

Fire Ecology Chats: A Podcast Series by the Association for Fire Ecology



Transcript of Episode 5 – Empowering strategic decision-making for wildfire management

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Guests: Marc Castellnou and Marta Miralles (Catalan Fire and Rescue Service)

Link to Full Article in Fire Ecology: <https://fireecology.springeropen.com/articles/10.1186/s42408-019-0048-6>

Bob Keane: Hello everyone. My name is Bob Keane, and I am the host of the Fire Ecology Chats and also the editor of Fire Ecology. And today, we have an international group that are going to give us a podcast. I am really honored to present to you Mark and Marta. They recently created one of the most cited papers that we've had here at Fire Ecology. The name of the paper is "Empowering strategic decision-making for wildfire management: avoiding the fear trap and creating a resilient landscape." Mark, could you introduce yourself and tell us who you work for?

Marc Castellnou: I work for the fire service in Catalonia. I also work as an expert for the European Union in wildfire analysis.

Bob Keane: Okay, thanks. Marta, what about you?

Marta Miralles: I am Marta Miralles. I also work in the Fire Service. I'm a fire analyst, and I work with Mark. And the third author of this paper, she's a researcher and she is called Nuria Pratt and works for NGO for Pau Costa Foundation.

Bob Keane: One of the reasons this paper was so popular is because it was for the managers to avoid some fear traps in fighting wildfires. So Mark, could you tell us why would people want to read this paper? What about this paper that makes it very exciting?

Marc Castellnou: Well this paper, we tried to focus on that paper, what a fear trap is and how we can avoid it. So as a firefighter, we are confronting wildfires that are becoming more intense, that kind of spread faster and that are threatening a lot more values than they used to be, due to climate change and due to landscape change and socio-economic changes. So for firefighters, there's two things what the fire will do, what the fire can do. It's complex and sometimes it requires a lot of high-tech simulators. So we try to expose in this article, a logical methodology to identify the potential of the fire and to provide a tool for any firefighter to explain what's going to happen, what can you do, and what will make the difference if you do one thing or the other thing. It allows you to talk through the fire and explain people and explain your paths. What is going, what it's going to be today ahead of you. It's a tool that works for firefighters, but also work for managers, and also work for owners. It's a way of communicating a complex language of fire behavior, fire analysis, and especially impacts in our ecosystem. So when you bring fire ecology into the fire analysis, you need a language to make it clear to be able to communicate, and that's what we tried to provide from our experience in the last three years.

Bob Keane: That is wonderful. It is well needed. Marta, I wonder if you could give us a little peek into the details of this collaboration? How does it improve what it already exists?

Marta Miralles: Then the main issue, I think, is that we have to make a lot of decisions between the short term and things that we can build a lot of information of on short term risks, and decisions we have to make on longer term, on more uncertain risk. This balance between the short term and the long term between the risk we know better and the uncertainties that we don't know so much, but maybe have a larger impact. I think this has not been explored before. So I think this is a very exciting way of looking at this problem.

Bob Keane: Yeah, it is very exciting. Mark, I wonder is this going to be useful to all firefighting agencies worldwide, or is it specific to Europe?

Marc Castellnou: Well, it's a robust methodology. We have checked it in different locations, of course in Europe as where we are working, but we've done that in the Atlantic states, and Western Europe, also in Scandinavia. And then we applied last year in Chile and in Bolivia, and also in Indonesia. So it works everywhere because what it does, it's looking to fire potential, a look at the human factors. We all have fears somehow, in front of the unexpected. When you feel uncertain about what to do, your natural way of action is to step back or try to defend yourself. That's what fear does. Fear just makes you slow down your decision making and you want to make sure. In this methodology, we just provide a line of understanding of what is happening, what's going to happen, and how you will make a difference, how you can change what's going to happen, and how you can shape the future in how you can shape the result of your decisions. So it's not a technical methodology that bring a new tool. It is just a way that you're organizing the thoughts and organizing the information to make possible we all understand what is happening, how we can make the difference, or how we can consider different values, instead of risk and emergency, also ecology, also landscape resilience. So bringing in different values and understanding the cost opportunity of any decision. It's working everywhere. So it's a way we find it was useful because as you know, Europe is a populated continent. We have a lot of people living in our woods. So we had to explain our decisions as fast as possible to make sure society understands, society supports it, and they understand why we are letting some kind of fire go because they can improve the ecosystems or they can change the risk. So being able to communicate that in real time, it was a need. So I say it makes that promise and it makes it works everywhere.

Bob Keane: Thanks for that. Marta are there any future plans? Do you have any other papers in mind to partner with this paper?

Marta Miralles: Yes, I think it's very important to keep on working on this line because we need tools to facilitate decision making. A forest fire is a big emergency where a lot of people are making decisions and any tool we have to improve this decision making, not only from you know, the big fire chief, but for all people who are making decisions, that is key to us.

Bob Keane: Incredibly important and exciting work you've been doing. Would you like to recognize any funding agencies or other people that helped develop this paper?

Marc Castellnou: Well, that paper was developed by Catalan Fire Service and also Pau Costa Foundation and it was helped also by the Civil Protection Mechanism in Europe, where they have asked to share that in other fire deployments in South America. But mainly all different fire agencies in Western Europe as well as US Forest Service in our experience in United States.

Bob Keane: Okay, thank you very much you two, really appreciate it. Please continue to submit these wonderful papers, the fire calls you and thanks everyone.

Marc Castellnou: Ok, thanks a lot.