

## ***Interactive comment on “A database of paleoceanographic sediment cores from the North Pacific, 1951–2016” by Marisa Borreggine et al.***

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Thank you very much for your constructive comments and suggestions. Below we comprehensively address each critique and request.

“The authors presented a database of paleoceanographic sediment cores from the North Pacific from 1951-2016. Generally, the database is very useful for the scientific researches in marine geology and paleoclimate, etc. I suggest a few minor revisions. Several comments or suggestions are as follows: 1. Page 2 line, the word “heavy metal” should be replaced as “major or trace element”, which is more common in paleoceanographic field.”

We have changed this phrase to major trace element in line 39.

C1

“2. Page 7, section 3.2. Sediment chronologies, many approaches are applied in sediment dating. I am wondering that if different age models are available in a same sediment core, which age model is more reliable. The paper needs discussion on the data quality comparison of different age models.”

We did not observe alternate age models for individual sediment cores. Rather, we document the iterative refinement of age model through time and through additive publications. We extensively describe the data contributing to the process of age model generation, such that future investigators will be able to refine searches for age models by different quality standard. We do assert though that the qualification of data quality of different age models is outside the prevue of this manuscript – because that are many situationally-specific caveats toward understanding and interpreting age models.

3. Page 7, section 3.3, It was also suggested that authors should try to provide a precision comparison discussion between different sea surface temperature reconstruction approaches, especially for a sediment core, where different sea surface temperature reconstruction data are available.”

We agree. This database will allow for extensive and precise comparisons of paleothermometry. However, these research avenues are currently outside of the prevue of this database, and will need to be perused in a subsequent investigation.

“4. The information on the sediment core length (e.g average length, minimum length and maximum length) should be provided in table 3.”

Thank you for this suggestion. We have added sediment core length into table 3.

“5. Is Alkenone UK37 in table 4 same as Uk37 in page 8, line 188 and page 19, line 392?”

Yes, these are the same methods. We have corrected all terminology to UK37.

Please also note the supplement to this comment:

C2

<https://www.earth-syst-sci-data-discuss.net/essd-2017-49/essd-2017-49-AC1-supplement.pdf>

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