

ECOLOGICAL AND SOCIO-ECONOMICAL INTERACTIONS IN THE PERCEPTION OF THE RELATIONSHIP OF FIRE WITH PLANT DENSITY AND EROSION

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ABSTRACT

Ecological analyses predict the interrelations to be expected between changes in forest and shrubland cover, soil erosion, and fires if temperatures increase in the future. These interrelations might or may not be clear to the non-expert population when consulted in a survey. For example, people might realize some conjoint influence (positive or negative) of fire with erosion or plant density over their preferences. In other words, fire might not matter the same to some individuals if, for instance, it happens in a more densely populated land or in areas with less plant cover.

In this paper, the ecological relationship of the three variables and their influence on people's preferences are examined in an empirical valuation application conducted in Catalonia in the framework of a project dealing with the effects of climate change. The valuation exercise used a Contingent Choice approach, which design allows for the estimation of second order effects between variables. The paper describes the ecological and economic rationale for the interactions, the methodology used, the empirical application and the tests conducted, as well as a discussion of the results and some recommendations for further research. The main finding shows that, while there are ecological interactions between plant cover, fire and erosion, the only interaction statistically significant from people's preferences perspective is the one between erosion and fires. This result is particularly detected in younger and well educated people.

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