

Interactive comment on “Characterising organic carbon sources in Anthropocene affected Arctic upland lake catchments, Disko Island, West Greenland” by Mark A. Stevenson et al.

Anonymous Referee #2

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This is a solid paleolimnological study. It combines several lines geochemical evidence to investigate changes in composition and concentration of organic matter. The MS is clearly written and it is scientifically sound. I have some comments that I hope authors find them positive and constructive.

Chronology. Have the chronology data been published elsewhere? Authors should show ^{210}Pb and ^{137}Cs activities, from which the chronological/sedimentation model was calculated and inferred. What is the correspondence between the ^{210}Pb and ^{137}Cs models?

Composition of organic matter, C and N isotopic data. Authors made an ex-

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cellent effort in measuring samples of different nature and origin. In addition to what is presented in Fig. 4, authors should perform analysis in SIAR (https://maths.ucd.ie/~parnell_a/media/SIAR_For_Ecologists.pdf). Why didn't you try this tool if you probably have nice endmember information? This will improve the results and discussion of the MS.

Tile. The way the title is presented, it focuses rather on a methodological aspect and geographical location of the study. It would be better if authors can think of a title describing the paleoenvironmental process involved (i.e., warming and eutrophication), to make more attractive to other scientists.

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