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BEGIN TRANSCRIPTION

[00:00 - 01:02] Speaker 1: Okay. All right. Well, we'll go ahead and get started. Small group. So welcome to the special seminar hosted by the Center for Collaborative Conservation. Today, we welcome Karina Whitman. She is a PhD student at the Fenner School of Environment and Society at Australian National University, and her dissertation is examining the interplay between science values and action and collaborative conservation with a particular focus on large landscape connectivity conservation in Australia and North America. Karina teaches in the Human Ecology Program at the Fenner School and is funded by a Land and Water Australia Postgraduate Scholarship and a top up scholarship from the CSIRO Climate Adaptation Flagship. She is also a special advisor to the Federal Government National Wildlife Corridors Advisory Committee, and her current visit to the US was funded by a national climate adaptation research facility Collaboration travel grant. [laughs]

[01:03 - 01:05] Karina Whitman: Lots of acronyms.

[01:05 - 01:07] Speaker 1: So we want to welcome Karina today.

[01:07 - 02:04] Karina Whitman: All right. Do you guys want to move forwards? I feel like there's not very many people and you know, but feel free to not as well. I think also because it's a small group.

Wow. That's really bright. Please feel free to interrupt me, ask questions if I'm not making sense, or if I'm talking about something that doesn't quite fit. I'm quite interested in hearing about whether or not these the ideas that I've been playing with, if it makes sense in any of the work that you guys are doing in collaborative conservation and in other places. I feel like my take on this paper is particularly Australian. I don't while I have a case study here in the US, I don't feel like I could write a paper like this about my North American case because I just don't understand the sort of social, environmental, institutional history of this place in the way that I do in Australia.

[02:07 - 04:04] So what else is I going to say? Yeah, that'll do. Okay. When I first thought of this dissertation topic in. It was 2008. I approached my supervisor and I said, I want to do a comparative study of large landscape conservation in Australia in the US, particularly focused on these connectivity conservation initiatives. And he sort of said, Oh yeah, good idea, could be really interesting, but I don't know whether or not there's enough stuff going on in that space yet for you to create an entire PhD on it. Don't focus specifically on connectivity, think about it from these other ways. And then so away I went, wrote grant application, got all this money. Three years later, we have a National Wildlife Corridor plan, which is a big federal government initiative. So they've put \$10 Million into developing this plan over the last three years starting this year. But there is an expectation that a lot more money will flow to this from the carbon tax package which is being debated in the Government at the moment. There's a sort of biodiversity fund which has been attached to that. So these corridors are being framed in terms of climate change adaptation, critical habitat linkages, species migration, all of the sorts of stuff that you see around corridor ecology. And this here is a quote from the Minister for Environment. Corridors give strategic meaning for protecting resilience and for adaptation. So we've gone in the process of three years from having this kind of few little projects going on in the background world. They're actually kind of large to all of a sudden it's just it's everywhere. So now these are the major Australian initiatives. This is from some work that I did right at the beginning of my PhD, trying to figure out what was going on. So some of those dotted lines are now more solid as the projects move on.

[04:04 - 06:17] And just to give you an idea of scale, Australia as a continent is the same size as the lower 48, so these are quite larges wathes on the map. My work has been this has gone to analog. Here is the is the oldest project in Australia. It started in 2002. I know a little bit about this particular project called East West. It's a government initiative. My the majority of my work has been with this project here, which is called Habitat 141. That's the 141st line of Meridian. It's longitude that's why it's called that. And then this project here, which is broken up into these little nodes as the greatest and ranges. But this proliferation of all of these projects has led to what one government adviser said when I interviewed him, connectivity is the new black. So, what I'm trying to do with this paper, which

is a work in progress, so any feedback would be great, is try and look at how that happens. So, what I want to talk to you today about just a little bit of an overview of what connectivity conservation is, and then some different ideas about the way in which science translates into practice. And then I will outline what I'm calling the connectivity narrative, and then we'll sort of pull that apart and try and think about some possible lessons that you could learn from this for other contexts. And it's in that space that I'm sort of struggling. I've got I've got this great picture of how science has created this social movement in Australia and I'm sort of my brain is still trying to get its head around, what that means for science practice in other contexts. So connectivity conservation is about the protection, retention and rehabilitation of natural connections in the landscape. So it emerged from the sort of science of habitat fragmentation and corridor ecology very much emerged from habitat fragmentation science in Australia, but also corridor science from here in the US.

[06:17 - 08:30] Interestingly enough, the science is done is led by Australia, in the US two nations which have very large landscapes and. Um, if facilitates thinking in a way that you couldn't think about those large landscapes in a place like Europe, where somewhere like France will think about what's going on in their small patch of the landscape, whereas the sort of geopolitical context of Australia in the US facilitates this kind of thinking on these larger scales. So it's essentially a biosphere reserve scaled up. So we have these kind of core areas of habitat and then different types of linkages between them. And then this brown area is supposed to be sustainable land use where people can be still be making making a living but it's kind of to buffer the poor areas and the corridors. So the connectivity approach, this is from a report that was written specifically for the Australian context, but the principles apply more broadly. These projects are very large scale, so 5 to 500 miles. I got that conversion right. They're trying to operate on longer term time frame. So regions of 50 to 100 years, this is about, you know, drastically transforming the way in which we manage landscapes. And it's about managing the matrix. So trying to manage the landscape as a whole as opposed to having this sort of fragmented approach where the park people look after the parks, the forest people look after forests and active and adaptive management. So it's not in that sort of set. And forget we can create a protected area and then walk away from it. And the thing, particularly in Australia, is trying to sort of move towards funding sources beyond the Government. Most of our NRM natural resource management funding comes from the Federal Government and those pots are getting ever smaller with ever greater conditions placed on them. So people are trying to bring in money from carbon biodiversity money, but also from philanthropy, which is nowhere near as big in Australia as it is over here.

[08:31 - 09:45] Karina Whitman: And the the climate change adaptation aspect of this is kind of given connectivity, conservation, new wings. So ideas which have been around for a while now seem

much more important and prominent when we think about what climate change is going to be doing to the landscapes. But the other thing which makes this interesting and is where I was coming at it is whether or not these approaches can be seen to be trying to overcome that problem of fit between social and ecological systems and institutions. Connectivity is being framed very much in terms of managing landscapes on the scale of ecological processes. So, so then I came into this thinking, well, okay, if that's the scale of the ecological processes that we want to manage at, if we're going to create these social institutions, is that actually untenable in terms of social structures and institutions to put in place? So trying to think about this in terms of how we can better match ecological systems and social systems to more adequately manage our landscapes? I don't know. Does that make any sense?

[09:46 - 12:28] Speaker 4: Okay, good. Okay. So then when you move into the operational space, it's about having an interconnected system of properties that are managed towards the same goals and trying to coordinate on the line across land tenures and in between different landholders. So that then requires multi-stakeholder collaboration and different projects in Australia have taken different approaches to this. Some have been much more focused on actual land acquisition and others have been more focused on private land conservation. So I think what you guys call conservation easements and then depending again on the landscape which you're in, some of them are much more focused on ecological restoration. So revegetation in the highly fragmented landscapes in Australia, whereas in other areas it's about protecting what's left and so preventing further fragmentation to maintain connectivity. But the other aspect of this, which is interesting is that connectivity conservation is framed itself as this socially inclusive approach to conservation. So it's about, as this quote says, recognising the human aspirations and connectedness to land of the values and the institutions that go along with conservation. And then this kind of getting bold about how people feel and valuing natural interconnected landscapes. So there's this kind of. These inherent value of these large, intact landscapes which we're trying to protect. And I think that is I found is quite important. But then this idea that it's about bringing people along and I think in part it's a response to the sort of backlash against wilderness and protected areas as places without people. This is really particularly given in Australia that it's very much a private land conservation agenda. It's about trying to bring people back into the picture. Um, and so then we get these great metaphors about connecting. So continental scale connections, connecting cultures, connecting people, connecting through sports. It's all very much framed within these kind of language of playing on that metaphor of ecological connectivity with lots of nice graphics like this one up here, which is from the World Commission on Protected Areas Connectivity Conservation Web page.

[12:28 - 13:22] Karina Whitman: Um, sort of trying to create this warm, fuzzy feeling about getting everybody all in it together. And so what I'm trying to understand with this paper and in my broader PhD is how that reframing of connectivity as an ecological concept and then also as a metaphor, the social metaphor has shaped the way that it's put into practice. And then. How people respond to it, particularly because in comparison with my North American case study, which is the Yellowstone to Yukon Conservation Initiative, which was very much framed as an ecological conservation initiative and hasn't received anywhere near the kind of support that the Australian projects have. And the key difference has been in that framing the role of people as human beings

[13:22 - 15:42] So then just a little bit of background on this idea about how science translates practice. So this is this what it's been labeled as the trickle down transfer model. So we have a problem. We do some research, we get this knowledge, we translate it, people use it or don't, and then it gets taken into practice. So this is premised on the idea that science is separate from society and that practitioners will consult expert advice and then try and tailor that to their context, if at all. And it very much ignores the social and textual dimensions, both in terms of how knowledge is produced and then also how knowledge is applied. And amongst the plethora of critiques of that model, there's this model from Sheila Jasanoff from the Sociology of Science, looking at the idea of co-production. So this sort of saying that the knowledge production process, it's, it's embedded within the way in which we live and how we think about the world and how we see the world. But then also it gets shaped by these ideas of what should be and what could be. And so it rejects that separation of science and society. But particularly important for the story that I'm telling is that it saps and legitimizes other knowledge systems and other actors in the knowledge production process and sees it more in terms of this kind of relationship where where what we think about the world is informed by what we see and what we would like to see, basically. So what I'm doing with this paper is trying to look at the way in which connectivity as a concept has been co-produced in the Australian context. And the way that I'm doing that is by looking at these narratives. So narratives, they're stories. They have a beginning, they have a middle and an end. And this is drawing on some work from policies, policies, policy sciences, looking at the role of policy narratives in the way in which they sort of construct a problem.

[15:43 - 17:53] Identify particular actors or causal impacts and then sort of put forward this idea about what the logical policy response is. And I really, when I found this graphic, was quite pleased because as you can see, the fish, they go along their little story, they have a little bit of an interplay in the middle and then they land in this quite narrow basket. Just say yes. So this really sums up what policy narratives do they they they shape the way we think about a problem, but then they also make that leap between describing a problem and prescribing a solution in a sort of in a way that is

so embedded within the way that the story gets told, that you sort of tend not to think outside of the box. And this quote from Charles Elder and Roger Cobb, quite an old quote in a book called *Politics and Use of Symbols* says symbols provide the vehicle through which diverse motivations, expectations and values are synchronized to make collective action possible. And so in this context, what I'm looking at is the way in which this broader narrative around connectivity has created a platform for collective action. So Deborah Stone has identified a number of different characteristics of successful policy narratives. So the visibility of proponents and their access to media and power, which is important in this story, that these ideas and stories resonate with widely and deeply held cultural values, that they strike a chord with some sort of national mood. But then also the prescription entails no radical redistribution of power and wealth. So they're kind of these simple, easy stories which people can relate to and then embed within institutions and not actually need to challenge the dominant paradigm. But one of the important things that this kind of work has shown is that once these narratives become embedded with the institution within institutional frameworks, the institutions will reproduce story.

[17:55 - 19:09] And then and Keller a couple of years ago, drew on Debra Stone's work to create this idea of a science narrative. So science narratives are these simple stories which scientists will tell that kind of encapsulate a particular scientific concept again, like blame or identify the problem, and then they contain these sorts of normative elements within them. And so she identifies these as interesting because we don't usually associate that sort of storytelling kind of with science, which is saying to be objective and not embedded within those normative values. But then the other important thing about it is that because these narratives are based with some sort of idea about science, they carry with it the cognitive authority and legitimacy that scientific knowledge holds. And so within the public discourse that what the policy narrative people call normative belief is hidden within the way in which science is explained to, to the broader context.

[19:09 - 21:26] Whatever that point it might be. Um. But a lot of the work I find from the sociology of science is just a little bit too critical and not particularly helpful. It's very nice to be able to pull apart these relationships and identify some demons, but actually I would. I'm trying with these to use the tools from the sociology of science to actually make a more constructive contribution towards this debate and understanding the relationship between science and practice. And while I'm interested in the role of values and those more normative dimensions in shaping science, I'm not doing that to critique it. I think there's been enough work done to say that, you know, we all know science is value laden. Can we move on? Moving on is hard, but that's what I'm trying to do. So just quickly, I've done extensive participant observations. It's probably within about two weeks of when I started my PhD. I've particularly for this paper, I'm drawing on participant observation of a group called Meeting

Landscapes, which I'll talk a little bit about more. But then there's also been a number of different field visits to different projects. I've sat through lots of steering committee meetings. I'm also part of a governance working group which has been developing the governance arrangements for Habitat one for one, and I, particularly for this paper, have interviewed a bunch of experts. So these people I selected based on the fact that they understood the biodiversity conservation, natural resource management space, but we're not actually affiliated with any of the projects that I was looking at. And I did these interviews in January 2010 before the policy commitment was made. And the point of them was to sort of say, Whoa, what's going on with these connectivity space? What do you guys think about it? How do you. Do you see this is a good thing or a bad thing? Because generally, aside from my observation, I was finding it difficult to get a hold on how everybody else was responding to it and then documenting.

[21:27 - 23:51] This sort of promotional material being put out by linking landscapes, stuff that they've used to explain what connectivity conservation is, all that kind of stuff. So just quickly before I move on is just some context about Australia. We have had 20 years of experimentation in devolved and decentralised Internet. So that started in the late 80s and 90s with Landcare, which are landholder collaborative stewardship groups that were formed at a sort of very local scale to, to do a whole bunch of different stuff. Talk about them more in a little bit and then sort of review an analysis of Landcare suggested that we needed to actually be operating on a larger scale. And so 56 NRM bodies and regions all kind of happened amorphous in different states and different ways. But now Australia is divided into 56 NRM regions which are loosely based on watersheds in the sort of some areas that works up in the rangelands and further north where the landscapes get quite large and it's not so much based on watersheds. The Federal Government is a major funder, is the major funder for conservation in Australia, but the responsibility for natural resource management and conservation lies with state, and philanthropic investment in conservation is very small compared to the US and is also reasonably recent phenomenon. There's been little bits of private land conservation here and there, but it's really only in the past sort of ten years that we've seen the Nature Conservancy type model of NGOs buying up bits of land. I guess the other thing to say is that there's only 20 million people in Australia. So while we're the same size as you guys, there's just not that many people out there in the landscape where the most urbanites, the one of the most urbanized countries in the world. So there's a whole vast array of nothing that's not much in it. So Landcare, so people and place based conservation, very much your sort of community based NRM Landcare did a whole bunch of different things from fencing off riparian zones, planting trees.

[23:51 - 24:19] They were even at some stages getting money to paint schools. You know, it was very much the funding to Landcare was very much based on this idea of capacity building and

getting people out there in the landscape to do things. I guess it was based around this kind of cohesive group identity and sense of community that was being built, working towards tangible goals and very much about experiential learning and.

[24:20 - 26:30] It's kind of viewed. Within the Australian context having been an inherently good thing. It was the kind of seminal moment in the history of Landcare in the narrative that gets told about how it started was when we had the head of the National Farmers Federation and the head of the Australian Conservation Foundation come and stand in this very degraded landscape and say we need the farmers and the environmentalist to work together. And then the government put a whole lot of money into funding for Landcare groups. Unfortunately, the ecological outcomes we now know were reasonably negligible. But despite successive reviews that have shown that it hasn't had that much impact, it's still viewed as an inherently good thing, which is important for the connectivity story. Um, just quickly, I mean, these enduring problems are probably very similar to what you guys are facing here. So ecological, social, institutional fragmentation, problems of mismatch between scales, land tenure, boundaries, disciplines, jurisdictions, overcoming all of these things, land use, change, fragmentation, invasive species is huge in Australia, as is inappropriate fire regimes. But I think the difference between big difference between here and Australia is the capacity in these rural and regional areas. So very high rural to urban migration, particularly of young people, volunteer burnout from Landcare and a massive loss of faith in the Government and its role in capacity to actually assist these groups to try and make a difference in their landscape, which is what they're all trying to do. So. Now I get to the narrative. So these three kind of statements really capital captivate what it is that I've observed over the last two years. So firstly, you have this idea that the science says we must. So there's this like overwhelming scientific evidence which suggests that we need to be doing this. And then this idea that connectivity is intuitive, it makes sense.

[26:30 - 28:28] People understand it. And then the logical solution at the end of it is that we all need to work together. This picture is from an ecological restoration, quite successful project in Habitat one for one. So lots of the pictures. Most of them are from within my case study areas. But this is a group of scientists, interestingly enough, or men who are part of the science working group that feeds into Habitat one for ones planning of some searching. So the protagonist for today, they're one of many within the connectivity space is this group called Linking Landscapes. So linking landscapes is this kind of nebulous collaboration of people who share a vision to conserve and connect Australia's natural landscapes at a continental? So that's the kind of byline. They are focused on biodiversity decline, climate change impacts, and then the health connections between natural and human systems. It's being driven very much by a national park people, the IUCN and the World Commission on Protected Areas, and they have this we need to act now. We need to work together

and we need this national large scale response, which they've called a natural defense strategy for Australia. I don't really like war metaphors, but that's how they're trying to put this forward. We have this dying landscape and we really need to do something about it. So. This idea that there's a pervasive sense within the Australian community. Are sick. It's getting worse. There's all these problems and then there's climate change. So this is the way this is part of the beginning of constructing this crisis which is obviously climate change.

[28:28 - 30:04] So this quote comes from a report that was done looking at climate change impacts on terrestrial biodiversity in Australia, climate change as the double whammy, the 15 species. Ecosystems processes, but then also exacerbating the impacts of a whole lot of other stressors. So that's a big deal in the Australian landscape given how poorly we're managing to deal with the existing problems. So then if you add this other layer over the top, we have the biodiversity climate change crisis. Um, and so then enter into that this connectivity conservation. So there's quite a lot in this quote. So I'm going to kind of unpack it a little bit. This is the kind of bulk of the story, this idea that connectivity is intuitively appealing. We've got these highly disturbed, fragmented landscapes, so connect them up. But it's also because it's something that can be done at the scale of an individual. So you can be part of one of these initiatives and feel like you're actually contributing to the big picture. So unlike climate change, other action on climate change, where it's like, well, if you turn your light off, how do you know if your neighbor is doing it? By being part of one of these projects, you can see that your actions on your piece of land are connected into a bigger picture, and together we're all going to save the world, basically. Okay. Yay.

[30:05 - 32:27] I guess the other thing, too, that I forgot to mention is that this is all voluntary. So there's no forcing anybody to do anything. So it's about inspiring participation in. Which is part of why there's so much emphasis placed, I think, on creating these sort of stories about how you can make a difference and connect into this bigger picture thing. So here we have three images that are reasonably typical of the Australian landscape. So in the top left hand corner, this is as the rabbit proof fence on the. Right hand side of that picture is agricultural landscape. And on the other side is land that hasn't been cleared. So this is that photo in Western Australia. It's land clearing up until the cow not that long ago in that landscape has meant that Australia has one of the highest rates of mammalian extinction in the world. So we have a huge problem. And you know, people know that this is the sort of social understanding of Australia is this landscape that was cleared. We took all the trees out and now we've taken all the trees away and we get these kinds of landscapes and they're sick. And so we'll obviously if we plant trees again in the landscape, we'll make it healthy. Again. So you hear these? They used to be connected, obviously. Let's just connect them up. But I think the other part of this is the role of Landcare, because they were most famous for planting. These kinds

of revegetation corridors. And, you know, socially it hasn't kind of filtered into the general population that actually that didn't achieve the outcomes that we wanted it to achieve. So we have this social memory of Landcare. Embodying knowledge from living within that landscape and knowing that the fragmented landscapes are unhealthy. And so we've made this very simple leap between fragmentation being bad and connectivity being good. I think I'll come back to that.

[32:27 - 33:28] The other aspect of that quote there. So you wait. Does that make any sense? Okay. Now we'll move on. Okay, so then this idea of framing the individual within the collective. You can do something and be part of these bigger features. So this is from the greatest and ranges prospectus, just some kind of language around how they're managing to sort of create this collective and enlarged sense of place. So you're here and this is at this kind of continental scale, the actions of of each impact on the experience of us all. And then we move down to your country, the coast, your state of territory. You are here. We're part of something that's bigger than all of us. And then when you get down to your region, your town, your community, your home, you're here and places something that is special to somebody. So this language pervades this this space.

[33:30 - 34:46] But then the controversy, hat good story doesn't have a controversy. This is around the science of connectivity. So unlike in the North American context, have I said this already? We don't have large carnivores that have large home ranges or species that follow the linear migratory pathways. Australian animals behave in weird and wonderful ways. And so while people don't necessarily disagree with the idea that we're shifting from sites and species to landscapes and processes, it's the science is very different from the North American context around corridors. And so there's this question about whether or not building, reconstructing these corridors is actually going to make a difference and just issues around the empirical evidence to support them. And then a few reports which have come out recently that are questioning whether or not this is a climate change adaptation strategy, because the idea is that as temperatures shift, species will move along a little corridor. And from what I gather from talking to ecologists, they say that's a gross oversimplification. Of some really complicated stuff which we don't understand.

[34:47 - 37:24] And these question about whether or not the science which showed that habitat fragmentation is bad is enough to let us think that connectivity is necessarily good. So as with all good science. We have no idea. And within that sort of messy and complex way that this this this science has gone into practice, we can I have identified all of these different justifications that are being used for connectivity, conservation. I'm running out of time. So the main message here is that it's lots there's lots of different ways in which you could see connectivity as being a good response to this kind of crisis. And they're both social and ecological. Um, but then we have this lost in

translations. So this ecologist happens to be one of Australia's leading ecologists and somebody who is continually invoked by the connectivity conservation people as the reason why they're doing what they're doing. However, he is quite critical of it from the broader conservation perspective. Connectivity from what? How a human looks at a landscape is very different from connectivity for species and processes. So there's very big question marks around whether or not this picture, which is the type of restoration and revegetation that people are doing to create these sorts of things is actually going to connect up that landscape for ecological processes or species and actually increasingly. His birds are the main thing that we care about rather than be beasts. These landscapes are actually quite connected for birds in terms of structural and structural and functional connectivity. So this here is structural connectivity where you see a sort of linear spatial arrangement in the landscape, whereas functional connectivity is actually about how animals use the landscape, spaces use the landscape. And that distinction means that when you're translating that idea into practice, it becomes very confusing because connectivity for who, for what, at what scale to do, what sort of big uncertainty in it. So now we move towards the end of the story. At the scale of these main corridors, No. One tenure, no one agency is going to be able to do anything.

[37:24 - 39:15] So integrating across teams is critical. And so here we have the warm, fuzzy. Everybody gets together. And we solve the problem. So what I have been observing here is what I'm calling the co-production of governance. So we've got these science ideas about ecological connectivity and management for connectivity, regardless of how you think about it, requires collaboration. So when we were thinking about managing our landscapes in terms of sites and species, you can kind of fence off a little area and have a particular agency or a particular landholder looking after that. Whereas despite all of the complexity around connectivity science, one thing that it does indicate is that we need to work at larger scales and we need to start thinking about how our landscapes function. And thinking about function and processes means that you need to start to think on a bigger scale. Once you can going to be the scale, you have to work with your neighbours. So management for connectivity requires these multi-agency partnerships which bring everybody into the tent. And so what I would argue is that these connectivity projects are setting up a framework for cross training and cross scale integration, which in the Australian landscape at least is something that we've been calling for for a long time in terms of actually starting to deal with managing our biodiversity issues better. So science is kind of taking this kind of interesting pathway whereby the scientists aren't particularly impressed with what's being done to improve ecological connectivity, but actually the outcome is still something which they can all agree on. So then to pull apart the narrative.

[39:15 - 40:49] Not very much time. The visibility of proponents and their access to media and power is being an incredibly important part of this story. Part of the Australia is a small country thing means that there's a number of key players who are quite powerful and it just so happens that the the IUCN and people associated with the World Commission on Protected Areas, which is part of the IUCN, very prominent supporters of productivity, conservation and also very powerful and successful lobbyists. So linking landscapes is being driven by those people and they've had the ear of policymakers and they've been up there. And that's how we got the election commitment in the prior to the 2010 election, which has then led to the National Wildlife Corridors policy. But then it's also this idea that it resonates with widely and deeply held cultural values. And so the science lined up with people's common sense. That's a good place to be if you're trying to advocate for something. Advocating something that's counterintuitive is really hard yards. So despite the fact that this intuitive understanding of connectivity that people have may not match with the science, it has meant that connectivity as a concept has rolled out across the Australian landscape much more successfully than I've seen it happen over here.

[40:51 - 42:08] And then that it strikes a chord with the national mood. So the fragmentation stories are very negative, whereas restoration at scale, it's visionary, it's bold and it's positive. So this is an above landscape shot. Those rose ten years ago. That would have just been a degraded paddy that, you know, marginal agricultural productivity. And when you stand in these landscapes and you can see the trees growing up, it is quite it is quite powerful. We are actually transforming our landscapes at scale. And that has been a very, very important part of this. I think it's also part of the broader shift that I've been observing in conservation in Australia, where people are sort of starting to say, well, no one listened to us when we were being all doom and gloom. Maybe if we can tell some positive stories, people might be inspired to be part of conservation. So I think it fits within that broader discourse as well. And then this the prescription entails no radical redistribution of wealth and power. So this is from Habitat one for one planning meeting, and you don't really need to see the details of that. Other than that, I can tell you that anyone who does anything to do with conservation in that landscape.

[42:09 - 44:21] Has a little sticky label on the map. It's, you know. There's very much about bringing together the people who worked on community based conservation and people who worked on protected areas. Now all of a sudden we can be part of the same team and together we'll do something bigger. So these projects are trying to bring everybody into the tent and not offend anybody. And that has meant that there's a whole lot of different agendas embedded within it. But it's also meant that they're actually not trying to change the distribution of power between the different players in conservation. While they might be trying to change the landscapes, they want to do it

collectively. Um, and so that has led to what I'm calling a normative glue. Because this it's kind of this melding of the collaborative vision, the positive narrative, and then this idea that it, you know, we're stuffed if we don't work together. And in the management of biodiversity on private land, there's no economic benefits to be found. You could draw long, convoluted lines of argument about ecosystem services, but generally the people who are doing this are doing this because they believe in making the world a better place through conserving biodiversity. And so it's not actually a lot of the literature around common pool resources or any of any collaborative governance doesn't really help in this because these people aren't doing it for their own benefit other than from their values and their belief. And I think that is a really important part of this story. But interestingly enough, it's also meant that they brought a response to them from outside of the conservation movement. Is that their religion? I've heard a number of people, a number of ecologists say, Oh, you're studying those connectivity zealots. And this kind of if you don't get it, you're not needed in the project. Or we definitely understand each other. I wish more people would understand us.

[44:21 - 46:58] That kind of language is what feeds into this sense that these these are very driven, hard wired people. And this lovely quote, I've never converted an atheist. I don't ever see myself converting one of those kind to people. So that quote is from an interview that I did at the start of 2010. Interestingly enough, this ecologist who is a different leading ecologist from the other one, he's now heading. The science working group that's associated with the National Wildlife Corridors Plan. So he has gone from being very critical of these projects to now, now that it's being embedded within the policy space. He's now kind of their perspective has shifted where they've gone from saying, well, no, that's not what we should be doing now. It's policy now. There's money involved in it. And now the ecologists who were once critical of it are now trying to reshape the way the practice is rolled out to get what they want out of it. So they still think that the large landscape connectivity thing is not necessarily what we should be doing, but underneath that general organizing principle, they're trying to get better outcomes for what they would see better outcomes are. So there's this kind of interesting play between policy and practice that is shaping the way this has rolled out and then almost finished and running out of time. This this comes back to that. The main benefit is we need large scale restoration. Having it connected gives people a vision for that. Then that's great. I think there's no doubt that it's useful. But whether or not the primary usefulness is that they're connected, I'm not convinced. So this is that kind of way in which science has motivated a different way of thinking about how we need to manage our landscapes. And that's the key part of it. Science has been central to this story. It's definitely particularly the cognitive authority of science that these projects are that the science says we must have been fundamentally important to keeping people at the table. But it's definitely not through this kind of linear process. And connectivity has been reshaped to fit the Australian context. So it's in the way in which we're applying. It's very different

from migratory pathways or what you would see here, and it's that sort of social and normative context around Landcare has been a really important part of the story.

[46:00 - 47:57] But blurring those boundaries has actually led to this national conversation that we're having now because of the National Wildlife Corridors policy. And it's it is really interesting seeing and being part of this process whereby science is actually motivated practice in a really rapid way as opposed to the sort of implementation crisis that you hear people talking about with conservation biology. And I think that by trying to understand science as part of a narrative and part of a story has helped me to see this as a process of diffusion with this interplay back and forth between science and practice rather than. The gap that everyone writes about. And where I'm trying to take this eventually is to talk about the co-production of governance rather than this idea of fit. Because we think about ecological systems and social systems is being so fundamentally different.

[47:57 - 48:33] Then, you know, it's not so helpful. Whereas in this way, trying to understand how the science of what makes our landscapes function and then how governance arrangements can fit in with that, we've now got a potentially more productive way in managing the landscapes. The only problem then with that is that, you know, in ten years time science will tell us something completely different and whether or not these institutions have within them the capacity to adapt is obviously an unknown question. Okay. Thanks [applause]

[48:41 - 48:42] Speaker 1: We have time for some questions or comments.

[48:53 - 49:02] Speaker 2: And activity, but they want to do a broader restorations and what's their answer? What are they saying should be done if they don't make the time to.

[49:03 - 50:32] Karina Whitman: And they would say connectivity is just part of the big picture. They're saying that we have been neglecting ecological connectivity and we need to be managing it. But then there are all of these other sorts of things and particular problems around connectivity in terms of fire and invasive species. And so without managing those sorts of threats in the landscape, in just improving ecological connectivity, they would say likely to have perverse outcomes. And then the other line of argument within it. So unlike in North America, where there's thousands of conservation biologists, if you put all of the conservation biologist Australia on a bus. And that bus crashed we'd be in a lot of trouble. So the kind of it's there's because the community is so much smaller, it's dominated by the empiricists who are saying that the landscape, the way that it's functioning is not what people think. And then we have the conservation planners, optimization people who are saying hatp In terms of bang for your buck, this is not what you would want to do.

And their problem is that the that, you know, they're supportive of one project because they say if you were to do an analysis of the whole of Australia, that one would be okay.

[50:32 - 51:36] But these ones we're not so sure about. So because politics and social movements has been what's driving where the particular projects are, they're not necessarily. In the most ecologically appropriate landscape. But now they're sort of now the optimization people are saying, okay, well, we've got all this social support in that swathe of the landscape. How do you best spend your money within that project? And that's what's happening now. So a lot of our arguments for connectivity do go along through the migratory routes or large carnivores. They need a lot of space. How do you bring those arguments to people who like need to reconnect landscapes? Like how do you tell them how connectivity is a good thing? Thank you for that argument. If you don't have what we use her Necessarily. Does that make sense? Yeah. I mean, and that's that's where the land care stuff really comes into it, I think. You know, and you can you can look, it's part of living in.

[51:36 - 52:28] I just I don't know How to explain it other than it is part of the. Let's say you look at it and you. Can see there's patches of remnants. O'Hare caches remnants over there. And even though we don't necessarily need species to move across them, people still sort of use that. Birds can need to be able to fly or whatever it is. I think that. It. It just the building of those corridors has been part of the sort of historical social. And I mean, it's funny, when I was here last year doing my. Interviews for my North American case, people who I spoke to were surprised to hear me say that people say connectivities because they said they definitely haven't. Had the same experiences trying to communicate it over here. Yeah.

[52:36 - 52:43] Speaker 3: So landowners who participate in this don't get paid at all. There's no monetary incentive?

[52:46 - 54:43] Karina Whitman: No, I mean, they. They threw these programs or through other private land conservation programs, you can apply to the federal government to get money to fence off your riparian area or whatever. We've sort of moved towards market based mechanisms to distribute funding in the landscape. But a lot of the research has shown that land owners invest way more money in it than what they get back from the government. So they'll get small amounts of money to do some things. But it's they're not doing it for money. They're doing it because they care about that. So where is it? This bird is largely gone from Australian agricultural landscapes because it nests on the ground and has been their habitats been so fragmented and they've been hunted out by foxes, foxes and cats. Is the stone curlew when it calls at night. It sounds like a five year old girl being strangled. It's quite intense. And people there's one of the projects in Habitat, one for one is trying to recover habitat for Stone Curlews. And standing amongst a bunch of land landowners

looking at this project and talking about it. And they're all like, I'd give anything to have them back. You know, they all remember the calls from growing up from their childhood, and now it's gone and it's lost from the landscape. And so there's it's very much about that. And then also because some in some areas the land clearing was reasonably recent people, landowners remember as children helping their parents taking out these massive trees. So there's this huge redemption and guilt element to it in some areas. So, yeah.

[54:47 - 54:48] Speaker 3: Well, thanks.

[54:48 - 54:52] Karina Whitman: Yeah. Thanks very much for coming and listening to me ramble. Thanks. [applause]

END TRANSCRIPTION