

Interactive comment on “Calibration of Mg / Ca and Sr / Ca in coastal marine ostracods as proxy of temperature” by Maximiliano Rodríguez and Christelle Not

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Received and published: 30 December 2020

Review Biogeosciences: Calibration of Mg/Ca and Sr/Ca in coastal marine ostracods as proxy of temperature Maximiliano Rodríguez, Christelle Not

General

This is an excellent paper extending the Mg/Ca paleothermometry method to two shallow water genera common along coasts of SE Asia. One genus lives in hypoxic low salinity waters. I also like the link to internal modes of climate variability, such as ENSO. The paper carefully evaluates the importance of using many, adult specimens

C1

for the best results, a result some other recent papers simply because they do not use enough carefully selected specimens, well preserved adults. The statistics on the Mg/Ca to temp. correlation are impressive when 7 or more specimens are used. Another positive aspect of Rodriguez and Not is the careful selection of hydrological data including excellent water temperature datasets. The figures and maps are excellent and captions are very complete. The geochemical analytical methods are also very impressive. With a few published exceptions for Loxoconcha, the seasonal data in Figure 3 is an important part of understanding time of adult shell secretion. The paper is well referenced. I would suggest Farmer 2011 and 2012 on Arctic Krithe should be mentioned in the discussion for a more complete assessment of inter-generic Mg-temp relationships.

Although the paper as a source of new data is fine as it is written, the section 4.4 provides an invaluable review of other genera and demonstrates similar Mg/Ca-temp relationships and I wonder for completeness, they could add to figure 6 and the discussion other genera from other superfamilies [Krithe....]. I look forward to seeing these calibrations applied to Holocene sediment records of climate variability.

Minor Points

Line 145 correct: ostracod ratios [not ostracods] Line 253 & 270. Cyprideis torosa [not Torosa]

Interactive comment on Biogeosciences Discuss., <https://doi.org/10.5194/bg-2020-343, 2020>.

C2