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BL Chels, do you want to tell me what you do in saving the koala?

CM For the past 27 years I've been a National Parks Ranger, so a lot of my work has been looking at some of the planning and development criteria with koalas and also physically saving them, picking them up off the side of the road and taking them to the vet, and also managing their habitat.

It was at that point that I rescued a koala that was being mauled by a dog, and unfortunately the mum died, but the cub survived so I got to be a koala mum for a little while as well, which was really good, and I've still got the scars on my knuckles. They've got sharp little teeth, even as little, cute furry bubbas...

And then, recently, I've just been involved in putting together koala management strategies, had some work in the Tweed Shire, and actually was part of the collective that put together... an experimental thing on people living and developing in koala habitats.

There's a place called Koala Beach, which was a new sort of development looking at retaining a lot of habitat, and then eliminating dogs and cats from the area, and the community actually putting together management plans to then start managing and help manage a lot of the threatened species that was on this development, or proposed development site.

It's been quite varied and now I'm involved in a koala management plan for our local community and our local area. So, it's the Gumbaynggirr people, or Southern Gumbaynggirr people, and we've been working with the Save Our Species crew in doing a cultural koala management plan.

And then, in a private realm, part of our property, we're putting together a koala sanctuary.

BL What got you started? What was the thing that made you go 'Yes, koalas are it'?

CM As part of Gumbaynggirr culture we have an actual koala storyline and koala story.

So, we call the koala '*dunggirr*' and it was the *dunggirr gagu* brothers, or the koala brothers, that actually are an integral link to this storyline. And then we have a mountain that's specifically named after koalas, which is *Yarrahapinni*, which means 'koalas rolling down the hill'. So it's embedded, it's been embedded, in my landscape and in my culture. From a very young age I've known about koalas and known about their habitats.

And, specifically, this story relates to when the sea was made and the last sea level rise, so it's a very old story. And it's actually about the koala brothers that helped save the people that were out fishing when the sea level rose and they used their intestines to build a bridge back to the mainland to help the people cross after this very intense event. They've always been portrayed as something, as a good helper and omen, a good omen, something that's quite significant, and something to be respected. And something to help because they helped us, my ancestors.

That particular story is from an immediate area of my great-great-great grandmother, so it holds a bit more connection and a bit more place in my heart, and I have that deep affiliation.

And obviously when I started working with the guys. I was actually working with a guy called Steve Phillips. Steve was my Senior Ranger while I was working up around the Lismore area.



And, so, we had lots of koalas coming through our office – and then I got to care for this little rescued baby koala and, as a young 17-year-old Ranger, it was a lot of responsibility, but I learnt a lot about koalas in that time.

One of the main things was how their numbers were dwindling and how they were having a really hard time. After that I started doing lots of work with the Australian Museum and part of that work was that we'd get a lot of the collection.

So, a lot of the collection was basically people bringing in [dead] animals and that was one of my jobs, was to label the animals that were coming in and that were being put in our freezers. We had these massive big freezers and filling them with animals that were either injured and died, or caught by a cat and died, mauled by a dog and died, or hit by a car and died, or died in some realm.

Just the amount of animals that I was constantly having to label and go through in that freezer – [it] really opened my eyes to how much impact humans are having on our animals in all realms. And it really put a greater awareness to me because every -- I think it was every three months -- the guys from the museum would come and empty out the freezers, and they were chockers full of everything.

It was really sad when the freezer space was being taken up by koalas. When you're dealing with little baby koalas as well, and medium size, it was just like 'Oh man, these things are having a tough time'.

That was part of my whole awareness and, I suppose, when the full extent of how much help they needed and how they needed to be basically put in a criteria, or an area, where a lot more respect and a lot more education and a lot more knowledge had to be known about.

When I first decided I wanted to be a Ranger and I wanted to look after our bio-banks and our protected areas, you know, one of the things that I said to myself was that I really don't want any species that I'm involved in, or doing projects on, to become extinct in my lifetime and that is a big thing for me.

BL If you could tell me what you see as the major threats to koalas.

CM Look, having just completed my PhD on traditional seasons, and traditional calendars and seasonality, and climate change. And having had a bit to do with the work in the Australian Museum on the koala genomes, there's actually quite a few key things, it's not just one thing.

It's almost like that saying which is 'a death by a thousand cuts', the poor koala has sort of got a whole sort of fathom of things that it needs to deal with. And obviously one of the major things is land clearing – taking out trees. And knowing that trees mature after 30 to 50 years, and they might not have that amount of time to re-establish in an area, so deforestation and land clearing is one of the major things.

A lot of people don't realise that they're actually clearing land and taking out trees in koala corridors, which is one of the primary things for koalas to enable them to have their movement through the landscape. These sort of animals have to move, they have to move through the landscape, whether they're migratory animals that are flying or moving from vast distances, like whales and seabirds. But our local endemic and resident species also need to move.

And so koalas move when they're mating, when they find their favourite food trees. Just like us, people want to get up off the couch and go to McDonald's to get their favourite burger. Koalas come down out of a tree to go and find their favourite tree, and also safe spaces, so they move also to get their safe spaces, and also, you know, just like us, when we get the urge and we want to go out to a night club and pick up, or whatever, koalas move then to find a partner and to mate.



So, it's these necessities, and I put that into a realm of relating them back to humans and how we feel because that's a lot of, the other thing that koalas need is for us to start coming down to an eco-centric perspective rather than human-centric constantly, and we're in this stage of time, which is the Anthropocene, which people have labelled as 'the time of humans', and that means we're just like a geological event, that we're changing and modifying things so much. If you had a volcano, or something that's changed the landscape, we're exactly the same. We're changing things so much, and a lot of the changes are primarily to suit ourselves and to benefit humans and humankind, and one of the things that I do is to try and educate people on understanding what eco-centric values are and eco-centric perspectives are, and also that world view of moving ourselves, as humans, from the top of the pyramid more so into a circle of cyclic processes with the landscape and with the species that are in that landscape.

So, that's another thing, you know, changing our world view on how we see the plants and animals that we share this planet with, and then another thing, obviously, is their gene pool and, because their populations are declining and getting smaller, the gene pool, and the diversity within that, is getting smaller. Results from that, on an ecological level, is that you tend to start getting animals that are prone to sickness, haven't got the diversity that they need, you can start getting mutations. To have a strong, healthy community, you need diversity and you need it in a large gene pool.

BL And that's why the koala corridors are so important, isn't it, because that allows the gene pool to be extended or for there to be different populations that are actually able to mix with each other?

CM Exactly, and then, obviously, the other thing is fire. So, as we move into human-induced climate change (well, we're already in it), we'll start seeing our climate change a lot and we've already seen a lot of that happening over the last five years.

We're getting more frequent and more intense fire events and they're predicted to happen more regularly. With these intense fire events, these are fires that move really quickly, that make their own what we call fire weather, and we've seen these fires getting to extreme temperatures where they were melting steel and they were basically cracking and demolishing stone and brick houses, so if you could imagine, and some of the flame heights that were reaching 50 to 70 metres in the air, and then above that then you've got the heat zone, so anything that sort of can't run away quickly, or can't fly away, is basically left to burn and die.

So, when you've got these highly volatile and frequent fires moving through the landscape, there's not much hope for a koala that's stuck up a tree that's got the intensity of a hot fire underneath it and nowhere to go.

It's that about the climate change that also then involves fire on the landscape as another thing. But then, also, urbanism is another thing as well. Our need to be constantly urbanising the landscape and these places that have native spaces or corridors for animals and then obviously, with more urbanisation, comes the more use of cars, roads, infrastructure, dogs.

People love to have their two cars, their brick house and a dog, and it's also that sort of stuff, that perspective, that human-centric perspective, that people have on those sort of things, that we have this ideology of being successful, you need a house, two cars, a jet ski, a dog, so it's that sort of stuff as well that's our mind frame and our thought processes where we have these ideologies and it's like, well, you don't have to be like that.

It's about moving and balancing things out a little bit. One thing that my dad and my mum told me was 'Everything has a right to exist' and 'Everything has a place on this planet' and 'Everything has a role and a function' and, as humans, it's not our place to be trying to destroy or control these to suit our own purposes.



I've just travelled through a whole cumulative amount of impacts and, obviously, the one that I know that people are able to alleviate is the behaviour of their dogs.

I pause and I hesitate because I get the visuals back in my head of koalas with their heads half ripped off, with their guts open, with legs missing. It was a bit of a common scene that I came across and these were all because of dog attacks.

Dog owners are in a position where they're able to control, and they're able to manage, that dog, whether it's putting a fence up around their yard, having their dog on a leash, these are things that we can immediately control and these are things that we all can control, and even if it's saying to someone 'Hey, you're in a koala area, you should have your dog on a leash'. They're all something where we can step up and change some of that behaviour.

BL Do you think that also comes back to what you were saying, which I really appreciated, the idea of not being human-centred? So, if you're not human-centred you would understand that it's your responsibility, and it's also a degree of respect for the other wild things in the environment, not to harm them, therefore to control your impact, and control your dog.

CM That's right, yeah, and that reflects a lot back onto my culture where we grew up with totemism and kinship to animals, and I know people that have koalas as their totems, I have whole language groups that have koalas as their totems, and one of the main things is respecting other people's totems and having consideration. And, yeah, there's also that kinship that comes with it.

I know that, people, the last thing that they would want is for their dog is to attack a koala.

The last thing that they would want is for their government to approve the destruction and demise of hectares and hectares of forest that has koalas.

So, it's then all about, well, we all have a voice and to use that voice in the right area to speak for the koalas. Once upon a time, in my culture, there was this thing called animism and it's where humans and animals melded and took, very 'Lord of the Rings' sort of stuff...

BL We have that in Canada too.

CM Yeah, so they took these, as liminal beings, took these new forms, through animism, and when I talk about the koala brothers, these brothers were both koala and human form.

So, it's that sort of connection to animals as well that I have this level of thinking and understanding.

I even remember one of my aunts, one of my cousins, who was killing flies, and she completely ripped into him like, you know, 'How would you like it if you were that fly?' and it's about that, about putting yourself in the position of another animal and another species and trying to understand what it would be like for them.

What it would be like clenching onto your child and you're up a tree while a bulldozer was down the bottom trying to knock it over? That whole sort of fear.

BL Can I ask a question about totem, because it's something I've been interested in for a long time. In Australia, and speaking from your cultural background, do you inherit a totem or does the totem come to you when you're a young adult?

CM A bit of both. For instance, here in Gumbaynggirr country, our language group has a totem. Our totem is the ocean and in lots of areas they have what you can call landscape totems, and then in places people have family totems, so I have a family totem, and then we have a male and a female totem.



I also have a female totem, so you can see how this starts to then ravel and then, because my family's connected to another family, that family has a totem. For instance, my cousins are sharks and my family are fish, so then it starts to move. My daughter is a frog, so she's connected to frogs, and my mum was connected to whales and dolphins and then, you know... I'm connected, as a female, I'm connected to other females and birds, so it just keeps sort of extending out where the whole thing of that appreciation comes with totem and, yes, and then some people have totems that come to them through family or whatever, so some of my cousins were born and instantly, I have a cousin who's called Dunggirr, who's Koala, so that comes through as well in that realm.

It gives another layer and perspective on connection and connection not only to country, but also connection to the species that are there.

Outside of Indigenous people I know that there's a lot of non-Indigenous people that have these infinite and deep connections with different animals. I've met women that absolutely love possums and would do anything for the possums. I've also met people that are bird people and just absolutely adore, and just have a real innate relationship with birds.

So, somewhere in there, that eco-centric perspective is within people and I think that rather than keep it to yourself it's now the time where, collectively, we have to start speaking for the animals and speaking for our landscape.

Speaking for our essential elements, fresh air, clean water, and forests, which, as well as being advantageous for the koala, is also the stuff that we breathe and need to have, to be alive. It's sharing that perspective on how important it is.

Eco-centric perspectives, or eco-centrism, it's a philosophy that comes down to a system of values, so it's that value of being nature-orientated, or nature-centred, which is basically doing things like putting nature first, before humans, or before ourselves. So, in everything that we do, considering nature and the impact on nature before the impact on ourselves.

People have said 'Well, how can we keep doing what we do without impacting nature?' and my answer to that was 'Well, if we keep doing what we do, there will be no us'.

If we end up destroying our ozone layer and having all these devastating natural events from human-induced climate change, which is part of our industrialism, of not being able to control what we put into the atmosphere and the rubbish that we put into the ground and whatnot. We're essentially a species that is destroying our own habitat.

And, in doing that, any species that destroys their own habitat will find ourselves also as an endangered or extinct species.

While that's all happening, after devastating climate events, and geological events like volcanoes – nature and the environment comes back, but in this realm nature and the environment will come back, but we as humans may not.

It's a hard thing to comprehend, and it's a hard thing to get your head around, that if we have an atmosphere where we can no longer breathe, we either have to change things or we have to adapt, so part of the adaptation is then realising that, okay, well, trees mean oxygen so we need more trees for us to be able to breathe.

I do believe that Richard Branson put up millions of dollars for someone to invent something to clean the atmosphere so, who knows, that might come, but it's not going to be in our lifetime.

- BL I've been listening to these interviews, about koalas and about saving the koala, and I'm beginning to wonder something that you're beginning to say, which is do you think we need to change our economy in order to save our environment.
- CM I am an absolute advocate for changing our economy. We need to be moving more towards a green economy. We need to be looking at more closed economies, or circular economies is

what they're called, and then we also need to be looking at bringing it back down to micro-economies rather than expansive macro-economies.

BL What can students do, if we're talking to secondary students, what would you say they can do to dial back from the growth economy?

CM Well, one of the first things, I think, is just to be mindful of where you're spending your money and what you're buying.

It's like, okay, well, am I going to buy this plastic thing that was produced in China and had to be shipped to Australia and then had to be manufactured in a big factory that's pumping out CO2.

Do I really need that? What's going to happen to me if I don't get it? Am I going to have a couple of days of sadness? Can I deal with that?

Yeah, that's okay. Well, I don't need that thing.

It's about that consumption, being very mindful of what you're consuming. You know, a lot of people don't realise that even our food, you know, like oranges that come from America, and a lot of them taste like crap because they've been frozen on the transit. Asparagus that comes from Mexico, is it better to find out where your local producers are?

More to help, but also to be active, you know. As I said earlier, if you see someone walking their dog in a koala area, you know, say something, say 'Hey, I don't mean to be rude, but this is a koala area'. Starting to have a bit more appreciation.

If there's a dead animal on the side of the road, if it's safe, pull over have a look if it's got something in its pouch.

Just little things. Being mindful of where your food comes from and what you're eating. Being aware of what chemicals you're using at home and where those chemicals are ending up. Are they ending up down the road in the reserve? Are they ending up down the gutter and then into the ocean?

Being mindful and scaling back on a lot of those products. Getting home household products that are friendly to the environment, friendly to animals. Being aware of poisons that are around your house and the food chain, and how, if a rat or a mouse eats a poison and then an owl eats that, or another bird, and then how it accumulates, and bio-toxins and toxins move through the food chain.

And just being appreciative, I think, of what we've got and not being so complacent. We live in a beautiful country and we've got some beautiful unique species here and I would hate for us to be one of those countries that are just tallying up the loss of species.

I suggest even having a look at the IUCN Red List and having a look at the list for Australia and checking out if any of those endangered species, or critically endangered species, live near you and then getting involved in. If there's a local group. And if there's not, starting your own local group to help save these species and making people more aware and educating people a lot more. Talking to your parents and talking to your grandparents about being eco-centric and what that all means.

I'm part of a group called Regenesys, so it's all part of this thing about regenerative design, regenerative philosophy. I did an interactive seasonal calendar for the Australian Museum, so it's sitting in the Australian Museum. The kids love it.

It's where they basically get to interact with the calendar and move it and press on things to see what the animals are doing in different seasons, starting to appreciate that we live in the Southern Hemisphere and we don't have these distinct four seasons like the Northern Hemisphere. And because we live closer to the equator, one of the key components of how we keep track of time is through seasonality, when the plants and the flowers are indicating that



seasons are changing, and that's in line with that Indigenous eco-centricism paradigm of world view and thought processes. It's a time for change.

It's definitely a time for change. I've said it to other schools, and to school children before, is that, unfortunately, the future and the balance of our planet, and our precious species and our clean air, it depends on these next generations and unless there's a change in mindset and world view, it's going to get more and more difficult.