* Editor:
  + Methods: Linear regression and nMDS are not adequate
    - Multivariate analysis recommended
    - Ordination:
      * NMDS instability and mean-variance weaknesses (Legendre 2012, Warton et al 2012)
      * Dissimilary coefficient
      * Composition data transformation? (Hellinger distance recommended Legendre & Gallagher 2001)
      * Model-based ordinations in gllvm and HMSC R packages
      * Visualization via model-based ordination: ecoCopula
  + Results: No clear integration of biodiversity metrics
* R1 (Sylvain Doledec):
  + 24. why "also"? **Removed**
  + 43. "changes in water temperature " **Added “changes in …”**
  + 93. "for" evaluating. **Added**
  + 95. replace "to climate" by "the climate" **Replaced**
  + 125. "was" **Changed ‘is’ to ‘was’**
  + 138. "were" **Changed ‘are’ to ‘were’**
  + 150. "field rinsed"??? **Removed ‘field rinsed’ and improved clarity of invertebrate sampling methods**
  + 195. "we need to know if this was "all" environmental variables or "each" environmental variables (it seems it is all.
  + 219. "positively related with precipitation"
  + 240. "included"
  + 286. "Pisidium" in italics
  + 290. Oksanen (2013) is not in the references. I guess you mean Oksanen et al. (2019)
  + 223-230. Long description
  + 239-250. Simplify
  + 251-260. Integrate with 239-250
  + 378-384. Long sentence **381-385**
  + 404-406. Necessary?
  + Why no trait analysis?
  + 409. Acknowledgements look strange
  + Figure 1 has Figure 2 caption and vice versa
  + 442. Are references complete?
  + Consider reference: DOI: 10.1111/j.1365-2486.2007.01375.x
  + Consider reference: DOI: 10.1007/s10750-012-1244-4
  + 47-49: detecting causal relationships with correlations is too ambitious
  + 314-317: correlation is not causality. No evidence for precipitation having direct relationships with conductivity and nutrients. Following sentence indicates 1 biased site
  + 324-327. Not convincing. Can similar compositional shifts occur in other environmental situations?
  + 258. Why are there the same numbers for different taxa at different sites in the appendix?
  + The paper would benefit from a model of cascading effects
  + Which community processes are addressed (dispersion? Reproduction?)
  + Main concern: few sites 10 cannot capture all the natural variability of aquatic biota even if the other factors are controlled
  + Authors should use corrected p-values to account for false discovery rate
  + Recommend multivariate regression with no more than 3 uncorrelated environmental drivers
  + Consider table of relationships between environmental variables to substantiate mechanistic explanations for changes in biological patterns
  + Why isn’t disturbance mentioned in the introduction
* R2 (Victor Saito):
  + The analyses cannot fully show what the authors claim during discussion.
  + The discussion itself is too focused on subjective links between species and habitat characteristics.
  + Recommend talking about communities in general terms and making inferences about future impacts of climate change
  + Recommend: intermittent stream literature: T. Datry, N.Bonada
  + Abstract:
    - 1. North-American? **Clarified**
    - 5. This may make sense for North Americans, but not everyone
    - 6. Replace measured with gathered?
    - 10. Low flow pulse percent is undefined
    - 11. It isn’t clear how bottom-up and top-down controls are at work here
    - 43. Replace ‘changes’ with ‘changes in’
    - 59. Define hierarchical?
    - 68-71. This last sentence is disjointed from the paragraph. You are talking about abiotic and biotic drivers and clse with spatial scales and biogeography
    - 80. Not only biogeographical studies. The whole metacomuunity and priority effect studies also consider these processes
    - 88-89. Nice
    - 94: When using ecotone, include phytophysiognomies. Recommend explaining the area in terms of geology, geomorphology, and general geographic terms.
    - 108. Please define USGS
    - 119: The last 2 paragraphs are mixed with methods. Recommend focusing on the idea and general hypothesis without focusing too much in the region. You have an outdoor natural experiment with a good range of precipitation with few confounding effects over a small spatial extent. Otherwise, I have the impression that you are only giving part of the information
    - 136-137. So, every stream were sampled according to the stream width, or do you consider the value of 4.1 x 25 for all streams?
    - 138. Explain low variation. Avoid subjective adjectives
    - 139. Improve clarity changing subjective adjective ‘high success’
    - 194-195. Linear regression is generally used among variables with causal links. Shouldn't you use a simple correlation matrix? Or a PCA?
    - 196-197. Several linear regressions or a multiple regression?
    - 196-197. Have you tested for correlations among the variables?
    - 201. Indicate the dissimilarity metric and if data were transformed
    - 204-206. Is clustering related to NMDS? Explain the aim of each analysis
    - 204-206 Indicate how you standardized data to make fair comparisons among variables
    - 207. Refer to the statistical analysis before followed by the R function that performed it.
    - Explain the decision for alpha = 0.10
    - 212: Why not using direct examination of the relationship among multiple variables and a multivariate response matircs, like RDA, and db-RDA?
    - 222: Define acronyms in each section
    - 230. This info is hard to follow and summarize. What is the point of the regressions? A PCA would potentially summarize it better
    - 232-238. Linearly and perfectly? You can show it in scatterplots
    - 232-238. Why some relationships are demonstrated with linear models, while others only the ranges are shown?
    - 239. This info is hard to follow. Perhaps a general rank-abundance using all data would be nice to see abundance pattern at the total spatial extent
    - 262-270. This is confusing. You are mixing general biotic results with regressions and then get back again to general biotic results. I would describe the general patterns of richenss, diversity, and taxonomic identity first. Then, I would describe correlations with environmental variables.
    - 271-272. A rank abundance plot would do the job. You can have several colors of bars for each taxonomic group. Also, you can have one rank-abundance for each of the three climate clusters. Similarly, an old but gold Simper analysis would be informative in terms of assemblage changes with climatic changes.
    - 302. Remove ‘extreme’?
    - 311-317. Nice
    - 327-328. Can you explain the mechanisms to which precipitation drives increased diversity? Does it increase habitat stability (perennial streams)? Or is it related to stream heterogeneity (mor allochthonous material and nutrients)?
    - 331-345. This paragraph is not well connected to the central topic of the study
    - 350. High-flow?
    - 354-355. A lot of discussion around taxonomic composition, but we cannot see these results in the NMDS. Perhaps a simpler Simper or IndVal would help substantiate this claim
    - 366-368. Perhaps too speculative
    - 373-375. I would fit this discussion considering that you found strong compositional changes, so you have losses and gains in invertebrates, but mainly losses in fishes. To properly tackle this point, I recommend you discriminate compositional changes in terms of turnover and nestedness components.
    - 377. Write our Relative Humidity to improve readability
    - 395-406: Too speculative with weak empirical evidence. I would not conduct the discussion in this direction. You could focus on the differences among biological groups. Also, I would like to see a caveat paragraph. You have an inverteresting natural experiment, but we would like to know what were the challenges when analyzing your data
    - 407. Missing conclusion to summarize results
    - 409. Include why we are thanking
    - Figure 1. Wrong caption
    - Figure 2. Include p values and R square within plots
    - Figure 2. Improve organization of rows and columns
    - Figure 3. Do you have R-square?
    - Figure 3. Are the taxa distributed randomly in the figure?
    - Figure 3. Can’t you correlate taxa, sites, and environmental variables using RDA?In this way you would see which sites (type of climate) were correlated to which environmental variables, and which species were associated to which env. variable
* R3:
  + Introduction lacks context
  + Improve hypothesis clarity
  + Problems with methods
  + Lack of references
  + Unsuitable analyses
  + Vague conclusions unconnected to results
    - Title. it is in stream? Lake? Ponds? Maybe add something about the climate (arid streams or semiarid streams).
    - 18. environmental conditions?
    - 25. no numbers in abstract (let it to the results section)
    - 36. maybe a more recent reference is necessary here.
    - 43-45. A reference is necessary.
    - 104 . there is no need to speak of the places’ name only as landscapes they identify. makes the text more scientific.
    - 112 a 119. authors who approach work done with fish and invertebrates in the region. they mention only here in the forecasts. to make the reader understand why these predictions, the authors need to deepen the introduction by providing more examples of how these communities reflect changes in precipitation.
    - 148. for how long the person who collected did this process?
    - Line. 153. why 300 individuals? based on any reference?
    - 191. Why Shannon? Simpson could be better
    - 186-188. in that part the letters are in uppercase and in this in lowercase. standardize.
    - 201. NMDS. Did the authors perform any randomization tests to verify whether the distribution is significant?
    - 209. Based on any reference?
    - 221. write out and in lowercase. Soil