Biogeosciences

Discussions

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Interactive comment on "Reviews and syntheses: Insights into deep-sea food webs and global environmental gradients revealed by stable isotopes (δ^{15}N, δ^{13}C) and fatty acids trophic biomarkers" *by* Camilla Parzanini et al.

Anonymous Referee #1

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The manuscript "Insights into deep-sea food webs and global environmental gradients revealed by stable isotopes (δ15N, δ13C) and fatty acids trophic biomarkers" is the first attempt to summarize data on the use of stable isotopes and fatty acids as trophic markers for deep-sea ecosystems. The authors thoroughly analyze the practical aspects of application of these methods and suggest using the standardized methods in order to generate more reliable global predictions. Almost all currently available information was presented in this analysis. In general, the authors have shown convincingly the variations in fatty acid composition and isotope ratio of marine animals along the

latitudinal and bathymetric gradients. The main drawbacks of this study are not directly related to the authors' efforts and are associated with the scarcity of studies in the polar and, especially, tropical regions. Therefore, data on the tropical region can be considered as preliminary. I think that this manuscript is appropriate for publication by the "Biogeosciences" and should be of high interest to ecologists.

Interactive comment on Biogeosciences Discuss., https://doi.org/10.5194/bg-2019-80, 2019.