FIRE AS AN ECOLOGICAL FACTOR: ITS INFLUENCE IN MEDITERRANEAN BASIN SUCCESSIONAL PROCESSES

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The current Mediterranean Basin landscape, which is the result of changes in the use of natural resources, affects the recurrence of disturbances such as forest fires. The severe summer climatic conditions (drought and low humidity) and large accumulations of dead plant material in mediterranean ecosystems favor fires reaching catastrophic proportions.
On the other hand, post - fire vegetation recovery is expected to be rapid because mediterranean ecosystems have traditionally been considered highly resilient and stable. Nevertheless, recent studies have shown that the response of these plant communities is not necessarily autosuccessional and thus that degradational changes can occur in the vegetation as a result of recurrent fires.
As most of the studies on post - fire vegetation dynamics in European mediterranean ecosystems do not cover extensive time periods, the successional dynamics of these ecosystems is little known. Moreover, it is only recently that the disturbance regime has been included in the framework of the theory of ecosystem succession, and especially for mediterranean ecosystems.
The present work analyses mid - to - long - term mediterranean successional dynamics, focusing on the temporal structure of the fuel of the dominant species at different successional stages.
It is found: (a) that the current short - to - mid - term vegetation is shrublands at different stages of development and composition, ranging from dispersed shrublands with high herbaceous - species richness to young forests in early stages of forest regeneration, and (b) that plant species in early stages of succession accumulate larger amounts of fine dead fuel than dominant species in later successional stages.