Supplementary material

for

Estimating the Trade-Offs between Wildfires and Carbon Stocks across Landscape Types to Inform Nature-Based Solutions in Mediterranean Regions

Rui Serôdio Simões, Paulo Flores Ribeiro and José Lima Santos

Figure S1. Mainland Portugal. Limit source: Portuguese General-Directorate of Territory. Background source: Google Maps -Alternative rendering (https://mt1.google.com/vt/lyrs=r&x={x}&y={y}&z={z}, accessed on August 21th 2023)

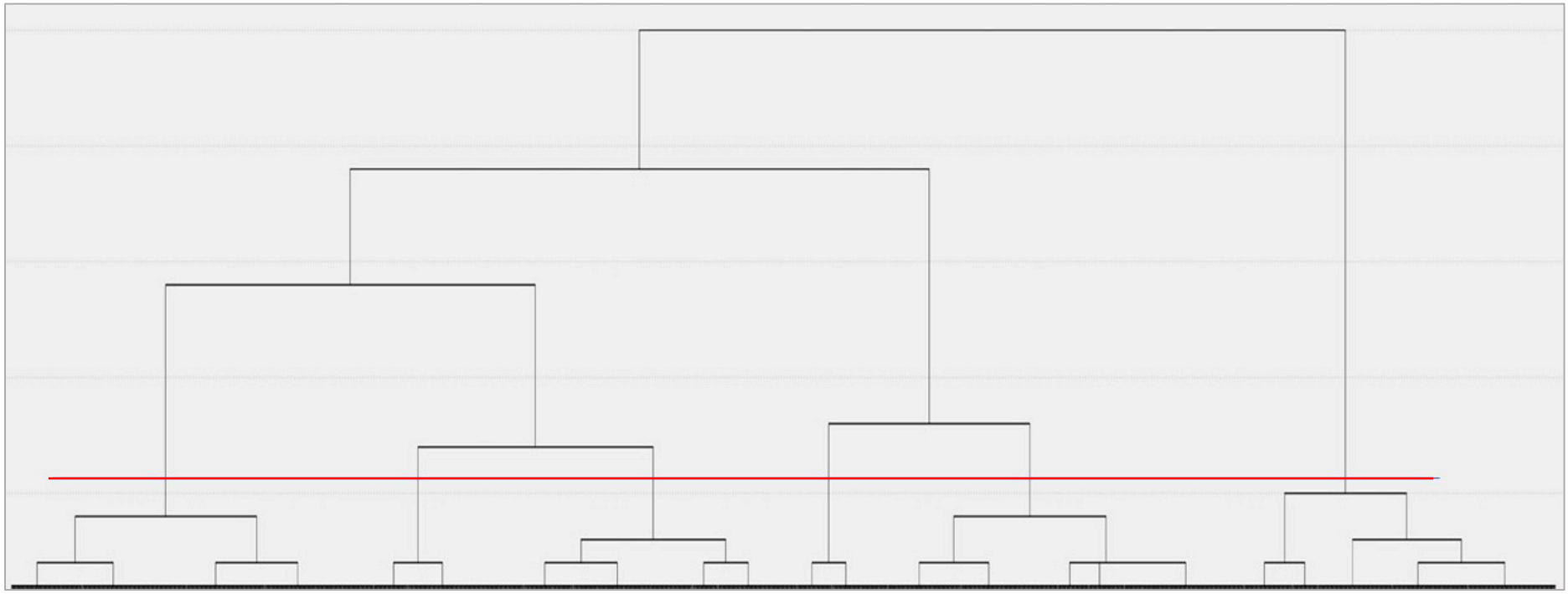

Figure S2. Dendrogram of hierarchical cluster analysis (Ward method) performed on the land use/land cover variables. Vertical distance measures Euclidean distance. Horizontal axe refers to the 2595 analysis units (hexagons) considered. Red line marks the cut-off point, done at 6 clusters separation

Table S1-Results of multiple logistic regression analysis for the most hazardous fire and LULC model. A significant relation between FR3 and LULC after conversion from forest plantations was found (chi squared =778.083; $p < 0.001$) with a percentage of correct predictions of FR3 occurring (or not) of 87%, and a Nagelkerke's-R^2 of about 40%. Farmland proportion-FAR%; Agroforestry proportion-AGF%; Native Forest proportion FOR%; Shrub proportion SHR%

Variable	Beta	p
(Intercept)	1.54	0.000
FAR %	−0.07	0.000
AGF %	−0.06	0.000
FOR %	−0.04	0.000
SHR %	−0.01	0.000

Table S2 - Results of multiple linear regression analysis (dependent variable: CS) with simultaneous entry showed increasing forest plantations conversion always implied a reduction in CS depending the rate of such decrease on the LULCs they were converted on. Farmland proportion-FAR%; Agroforestry proportion-AGF%; Native Forest proportion FOR%; Shrub proportion SHR%

Variable	**Beta**	**p**
(Intercept)	26.09	0.000
FAR %	−0.22	0.000
AGF %	−0.11	0.000
FOR %	−0.02	0.000
SHR %	−0.15	0.000

Note: [F (4,2761) =1251,644 ;p<0,001;R^2=0,645]