

### **Anonymous referee #3: minor revision**

After major revision, this is the new version of the manuscript by François et al. 2022. I have noted the effort made by the authors to improve the quality of the responses to the reviews, as well as the restructuring and clarification of the new manuscript. I have listed below short questions/corrections to further improve the manuscript before publication.

**Reply:** We thank the referee #3 for reviewing the document and recognizing the improvements made. Below, you will find the answers to the helpful comments and suggestions.

#### **Short questions:**

**Comment** - L 166: how did you define the surface area with a surface formula closest to the shape of the shell? perhaps add a further indication in the manuscript.

**Reply:** Foraminiferal the test area was defined following the differences in gray scales between the surface of the test (white) and background (black) in ImageJ. This information was included in l170.

**Comment** - Paragraph 3.3: it would be more logical to start the description of figure 2 with paragraph L 246-258 dealing with Fig 2a and then with paragraph L 234-245 fig 2b and c?

**Reply:** The paragraphs were reorganized accordingly.

**Comment** - Paragraph 3.4: why the shell thickness is in mm<sup>3</sup>?

**Reply:** We thank the referee for noting this mistake, we changed it to mm.

**Comment** - L 161: "Discoloration patterns were analysed to investigate the vertical mixing and exposure of relict tests" do you have a data table with these observations? may be interesting to put this in SI.

**Reply:** The discoloration counts were included in table S2.

#### **Layout, spelling mistakes:**

##### **Comments –**

author affiliation, add a dot at the end

L 110: forams sampled weight, washed and dried → stained, weight, washed and dried?

L 190: was used → were used

L 218: problem of repetition in the text  $p=0.038$

L 223:  $AIC=401.79$  →  $AIC = 401.79$

L 246 and others:  $p\text{-value} = < 0.05$  →  $p\text{-value} \leq 0.05$

Fig. 2: some legends are shifted in the figure

L 307: \. → to remove

Fig. 4a:  $R^2 = 0.54$  (text) and  $R^2 = 0.59$  (figure) → to be homogenised

Fig 4: some legends are shifted in the figure and in the caption simbiot → symbiont

L 445: wight → weight

L 476: post mortem → italic

L 551: this species represent → represents

**Reply:** We thank the referee for noting these mistakes. We changed them accordingly.

**Comment** - L 216-218: ( $\rho = 0.55$ ) → why the  $\rho$  is written differently?

**Reply:** Because  $\rho$  refers to the correlation coefficient and not significance.

**Comment** - L465-469: no need to repeat all  $\mu$ CT results make it shorter.

**Reply:** This paragraph was shortened by removing the exact values and citing fig. 6 to illustrate the differences in the  $\mu$ CT results.