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Abstract

The 2021 Montiferru Wildfire, Sardinia (Italy): Analysis of a Large Wildfire †

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Extreme wildfires events (EWEs) represent a real challenge for any firefighting apparatus, as they exceed the current control capacity even in the best-prepared regions of the world, and they create destruction and a disproportionate number of fatalities.

Although the area covered by wildfires has decreased globally in the first twenty years of this new millennium, a constant and progressive increase in the potential development of extreme wildfire, even in areas that historically did not present this problem, has been documented.

During the summer of 2021, European wildfires fires burned hundreds of thousands of hectares of land, with several victims in France, Italy, Greece, Turkey and Cyprus, and with values much higher than in previous years.

The Montiferru wildfire—Sardinia (IT), July 2021—falls into the category of EWEs, not only for the extent of burnt surfaces (about 13,000 ha), but also for the unpredictable and irregular behavior observed and detected by the fire crews of the Sardinia Forest Service.

The fire started at 12:00 on 24 July, along the provincial road 15 (Bonarcado- Santu-Lussurgiu) in the province of Oristano, and spread rapidly in the south-east slopes of the Montiferru massif, driven by SE winds. Soon, it became out of control for both the ground crews and for the regional helicopters tackling the flames.

Even though a large part of the area burned on 24 and 25 July, the wildfire was declared definitively extinguished and reclaimed on 14 August.

This study aims to analyze this extreme event, its different stages, and the Sardinia Forest Service's containment strategy adopted. In addition, we will focus attention on the pain points and the challenges of the "response phase" in the management of wildfires spreading under extreme conditions.

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