Comments to the article: Manuscript AVS-VEG-03483 **Classification and characterization of anthropogenic plant communities at the ecoregion level**

In general, the survey is interesting and has been conducted correctly in the analysis procedure and the results yielded are consistent and respond to the initial questions. For that reason I consider it can be published in AVS. However, in the comments below are suggested some changes, mostly in the introduction, and other changes are highlighted in the notes over the manuscript. I recommend to accept the paper with major changes.

The title does not have any indication of the geographical frame of the survey and it is relevant to indicate it to potential readers. It is in the keywords but it should be in the title.

The entire article is built up using the frame of the concept of ecoregion (Bailey 2004, 1989; Olson et al. 2001). About this there are two related questions:

1 What is the benefit of using such biogeographic frame in terms of how the results or the interpretations could be altered or deteriorated if not used? Is it a merely geographical description of the study area? If so, then,

2 What is the difference of considering the ecoregions instead the classical biogeographic units such as regions, in the sense of Good or Takhtatajan? It is important to quote that biogeographic regions also include vegetation units living within them as was established early in the 20th century by Flauhaut and Braun-Blanquet (Loidi 2021)

It seems that the plots used are original of NW Iberia, as shown in Figure 1. The boundaries of the grey area, supposedly taken from the map of Olson et al. 2001, are quite coincident with what has been profusely named as Cantabro-Atlantic subprovince by Rivas-Martínez (Rivas-Martínez et al. 2017) and related authors such as Fernández Prieto et al. 2020, 2023. I would suggest to use these units and names to prevent from nomenclatural inflation and cite the corresponding papers (see below).

If we comment the names, the name “Iberian Atlantic” is not so precise as “Cantabro-Atlantic”. The former could include southern Portugal (Algarve or Vicentine Coast), which is not at all the case. To use the term Cantabrian or Cantabrico is particularly precise to indicate the geographic position of this territory.

Additionally, it would be necessary to make a more formal description of the “Iberian Atlantic ecoregion” and discuss the differences from this ecoregion with the “Cantabro-Atlantic subprovince”.

One of the main results of this survey is the selection of 28 alliances (appendix S4) from an initial set of 38 that could be present in the Iberian Atlantic ecoregion. So, I understand that there are 10 alliances have not been detected. It would be interesting to list them somewhere (in appendix S2, for instance) and make clear that no data from them have been found in the datasets.

Concerning the weakly represented alliances. This is inevitable if we start with a definition of the study area prior to surveying its plant communities. There will be always some types which are found in the extreme or border of its geographical area or ecological amplitude and are, thus, weakly represented. It is an inherent problem of such a territorial planning and has to be conveniently considered. Other possibility is to choose the vegetation alliances and study them

in all their geographic amplitude. This would entail that their geographical territory would be diverse but the survey would bring more accurate results about their character and differences.

In S2 author's names should be corrected and homogenized e.g. Lence Paz is C. or Carmen, all the patronimic names such as Pérez, Fernández, etc,, have an accent but have instead a strange signal in the involved letter. It is Rivas-Martínez, not Rivas Martínez; Is it Romero or Romero Buján?, etc.

References

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