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# ABSTRACT BOOK

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## PS10.4 - CAN WE USE NICHE MODELS OF INDICATOR SPECIES TO PREDICT THE DISTRIBUTION OF ENDANGERED COMMUNITIES?

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European-wide conservation policies are based on the identification of priority habitats. However, research on conservation biogeography often relies on the results and projections of species distribution models to assess species' vulnerability to global change. We assess whether the distribution and structure of threatened communities can be predicted by the suitability of the environmental conditions for their indicator species. We present some preliminary results elucidating if using species distribution models of indicator species at a regional scale is a valid approach to predict these endangered communities. Dune plant assemblages, affected by severe conditions, are excellent models for studying possible interactions among their integrating species and the environment. We use data from an extensive survey of xerophytic inland sand dune scrub communities from Portugal, one of the most threatened habitat types of Europe. We identify indicator shrub species of different types of communities, model their geographical response to the environment, and evaluate whether the output of these niche models are able to predict the distribution of each type of community in a different region.