

Interactive comment on “Miniature radiocarbon measurements ($< 150 \mu\text{g C}$) from sediments of Lake Źabińskie, Poland: effect of precision and dating density on age-depth models” by Paul D. Zander et al.

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Received and published: 19 February 2020

This paper intends to show that a chronology of a sequence is all the better constrained the more dates it contains. It also aims at showing that even on the basis of a very small sample and therefore with lower precision, a new ^{14}C dating is always better than no ^{14}C dating. These conclusions are intuitive for all of us, but this paper has the merit of demonstrating it. That’s why I would recommend publication pending some improvements. Indeed, the paper fails to show that results are independent of the software (OxCal) used and of the way to consider the floating chronology. Clear

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description of differences between OxCal’s models (V-Sequence, T_Sequence ...) and the rationale behind the choice are also missing. This will be useful for all readers who are not familiar with OxCal. A test considering another chronological software (such as Bacon or BCal amongst others) should strengthen the demonstration. It is no clear to me why authors chose to work with constant uncertainties instead of real measurement uncertainties. These comments and others are gathered on the manuscript itself (provided as supplement thereafter).

Please also note the supplement to this comment:

<https://www.geochronology-discuss.net/gchron-2019-19/gchron-2019-19-EC1-supplement.pdf>

Interactive comment on Geochronology Discuss., <https://doi.org/10.5194/gchron-2019-19>, 2019.

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