

ANN HOLBOURN - QUESTIONS FROM THE Q&A WHICH COULD NOT BE ANSWERED IMMEDIATELY AFTER HER TALK

Rocco Gennari 02:26 PM

do you ever think about the implication of the peculiar Late Miocene climatic pattern and the Messinian salinity crisis in the Mediterranean?

Hi Rocco,

Yes we do, this is actually very exciting because the timing of events in the Mediterranean coincides with major changes in monsoon regime in the Indo Pacific region. I did not have enough time to talk about this today but the recent paper by our student Janika Jöhnck in Paleooceanography (<https://doi.org/10.1029/2020PA003923>) briefly addresses this topic. We very much want to look into this further in the hope to better understand how the Messinian Crisis relates to global climate events. Thank you for your question!

Arindam Chakraborty (BSIP, India) 02:29 PM

I need to know that during MCO event is there any size variations in the forams as In Andaman Island outcrop we can see very small sized forams during MCO

Hi Arindam,

Thank you for your question. We are not aware of size variations during the MCO in our deep sea records. Do you think that in the Andaman Island outcrops this might be due to size sorting during sedimentation? There are many turbiditic deposits linked to tectonic activity in this area.

Anonymous Attendee 02:29 PM

how do records from other species compare?

Uvigerina $\delta^{18}\text{O}$ is enriched in relation to *C. wuellerstorfi* and *C. mundulus*. For deep time records, the usual correction of 0.64 per mil appears to vary depending on regional oceanography. *Hoeglundina elegans* $\delta^{18}\text{O}$ is even more enriched in relation to *C. wuellerstorfi* and is about 0.64 per mil heavier than *Uvigerina*. In our deep sea records, we always try to use *C. wuellerstorfi* and *C. mundulus*, as they are in equilibrium with ambient $\delta^{18}\text{O}$ and $\delta^{13}\text{C}$ in contrast to other taxa.

Anonymous Attendee 02:30 PM

have you generated Mg/Ca records as well as isotopes? how do they compare?