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21st ROMEO LAHEY  
MEMORIAL LECTURE

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Thank you very much, Susanne. It's certainly a great honor to be able to give this lecture. Let me begin by acknowledging the traditional owners of where we are, the Jagera and Turrbal people. And I think it's worth reflecting on the fact that for tens of thousands of years, they have been interested in the biodiversity and the nature of this land, not just stewarding the land, but also observing.

So, I often say "first birdwatchers." I am an obsessive bird watcher. That may well come through. As time progresses, that as bird watchers, you know, it's interesting. 10,000 years ago, everybody living here was a bird watcher. They knew all day birds, too long is named after the indigenous name for cow owls. Too long? Well, they wisely named most birds onomatopoeia, which makes it much easier to understand because so many people actually understand birds because of their calls.

So, one might reflect on what happened to us such that if I went down to Queen Street well and said grabbed 100 people and said, "Are you a bird watcher?" And we think would say, yes, yes, maybe. That's right. I'm... I'm hoping for two but yeah. Could be nine. Could be could be five if I'm lucky. Maybe if you walk down the aisle, give me if you knew that.

The bottom line is, we've gone from, you know, and I know this is why this... an organisation like this exists from a culture and a country where everybody was a bird watcher to two or three. But I will optimistically say interest in nature, interest in biodiversity, interest in natural history is growing. And I'd like to pay my respects, as I say, to those traditional custodians for their work in natural history, science, and conservation.

I'm going to sort of have three broad parts of my talk, which is, you know, how is biodiversity and nature going in Queensland, in Australia? Well, talk a bit about what we're doing about it. And then I'm going to talk a bit about what I think are some of the things we could be doing. And then it's going to get a little bit edgy and a little bit controversial because I can't give a talk without being controversial.

And I'm going to more or less challenge you and many other organisations in the conservation movement to think about how conservationists can be a little bit less conservative. So there was a big ideas radio program where I basically argue conservation is too conservative and we need to move ahead. And it's a great time. It's a great opportunity to move ahead.

So we need to think bigger scale, longer term. And why is it a great time to move ahead? Well, I'll tell you in a minute, but a few things have happened in the last couple of years. That means that nature conservation is really on the up and up. And you might see the extinction rates and other things happening in conservation or the loss of habitat around where you live.

But I can assure you that there's every sign that the public of Australia are getting more and more concerned about conservation. And so it's an enormous opportunity for organisations like this that all the other organisations. Congratulations on 91 years. Did you say 93? So it's a better thing. BirdLife Australia has existed for 123 years, but they were called the Royal Australian or Theological Union and actually the first 50 years they spent a lot of time shooting and studying birds.

So I'm not entirely sure. It's quite distressing to see a picture of an early bird outing in the 1920s. It's sadly largely men wearing suits and ties in the bush, no doubt baking in the heat. And the idea of bird

watching was to take food shot and and shoot them and stuff them, skin them and take them back to the museum.

So there's different times, I'd like to say as BirdLife Australia vice president, we don't eat foods anymore. And in fact in the last three or four years BirdLife Australia has entirely focused its efforts around conservation. So the peak objective of BirdLife Australia is to be a conservation organisation. In the day it was partly a science organisation, partly a bird club.

All those things that natural history groups struggle with in terms of purpose. But now their purpose is clear. Your purpose is in your title, which is which is very appealing and no doubt hasn't changed for 93 years. I just want to quickly remind you why Australia is special. Not that you need to be reminded that this is something I think the Australian public often forget and there is only one other country that has more endemic species than us.

So we want to have a guess. Indonesia, well done. Brazil has more species, but Indonesia is the only country in the world that has more endemic species in Australia. And this is roughly truth and birds, plants, insects, the lot. So we have eight, you know, about 8% of the species on the planet, which is not as much as say Brazil or Mexico, less species, but almost so much of what we have occurs nowhere else in the world.

So there's almost no place in the world with a greater responsibility for biodiversity than Australia, given there's only 25 million of us looking after 8% of the world's biodiversity, much of which is endemic. And it's not just the flashy things. People often forget that rainforests which are relatively small, ancient Gondwana rainforests, because we've been wandering around on our own for 90 million years as we broke away from Gondwana and started heading north at about two inches a year and the last 30 or 40 million years, most of our biodiversity has evolved quite independently of the rest of the world.

And those wet tropics Central Asia range is rainforest. They are the last relics of the Gondwana rainforests. So they're not gigantic, but the rainforest of Indonesia and Brazil and Central Africa, but they actually hold much more deep, ancient, phylogenetic to this city than those other places. So whichever way you count it, it's an incredibly special country to be in Queensland sometimes biodiverse state of course in all of Australia.

So if anybody should be interested in this topic, it's us, and we really need to work very hard on it. How are things going, though, given we have such an incredible endowment of diversity? Well, it's interesting. The federal government recently started to review their Environmental Protection and Biodiversity Conservation Act, which I helped with Robert Hill creating in the late 1990s.

So we created a specialised piece of legislation to protect threatened species. We also have created from the University of Queensland the Center of Biodiversity Conservation Science, an index that tracks how threatened species are going, and the Threatened Species Index (TSX) is sort of like not the ASX, which is where your shares are, that the TSX sort of like an index of how Australia's threatened species are going.

Has anybody ever looked at the TSX? So easy thinking [tsx dot org dot au](http://tsx.dot.org.au). What do you think's been happening to us? This is based on 12,000-ton series of Australia's threatened species. We have about

2000 listed threatened species. How do you think Australia's threatened species are tracking every year since the EPBC Act was created? That's right. Basically going down alarmingly on average two or 3% per year every year for 20 years.

So that's not good. You can't keep going down. If our economy was going down two or 3% a year, what do you think? Would any of our governments last more than 12 months? Was Gough Whitlam? He was the person who apparently was threatening Australia's economy. He didn't last very long at all, but I imagine if the economy was going down 2 to 3% a year, imagine if the per capita murder rate was going up at two or 3% a year.

Every year we view up in arms that the 25 years we've tolerated a continuous decline in biodiversity there it is the threatened species Index. When I first proposed that and we created it seven years ago, who do you think tried to stop me creating a threatened species index for the nation? The federal government. They didn't. One one. Strangely enough, if you want to say you just text or got a few, you can find out how all groups in different states how everything's going.

12,000-time series. The new treasurer. What's his name? Chalmers just released an index of how Australia's well-being was. So normally what do we get on the news every night? We see unemployment rates, we see inflation rates, we see interest rates. All we see is economic indicators. Occasionally somebody might talk a bit about longevity or hospital care, so you might get the odd social or health indicator.

How often have we seen Alan Cutler put up an environmental indicator that sustains the economy? The economy is a subset of the environment. How many times does anybody remember Alan Cutler putting up an environmental indicator? We begged him actually to put up the TSX. We may one day get there or one of his friends. But fortunately, this government, they have some good and bad parts of that.

This federal government. Chalmers released a state of the nation's well-being and the Threatened Species Index, which the federal government tried to stop, is now there one indicator for biodiversity, which we created six or seven years ago and have been working very hard with scientists on making sure we have that index. So we have one indicator that's a national indicator.

You should look at those well-being indicators for the nation, which is a start because that's I love to everybody loves to say you can't manage what you can't measure. And intriguingly, when the review of the Environmental Protection and Biodiversity Conservation Act was happening, this is the Samuel's review. Graeme Samuel said that under the previous government the review in theory is being enacted on by the current government.

So Tanya Plibersek has promised to review this environmental legislation, which is the dominant legislation for the country, the Samuel's review, which looked at how well things were performing when Graeme Samuel was first took that job. I'm I think he's a lawyer. Right. Very smart person. He spoke to myself and my team man from the University of Queensland. We were zooming in and he said, who is biodiversity really in trouble?

So it's two or three years ago, well-educated, highly intelligent and now a huge advocate for biodiversity. And Martine opened her laptop and showed him the Threatened Species Index and said, that's 12,000-time series. The ASX I think is a compilation of about 200 things stocks and shares. We need an economist to verify that it's not even the full set of stocks, which is 12,000-time series and look what it's doing.

So I think through organisations like the Biodiversity Council, which I co-chair and other groups, the question will never be asked again. Are we doing okay? It's sort of unambiguous. And we have the data and we have many, many years of data to show things aren't going well. There was a wonderful review by Sarah Legge on the State of Australia's biodiversity just came out in the world's premier science journal, which is called Science and points out that despite Australia being a wealthy country on average, we have doing worse in biodiversity than most countries in the world, worse in biodiversity.

And I think you all know the mammal story. The mammal story is profoundly disheartening. We have more than half of the world's mammal extinctions and a lot to do with feline invasive foxes, cats and overgrazing. So I don't want to belabor the bad side because we can we could sit here and cry and whinge about the state of biodiversity in nature forever.

That's not very positive. What I do want to do is talk about the upside and then what we can all do about it, because there are enormous opportunities. The upsides are firstly we still see filthy rich. It'd be very may not feel so they filthy filthy rich that go to the streets of Nairobi and go to most of the world.

We are genuinely filthy rich as a nation, so we have the power to do these things. We have an engaged First Nation community who ultimately will be managing and owning probably 40% of the nation. And we have a very good, for example, Queensland Parks Indigenous Ranger programs which are delivering both social, economic and environmental outcomes and net in contrast, let's say to where I was working with the Nature Conservancy as the chief scientist in the United States, the engagement with indigenous people on nature is extremely poor, extremely poor.

They're never going to manage and own 40% of the United States. They'd be lucky to get 4% of the United States. Biodiversity is now becoming a big issue again. Literally. Two days ago the Australian Research Council released their top four research priorities for the nation. Top four research priorities. Biodiversity is one of them. Biodiversity and net zero is one of them.

There's no neuroscience, there's no quantum computing, there's no medical science. General statements about health. So biodiversity is called out as a top four research priority by the nation's Australian Research Council. So people have suddenly realised that biodiversity is very interesting. And the other thing is we're not too bad at it that biodiversity science. So there are global rankings of scientists around the world about how productive they are in various areas of science.

Australia has ten of the top 100 ecologists, biodiversity scientists, conservation scientists, ten out of the top hundred. How many should we have? Well, there's 25 million Australians. There's that 2.5 billion reasonably wealthy, well-educated people around the world. So we should have one. We should have one in 102.5 billion divided by 25 is one in is one in 100.

We have ten. So that's a lot. The only countries with more is the United States and the United Kingdom. And we just beyond the United Kingdom, we've got more than Germany. We've got more than Canada, we've got more than Brazil, we've got more than China. That's how good about it is citizen science is it's amazing. We have a medical science.

We had one in the top 100 in physics. I don't think we have any mass. We have none. So whenever you're talking to people about what is Australia good at, it's actually agricultural science and conservation science. That is actually where we're it's like the tennis in the 1970s because that when we were good at tennis last, we know the days when we had about five of the world's best tennis players, at one point we even had a few good golf players.

Those days are sort of gone now, right? But that's how good we are in terms of biodiversity science. So there's no problem with the science at all. We know what we need to do and we've made it very clear and we've repeatedly asked the federal government, if you do want to stop extinctions which the current Labor government promised to do, and we actually signed up to that.

So there's three things we signed up to which is good as well. The Australian Government was very, very adamant in the Convention on Biological Negotiations in Kunming and Montreal in the last year. We signed up to a whole heap of commitments and you probably know one of them. One of them says 13 by 2030, what's 30 by 2030?

That we would conserve in protected areas or some form of conservation measure 30% of the entire country by 2030. How much of Queensland is conserved? That's right. You know that number. Well. Well, thousand say actually it's protected areas for protected areas, but it's also these other and Mark Hawkins and I have talked about this last year, other environmentally area-based conservation measures they're called there's a horrible acronym called ACM, which is basically Bush Heritage Australia's reserves Land for Wildlife is there.

So in theory, all those parcels of land, special wildlife as is, which aren't necessarily owned by the government but can be owned by any and managed by individual lands, they can also count and we just haven't quite worked out how to count them when they add up the area that we we still I think at 12% even if you add them up and if anybody has done all those calculations.

So yes, 12% we're going to get to 30 to 30 by 2030. You think Queensland's going to get to 30 by 2030. And if we did, who? Who's going to manage it, who's going to manage that land? I don't need to tell this organisation that we don't have enough rangers and staff on ground in our park system to look after the current park system.

I mean, it's not just how big it is, is how fire fills weeds and people are managing those parks. So do you think Queensland is going to double its protected area, stay and provide for all that management in the next 12 in its seven years left, who thinks that's going to happen? Who thinks we're going to get to 30 by 2039?

Not so. We need to think of other things to do. Well, that's what I'm really saying. We've committed that. We've committed to zero extinctions and we've committed to restoring 30% of degraded land and

of course 30 by 2030. Again, I don't need to tell this great that that isn't just we can protect a whole heap of deserts and arid lands and stuff that nobody else wants.

In theory, the real thing and this is so important and I think Bob Casey gave your lecture a few years ago. Sadly, Bob passed away a couple of months ago. He would emphasise the importance of representation. So it's not just 30% wherever you like, it's 30% of every species distribution and 30% of every ecosystem type. And another place where Queensland is extremely lucky is we have the ovarian, they, the herbarium has met.

So the vegetation of the state is 1460 something regional ecosystems, which is amazing math. Very accurately, that data underpins our native vegetation clearing legislation. That data also underpins what the department environment science does in terms of trying to prioritise those ecosystem types endangered or of concern ecosystem types that they need to target for the protected area system. So there's some very good government science and underpinning.

They just don't have enough money. I think the latest two or three big extensions were funded partly by the Waste Foundation. Who knows who the Waste Foundation is? We do now because they put in a pile of money. We did that come from hands your waste via the Nature Conservancy and I was meeting with annuals we waste and I can't I have to say delightfully in the middle of Kenya spending a week with him, working with him and his team to spend more money on protected areas all around the world.

And we convinced them also this was Kenya protected areas, Mexico, Belize, but also the right great opportunities there Australia was. And so that money comes from him because he's a multi-billionaire. That that's a book. But remember what a billionaire is. We don't have that many of them in Australia. We have a few that of them give to conservation.

But multi-billionaires, you realise with \$1,000,000,000 I live in Sherwood. You can buy Sherwood, he can buy even though Sherwood stupidly overpriced suburb except it's a flood you can buy Sherwood if you have got \$1,000,000,000 nation being able to buy a couple of Brisbane suburbs that's the amount of money we're talking about is huge. And he is devoting hundreds of millions of dollars every year to protected area expansion.

So what does that tell us? What does that tell us? It tells us what I've been saying for ten years, ever since I particularly work with the Nature Conservancy tells us we told the government to stop, stop the species going extinct and make 20 by 30. By 2030, they would need to spend \$5 billion a year on the environment and we currently spend a 10th of that.

So government spending on the environment would have to increase tenfold for us to meet any of our commitments. So we signed, we said we do it by 2030. And what did you see out of the last federal government? Did you see a massive expansion of the amount of money spending on the environment? There was little bits and pieces and you never really sure when there's little bits and pieces whether that is just shuffling money from another program is an enormous and a very, very, very clever cost-shifting that happens in Australian governments at local, state and federal levels.

I read page things and they say they're spending more money. So let me be very clear. The Biodiversity Council, the threatened species have we have repeatedly done the analysis. What would it cost to stop

extinctions? What would it cost to make this 35, 20, 30 protected area system and restore habitats to real? And it is basically that it's at least \$2 billion a year for each of \$5 billion a year overall, \$5 billion a year.

So what would... so he might think that's a lot of money. I don't want to pay \$5 billion a year on my taxes to go up \$5 billion a year. Or we could buy some submarines so we can have six submarines and we're going to have no nature. And what do you think people are going to think about it in 100 years' time or 50 years' time when half of our species are extinct and we probably will have lost five submarines.

Six submarines. We had two submarines in this whole war. So anybody know what happened to them? My great-uncle, all my stepped onto one of them of Darwin. A one disappeared in the business. He was never seen again. The other one was captured near Turkey. So we had we had a go at submarines and and it didn't actually do anything at all.

Now we're going to have six or seven of them instead of funding nature properly. But basically that's the scale of the problem. So it's not it's not \$5 billion. Again, if we walk out onto the Queen Street Mall and say, this is what it takes to save the entire natural heritage of an entire continent, most people would be coming in asking about whether we should pay for it, but we can't pay for it because we're happy to pay for something that, in my opinion, is going to achieve nothing at all.

I just hope we don't lose them like we lost the first two submarines we ever had. So we have signed up to some commitments. We do have the resources to solve the problem. The next question is why aren't we solving the problem? And so what does a government say to you? State, federal? They say they will do anything you want them to do.

As long as most Australians won't act because that's how they got elected. Right? More than 50% of people voted for them and that's how governments work. And I'm going to say something a little bit controversial now. I'm very optimistic that we will turn a corner. Why am I optimistic? Because let's think about climate change 20 years ago, very few politicians were at all concerned about climate change.

Most of them didn't even believe it existed. And what have we seen now is basically both major parties in differing ways. And the vast majority of the Australian people, at least 70 or 80%, believe climate change action is urgent. And although we decarbonising way too slowly, we're certainly going as fast as some sort of capitalist democracy allows. Okay, it's not like we're going to have a Russian five-year plan and go into a war footing, but we're going as fast as we can and we'll probably be decarbonised between 2014 and 2050.

So to be honest, the climate wars are actually all over. I know they're not all over in the States. We're still going to get one and a half to two and a half degrees of climate change. And it's not going to be very pleasant. It's not going to be pleasant for biodiversity. It's not going to be pleasant for our position, is not going to be pleasant for people who live in Brisbane because it's going to be hot and more storms and other things, more fires, but the world is more or less and Australia is more or less finally decided.



They're going to act on it. In fact, I've had three or four major donors talk to me recently who have poured their heart and soul into climate change policy and they say, we've won, so that's good. I mean, we may not all feel as though we won and we may also feel as though we went a little bit too late.

We could have taken action a lot earlier, but now they're saying they now know what the Australian Research Council knows, what all the scientists in Australia know. There are two existential threats to humanity climate change, biodiversity loss. But if I gave that to the general public, what do you think is going to threaten humanity? They'll probably say yes, climate change will.

They say biodiversity loss. Now, of course, they want very few of them will. But the only two ones, I mean, diseases that kill some people, they don't destroy humanity. We just had one. And the economy blinked for six months. So they're not existential threats, wiping out all the pollinators and destroying all the soil. They're existential threats. So it's going to be an interesting period.

I'm very hopeful that the next 5 to 10 years, what Australia and the rest of the world have done on climate change, which I know, as I say, the game isn't over, will start to happen for my diversity, will start for biodiversity. So I'm optimistic or maybe I'm delusional. I don't know if any of you think the same as I have.

And given I wrote my first angry letter to the newspaper about birds and habitat loss when I was 17, just 12 years ago that day. I've been doing this for a very long time, and I wrote my first angry letter. I've been writing, talking to politicians and doing the science of this the entire want to talk career. I really do feel as though we've started to turn the corner on people's passion for biodiversity, just as a birdwatcher going out most weekends to look to bird walks and see who's bird watching.

The just a number of people are out taking photographs of nature insects, birds, plants is going up at least tenfold in the time I've been in Brisbane on the last 20 years. So the interest in nature is booming on naturalists. You can go and take a picture of some obscure little bug and some person will identify it for you in 3 minutes.

So it's technology, it's digital photography, it's databases. So you can visualise all these maps. So the interest in natural history is booming and young people are all very passionate about the interest of natural history. So I think we're getting there that the next thing is what should we do, assuming we do start getting a little bit more resources, assuming that the masses of people start voting more for biodiversity?

And the simplest thing is people often say, What can I do? Well, you see one very simple thing that everybody can do, which is the same as voting a thousand times is and many of you have probably done this right to your local politician, which could be local, state or federal. But the one that's in your seat and say, I am very concerned about whatever you want, extinctions, loss of habitat, climate change are on me.

We would like you to do more in this space. He's the Threatened Species Index. Look at the data. It's not going well. This is a legacy for our children. I'd really like to have a meeting with you and then take a frame and have a meeting and say in the first 5 minutes, something nice about them. This is the hardest bit.

But you can always find every politician has a maiden speech, they have them and they're all recorded and they will say something good in their maiden speech. I'm sure they have, and say that you read it, because if you say you've read their maiden speech, they love you so much because nobody else has and then say this is what you care about and that political power you just exerted is equivalent to a voting a thousand times.

You never have to vote again. You can withdraw all your previous votes if you already exerted more political power just by having that one meeting, because so few people do it and they're like your local member, they always have to do it. But I think also we need to give people some more vision and I'm going to give you some visions of the kinds of things they could be doing for conservation in Queensland, which aren't necessarily the traditional visions.

Some of them will be the traditional visions and some of them he might feel very uncomfortable with. And you may say, Hugh, you're a raving lunatic, but that's okay, because it's partly true. So firstly, how do we finish this protected area system? You know, I think a few years ago people would have said, yes, we want more traditional old-school national parks.

These are places with a ranger station and three, but they're expensive and they're hard and they cost a lot of money to run all of that. If we could get all the state forests into national parks, we have 3 million hectares of state forests. Queensland is 177 million hectares on the land, so that would bump this up 2%.

Do you think National Parks can manage all those state forests in partly being logged? Often they're full of land time. I have a lot of tracts and other things in them who would pay for all that? So what are we going to do about that? So my view is, yes, let's take the state forests but not make him an IUCN Category one or two park, make them a four or a six and allow some of them should be doing match.

Some of the tracks need to be closed. People need to be kept out because they're high areas that some of them should be maybe open for horse riding, mountain bike riding even, dare I say it, some more visitor facilities and some glamping getting people into the parks. 3 million hectares, taking the pressure off the parks we already have.

So 3 million hectares of some of the most biodiverse land in Queensland could be in the park system, but I don't think we can afford it to run it like an old school park system. In fact, it may fall to pieces. I just get ravaged by fire. So we need to give government alternatives to get people into parks.

But you're right, we don't want to have thousands of horse riders and mountain bikers and lots of big parks all through our existing parks system. But we need to give them a place to go. Small Land Trust. So the Nature Conservancy is a global organisation that we only worked in 80 countries, started in the US in 1990, 51, built by scientists, in fact, they at various points of time has owned or put stewardship arrangements over 4% of the entire United States, 4%.

This is a not-for-profit. They own about 1% of the entire United States land in the United States costs at least on average 10 to 20 times more than land here. But not only that they've created over two or 300 land trusts, small land trusts. So I look around southeast Queensland and I see a lot of small blocks of scrub.

Some are land for wildlife, some are other council reserves, but they have a small land trust. The Nature Conservancy doesn't want to be managing 20 hectares here and 50 and all those national parks. I don't want to have a too small park system, but those little pockets of land in Logan City Council in and around the Sunshine Coast with bits of rare and threatened plants and ecosystems, somebody needs to talk to them.

So they have many small land trusts which they have created, helped themselves set up, and they might have 150 members, they might have five blocks of scrub that they manage for the public. They're accessible to the public. They might have a walking trail and all have interpretation facilities. They run a small land trust. So we have very few land trusts.

Alcoa is an organisation that is a coalition of land trust. We have, I think, maybe 20 or 25 across the whole country. They would have more than that just in California or a small state. So fostering small land trusts I think is very important. Indigenous protected areas are already going well and I think they can be promoted and funded.

Having First Nations people back on country is extremely valuable for multiple reasons. And then I'll briefly say in the marine world, software marks, then all the reasoning of the Great Barrier Reef and builds most of the marine protected area systems in the world. That's our software from our lab that you. Q Where are the gaps in the marine protected area system in Queensland?

Let's not forget about the sea. So we resigned after much blood, sweat, and tears. Morton Bay When Minister Powell was in office. And we're doing stuff at Great Sandy, but nothing on the Gold Coast, nothing on the Sunshine Coast, nothing in the Gulf of Carpentaria. So we need to finish the park system. The park system is important in the sea and again representing all the ecosystem types are very important.

So they're standard. They were what I considered to be low hanging fruit on the park system. But there's other interesting options. For example, would the National Parks Association of Queensland be happy for multi-use national parks, let's say in the Channel Country, which is under threat from fracking and gas and oil that involve low levels of grazing in those parks?

Could you still call the IUCN four or six national parks and allow them to? As long as you can be sure that biodiversity was improving, water quality was improving, and carbon was being sequestered. If you had the data to prove all those three things. Would you be happy with a low level of grazing in a Well, let's not call it a national park.

It's called a protected area. So that could happen anytime now. Think I remember when I was Chief Scientist, the department came to me sheepishly saying, We really need to reduce buffel grass in and around a big state forest with a northern hairy nose. Want better? And they wanted to use cattle to do it because they thought it was a fire risk.

And if there was a big fire going through there and I spent three years trying to put the case and they were very tentative. They were very nervous. I thought, you know, almost all people environmental thought me or so cows in a park or cows a few cows in the park reducing. That's terrible. And they'd scream and yell and said, no, why didn't you do this three years ago?

You've got the data, you've done the science. It's not a disaster. So I think we need to take a more liberal view of what is a protected area and actually delivering the outcomes we can get. And I'm going to challenge you even more on this might be slightly distressing. My favorite birdwatching spot is Oxley Creek, Common Oxley Creek comments.

100 hectares in the middle of the suburbs and behind the Rockley market. It was once a Department of Agriculture research place. Anybody go there? 30 years ago, when it was a Department of Agricultural Research station, people probably drove it would look to let those people graze to the dirt. There was about four trees left in 100 hectares.

It's a few mangroves along the creek. They made it 20 years ago. The bird list is bigger than lambing to the bird list. The list in 100 hectares of weed-filled degraded means. Now the birds and all this important. There's no doubt about that. We don't have birds and rabbits live birds. You know what we've got? But we've still got a bigger bird list.

More as many people go there. Bird watching is Lamington. Department of Environment would never think of making this a park, but if we were in the United States or in the United Kingdom, we would be managing these for an urban wetland and creating habitat. Maybe we could convince some black neck storks to breed there by making some islands in the swamp, getting rid the tilapia, removing the weeds, improving the habitat.

We could. There were bandicoots there for a while. Why can't we fence it off and reintroduce some wallabies and bandicoots in? This even implies that hundreds of people can visit every day, think they've visited it so much. I'm getting annoyed because I like birdwatching there and there's too many birdwatchers there. It's quite annoying, but it's become an incredibly popular spot and it's full of biodiversity.

And interestingly, if I took a conservative view of that park, what would we do? The old-school ecologist and this is me 30 years ago I would have said, Let us resort to exactly what it was. What was it? It was Melaleuca probably to read it. Cornice would land. I think there were some cabbage tree palms there a bit of rainforest in pockets.

We put it all back. If I did that now, about half of the interesting bird diversity would disappear. Because what's there has worked out how to live there. Which tailed eagle to have swamp parrot? 19 birds of prey have been recorded from Oxley Creek on 19 different species of birds of prey plummeted, finches, all these weird things. So we need to take a more liberal view of what conservation is and again, if we're in the United Kingdom, if you were to say I'm sitting there in England, I'm going to be turn everything back to a pre-European extent, but there is no pre-European to a free people extent or what?

What is the United Kingdom without people? It was actually under a ton of ice, so you could put it back to ice. What if there were people that never arrived? It would be continuous, more or less deciduous forest and that would also want that more than half the species, more than half of their species, if it were just continuous deciduous thoughts, all their hates are created by, all their Heathers, all their downlands.

A lot of their wetlands are created by human interactions with nature. So I think we can think more about what do we want the world to look like? Obviously, first responsibility. If there's intact habitat, stop it being destroyed and I won't go on too much about that. We wrote a report for the government on about how to stop land clearing in Queensland, which is way too high.

We delivered to them in January. They haven't released it because I have no idea. So we oh, my life is all about protecting existing habitat. But I think when I was young, I massively underestimated the opportunities, the habitat restoration and the diversity you can create through habitat restoration. So going back to our threatened species, what can we all do for threatened species?

It was very, very hard. And all that hearing those wombats, there's very few of them. You need to be a specialist working in those things. But there's one group of native species which is more than half the list that every person in this room can do something about. Threatened plants. Most of the Australian treatment plant species list its plants, most of it.

And in South Australia we started a threatened plant action group 20 years ago. They're still going strong. There's a fringe group impacts that's been around for 50 years. Most of their activities in all these parks and around those parks on roadsides is protecting and restoring plants that are both in decline down to a handful of individuals. And it's a perfect place for the community to be involved in conservation.

First of all, fencing, protecting, keeping livestock out of those places, collecting seed, growing them, replanting them. One of my favorites is this by William very innocuous little plant near the Coorong, and it was down literally to three individuals on a roadside and the herbarium in South Australia, Golden They gave them to the Wilderness High School and they planted at 500 on their property near that place.

So you can actually recover anybody in this room can recover a threatening plant in your lifetime. There's about 1200 in Australia, so we just need 1200 people to stand up. And I know some of this is happening already in the Graniteville often. Why isn't it happening? And without being too pejorative about this is often because the government is in our why the government is in a way so it's very hard to get permission to do that.

So one of the very, very few things I did as chief scientist was convince the state government to say that threatened plant action groups across the state that engage the community, not move them off and keep them alive. Just like friends of parks, don't say the conservation is a government activity and you need to stay somewhere else. You can't be involved.

Welcome. The public can help them propagate these plants, help them plant them out. Help them do the management on the land. And I actually know there is now friends of parks in Queensland, you know, it's 50 years too late, but this is the only way it's going to happen because the government isn't going to save our threatened species.

They're not because that's demonstrably true, because I never have. Right. Like in Queensland they can afford to work of the thousand species that she'll be working on that probably working about 50. So the other 950 I just listed a whole heap of crayfish, these freshwater crayfish, I think they just listed 16 species of crayfish. It's a nightmare. How would you employ the numbers?

Enough public servants to understand the ecology of all these crayfish. I think half of them in Queensland, all up and down. You see them up in Lamington, many of them are vulnerable, endangered, or critically endangered. It needs good natural history from good citizens and then it often requires good stewardship and husbandry of those organisms. Again, a little bit more difficult for animals.

Could you need special permits and other things? But with plants it's easy. So these are enormous opportunities. I think for people to be engaged in saving species. It just means that we need to get the Queensland Government to open the door and I'm going to say something quite pointed now. When I arrived here in 2000, 23 years ago, I came from South Australia.

The Environment Minister in South Australia. And remember these numbers, the Environment Minister and the Environment Department had 125 consultative committees, an advisory groups reporting through to the Environment Department. He might think that's democracy gone mad. That's Adelaide in South Australia. When I got here, they were for as far as I could remember, standing advisory committees and I was on one.

So I've been on two for a while and they both got disbanded because I think we were too annoying. Could be. And there was a threatened species committee, there was a vegetation committee and we just did a big vegetation. One of our reports was put back to the Standing Committee to give expert advice. But it's not just beekeepers groups, it's forestry groups, it's parks groups.

All those groups that are working with government in continuous standing committees, all these marine parks systems. They should all have a community-based, stakeholder-based, expert, standing committee working with the government to make decisions. That's what democracy is, right? Democracy is not voting every four years. If you think that's democracy, then talk to my wife, who studies ancient Greek and ancient Greek literature and society.

Democracy. Is everybody having a say about every issue? A little bit tricky, but and of course, in ancient Greece, it was every man who had property which is not quite democracy, it's actually a dance site. Better than what we have now, because governments at all levels are not letting us into decision-making. So advocating for a seat at the table on standing committees is one thing that has to happen and reform in this state as quickly as possible, because that is what democracy is.

It is what democracy is. If you are on any of those committees, well done. Congratulations. But we should continually be advocating for more close involvement again at all levels of government. I'm just going to throw in a couple more and then take some questions. A lot of Queensland's most interesting biodiversity is because we have some topography on the top of the mountain and those of you who like frogs, nursery frogs, I think it's seven species of nursery frogs that run on the top of wet tropics mountains.

That's the 20 bird species in those temperate rainforests. Those crayfish are generally on tops of mountains. There's a couple of little antechinuses, tiny little marsupial carnivores that are restricted to one or two or three mountain tops scattered down the east coast of Australia, under two or three degrees warming. You basically have to go up about one or 200 meters every degree.

So they should be going up 300 to 500 meters. And when they go 300 to 500 meters, where are they then? They don't exist. And a lot of those habitats and those of you who probably do go hiking into these places, there is mist and we don't call them cloud forests so much in Australia. They do in Mexico and they do in Peru.

Cloud pass, you know, that is part of the functioning of those ecosystems. If you don't have that mist, those ecosystems do not function properly. And almost surely most of these species and that mist layer is going to go up as well. So what are we going to do about them? If they're just three degrees less, that's three degrees of warming going to go off over any suggestion.

So we have this science in ecology called assisted migration. The system migration is we're just going to grab them and stick them to where we think they can live. So maybe those wet tropics things and we could bring them into Lamington and northern New South Wales, some of our things here, maybe they should go to Barrington Tops. What about some golden bowerbirds who'd like to see a golden bowerbird in Lamington?

A controversial question. Why that? Is they disappearing? We know the wet tropics, mammals and birds and frogs are doing really badly despite I mean, that's lies. There's no logging stopped a long time ago. The protected area system is quite good. You know, there's restoration ongoing, but they're in decline still. We've done the protection. So national parks are great, but they're not the be all and end-all of conservation because things happen outside them.

Fires come from outside climate change, cyclones, disease, chytrid, all these things are happening. Little rust is threatening 20 little rust is threatening 20 of our endemic rainforest race. If Moodle wipes out and you should get Rod to talk about Moodle rest, that will be the biggest tree extinction principle of the world ever seen because Moodle rasta text every mutate particularly rainforest monetising.

You can't stop Moodle rust. It's rust like it's it's already colonised the entire eastern seaboard. It's a disease that stops those species. So we're going to have to put them somewhere else and we're going to have to put them in places where they can be able to live. And if we wait till there's only 20 golden hours left, it's going to be tough and will probably fail.

Probably going to be tough and we're probably going to fail. So I continually we've written many papers about this overkill myself, wrote a paper about assisted migration 15 years ago saying, let's start doing it now and see if it works. So let's say class first that it has. We have to try it. We don't try these things more dangerous.

It'll be too late and there'll be 20 left and it'll be yeah, there'll be 20 left, there'll be inbred and it'll be almost impossible to recover them. So I suppose what I'm saying overall is we actually need to be a little bit more aggressive and less conservative this conservationists. We need to be able to go to governments and say these are the things that have to happen.

They're a little bit outside the box. They're not your traditional kill invasive species, get rid of the weeds, make more national parks activities. These are more like let's take quite aggressive interventions to have actually done some Westerns that taught us you should read about the West and taught us in Perth was down to about 70 individuals and they've tried to relocate it to a place because the places where it's in on this long coastal plain are now too dry and don't have enough rain.

And anybody who knows the climate facts know that Western Australia has been suffering the biggest declines in rainfall of anywhere else in Australia. But it's less we get people advocating for these things. I can tell you if I go, they just say no, too hard, can't have the fairness and I'll give you another interesting, odd and bizarre thing about this thought experiment.

If I ask permission to take some calls and bowerbirds or what else do you want from the wet tropics? I'd like a thin ring would be nice. Think they're cute and say can I bring in the Lamington and bring them up? I know you can't have the permits. It's all illegal. Oh yeah. I think even if we started asking for those things now, we'd be ten or 20 years away.

We need to first consult with the traditional owners of that land as well, because they might find, although a system, a system migration is also potentially confronting. So from their perspective, strangely, what can I do tomorrow? I can go to a nursery in Atherton by 500 species, 20,000 rainforest trees and shrubs and fire a property right next to Lemmings, implantable.

I could do the biggest biogeographic experiment in the planet pretty well, moving a whole heap of rainforest trees, 2000 kilometers south, putting right next to a national park. It's a good idea. I shouldn't really be able to do it. I can do that legally. I'll touch one feather on the edge of a golden bowerbird and then I'm in jail.

Well, hopefully I'm in jail. So we haven't really thought a lot of these rules and laws through have way so many of our laws to protect might just stop us protecting nature. And the laws we created to protect nature haven't worked since the EPBC Act was created in 1999 and rolled out. Can you tell me? It's 7 million hectares of habitat in Queensland has been destroyed with known threatened species.

That's a piece of legislation that says you can't do anything that has a significant impact on a threatened species. 7 million hectares of habitat have been destroyed. What's that? That's sort of like half the agricultural districts of South Australia being destroyed in 20 years where there were nine threatened species. What did that legislation do? What did the Nature Conservation Act in Queensland?

It did nothing. The danger, if we want to do something good like let's go and save this planet animal, bird, it's almost impossible because the law stops us. So we need better laws. And I'll end on a positive note. Now this federal government has agreed to reform the nature laws, and it's your time to be part of that reform because they're going to put out some bills and we're going to get one crack at it, and it probably won't be reformed again for 25 years.

So this is a once in a lifetime, once in a generation time to be for those laws. You're talking about nature repair bills, which is new markets in nature. Is that good new markets for nature? Should we be giving business and philanthropy to be funding all the conservation or not? Some people think it's a terrible idea. Some people think it's a great idea.



Some people just don't know much about it, that those two pieces of legislation are going to be transformative. They're happening as we speak. Queensland itself as a state needs to overhaul all this legislation because it's ancient and needs to actually fit the fact that since those acts were created 40 or 50 years ago, the world has changed so much.

I'll give you one last story about my own incompetence, and then I'll take questions. My wife and I created the Adelaide Lifelines Law Association. Adelaide is being slammed and there's very little vegetation left in Adelaide because it's a little flat and green and fertile there about 12 hectares left and we were there stewarding those 12 hectares, revegetating and finding little populations of plants.

We'd never move. We had a rule then. This is 40 years, 30, 40 years ago. You could never get seed from more than five kilometers away. That would be insanity because, you know you need to protect the local gene pool. The world's only warm is a very warm 1.5 degrees, which is 200 kilometers. So we should have been collecting our seed from Barra or Clare 200 kilometers north.

We were already organisations getting seeds from more climate-resilient places. But I mean, you can actually eat a ruby saltbush, peri and run 20 kilometers and poop it out. So I don't know why we were so obsessed with the five kilometers that, you know, bottom line is we need to quickly move away from nature. Is this fragile thing the only place we can do is ward off and keep it away.

We can't tamper with a cantilever. We can do so many interesting things, whether it's restoring Oxley Common, working on threatened plants, advocating for more aggressive conservation interventions. The department, he was completely anti any form of assisted or migration and any form of captive breeding of any species. For the last 30 years, they've tried to stop it all. Slowly, people are realising that's not working.

We actually do need to work hard. I'm not a big fan of captive breeding because it's expensive and difficult that you're going to lose a species and that's the only alternative. We shouldn't have got to the point where captive breeding was necessary. Let's go and do it and let's invest in it and let's get as many people as involved as possible.

Thank you very much.