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Characterisation of forest fires in the wildland-urban interface area in Galicia in the year 2022: Fires with an operational situation of risk for the populations.

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Abstract

In recent years, society has come to believe that forest fires are becoming more and more dangerous, and this has been widely reported in the media. In southern European countries, this is also exacerbated by more frequent and longer periods of drought. The availability of fuel at different times of the year makes the classic summer fire season longer and more unstable. All this, together with the depopulation of rural areas, makes wildland urban interface (WUI) fires more important. They affect populations, cause economic damage and dangerous situations for the civilian population and other non-forest assets. This study aims to characterise the fires of the year 2022 in the northwest region of Spain (Galicia) in which the activation of a level 2 situation has been necessary. This type of fire has meant the evacuation and confinement of hundreds of people on different occasions, as well as the need for resources from the Spanish state to extinguish them. In total, up to 25 fires have been of this type, accounting for up to 8% of the total number of fires, the highest figure in the last 10 years. This trend has been increasing with very marked years for the study area. The characterisation is based on meteorological data such as temperature, wind, fire weather index and its derivatives. Severity is calculated using remote sensing techniques, which together with parameters such as slope and orientation are the common factors analysed. The size of the fire is not presented as a relevant value, as it depends on the proximity of the fire to the population.

Keywords: FWI, confinement, Landsat, wildland urban interface, civil protection

References

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