

Dear dr. Hortal,

Dear Joaquín

Thank you for handling our manuscript submitted for a PCI recommendation, and follow-up publication. The reviewers and you pointed at some minor issues to be changed. We followed them all, except one on the explanation of specific snail-plant association. You can find the changed wording **highlighted** in the manuscript.

Below, we give some short feedback on any of the raised comments:

Both reviewers and myself have revised this new version of your manuscript, and we all agree in that it only requires minor revisions before being ready to be recommended.

Besides the comments made by the reviewers, I have some recommendations. Perhaps the most important one is about using the term "biogeographical area", which is commonly used in historical biogeography (aka cladistic biogeography) to refer to (relatively large) areas inhabited by two or more endemic taxa (which, arguably, implies that a number of species/clades in the area share a common evolutionary history). This term is not used in ecology, nor it is used by non-cladist biogeographers such as myself, but it can indeed create some confusion. I'm sorry not to have noticed this before in the first revision, but I would advise to change it for another term that is not equivocal, such as "biogeographic sector" or just "region". "Biogeographic region" is often attributed to larger areas that have distinct species pools, but it could be adequate to use it here, if you justify it in the first paragraph of the methods by changing the sentence "The study area can be divided into six distinct biogeographical areas, which differ in soil characteristics because of their geological history and climate (Bonte et al. 2003a)." as follows:

"The studied dune systems can be divided into six distinct biogeographical [regions/sectors], which differ in soil characteristics because of their geological history and climate (Bonte et al. 2003a), and may host different species pools." This, or any paraphrase you may see fit, would be enough to use biogeographical region or sector, or just "areas". Whatever term you choose, please make sure that it is consistently used throughout the text and in the figure captions, as mentioned by one of the reviewers.

Our answer: thank you. This is indeed a good point. Readers might be surprised on our biogeographical definition and expecting research at much larger spatial scales. We changed all text and figures to biogeographic sectors.

about minor issues:

page 3, 2nd paragraph, biogeographical clustering can be also expected due to the relative isolation/limited connectivity between the different dune systems, as you correctly say below; mention it also in this sentence

page 6, last paragraph, "take fully advantage" should be "take full advantage"

pag7, 3rd para, note that "biogeographical areas" may also host different species pools (coming from the limited connectivity between the different metacommunities), as commented above, so some differences between them may not be due to environmental differences... I would indicate this here, saying something like "Although some differences may be due to the different species composition of the metacommunities from each region, this factor would account for large-scale differences in climate and soil characteristics."

pag7, last para, it is odd to say "explained spatially", in particular because space is not explanatory in this context; rather, say "spatially structured"

pag 9, 1st para, "within the latter regions" seems to refer to the last regions of a list that is not in the text here, indicate which regions

pag 16, 1st para, substitute "transect, rather than individual tussock scale are in play" for "transect, rather than at individual tussock, scale are in play"; this would clarify the alternative between transect and tussock scales

pag 16, last para (and 1st of pag 17), a minor remark here; are land use/management histories similar in all these dune systems?

Our answer: thank you. All were solved and an additional clarification on land-use was made

The revised version of the manuscript entitled “Drivers of Plant-Associated Invertebrate Community Structure in West-European Coastal Dunes” demonstrates a commendable effort by the authors to address the reviewers' suggestions. Most recommendations have been incorporated, and where they were not, the authors provided valid reasoning for their decisions. Consequently, the manuscript has been elevated to an even higher standard, already being a compelling and well-written piece. In my opinion, no further substantial improvements are necessary for publication, aside from the minor corrections noted below.

I suggest the following small amendments:

Line 314: Remove the extra space after "variation."

Line 447: Eliminate the double space before "While."

Line 509: Remove the duplicated word "preferentially."

Our answer: Thanks. All solved accordingly

“Drivers of plant-associated invertebrate community structure in West-European coastal dunes”.

For me, the manuscript is almost ready for publication. The authors have responded to my questions and accepted my suggestions. Just a few minor comments to address before publication.

Minor comments:

Figure 3. Use the same term throughout the text, call it “(biogeographical) area” not “district”
Also, make the caption clearer by adding more details about the analysis. For example: 'Biplot of redundancy analysis (RDA) showing the environmental variables that influence community composition...'

Our answer: thank you. This is edited.

Lines 373-375: I have noticed this phenomenon before in coastal dunes of Southern Europe, where a high number of snails (*Theba pisana*) cover a single plant, eventually causing its death. It's unclear whether the snails target plants with low vitality or if their attack reduces the plant's vitality. I think this result is worth addressing in the discussion.

Our answer: thank you. We see the point, but isn't it difficult to make inference on plant-herbivore interactions based on the association between plant (dead) biomass and herbivore presence? If the low vitality would be an outcome of the herbivore preference for vital plants, then we would also expect to see herbivores on the latter, and hence the correlation should break down. We therefore respectfully did not add this point to the discussion and retained the shelter/microclimate hypothesis only.

Lines 490: "The distribution of 90% of the species could be explained..." Do you mean “partially explained”? Are you saying that, in addition to geographical area, local environmental variables also play a role in influencing the distribution of 90% of the species? This sentence isn't entirely clear to me."

Our answer: thank you. Yes indeed – 90% of the species showed an association with any of the measured environmental variables. This is changed accordingly: '90 % of the species showed associations with spatial configuration of the marram vegetation as measured by its cover (P%), spatial clustering (Moran's I) ...'

Figure S1-1: Remove comment.

Finally, check through the text, including the appendices, some double spaces and spaces at the beginning of the heading (“ Hemiptera:”).

Our answer: Thanks. All solved accordingly