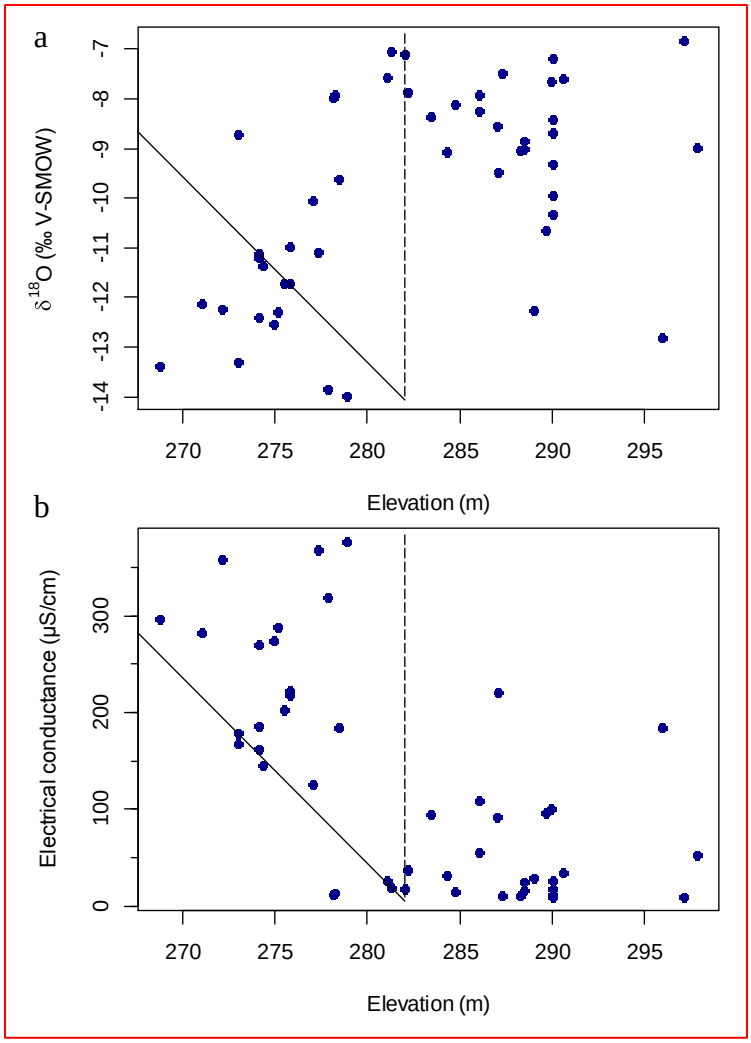
Proof-reading of the accepted manuscript by the authors

Here in blue are the authors' responses to the typesetter one mistake we spotted in the manuscript and ask the journal to please review them. After those changes, the authors are happy to proof read the manuscript one last time before publishing, if needed.

We would like to draw to attention of the journal that since the acceptance of the paper, the manuscript went through a Ph.D. defense committee with internal and external experts in the field who strongly recommended us to request the journal to make MINOR but VERY IMPORTANT changes and one error in the colour legend in one of the figures. We kindly respectfully ask the journal to strongly consider those changes in order to improve the readability and the science of the paper. Those changes do not change any conclusions or interpretation but clarify some of our findings and analysis. We're happy if the journal asks the opinion of the editor. We deeply apologize for the inconvenience.

TS1 Please give an explanation of why this needs to be changed. We have to ask the handling editor for approval. Thanks.

Figure 3: replace figure 3 with the following. We inverted the y and x axis as previously suggested by two reviewers (see peer review process), although we chose not to during the peer-review process. Indeed, elevation here is the independent variable and EC and $\delta^{18}O$ the dependent variables. Also, we didn't display the regression line as we argue that there isn't really a relation but two clusters of lakes divided by the breakpoint. Thus, by doing this, we are more in tune with our argumentation and clearer to the reader. It doesn't change the results or the interpretation but rather makes it clearer. We attached the revised figure.



TS2 Please give an explanation of why this needs to be changed. We have to ask the handling editor for approval. Thanks.

Reword "However, the slopes of the linear regressions for the water ^{18}O (Fig. 3a) and specific conductance (Fig. 3b) do not match the data points perfectly, as there seems to be a distinct transition between similar values found in higher- and lower-elevation lakes, which was further examined using a break-point analysis of the lake-water properties (the later undertaken to detect any stepwise changes in trends)" as follows: "However, the breakpoint analysis detects a distinct transition between similar values found in higher- and lower-elevation lakes, indicating a step-wise change in both specific conductance and $\delta^{18}O$ with elevation. $\delta^{18}O$ (r = 0.35, n = 27, p = 0.08) (Fig. 3a) and electrical conductance (r = 0.00, n = 27, p = 0.65) (Fig. 3b) of the lakes located above 282 m a.s.l. do not display any relation with elevation, nor does specific conductance (r = 0.36, n = 23, p = 0.10) of the lakes located below 282 m a.s.l. Only $\delta^{18}O$ of the lakes located below 282 m a.s.l. shows a significant relation with elevation (r = 0.46, n = 23, p = 0.03). This supports the

assumption that the relation between water tracers and elevation is mainly driven by the existence of two sets of lakes distinguished by the elevation of 282 m a.s.l.".

Justification: as pointed out by committee members and some reviewers, there isn't a clear straightforward relationship between our variables, which we argue in the discussion. The rewording of the result section is more in tune with our interpretation and makes it easier for the reader to understand the data.

TS3 Please give an explanation of why this needs to be changed. We have to ask the handling editor for approval. Thanks.

Replace "282.4" by "282" as the fourth number is not a significant digit. Please remove one significant digits as Google Earth data provide elevation with a rounded value, therefore we shouldn't use a precision of 0.1 m but of 1.0 m.

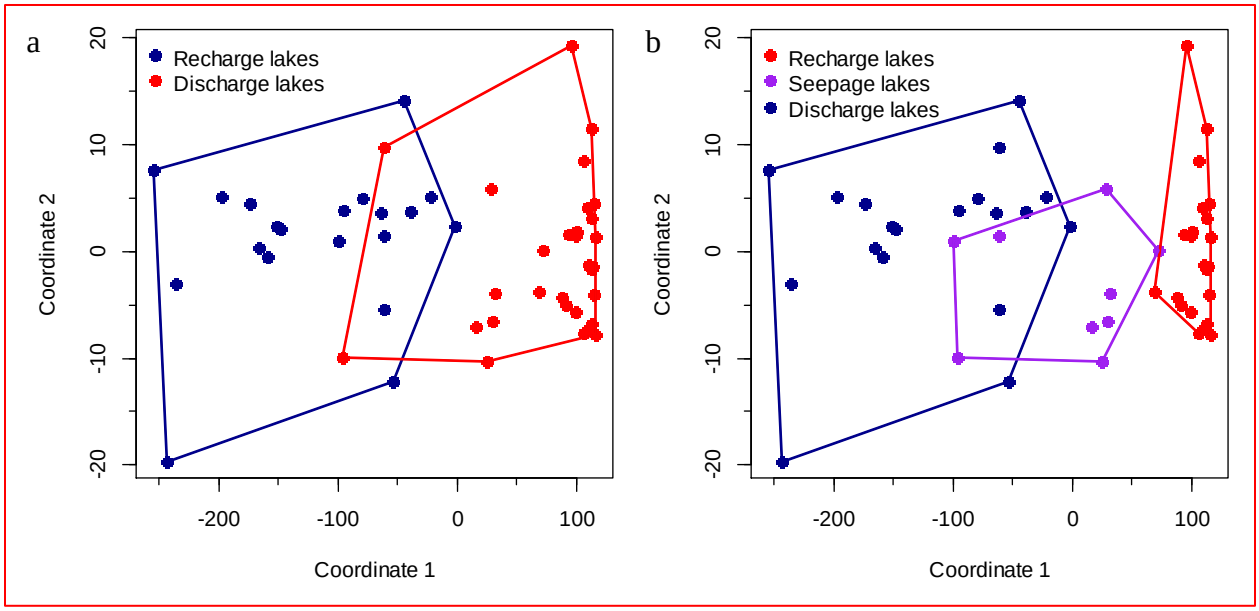
TS4 Please give an explanation of why this needs to be changed. We have to ask the handling editor for approval. Thanks.

Table 1: remove one significant digits as Google Earth data provide elevation with a rounded value, therefore we shouldn't use a precision of 0.1 m but of 1.0 m.

Environmental Variable	Mean Elevation	Lower Elevation	Upper Elevation
$\delta^{18}O$	282	280	284
$\delta^{2}H$	282	280	284
*d**	282	280	284
EC	284	281	287
Ca^{2+}	284	282	287
Mg^{2+}	282	280	284
K^{+}	282	278	285
DIC	282	280	283
TC	282	280	283
Breakpoint line	282		

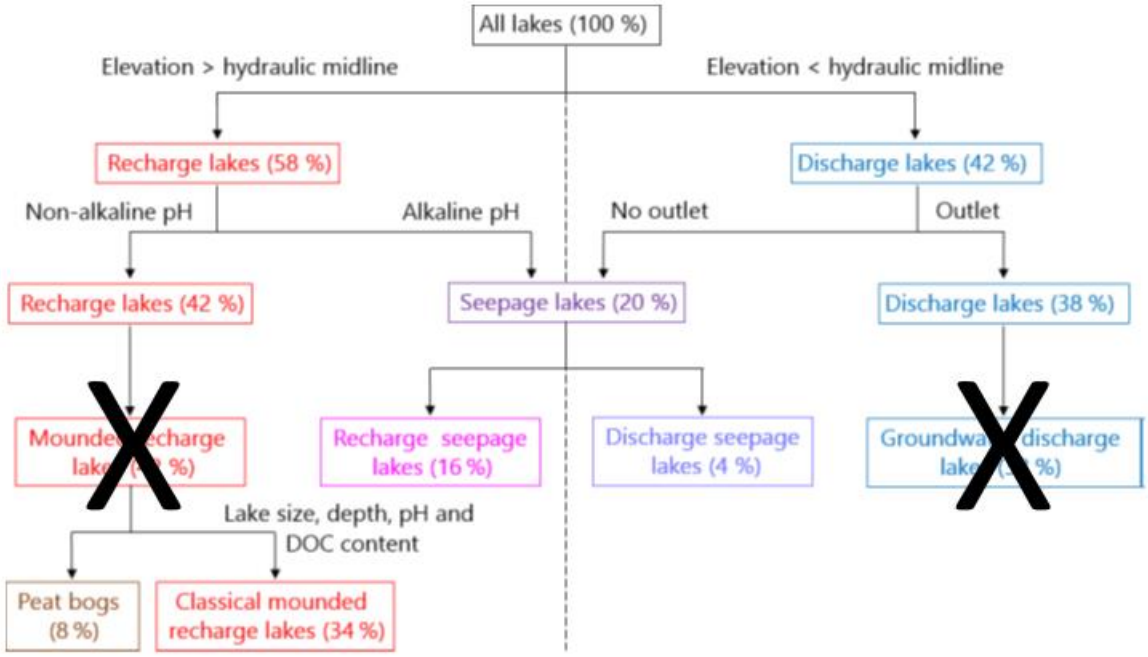
TS5 Please give an explanation of why this needs to be changed. We have to ask the handling editor for approval. Thanks.

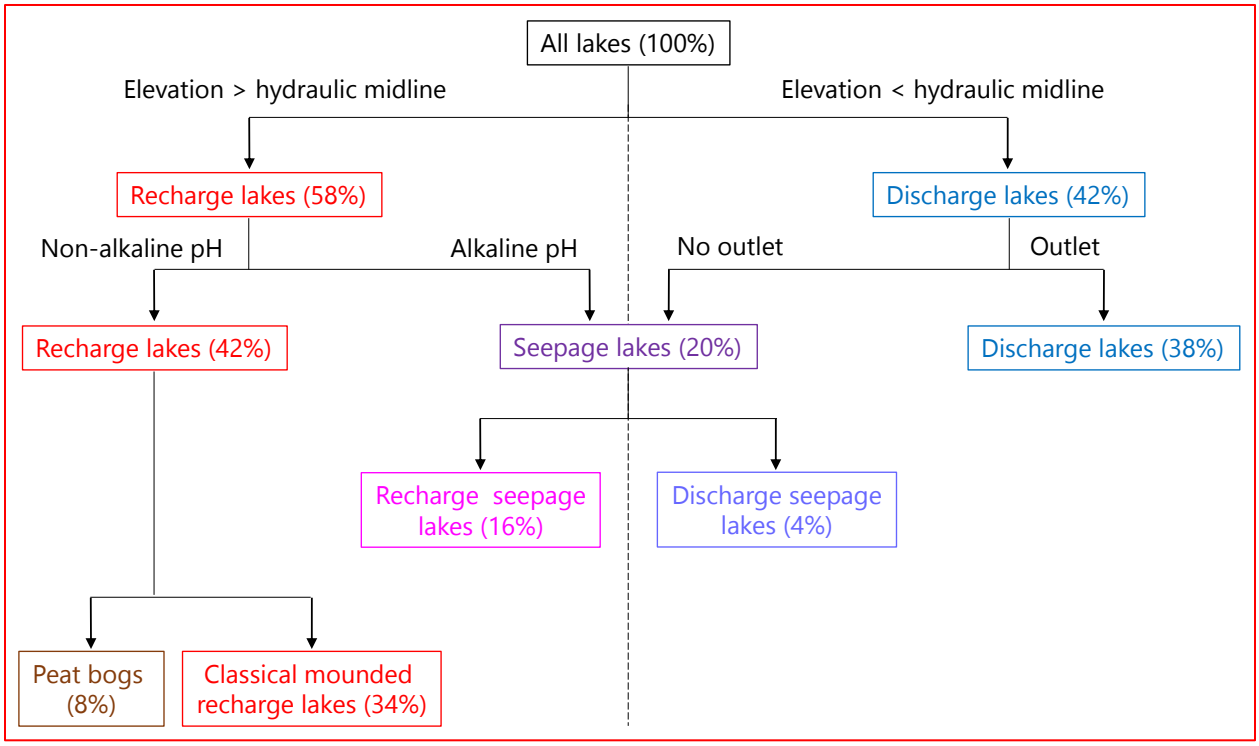
Figure 6: we inverted the colours of the polygons in Figure 6a. Figure 6 needs to be replaced imperatively as follows. We attached the corrected version of the Figure.



TS6 Please give an explanation of why this needs to be changed. We have to ask the handling editor for approval. Thanks.

Figure 7: replace figure 7 with the following. As suggested by the committee, we simplified the figure slightly (see below) by removing two redundant boxes. This makes the typology easier to read and more intuitive. It doesn't change its content or meaning. We attached the revised figure.





TS7 Please give an explanation of why this needs to be changed. We have to ask the handling editor for approval. Thanks.

Replace "282.4" by "282" as the fourth number is not a significant digit. Please remove one significant digits as Google Earth data provide elevation with a rounded value, therefore we shouldn't use a precision of 0.1 m but of 1.0 m.

TS8 Please provide date of last access.

Last access: 30 August 2019.

We submitted the following request during the last proofreading of the manuscript but the following was not addressed. We kindly ask the journal and the editor to consider the following change.

Page 11, line 43: add the following clarification at the end of the paragraph (i.e. after "except for SO_4"): "Groundwater-discharge lakes and groundwater-recharge lakes are distinctly separated in ordination space, confirming the importance of elevation in controlling lake-water geochemistry. At the same time, seepage lakes overlap with groundwater-discharge lakes, implying that both types share similarities as they are groundwater-dependent lakes and that the three types of lakes constitute a continuum based on groundwater connectedness. The existence of a larger polygon for seepage lakes and mostly for groundwater-discharge lakes is likely the result of greater water

geochemistry heterogeneity as increased groundwater connectedness is associated with more interactions with different types of groundwater flow (Tóth, 1963)".

Justification: one of the committee members pointed out the fact that although our groups are distinct, they are more a continuum than clearly distinctly separated groups. This doesn't change our interpretation or conclusion nor bring anything new but explains better the Figure and refine the interpretation.