

Reconstructing Plant Functional Types in the Levant

OBROCHTA, Stephen^{1*}, Yusuke Yokoyama¹, Hodaka kawahata¹

¹Tokyo University Atmosphere and Ocean Research Institute

Compared to the Western Mediterranean region, there are relatively few paleoclimatic reconstructions from the Levant region during the early last glacial period. In addition, the proxy data available are often influenced by more than one parameter, which is problematic when separate reconstructions for temperature and precipitation are desired. Given these limitations, palynological data is most likely to provide the best information regarding habitat changes in the Levant region. To overcome the sparsity of observational proxy data, the MIROC atmosphere-ocean-land general circulation model will be used to produce climate simulations. The results are then converted to plant functional types (PFT) using the BIOME3 algorithms. This approach can calculate a total of 18 PFTs, which is sufficient to describe vegetation changes in the regions of interest. Simulations will be validated by comparing with available proxy data from Both the Levant and greater Europe. This will allow calculation of habitat changes based on model results at spatial and temporal scales higher than the available proxy data.

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