

Clim. Past Discuss., referee comment RC2  
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## **Comment on cp-2021-133**

Anonymous Referee #2

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Referee 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.,  
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This is a really interesting paper that brings together a range of techniques to look at a very important question of seasonality in relation to climate forcing of vegetation and the seasonal patterns of climate change in a period of climatic instability. As such it is very much worthy of publication. The conclusions are at face value important and the proxy analyses is excellent. My issue with this paper, however, relates to the reporting and discussion around the chronology and the integration of the two sites. 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. It is very unclear how these relate to the proxy samples. There is no real explanation of the chronological uncertainty on any of the lateglacial proxy data from Kosilase, or the uncertainty of the comparison of the data across the two lakes.

I understand that it is difficult to obtain radiocarbon dates but given this paper compares two sites with a discussion of how they record the timing of changes the lack of detail on the two chronologies and the age model errors is a problem. I would really like to see the production of an age model for Kosilase, based on an IntCal20 calibration and a recalibration of the age model for Svetinu using IntCal20. Moreover, the uncertainty on the calculation of UI and inferred bud burst dates needs to be expressed in a table in the results.

Overall this is a rw