Climate of the Past Discussions

Clim. Past Discuss., author comment AC3
https://doi.org/10.5194/cp-2021-133-AC3, 2022

Reply on RC2

Leeli Amon et al.

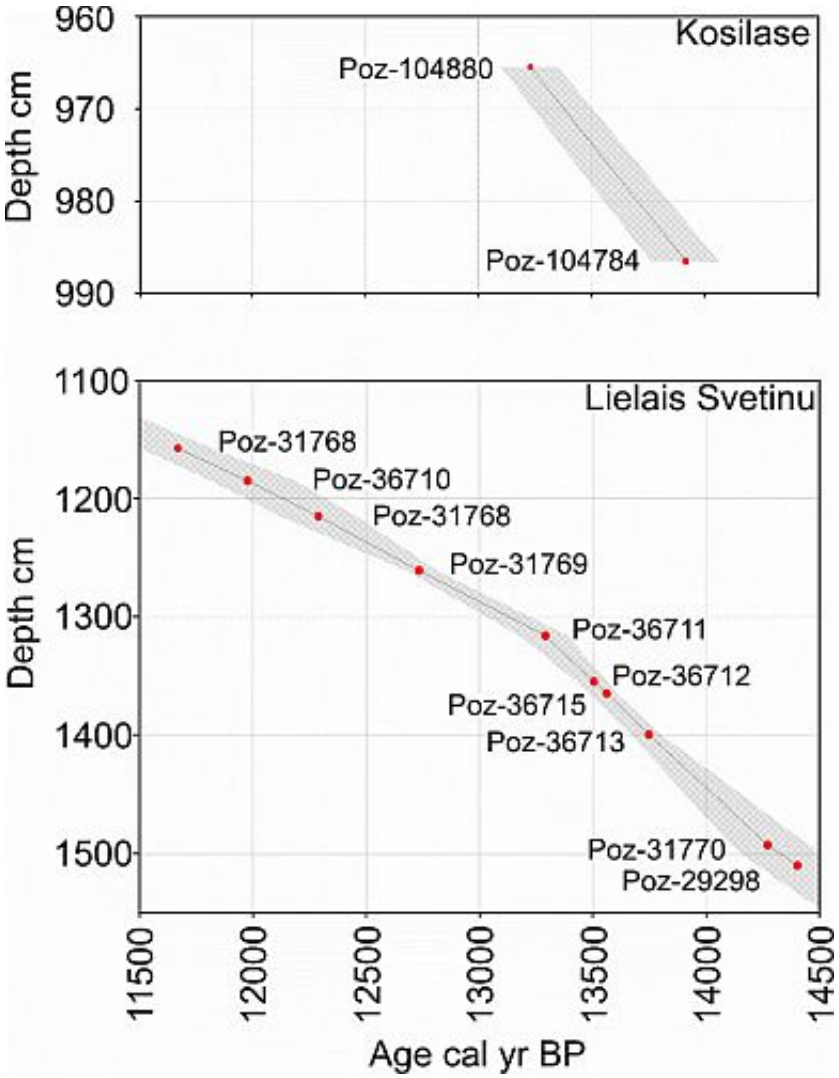
Author comment on "Spring onset and seasonality patterns during the Late Glacial period in the eastern Baltic region" by Leeli Amon et al., Clim. Past Discuss., https://doi.org/10.5194/cp-2021-133-AC3, 2022

We thank the reviewer for the comments.

Q: Firstly, although lake Svetinu is published it would be very useful to have a summary figure of the chronology of this record and the chronological resolution of the palaeoecological data from Svetinu. Secondly, and most importantly, lake Kosilase has a lateglacial chronology based on only two radiocarbon dates, one close to the start of the interstadial and one close to the end.

… I would really like to see the production of an age model for Kosilase, based on an IntCal20 calibration and a recalibraton of the age model for Svetinu using IntCal20.

A: The analysed part of Kosilase core is relatively short, only 20 cm but rich in subfossil leaves. We discussed and decided that according to our experience on the Baltic Late-glacial material two dates per 20 cm covering ca 700 years could give us a good estimation of chronology. Also, we do not compare the datasets closely, as we understand that the chronological resolution is different, but describing the trends. Initially we used IntCal13 for calibration because Lielais Svetinu agemodel was published with that. We now re-calibrated both datasets with IntCal20 (Figure below). For Kosilase median age values didn’t change, but age ranges at 95.4% probability changed slightly and we added new corrected dates to Table 1. Lake Lielais Svetinu recalibrated ages with IntCal20 differed from IntCal13 results 0- max. 50 years.



Q: The uncertainty on the calculaton of UI and inferred bud birst dates needs to be expressed in a table in the results.

A: The uncertainties are expressed as GDD5 model (r2=0.68, p = <0.001, RMSE = 62 GDD5), DOY model (r2 = 0.7, p = 0.002, RMSE – 3.8 days) and added in the text (lines 99-100).