

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



Transcript of Episode 9 – Forest Service fire management and the elusiveness of change

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Bob Keane: Good morning, everybody. My name is Bob Keane. I'm the editor of Fire Ecology, and I am the host of the podcast Fire Ecology Chats. It is a podcast that describes, in relatively brief detail, various papers that have been published on the Fire Ecology website. All these papers are open access. Today, we have two guests who wrote a very important paper for the journal. It's called "Forest Service fire management and the elusiveness of change." I would like Courtney Schultz and Matt Thompson to go ahead and introduce themselves. Tell us a little about yourself and then your affiliation, please. Courtney?

Courtney Schultz: Hi, Bob. Thanks, I'm Courtney Schultz. I am an associate professor of forest and natural resource policy at Colorado State University. And I also direct the public lands policy group, and our new climate adaptation partnership at the university. And my work really focuses on national-level policy issues in public lands management and mostly forest and fire management. So, I've worked on things like prescribed fire policy and forest restoration policy. And now a little bit more with Matt and his group on the fire response side of things.

Bob Keane: And Matt?

Matthew Thompson: Yeah, I'm Matt Thompson. I'm a research forester with the Human Dimensions Program and the Rocky Mountain Research Station. I got my start out in Missoula, where Bob is, at the forestry sciences lab. And then in 2016, we moved to Fort Collins, which, because of its proximity to Colorado State, I get to work a lot with the excellent faculty there, including Courtney. And I focus primarily on aspects related to risk, systems, and decision analysis.

Bob Keane: Wonderful. Thank you two for joining us. And please, Courtney, tell us about this wonderful paper about Forest Service fire management and why it won't change.

Courtney Schultz: Sure. Well, let me just start by telling you a little bit about where this idea came from. So, you know, Matt, and I both work on, kind of, the decision and organizational side of the fire problem, and also a lot on the policy and incentives aspects of it. And so we were looking at the literature and the conversations out there and, I think there's a lot of agreement about the fact that fire policy needs to change. There's a lot of science about the directions we need to go. And so we sort of said, you know, recognizing the problem is one thing, but solving it seems to be entirely another. And we were also looking at a lot of literature that was saying, you know, we need policy change to support more prescribed fire or to, you know, reduce our emphasis on

suppression, for example, with fires and just keeping fires as small as possible and getting more fire in the landscape. And so we wanted to look at the question of what, you know, what do we actually need to change in terms of organizational behavior, or decision making, or policies to get where we need to go? Because it's one thing to say, we need policy change, but that's an entire problem in and of itself. Like, where do the policy problems rest? Are they inside, like, individual decision makers and the incentives they're facing? Are they actually in national-level policy and the guidance we're getting? And so that's, kind of, this whole problem that needs to be unpacked and requires a lot of sleuthing. And so that was, kind of, where we started, but also thinking about just the differences between the land management side of the agency and the fire response side of the agency under fire and aviation management. And we were just sort of thinking about the disconnects and how the fire problem gets characterized. The different incentives that different staffs face and the different relationship with the budget. And, I think, those were all, kind of, some of the origins of where our paper started. Let me just pause there and see if Matt wants to add anything.

Matthew Thompson: I think Courtney teed it up pretty well. And one of, one of, the interests that I had here was, you know, recognizing that the federal-level policy already affords a great amount of flexibility to how we respond to and manage fires and it also includes things like ensuring that you are prepared through collaborative cross-boundary planning. And so while there are policy questions to, kind of, be evaluated, there's also questions around implementation of policy as it currently exists. And so one of the questions that my research group has been looking at, it's - There's great flexibility afforded in that policy. What is inhibiting, kind of, our patterns of decisions and actions from capitalizing on that flexibility? So going back to this idea of systems thinking, we have these patterns of behavior that we've been seeing, whether it's kind of risk aversion, the status quo, maintaining that kind of fire exclusion paradox in certain systems, but then the deeper question is - what's really driving that behavior? And that's where working with Courtney and Sarah was really eye-opening in addressing it, kind of, from that institutional and organizational perspective. What are the guidance? What are the doctrines? What are the performance measures and incentives? How is the problem defined and communicated? And those were kind of interesting to me.

Bob Keane: Yeah, you know, all the people in fire science, especially fire ecologists know what the problem is. And know that there's a tension between fire management for ecology and fire management for political reasons. Maybe you could just summarize, why aren't the current policies working, and the current policies being that of that emphasize suppression. Courtney?

Courtney Schultz: So, one important place to start is just to recognize that you're going to have multiple goals, or what we call goal ambiguity in this paper, for any agency. And it's actually politically really valuable to have a lot of different goals because that means you're serving a lot of different interests. And so for the Forest Service, for example. I mean, one of the reasons forests are so fascinating is because they mean so many different things to people. You know, they're recreation opportunities, they have all this benefit for watersheds, they provide commodities. And so you have policy that basically says manage for all of these things. And when it comes to fire policy, we have a really clear diversity of goals in policy to say we want fire back on the landscape, fire is a key ecological process. We have policies like the Planning Rule, and CFLRP, the Collaborative Forest Landscape Restoration Program that really emphasize that. But then we have a lot of policies that also emphasize fire as a threat and talk about catastrophic fire and all the threats to values. And you see that in the Cohesive Strategy there's, sort of, different aspects of how we want to respond to fire. We want fire adapted landscapes. We also want to protect communities and promote safe and effective response. So, you have this diversity of goals. And I think a really important thing to know about policy is that things that are measurable over the short term are always going to get prioritized. And in just in terms of basic decision making, short term risks are always going to be prioritized over long term risks. It's just, kind of, human nature. And so one of the things we're looking at is

saying, okay, you have these diverse goals, what's naturally going to get prioritized in there? Well, we know that nationally we're going to get, you know, things that can be measured on short terms are going to get prioritized by decision makers. So keeping fires at a small size is going to be one of those. Managing short term risks that are going to keep your political representatives and your communities happy in the short term that, you know, maybe are going to be measurable over short term timeframes, like on the timeframe of promotion, or political cycles. Those are all the things that will naturally get done. And so, part of what we're saying is, you have to really intentionally incentivize the stuff that is managing for long term risk things like, you know, putting good fire back on the landscape, things like prescribed fire that don't really necessarily yield measurable dividends over short timeframes, and also involves some short term risks. So, we look at the fact that you have to create really clear incentives to get people to think more on those long term timeframes. And one of the issues right now, I think, within the Forest Service is that we have just this mix of a lot of different incentives. And so what we tend to see is that defaulting to what people know how to do best. And that gets you, kind of, the management for short term risks. Those are the things that people tell us in the end, they tend to prioritize.

Bob Keane: One thing I really liked about this paper is that instead of just saying, okay, Forest Service policy needs to be updated and we need to see something different, you actually give us examples of what we should do to change, or what the Forest Service can do to change. And you call it gaps in implementation in the context of internal structure, policies, and guidelines. You want to expand on that, Matt?

Matthew Thompson: Yeah, you know, a lot of this is, kind of, infused with some principles from risk management and decision science that we didn't try and be too heavy handed on it. But it addresses a lot of the points that Courtney just raised in the sense of, when you have time-pressure decisions under significant uncertainty, complexity, and possibility for conflict, that's going to, kind of, push you in one direction. And so the idea here is, and we make these recommendations in the paper, by being more purposeful, and integrating land and fire management planning in advance of fire season by pursuing transparency and collaboration cross boundary, what you can eventually, in the ideal get to, is you can buy yourself more time. You can buy yourself more social license. And that gets at that competing problem definition. If you have a shared understanding of values on the landscape, and wherever meaningful opportunities are to actually manage to meet objectives, we would argue that that's going to lead to, kind of, better decisions, and ultimately, better outcomes. So really, it's about diagnosing, in a sense, what is it about those time-pressure decisions that lead us down one path? And what can we do in advance of that, to expand options, dampen potential for conflict, damping those time pressures, and kind of dampening those uncertainties?

Courtney Schultz: Another thing I think is really important about our paper is that we talk about, you know, things like, are people really being trained to make these complex risk management decisions? And can we think about fire more in a more integrated sense as a really complex risk management problem? And then how do we train people to have the capacity to respond in that way, and to really have an integrated way of seeing the fire problem across multiple agencies? And within the Forest Service itself, where you have division between the fire and aviation staff and the land management staff. And so we talk about, you know, can you integrate incentives? Can you integrate training and how we think about fire management? And can we integrate thinking about fire into the planning processes in a more consistent way so that we don't think of land management and forest restoration separate from fire response? Because with the amount of fire we're seeing on the landscape, those things are going to have to be brought together in a much more coherent way.

Bob Keane: So, in your mind, it doesn't sound like you don't take the Strategy should be rewritten. You think that maybe we all we need is to attack details on how the Cohesive Strategy should be implemented? Is that correct, Courtney?

Courtney Schultz: Yeah, I think the Cohesive Strategy is still right on. And I think, if anything, we need to start thinking a little bit more about how we disentangle community protection from the land management question. Because, you know, we don't want to promise that land management alone is going to solve the community protection problem. And there's a lot of other reasons why we want to do forest restoration work and reintroduce fire on the landscape. For one, just to protect our forest ecosystems for all the things they provide. I think carbon sequestration being really front and center. So, I don't think that Cohesive Strategy is the problem. It sets a great, you know, framework for our broad goals. But then, from a policy perspective, the question is, well, how do you implement that? How do you actually make that happen? It's not enough to say, these are our goals at the national level. Then you actually have to create a set of policy tools, specific requirements, and opportunities, incentives, training, all the stuff throughout the whole organization down to the field level, to make those goals become a reality. And that's the stuff we talk about in this paper is the policy implementation, and the organizational environment that, you know, will help us make those actually come to fruition in a meaningful way at the field level.

Bob Keane: Yeah, okay. I understand. Now, you mentioned the word goals a lot in there. And I love the term that you had - goal ambiguity. Do you want to give us an example of goal ambiguity and how we can fix it?

Matthew Thompson: Yeah, so it gets back to one of the ideas that Courtney introduced earlier, which is that you have, you know, multiple perspectives, multiple stakeholders, and they're gonna have multiple ways of, kind of, framing the problem or framing opportunities and frame on it. So, one example that'll be specific to the Forest Service, and we allude to this in the paper is, for example, we're simultaneously touting the initial attack success rate, the percentage of fires that we contain within some operational time window, or within some size limit. And you know, typically in the past, that's been between 95 to 98%. At the same time, we have performance measures around the acres of beneficial fire. But they're, the way those things are counted has changed over time. And since we wrote the paper, they may have evolved again. But that's an example of where we have these two objectives that if you maximize one, you can't really maximize the other. And so detangling that tension, or getting some more clarity from the top down as to how to prioritize when there are conflicts. That's just one of many examples of these competing goals. And when you have those trade-offs, how do we go about better articulating where, when, under what conditions, with whom at the table we pursue one objective over the other?

Bob Keane: Oh, all right. Very interesting. I see now. Well, that's about all the time we have. I want to thank our guests, Courtney Schultz and Matt Thompson, for being here on Fire Ecology Chats. Courtney, do you have any funding agencies you'd like to thank or any people you'd like to thank before we sign off?

Courtney Schultz: Sure, Bob. We did this in partnership with the Rocky Mountain Research Station, the Forest Service, and you know, Matt's group. And so that's really the primary agency I'd want to recognize. And also our co-author, Sarah McCaffrey, couldn't join us today but had some huge contributions to this paper. And I also just want to put a plug in that I think our paper is a really valuable update of fire policy across the land management side and the fire response side of things. I think that's another thing to, maybe, let our listeners know about, because it just, kind of, puts together all those policies in one place in a really useful way that hasn't been done in a while.

Bob Keane: Yeah, I agree. Yeah. Thanks for doing that. And with that, I'd like to say thank you. If you listeners out there found this paper interesting, go down and download it for free at the Journal of Fire Ecology website. Again, thank you so much, and see you later.