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

This work studies the factors that influence the community structure of invertebrates growing on marram grass. They performed a stratified sampling design into six biogeographic areas across the North Sea. They evaluated the degree to which plant spatial organisation affects local species composition by sampling marram grass tussocks that are spatially arranged differently. To understand how species traits and their phylogeny influence the makeup of species communities, they used a quite novel approach, the joint species distribution models. The most significant factor they found affecting invertebrate community structure was biogeography, followed by species-specific responses to the cover and vitality of marram grass. They also found that functional traits and phylogeny had a minor impact on the species distribution patterns while the residual species covariation suggested negative interactions between groups of specialist and generalist species.

Overall, the manuscript is well-written and easy to follow. The objectives are certainly interesting, and the results and discussion are clear. The use of JSDM is particularly noteworthy, as this relatively new approach enables a deeper study of community structures by analysing community-level responses to different drivers, capturing biotic interactions, and assessing the influence of missing covariates on residual species associations.

The title clearly represents the contents of the article, and the abstract is concise and addresses the study's main results. The objectives of the study are explained in detail in the introduction, which also presents the hypotheses or the study and relies on relevant, previous and current, research in the subject.

Enough information is given about the methods and analysis that allows other researchers to replicate the research. The author should, however, provide a more thorough explanation of the rationale behind the selection of the sampled locations, particularly the reason why there are only two widely separated sites in the UK and four regularly distributed sites within the European coast. The topic is especially important since biogeographic areas are the main structuring factor determining the invertebrate community structure of the marram dunes.

The statistical analyses seem feasible and suitable for the research's goals, but since I'm not a specialist on JSDM, I'll leave this part of the review for reviewers who are. I also would like to stress that the authors were honest and accurately detailed the limitations and challenges they faced while analysing the data, particularly the need to limit their analysis to species that were sufficiently represented across the sampling.

Regarding the results, again, and after reading several works on JSDMs, statistical analysis results seem sound and make sense to me, also from an ecological point of view; however, since this isn't really my area of expertise, I'll leave this part of the review to others who know more about it.

Additionally, the research from the field, current as well as past, is included in the discussion. The findings support the conclusions and prove that the analysis's interpretation is reasonable rather than overstated. However, as already stated, more thorough explanation of the sampling site characteristics should be provided, as biogeographic areas are the main structuring factor determining the invertebrate community structure.

I probably would not stress so much that traditional multivariate analyses can lead to oversimplified results, but that with this approach is possible to address different questions and, specially, to deepen into singular species responses and community's inter-species relationships. I would also discuss the complementarity of both approaches. Indeed, I am quite sure that multivariate studies will also be able to identify major biogeographic areas as the most important structuring component of marram dune invertebrate community structure. In fact, it would be wonderful to test that (just a suggestion/challenge).

Minor comments:

Line 22: remove space before the comma. Additionally, plant common names should be written in lower case (marram), as you have done throughout the rest of the manuscript.

If the colours used in Figure 2 (or small icons) were used on every figure for all the categories (orders and classes), the figures would all become easier to interpretate.

Figure 6 requires an explanation of the abbreviations.