We thank Dr. Ellen Thomas for her comments on our manuscript. Below, we will address all her comments and suggestions (in bold) one-by-one:

Various authors have included Nodasariata in their stable oxygen and carbon isotope analysis, though usually not defined at the species level. Such data commonly showed large errors, and/or did not correlate well with analysis of Rotaliida in the same samples. Could the authors say something about stable isotope data available for Nodosariata?

We didn't analyze carbon and oxygen isotopes but differences in shell chemistry between Rotaliida and Nodosariata can be explained by the differences in their biomineralization mechanisms. In a recent paper, Dubicka et al. (2021) show that the oxygen isotopic difference between the two groups are relatively small, despite the marked differences in El/Ca between the groups.

The small carbon isotope difference between the two types of foraminifera (Dubicka et al., 2021) could result from their carbon-uptake mechanism, but may also be caused by their ecology: when in-sediment depth habitats differ between species (i.e. epi- versus infauna), offsets in the isotopic composition can occur. For instance, a less negative $\delta^{13}C$ value may be observed in species calcifying closer to the sediment-water interface because less metabolic DIC is present there. Here we did not include the stable oxygen and carbon isotopes in our analytical protocol as we needed -after the laser ablation analyses reported here- to dissolve the shells for another (ongoing) study. We have added this reference and a short description of the known similarity in $\delta^{18}O$ and small difference in $\delta^{13}C$ to the Introduction (lines 73-74).

In view of the fact that such analyses usually combined different morphospecies of e.g. *Lenticulina*, could the authors specifically comment on differences in El/Ca by species within the same genus?

For the two species within the genus of *Lenticulina* the data show a significant difference in Mg/Ca at 100 m between *L. calcar* and *L. denticulifera* using a t-test assuming different variances. At a depth of 300m there were no significant differences between these two species in either Mg/Ca or Na/Ca. We now added the results of the statistical analysis to the supplementary material, showing that in our samples the El/Ca between species of *Lenticulina* at the highest bottom-water temperature was significantly different, while at the deeper station, Mg/Ca did not vary significantly between species. Overall, differences in Mg/Ca between species, or variability in the total Nodosariid population, is relatively small (3 – 30 mmol/mol).

Depth (m)	***L. calcar* vs *L. denticulifera* (t-test 2 tailed) Mg/Ca (mmol/mol)**	***L. calcar* vs *L. denticulifera* (t-test 2 tailed) Na/Ca (mmol/mol)**
104.7	p-value < 0.05	p-value > 0.05
271.6	p-value > 0.05	p-value < 0.05

We also added a table showing the differences within species at the places where we found sufficient rB-stained samples. A t-test showed that the variability in *Dentalina* spp. is significant only at 271 m, for the other 2 depths, the differences in Mg/Ca are not significant.

Depth (m) Mg/Ca	***Dentalina* spp. t-test**	***Lenticulina calcar* t-test**	***Nodosaria flintii* t-test**
104.7	p-value > 0.05	All living	p-value > 0.05
271.64	p-value < 0.05	All living	Non living
618.8	p-value > 0.05	Non living	Non living

Depth (m) Na/Ca	*Dentalina* spp. t-test	*Lenticulina calcar* t-test	*Nodosaria flintii* t-test
104.7	p-value > 0.05	All living	p-value > 0.05
271.64	p-value < 0.05	All living	Non living
618.8	p-value < 0.05	Non living	Non living

Methods:
Others might prefer somewhat different methodology (e.g., rose bengal staining, absence of reductive cleaning, check for clay contamination), but in my opinion the methodology is acceptable since clearly described, so readers can take into account how measurements were made. Statistical data analsyis is also well described and looks good.

We did use rose Bengal staining, but that did not yield sufficient stained specimens for our purposes. We compared the stained to the unstained specimens, which showed that there is no systematic offset in elemental composition between the two groups (see table above). We checked the possible necessity of a reductive cleaning by analysis of individual laser ablation profiles, but did not find evidence for higher (trace) element concentrations at the outside surface of the shell. Subsequently, for the data processing, a general quality check of the data was performed by correlating Mg/Al and Mg/Mn, not only in the whole data but between groups and species, showing that the Mg/Ca data was not impacted by Mn-oxides. This information is added to the data that that will be made available (also following the last comment in this review).

Taxonomy:
Nodosariata taxonomy is complex, and definitely not full examined; in general, the names cited with images in fig. 2 seem OK, except for 2d: *Lenticulina papillosa*, which species is a densely coiled spiral, not unrolling. A species with a uniserial part is *Vaginulinopsis baggi* McLean 1955. (hZps://www.marinespecies.org/aphia.php?p=taxdetails&id=896255).

We thank the reviewer for this suggestion and have changed this throughout the manuscript.

In 'fundamentally distinct morphology' (line 197), I would like to see the very typical apertural morphology mentioned in addition to the chamber arrangement, because the aperture is easily recognizable for non-foram specialists.

We tried to orientate the shells as to optimize the view for both chamber arrangement and showing the aperture. A more detailed picture of the aperture for most species is included in the new revised manuscript. (Added blow up of the aperture in the supplementary material).

line 203: 'large difference *in time* of first fossil occurrence' - please add 'in time'
This has been added (now line 216).

line 206:' *'El/Ca* variability ...is remarkably small'; please add 'El/Ca' or 'chemistry of shell carbonate', to make this clear (in fact, morphological variability is rather large)
We agree and have added this to the text (now line 220)

line 215: very good to see that added.

lines 238-240: the studied station are all relatively shallow, so I would not expect significant undersaturation - please provide values of carbonate saturation so the reader can see what these values are.

The omega values (i.e. degree of super-saturation) were already in the original manuscript (Table 1). Even at the deepest station, bottom waters were supersaturated with respect to calcite (1.75).

lines 270-275: somewhat speculative, but I like this hypothesis of dual components.

Figure 5: please use different signature for inorganically precipitated calcite, to make that stand out.
We now used a diamond for the inorganically calibrated Mg/Ca-temperature relationship.