

Interactive comment on “Global analysis of seasonality in the shell flux of extant planktonic foraminifera” by L. Jonkers and M. Kučera

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I concur with the other commenters on the value of this very valuable contribution.

I think the implications of this study could be explored a bit further, perhaps in a future study.

1) For example species with strong peaks in seasonal production might have different patterns in the range of seasonality they reflect in their isotopic or trace-metal variability. This could be another interesting test. Mix (1987) explored this idea in concept, and others have tried to apply it, sometimes coming up with surprising interspecific offsets in isotopic composition due to differences in seasonal production (e.g. King and Howard, 2005)

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2) It would be interesting to see if, in aggregate, the offsets of individual taxa's peaks from mean temperatures drive biases in multivariate paleotemperature estimates. In principle multivariate biotic approaches can only work well if the taxa have distinct and only partially-overlapping environmental optima (expressed through seasonality or abundance variation against other environmental variable).

3) The authors could stand to add references to (or better yet, in further development, data from) some studies that reinforce their point about strong seasonality.

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