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Examining the implications of land use/cover change for future wildfire regimes in central Spain using a dynamic simulation model

J.D.A. Millington (1), G.L.W. Perry (2), R. Romero-Calcerrada (3), J. Wainwright (4) (1) Environmental Monitoring & Modelling Research Group, Department of Geography, King's College London, U.K. (james.millington@kcl.ac.uk), (2) School of Geography and Environmental Science, University of Auckland, Auckland, New Zealand, (3) School of Engineering Science and Technology. Rey Juan Carlos University, Madrid, Spain, (4) Department of Geography, The University of Sheffield, Winter Street, Sheffield, U.K.

Socioeconomic and political trends are driving agricultural and other land use/cover (LUCC) change throughout the Mediterranean Basin. Such change is modifying the ecological structure and dynamics of many of the landscapes in this region. For example, the abundance of forest and scrubland is increasing in the Mediterranean, resulting in increased vegetation biomass and spatial homogenisation at the landscape scale. In Special Protection Area number 56 (SPA 56) 'Encinares del río Alberche y Cofio', central Spain, such changes have been found to increase wildfire risk. However, the dynamic structure and composition of this landscape and the importance of feedbacks between landscape pattern and process inherent in the occurrence of wildfires, means that the implications of the LUCC occurring in SPA 56 for future wildfire regimes remain unclear. Here, the structure and initial results from a dynamic simulation model developed to address these problems are presented.