

## A Systematic Map of the Research Trends in Wildfire Management in Mediterranean-Climate Regions

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**Abstract :** Wildfires are becoming an increasing concern worldwide, causing substantial social, economic, and environmental disruptions. This situation is especially relevant in Mediterranean-climate regions, present in all the five continents of the world, in which fire is not only a natural component of the environment but also perhaps one of the most important evolutionary forces. The rise in wildfire occurrences and their associated impacts suggests the need for identifying knowledge gaps and enhancing the basis of scientific evidence on how managers and policymakers may act effectively to address them. Considering that the main goal of a systematic map is to collate and catalog a body of evidence to describe the state of knowledge for a specific topic, it is a suitable approach to be used for this purpose. In this context, the aim of this study is to systematically map the research trends in wildfire management practices in Mediterranean-climate regions. A total of 201 wildfire management studies were analyzed and systematically mapped in terms of their: Year of publication; Place of study; Scientific outlet; Research area (Web of Science) or Research field (Scopus); Wildfire phase; Central research topic; Main objective of the study; Research methods; and Main conclusions or contributions. The results indicate that there is an increasing number of studies being developed on the topic (most from the last 10 years), but more than half of them are conducted in few Mediterranean countries (60% of the analyzed studies were conducted in Spain, Portugal, Greece, Italy or France), and more than 50% are focused on pre-fire issues, such as prevention and fuel management. In contrast, only 12% of the studies focused on “Economic modeling” or “Human factors and issues,” which suggests that the triple bottom line of the sustainability argument (social, environmental, and economic) is not being fully addressed by fire management research. More than one-fourth of the studies had their objective related to testing new approaches in fire or forest management, suggesting that new knowledge is being produced on the field. Nevertheless, the results indicate that most studies (about 84%) employed quantitative research methods, and only 3% of the studies used research methods that tackled social issues or addressed expert and practitioner’s knowledge. Perhaps this lack of multidisciplinary studies is one of the factors hindering more progress from being made in terms of reducing wildfire occurrences and their impacts.

**Keywords :** wildfire, Mediterranean-climate regions, management, policy

**Conference Title :** ICFFDM 2020 : International Conference on Forest Fire Disaster Management

**Conference Location :** Rome, Italy

**Conference Dates :** December 10-11, 2020