Specific comments
Note: “X -> Y” means replace “X” by “Y” in the text

page 2, row 1 “Blazkova et al., 1996” -> “Blazkova, 1996”

page 2, row 3 “Blazkova et al., 1996” -> “Blazkova, 1996”

page 2, row 6 “Fen et al. 1998” doesn’t appear in the references. Is “Fenn et al. 1998” meant? If so, this citation doesn’t support the before stated sentence, because it mainly reflects the situation in North America.


page 2, row 9 “Matschullat et al., 1998” -> “Matschullat et al., 1992”. This citation doesn’t give relevant information on the bioavailability of phosphorus. Please replace accordingly.

page 2, row 10-11 This sentence isn’t relevant for the introduction. It may be shifted to section 2.1.

page 2, row 10-18 “For this aim, a nests of suction lysimeters was installed …” -> “For this aim, nests of suction lysimeters were installed …”

page 2, row 30 Would this kind of orthogneiss with the reported composition really be termed “alkaline”?

page 3, row 1 “… m, UDL’s …” -> “… m a.s.l., UDL’s …”

page 3, row 2 At page 2, row 30, the parent material was named “alkaline gneiss”. Is this the same as “porphyric granite”? Please clarify! How can Podzols develop on “alkaline gneisses”?

page 3, row 4 Are the given figures the runoff for one month? Please clarify!

page 3, row 9 I wouldn’t consider saplings trees up to 40 yrs.

page 3, row 12 Please delete “The.”

page 3, row 12-13 Please give the depth interval for the pH figures.

page 3, row 13 “… a pH increases in throughfall measurements …” -> “… a pH increase in throughfall …”.

page 3, row 13-14 Two times the same citation in one sentence isn’t necessary.

page 3, row 14-15 A comparison of pH(H2O) and pH(KCl) doesn’t makes much sense.


page 3, row 16-26 The content of this paragraph may be better placed in the results section. In addition figures presented should be given with standard deviation. Presented figures are a strange mixture of 13 or 14 catchments. Please revise consistently!

page 3, row 27 Section “2.2.1” follows “2.1”. Please check for consistency.

page 3, row 28 “… at a 50-cm depth below …” -> “… at 50 cm depth below …”. Please change consistently throughout the manuscript.

page 3, row 28 Were the lysimeters installed 50 cm below soil surface or below forest floor? Please clarify!

page 4, row 6 The sampled depth intervals aren’t horizons. Please specify!

page 4, row 8 The given citation (FAO 2006) isn’t about soil description. Please give correct citation!

page 4, row 14 “open squares …” -> “open square …”

page 4, row 19 Please specify the relation of soil to water for pH measurement.
Please specify the meaning of soil moisture determination for the study, if any.

"5 ° C" -> "5°C"

The sequence of the determination of exchangeable cations seems in an incorrect order. Where NO₃ and SO₄ determined in the BaCl₂ extracts?

Consider “For a phosphorus (P) release estimation, …” -> “For a estimation of phosphorus (P) availability, …”

Please specify the soil:solution relation and the concentration of the solution.

“DPSox” in table 2.

“Beauchemin et al., 1999” -> “Beauchemin and Simard, 1999”

“Borovec et al., 2018” -> “Borovec and Jan, 2018”

Please introduce the meaning of D.L. at the first appearance! If detection limit is meant, consider to use “limit of quantification” instead.

Please explain the meaning of “non-parametric data”.

The description of the factor analysis resembles - in my view as a non-statistician – a parametric method. Please specify the non-parametric component of the statistical analysis.

Please check the grammatical structure of the sentence.

The reporting of results for soil texture and pH in one subchapter appears strange to me. Why not report pH together with other soil chemical variables?

This sentence is more or less a repetition from section 2.2.1. Accordingly, it may be omitted.

Please give a definition of “pebbles” and “cobbles”.

Consider to shift this part to section 3.3.

Is the mean given for all five sampling plots?

Please check “twice larger” for correctness.

“Hruska et al., 2001” isn’t in the references. Please check.

Water volumes haven’t been mentioned before. This sentence may be omitted or the relevance of water volumes for the study should be emphasized.

“… to be higher at …” -> “… to be highest at …”

According to figure S2, explained variance is 24%

According to figure S2, explained variance is 18%

Is “Fig. S2” meant here?

This part seems rather to be dedicated to the discussion. However, logical and grammatical consistency should be checked.

Please explain the meaning of “apparent insignificant correlation”.

“Manderscheid et al., 1995” -> “Manderscheid and Matzner, 1995“

“Hruska et al., 2000” appears twice in the references. Which one is meant?

“Meyer et al., 2001” is missing in references.


“Armbruster and Feger, 2004“

“Meyer et al., 2001“ is missing in references.

Please check grammatical consistency of the sentence.

Is “Novak et al., 2005“ meant here?

What is meant with “areal control” here?

I can’t follow this statement.

What is the rationale behind the comparison of K and Na outputs?

To which other period is the spring season of 2013 compared here?

“Heuck and Spohn, 2016“

“… in the 50 cm-depth …” -> “… in the 40-80 cm depth …“?
“... these periods were compared.”

Figure A1a isn’t visible in the manuscript. If “Figure 2A is meant, it should be corrected throughout Appendix A.

Consider “… in soil pore spaces …”

What is meant with “direct precipitation”? If the “contribution of direct runoff (or “event water” as in eq. 2) to total runoff” is meant, a clear definition of “direct runoff” should be given.

“Fenn, E.M.;” -> “Fenn, M.E.;”

“Stottlemyer, R.” -> “Stottlemyer, R.”

“FAO: Guideline for soil description; Rome, Italy, 2006“ should be cited here.

Please give correct title of the reference.

This line should be deleted.

“Ma, L; Teng, F.-Z.; Lin, L.;” -> “Ma, L; Teng, F.-Z.; Lin, L.; et al.:”

“Soiling” -“ Solling”

Please consider to shift the sentence starting with “in the studied UDL ...” to the text body of section 2.1.

The content of this figure relates to Appendix A and should be placed in the supplements accordingly?