Natural Regeneration Assessment of a Double Bunrt Mediterranean Coniferous Forest: A Pilot Study from West Peloponnisos, Greece

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Abstract : In the summer of 2021, Greece was affected by devastating forest fires in various regions of the country, resulting in human losses, destruction or degradation of the natural environment, infrastructure, livestock and cultivations. The present study concerns a pilot assessment of natural vegetation regeneration in the second, in terms of area, fire-affected region for 2021, at Ancient Olympia area, located in West Peloponnisos (Ilia Prefecture), Greece. A standardised field sampling protocol for assessing natural regeneration was implemented at selected sites where the forest fire had occurred previously (in 2007), and the vegetation (Pinus halepensis forest) had regenerated naturally. The results of the study indicate the loss of the established natural regeneration of Pinus halepensis forest, as well as of the tree-layer in total. Post-fire succession species are recorded to the shrub and the herb layer, with a varying cover. Present findings correspond to the results of field work and analysis one year after the fire, which will form the basis for further research and conclusions on taking action for restoration schemes in areas that have been affected by fire more than once within a 20-year period.

Keywords : forest, pinus halepensis, ancient olympia, post fire vegetation