

Wildfires effects on soils: water repellency, NIR models and post-fire treatments. My personal view (SSS Division Outstanding ECS Award Lecture)

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I first was intrigued by fire, because all summers we had some of them in our location, and then I was involve in fire effects on soils. We had, and also have, a lot of question to answer. I am absolutely sure that soil science was my best choice. Soils are amazing, a lot of things are happening in soils. Soils and fire, are my main research topics. I studied the immediately effect of fire on soils, focus on the effect of fire in soil water repellency and aggregate stability. Two physical properties that are crucial to post-fire soil response. I also construct NIR models to know the maximum temperature reached in soils. It is well known that temperature is a key factor affecting soils properties. Then, it is a really important tool to predict the temperature reached in a soil after a wildfire. Currently, I am involve in a project to investigate what are the best post-fire treatments in our soils and how this treatments affects soil properties.