatland.

4. Discussion In the results of peat thickness estimation (Fig. 9), the author describes the appropriateness of the estimation, but the values have a quite large variation. Readers will interpret the estimation as not accurate and cannot be used. In order to avoid this kind of misunderstanding, the author should explain about the error. Additionally, the results should be described in “Results” section.

Specific comments 1. Please add the explanation the calculation of carbon of Table 2. 2. L292 & L299: Generally, the citation does not list it in “Results”. 3. Figure 2: What is “woody layers?”? 4. Figure 2 and 5, 6: Water table elevation is water table depth

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