EFFECTS OF THE SIERRA BERMEJA WILDFIRE OF 2021 ON SOIL PROPERTIES AND VEGETATION COVER

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Abstract

Sierra Bermeja is one of the most environmentally diverse Mediterranean mountains and one of the most important ultramafic outcrops in the world. Thus, the aim of this work is to analyse the short-term evolution of the area affected by the Sierra Bermeja forest fire (province of Malaga), in order to demonstrate how the regeneration and recovery of this ecosystem, which is key to the management of its territory, is progressing. The fire burned 8,401 hectares, making it one of the most devastating fires in the province in decades. It affected approximately 28% of the area of Sierra Bermeja. Spatial remote sensing techniques, field work, sampling and a search for the main eco-geomorphological characteristics (vegetation and soils) of the study area have been used. The results show that: i) moderate-high and high severity occupies about 57% of the burned area, which has caused serious environmental problems in core sectors ii) however, certain areas have experienced remarkable recoveries, especially in scrubland environments, and iii) the fire caused significant changes in certain soil properties, e.g. structural stability and organic matter.

Keywords: Forest fire, soil, vegetation cover recovery, Sierra Bermeja.

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