

Interactive comment on “Baseline for ostracod-based northwestern Pacific and Indo-Pacific shallow-marine paleoenvironmental reconstructions: ecological modeling of species distributions” by Yuanyuan Hong et al.

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General comments

This is a very interesting manuscript on ecologic modelling of ostracods in marginal marine and anthropogenic modern ecosystems as comparative model to palaeoecologic reconstructions. The authors use a very complete ecologic database from a representative polluted region, and apply very convincingly the statistical methodology to find species/environmental parameters correlations.

C1

In order to avoid the iterative descriptions of results for all species it could be useful to underline the stronger correlations of species with environmental parameters (as positive correlations) and on the other hand, the stronger un-correlations of species/parameters (as negative correlations) to evidence the most sensitive species to environmental alterations (anthropogenic, in particular).

The text is well written, with no main problems and with the minor revision in comments below, it can be accepted.

Specific comments

Taphonomic status of individuals must be clearly noted, since only autochthonous specimens are valid to ecological modelling. In particular apply this with estuarine species that can be found in deeper waters.

212 was strongly correlated with salinity (negative) better: strongly uncorrelated

Text might be somehow simplified by using: correlated (positive) as correlated, and correlated (negative) as uncorrelated.

233 Relative abundance of *B. bisanensis*. . . better using the complete name of species (*Bicornucythere bisanensis*) at first mention, and then writing the contracted name (*B. bisanensis*) in other mentions of this species. This can apply for all species.

240 (*Bicornucythere bisanensis*) we did not see a significant relation between relative abundance and metal concentration, productivity . . . but in Table 2 it is uncorrelated with MD (-0.23; -0.29) and correlated with Pb (+0.18)

419 to 426 Why all these references there?

Fig. 7 *Bicornucythere bisanensis* s.l. (dot in “l”)

Table 2. R is variable Region. How is it measured the correlation/uncorrelation of different species with this variable?

C2

Copper (Cu) is included in the performed environmental analyses (Fig. 3; Table 1), but after this it do not appear in any of the results and discussions. I wonder if there is not one correlation with the studied species; if so, please indicate.

Please also note the supplement to this comment:

<https://www.biogeosciences-discuss.net/bg-2018-405/bg-2018-405-RC3-supplement.pdf>

Interactive comment on Biogeosciences Discuss., <https://doi.org/10.5194/bg-2018-405>, 2018.