

8A Fire effects on soil after an experimental burnt

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The impacts of forest fires are multiple (economic, human, social, environmental and on landscape - in the trees, the shrubs and herbaceous vegetation, on soil, on soil organisms, in birds and mammals, in the air, water, etc) and complex (direct, indirect, cumulative, immediate, subsequent, etc). Depend on factors as varied as the magnitude, intensity, duration and frequency of fires, the size and composition of the stands, fuel volume, concentration, distribution and characteristics, soil nature and characteristics, among many other factors. One of the most significant impacts of these catastrophic events in Portugal, occurs at the level of the soil (physical and chemical properties, hydrological and erosive effects, hydrophobicity, etc.).

Consequently, we intend to present and discuss in this work the results of experimental burns held in May 2014 in Santo Tirso (NW Portugal), in a eucalyptus stand and in shrub lands. This experimental burning was intended to reduce the fuel material, using different fire driving techniques and is the result of a cooperation between the University of Minho and the Municipality of Santo Tirso.

In this sense, we sought to evaluate the effects of fire on the ground by different conditions of progression of the fire, evaluating the temperature at different depths of the soil and its physical and chemical characteristics.