

Lake Zabinskie Geochronology Supplemental File 4 – Comparison of Bacon and OxCal simulated age-depth models

To demonstrate that our results are not dependent on the use of OxCal, we created age-depth models using Bacon (Blaauw and Christen, 2018) for one iteration of the simulated radiocarbon dating scenarios. We set the $\text{acc.rate}=8$ (average accumulation time through the section) and thickness = 5 cm, all other parameters were the default setting. The results from the Bacon models are highly similar to the models produced using the same ages in OxCal. See Figures below.

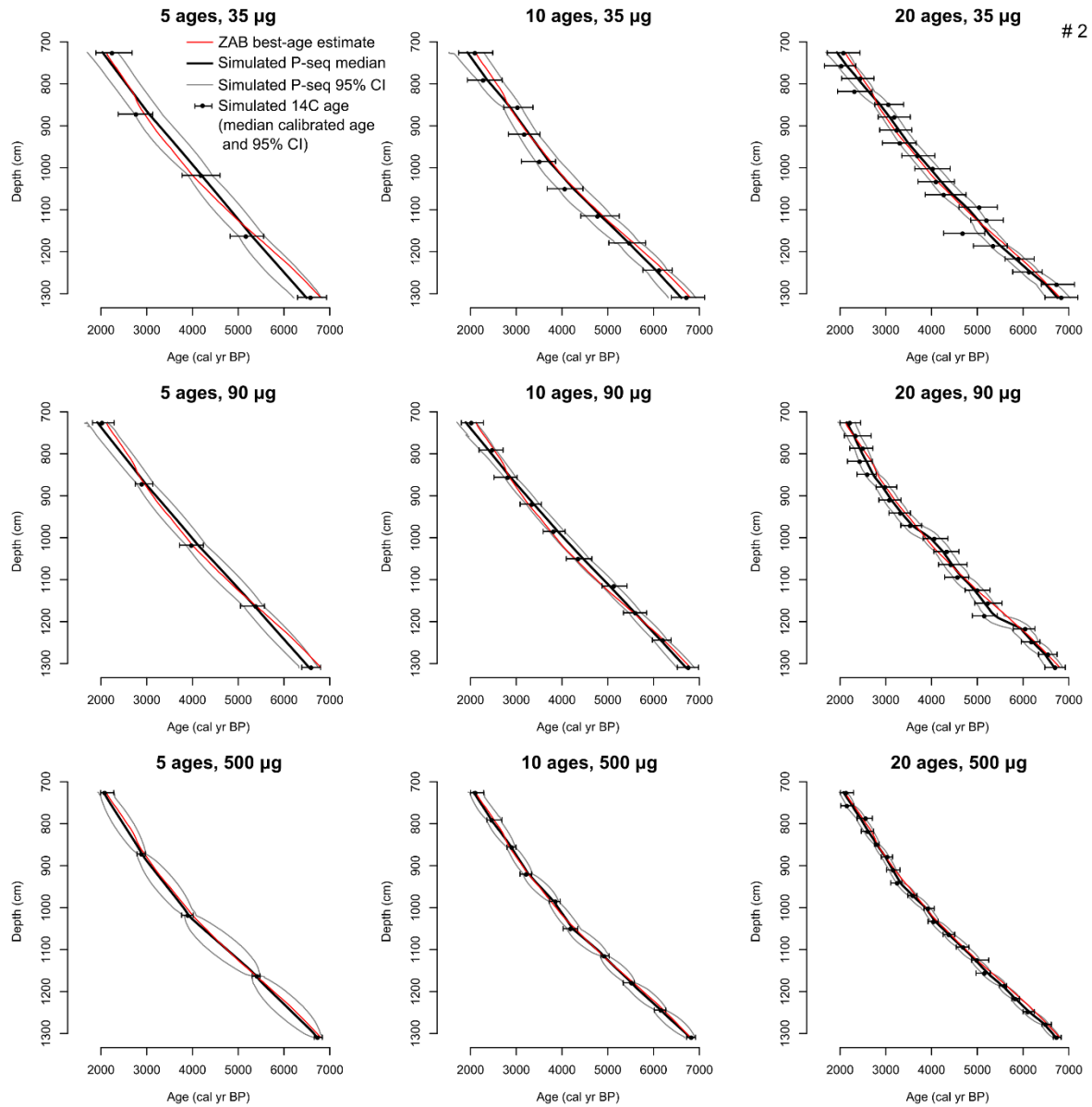


Figure S4.1: OxCal age-depth models of simulated ages (iteration 2).

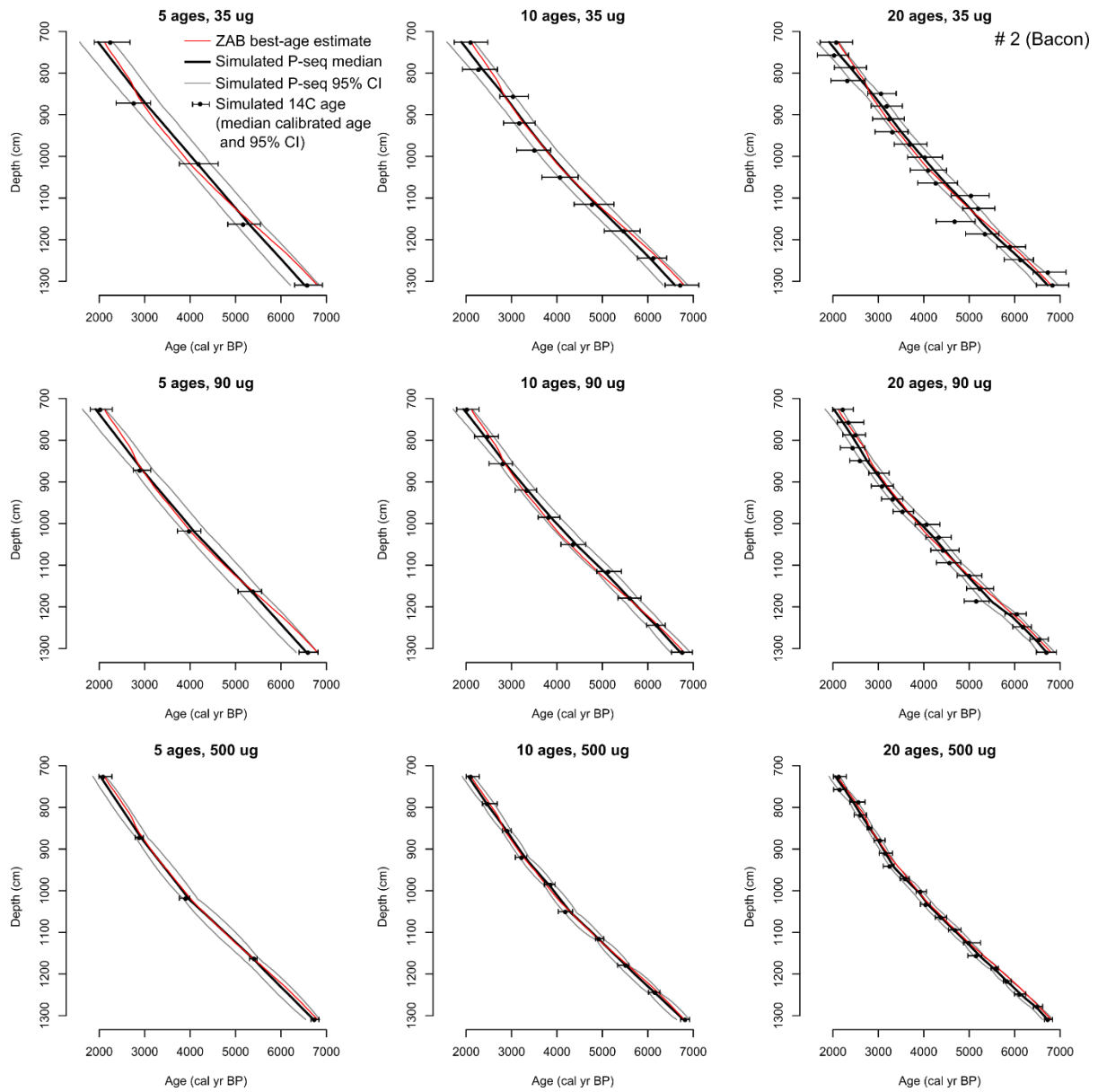


Figure S4.2: Bacon age-depth models of simulated ages (iteration 2).

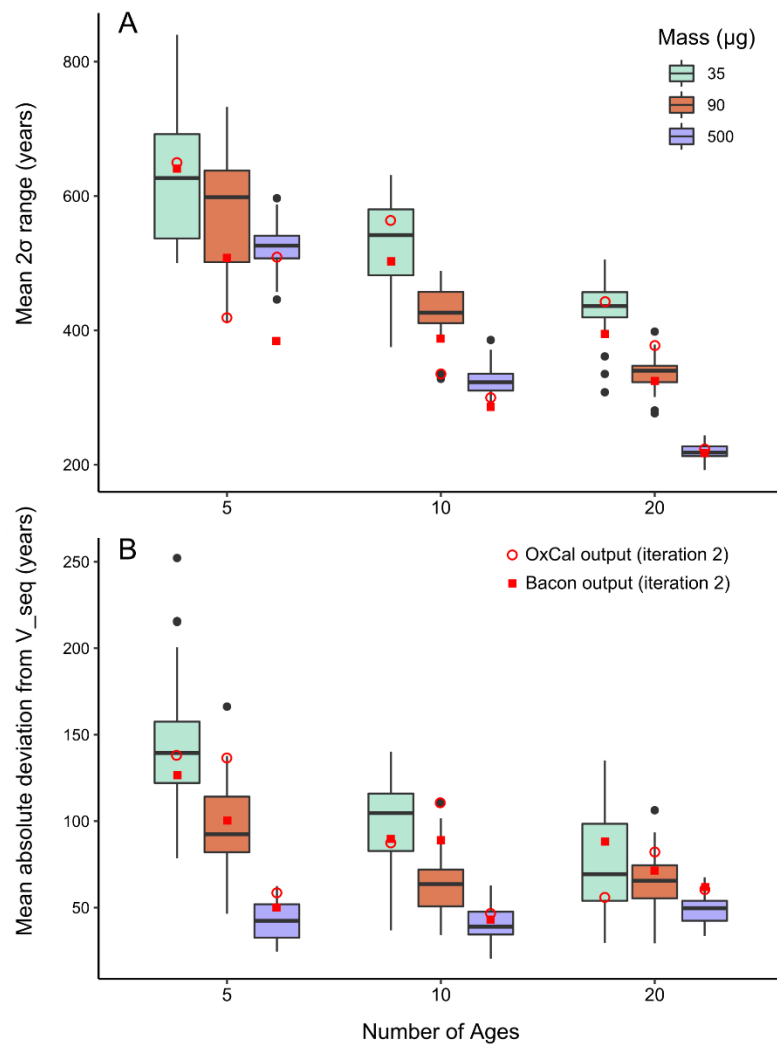


Figure S4.3: Same as Figure 6 in the main text, with the addition of results from Bacon models using the synthetic ages from one single iteration (plotted as red squares). The OxCal results from the same iteration of synthetic ages are plotted as red circles.

References:

Blaauw, M. and Christen, J. A.: rbacon: Age-Depth Modelling using Bayesian Statistics. R package version 2.3.4. <https://CRAN.R-project.org/package=rbacon>, 1–14, 2018.