

I am happy to see that the authors thoroughly responded to the comments. I acknowledge the effort and see that the manuscript improved. However, there are a few points that have not been answered and I would like to see some short statement addressing these points in the manuscript before publishing:

1. *“Furthermore, I am very concerned by the representativeness of the bog site especially when it is compared to a fen as exemplary system (Scientific objective no 3, P3 line 3). There are several factors differing between the sites, besides just fen/bog: climate (e.g. 4 month snow covered – no snow hardly sub-zero temperatures), anthropogenic influence (burned – unburned). Additionally, mentioning agro-pastoral practices: does this mean the bog is used for grazing? Could these systems thus be considered as representative? Besides this, from the location maps I draw conclusions that apparently the monitoring spot also receives water which is not originating from the peatlands itself. Is there any data about it? Do you have any idea about the whole catchment and how much water contributes to the discharge that is not from the peatlands? This is one of my major concerns, as I feel like the authors completely disregard this. If the concentration pattern are driven by discharge from other areas, the discussion of concentration pattern and water levels at the monitoring spot and within the peatland would be difficult.”*

You haven't responded at all to these points. I at least would like you to clarify the role of additional water sources in your concentration pattern. I am in line with you that most DOC is originating from the bog, but this does not mean that there is no other main water source with a different hydrograph dynamic/respond to rain events and dry periods. To evaluate concentrations is something different than fluxes. This would bias your concentration pattern. I read in the respond to reviewer #1 that the peatland area is just covering 3 or 6 % of the catchment area, respectively. I want to read this in the site description and an explanation that you still see only a peatland signal there (similar to statement P4 L7) or a limiting statement also in the discussion. I don't like that this is completely disregarded.

2. I am glad that your discussion about hydrologic pathways and non-linear responses largely improved. I actually miss the reference of Birkel et al. 2017 (that you cited in Rosset et al. 2019). As this publication also modelled peatland water level and stream DOC concentrations and it seems that their findings are in line with your study. The outcome of that study might be worth discussed in view of your model results.

I looked at your DOC/Q plots with great interest and I just want to note that I am impressed by this data set and that I am convinced that there is so much more information in it, which would be also worth to be evaluated (hysteresis loops, DOC pool dilution/exhaustion effects, different responses by different preconditions) and would greatly improve understanding of DOC export from peatlands. Maybe you can consider this for a future (meta)study.