

**AUSTRALIAN GARDEN HISTORY SOCIETY
NATIONAL ORAL HISTORY COLLECTION**

TASMANIAN BRANCH



Photographer: Rhonda Hamilton March 2023

Interviewee:	Dr TONIA COCHRAN
Interviewer:	Jean Elder
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[JE] This is an interview with Dr Tonia Cochran recorded for the Australian Garden History Society's National Oral History Collection. I'll be speaking with Tonia about her life as a committed environmental scientist and the development of Inala Jurassic Garden, as an accredited botanic garden and education facility here on Bruny Island.

The interview is taking place on Thursday the 7th of March 2024 on Bruny Island, Tasmania. The interviewer is Jean Elder and our recorder is Rhonda Hamilton.

The Australian Garden History Society acknowledges Traditional Owners of Country throughout Australia. We pay respects to Aboriginal and Torres Strait Islander cultures and to Elders past, present and emerging.

So Tonia, thank you for agreeing to be part of our Oral History Collection.

I'm going to start at the beginning and ask you about your early life: what year you were born and whereabouts did you grow up?

[TC] I was born in 1960, the end of 1960, just before Christmas, and I was born in a suburb of Melbourne and I spent the first 26 years of my life in Melbourne. So I grew – we changed houses a few times – but all my childhood was spent in Melbourne.

Near the beach or in the country?

Yes, I was born in Brighton and then we moved to Sandringham, so we were only a couple of streets from the beach. We were lucky, we had a big property, because from about 10 years old I started collecting things and one of those things was plants. I was into cacti in a big way then.

How did that come about?

I don't know. I was just born that way. Ever since before I could even talk, apparently, I was animal mad. In fact, one of my aunties related to me that she was holding me, as a baby, and she squashed a spider and I was inconsolable and she's never been able to squash a spider ever since, because I was so upset [laughs].

I remember my early childhood, it just being a menagerie of animals. People used to bring wildlife to me, that was injured, so I started rehabilitating wildlife when I was about 10, and I was just fascinated with plants and animals and fossils and everything.

And your parents obviously supported this?

Well they did. I don't think they had much choice [laughs]. It just happened.

My Mum was a bit animal-mad too, but she's not got a formal biological background or anything. We used to go snake and frog hunting, when I was a kid and I thought that was a normal thing for a kid to do, growing up, a little girl to do. I remember breeding spiders in my bedroom in big terrariums – fish bowls and things like that – and yeah, I can't remember a time when I wasn't involved with animals and plants. And we've always

had plants around, you know, everywhere there was a bit of light, there was a plant to be grown there.

Do you have siblings? Did they share that?

No, not at all.

I have a brother who's two years younger and he's totally the opposite to me. He owns an accounting firm in Melbourne and he's into the fancy cars and the fancy suits and, you know, Melbourne's only just big enough for him. Totally has, I remember having a lot of animals when I was growing up, and they all ended up chasing him or trying to bite him or something. He was really not animal-friendly at all [laughs]. So I kind of wondered if I had any genes in common with him, to be honest with you [laughs].

An example is, when I came down to Bruny, he gave me some old shirts to wear round the property, for gardening and farming, and they all arrived still in their packets – Van Heusen's and all the rest – and I said, 'What's wrong with these?' He said, 'You can't expect me to wear these, they've got last year's collars'. And I didn't even know shirts had different collars for different years [laughs]. So, totally the opposite.

My goodness. Now tell me – it was quite clear then where you ended up in university. So throughout your school years you did science type subjects?

I did. I was also interested in art and that was a problem then because it was either 'the arts' or 'the sciences'. I used to do a lot of scientific illustrating and drawings of plants and animals and I wanted to incorporate that into whatever I was going to do.

So, as I chose my subjects in school, it was quite interesting trying to get from one class to another and a lot of them were clashing, but I was determined and it ended up being possible. But it was just a little bit tricky at the time, but yeah I did.

And then I had to do maths and chemistry and all of that, because if you were doing 'the sciences', even if you were doing biology you had to have that background, so I did that at school, and then that continued through university.

5:20 So, botany and zoology? Usually people choose, somewhere along the line, but you haven't.

No, I couldn't. I couldn't choose, that's the problem.

So I ended up doing a double major in Botany and Zoology, when I did university, when I did my Bachelor of Science degree and, you know, people were talking about but you only should do 24 units (or something) and I was doing 38 or 40 or something. I didn't see it as a workload, I just saw it as a possibility to learn more. You know, everything was fascinating and I was just absorbing everything. I could not believe my luck in being able to get so much information in a short period of time.

So yeah, botany and zoology, and then when I did my Honours, I collected shells. I was going through a scuba diving phase of my life and that's the only reason that I ended up doing my Honours and PhD in marine zoology, because that just happened to be... But it could have very easily been botany or anything else, and a broad range of things ranging from fungi to marine botany to land-based botany and taxonomy. They were all fascinating to me.

What brought you to Bruny Island? What year did you come and how did you come here?

So, for my PhD I got a grant to work down at Macquarie Island in the Sub-Antarctic, and I came down to Tasmania and that same year I was working also at the Museum of Victoria in the Invertebrate Zoology Department and they asked me if I'd like to go to Antarctica on a marine science voyage in that same year. And I said, 'Yes, of course I would'. So what a great opportunity. So that brought me down to Tasmania and as a result of those voyages I met the guys from the Australian Antarctic Division. So that was in 1986 and 1987 and they were talking about building a new ice-breaking vessel called the 'Aurora Australis' (as it turned out), and would I be interested in going on the maiden voyage of that. That was a three-month voyage, in 1990. So we were working up to that. I said, 'Yes, that sounds fantastic'. So, that was my lead into working down here in Tasmania.

I also met a guy on the marine science voyage who actually lives on Bruny and so we ended up having a relationship, we ended up getting married in 1990. So that was my link to Bruny Island, that's the main reason I came to Tasmania and Bruny Island in those days: the Antarctic Division, and to get married.

So between '87 and '90 I was backwards and forwards a lot, trying to finish off a PhD and then 1990 was the marine science voyage.

And when did you actually buy Inala?

So, Col – he's my ex now – but he already had a property on Bruny and we expanded that property. So the property where we are now, is part of an adjoining land that we bought in those days, and it's been expanding ever since.

9:05 Now I want to talk about – there's so much to Inala I don't know where we start. Perhaps we start with the museum and then we'll expand out. Tell us about your collection in the museum here.

Sure. Well, that's my private collection of stuff – I guess you could call it – from when I was about 10. As I mentioned, I'd been collecting all sorts of things since about 10, so – when I moved to Tasmania – I had those in storage, for quite a long time, and then I brought them down to Tasmania and I thought, 'Gee, you know there's a lot of amazing things here'. Because I've got a museum background and I've got a scientific background and I like cataloguing things, these are museum-standard

stuff. You know, they're very important scientifically, so it's a shame for them to be stuck in boxes. So that's where the museum came about.

In 2012 there was an opportunity for a grant application, it was a Commonwealth grant, and it was basically to increase tourism potential in rural areas. It wasn't really meant for a museum, or a garden for that matter, but I thought 'I'll give it a go you know'. And everyone was saying 'Oh a bit left field for this grant'. Anyway, somebody there in the Commonwealth saw potential in this and actually awarded a grant to me, which enabled me – I had to match it dollar for dollar – but if you get it into your mind that it's half-price, what you do, it's a lot easier to achieve.

So that's how the museum came about. It was built in 2013, together with the garden, so they both came as a package. And I got a lot of cabinets built, and a lot of the collection is off display. So I display a small part of it at any one time, because we don't want to expose a lot of these things to light, we want to keep it very long-term. We opened the museum and the garden in March 2014.

Now let's talk about the garden. It covers – you've got 750 species now from 50 plant families?

Something around that, yes.

And how big is the garden? The total property's around 1500 acres, isn't it? In this beautiful part of South Bruny.

Yes. I was really lucky because I'd been around so long to be able to purchase adjoining properties, as they came up. So it started with the property that Col and I had, and then we bought an adjoining property in 1990 – about the Antarctic Division time – and then I was caretaking a large property, 1000 acres from 1990 and that became available for purchase in 2015, but we can go on to that a bit later.

The garden part was – I used to have cattle on the property – so in a previous life I worked at the Australian Antarctic Division as a marine biologist (plankton, krill and fish biologist), and then I also farmed beef cattle and I had a brown boronia plantation too – a 5-acre plantation – that I grew for essential oils, so there was the botanic link. And somewhere in there, we had various hay paddocks and things like that, so the garden (as it is today) was a 5-acre hay paddock and that's where I ran – usually I'd put my bulls in there – so until about 15 or so years ago, that had cattle in it.

And as I mentioned, when we got the grant in 2012, 2013 is when we started landscaping. So we got big machines in, big rocks in and started landscaping and we started planting in about October 2013.

13:28 There must have been some huge challenges, in terms of developing the garden?

Yeah, it was interesting because it was just – it's a crazy thing to say – but it was like all in my head, I just had to get it out, you know. So, I knew sort of what I wanted to do and it was interesting, and I was saying to the

property manager, 'Can you just follow me with a spray can of paint and we'll go round because I know where the path's going to go'.

So we're going round in this loop and, you know, they're thinking 'crazy lady', and I'm saying, 'Just spray this path'. And then I said, 'I want it to be wheelchair-accessible, so we've got to assess it for the actual slop'. And do you know, it was just spot on, it was just a miracle [laughs], that that part, it was in my head. I had no plans or anything and then I thought 'Okay, we're really doing this now'. I was recommended to see a fellow who grew some Gondwanan plants, so I knew that I wanted a Gondwanan theme. I didn't know how I was going to do it and at first I was going to do like everybody else does, you know, go from country to country, from New Zealand to Australia to South America. And I thought 'That's not going to work', because that's going to be a maintenance nightmare and what is that actually telling people. But yeah, it all looks the same no matter where you go.

That's where I thought the best way I can do it is by Families, planting them in Family groups, because that way you can see a South American something growing next to an Australian something and visually see, in the one view, the similarity between these ancient lineages.

So I thought 'Right, that's what I'm going to do'. And I didn't know – I knew a fair bit about Australian native plants – but I didn't know what your average South American plant or African plant was. So I figured, at first, it was a good start to treat each Family as though, generally speaking, they needed the same sort of requirements – so ecological equivalent of things. Like, a banksia or a protea is going to need about the same as a banksia. So I went on that theory and then I just went into full bore research mode, and the more that I looked, the more interested I became and the more convoluted it became and the more huge it became. So I'm really good at creating monsters and this was a beauty.

That's how it started. Then turning a hay paddock into a garden was problematic because, first of all, it's quite fertile and that's great because I can pretty much grow everything, but we had to be really careful with some of the natives, especially the ones that don't like phosphate. The other thing is we had a lot of grass and pasture weeds, so they became weeds and there was a lot of preparation of the gardens to get them to the stage where we could plant. So I thought we'll get mulch. I didn't like the sound of pine bark mulch because I thought that might make it too acidic and the plants wouldn't grow, so we went for eucalyptus bark mulch and that's stood us in good stead. You know, gardens have weeds, you have to maintain them. So that's probably been the biggest challenge.

Where did you source the plants?

I started with this collector, that had Gondwanan plants and the first meeting I had with him he was 'Oh, I've only got three of those, I don't think I could part with one', or 'I've only got ten of those'. But I managed to sweet talk him out of a few and I paid for them, because, you know, that's only fair and I explained this is what I wanted to do. And then I

started looking round for other things because by then – I did enough research to work out I need this particular species to tell this particular story. And it's tricky, in Tasmania, because we've got another level of biosecurity – it's bad enough getting things into Australia – but into Tasmania that's another level. So, you could source them on the Australian mainland but they might as well have been on the moon, you know, I couldn't get them. So that was another level, and there's still plants that I would like to have, in an ideal world. And I fully respect the biosecurity laws, I think they're wonderful because I think it keeps a lot of pathogens out of Tasmania, that we'd otherwise have.

And day-to-day management with the weeds – you have how many staff managing the garden?

I have a Property Manager who works here four days a week and I've got another guy who works a couple of days a week, and they sort of do the overall property. But a lot of that is the garden. It's self-funded, so we don't get any funding for it as such. I run another company called Inala Nature Tours, and that really provides the funding that I need. So it's the big black hole that I throw money into, but it's a passion and I'm not doing it for the money.

I have another woman who comes a couple of days a week, a couple of mornings a week, just to weed. And we've got a very, very loyal, trusty, volunteer team – they're coming tomorrow actually. And they come, we have a cuppa and biscuit and then we go down for a couple of hours and we chat and do a bit of weeding, so we really value them very highly. And it's a great chance to catch up with them too, they're just a bunch of wonderful people.

It's a real team effort, but yeah, gardens are maintenance aren't they and especially gardens on show to the public, because the minute a weed shows itself you can bet that that person will come to the gift shop or the reception and say [laughs], yes, 'You've got a weed'.

Thank you we knew. [Laughter]

19:49 And tell us now, as the garden evolved, you've got a number of other projects that you've linked with, with international researchers – tell us about the Noah's Ark project.¹

Yes, so that's an exciting one that sort of started developing over Covid. The original concept of the garden was to have an informative garden with interpretive signs, about Gondwana and the Gondwanan connection and these ancient lineages of all these fascinating plants, some of which existed in the Fossil Record and still exist today: for example, the Wollemi pine, there's a very close relative that existed in the Jurassic period. And if you look at the fossil which is in my collection and Wollemi today you can see very little difference, so that's a fascinating concept that I wanted to show to just increase awareness.

¹ *Australian Garden History*, vol 34, no 4, April 2023

But I've only got five acres and to expand is another whole level of work that I don't think we have the capacity for, as a private thing that we're, you know, this is only part of what we do. So I wanted to maximise the usefulness of the garden and that's where the Noah's Ark concept came in: if I was going to grow stuff it may as well be critically endangered stuff that we could grow as insurance specimens. So, that's where that's come from and these ancient lineages have been around, some of them, for 300 million years, and a lot of them are in big trouble today and a lot of it's to do with climate change and a lot of it's to do with what humans have done.

So I feel a personal obligation to concentrate on those species, and that's where the Noah's Ark concept's come in. And we've got a number of projects going. Would you like me just to give a couple of examples?

Yes, if you could give a couple.

One is a project with Bedgebury Pinetum, which is the big conifer place in the UK. I got involved in that just before Covid. It's a project on *Widdringtonia whytei* or Mulanje cedar. It's a conifer: basically the *Widdringtonia*'s an ecological equivalent to the callitris' here in Australia, and this one only grows on the top of Mt Mulanje in Malawi in East Africa and it looks like becoming the first conifer to become extinct in the wild, and it probably is extinct now, to be honest.

Bedgebury were collecting seed and they were trying to grow them. They could germinate them, no problem, but they couldn't grow them: the climate wasn't suitable. So over Covid, I made it a mission to get the seed into the country – it took three years to get it through Biosecurity, starting with registering the species as a species, that's how rare it is and we got 200 seeds. We put 100 in the ground last September and we got 44 to germinate and they are looking really great. So now we're all enthused about planting the other 100, because these are like gold. The seed that was collected, the trees from the seed are now no longer existing, so this is it. So we're distributing these seeds to other botanic gardens now, with a similar climate, and the idea is to just keep that species existing. Hopefully get seed from that and I have a dream that one day we might be able to reintroduce them back into Malawi somewhere. So that's one project.

Another project is the Meta Collection of Wollemi pines: there's a global collection which is called a Meta Collection because they're in various botanic gardens around the world. There's five botanic gardens in Australia that received some Wollemis grown from Sydney Botanic Gardens and there's about 20 other botanic gardens around the world.

So those specimens that were given to us represent the total genetic makeup of Wollemis. And we were each given six specimens, so they're insurance specimens as well, in case the worse happens in the wild, which nearly did a couple of years ago when the Wollemis – the wild Wollemis – nearly got burnt out by those massive fires. So we know we've got the total genetic makeup in collections around the world. We have six of those very valuable specimens. We're also growing Wollemis

from seed because I figure that's where you're going to get your genetic diversity. So we're growing them from seed.

Another project we're involved in is the TroMPS Project, which is the Tropical Mountain Plant [Science] Project. Which is a number of botanic gardens and research institutions in Australia. They've gone up to places like Mt Lewis, Mt Bartle Frere, and Mt Bellenden Ker at the back of Cairns, in North Queensland. There's some species growing on the top of those mountains that can't go any higher. They used to be in a cloud forest which isn't very cloudy anymore. And they've given them another 40 years before they start becoming extinct. So I got involved in that. We're trying to replace altitude with latitude.

So we've got a bunch of specimens – our first cuttings arrived just before Christmas – and we're growing those on, and we'll see how they go in Tasmania. Because they're normally supposed to be in North Queensland.

25:45 Yes, when you said tropical, I thought 'whoa, South Bruny's not exactly tropical'.

Yeah, I know, but it's amazing what we can get away with in the garden.

And just finally, another small project that we're involved with is with Kew Gardens in the UK, and that's to grow different *Nothofagus* species, so the Southern beeches, a lot of those are in trouble in the wild, including all three of our species in Australia.

And I was very shocked to hear, when I became a member of the Global Conservation Consortium for *Nothofagus* (because I was interested in conserving them – well, they approached me because they knew I had some threatened species in my collection), that the myrtle – the Tasmania myrtle – is the one that they're most worried about. Because that is suffering from a disease known as Myrtle Wilt, which is different from Myrtle Rust in the eucalypt family. So I've become involved in that, with Kew Gardens, in surveying our local myrtle population, so it's just on Mt Mangana here, which is a 10-minute drive from Inala. I figure, they're my neighbours and I would like to make sure that we protected them as best we can.

So both with that and with the Bedgebury project on *Widdringtonia* we got a small grant to collaborate with other botanic gardens. So, a bunch of volunteers are going every few months to survey the population of myrtle, and the idea is to roll that out to the whole population (or the whole distribution) of myrtles, which is just in Tasmania and Victoria, as a citizen-science project. Because a lot of these projects can't be funded because there's no money and the scientists are so busy and there's a lot of very keen volunteers who honestly care and want to do something.

We're trying to get a simple formula together that we can roll out throughout the distribution of the myrtle population. So that's an exciting one too.

Yes indeed.

And the *Nothofagus*, are the ones up near Mt Field endangered as well?

Yes. So that's *Nothofagus gunnii* – they said, 'We're less concerned about that', and I said, 'Well I actually think you should be more concerned – you should have another look at that'. Because it's endemic to Tasmania and it's restricted to alpine areas, which are increasingly being fire-affected. In the past we didn't worry about fire, because fire never went into those alpine rainforest areas: it was too wet and boggy. But we know differently, from the fires that we've had over the last few years, that things like Pencil pines, King Billy pines, you know, anything can be affected, and that's another project where we're working on the alpine Tasmanian plants. Because, if you look at the representation of things like the myrtle, the *Nothofagus gunnii*, and the Pencil pine and King Billy – they're hardly represented in botanic gardens. They're shocking things to grow because they're very particular, very hard to grow and they're not represented. So, if a big fire comes out it can wipe them out and so this is where we need to look a bit more carefully at what we might be able to do. So, they're re-evaluating that, they being the Conservation Consortium, re-evaluating that. And then the third species is *Nothofagus moorei*, which is in the New South Wales/Queensland rainforest. We're also growing that here. For some reason, it's growing very, very well here [laughs]. So there you go.

29.38 Now we've spoken about the garden and the Noah's Ark projects but also, you've set up Inala Foundation. Can you tell me a bit about that? I understand it protects wildlife and regenerates habitat on Bruny Island and, in conjunction with the Inala Jurassic Garden, the Foundation also conserves endangered plant species, especially those with Gondwana origin?

Yes. So the Foundation came about in about 2018. I've been doing a lot of conservation projects over the 36 years that I have been here. It started mostly with threatened bird species. I've got an endangered bird species on the property called the Forty-spotted pardalote, and the colony here represents, you know, almost 10% of the world population. That bird's only found on Bruny Island and Maria Island and a couple of little outliers. So I've been working with that for a long time, and a critically endangered species called the Swift parrot.

Over the years, through my Inala Nature Tours business – which is actually what I do as a real job – a lot of our clients get very invested in what we do and, you know, the conservation causes. And they started giving me money. And that was great. They said 'We just feel we want to help. You're doing great stuff. Here, have some money'. And I didn't feel comfortable just putting it in my pocket and saying 'Yep, we'll do something with that'.

So I wanted to make it very clear that we were putting that money in and that it was all accountable: it wasn't going off on a trip to Paris or something like that. So I formed the Foundation – the Inala Nature Foundation – and we've registered as a charity so that Australians

anyway, can get a tax-deductible donation. Because that's only fair if you're going to donate to get something back and a registered environmental organisation, and those two things make us accountable in a lot of ways: both for money and for what we do with that money, and I think that's a good thing, because we're under scrutiny and people know that if they donate that it is going to be used for the purpose that they want it to be used.

That's now rolled out, it started very small, and just projects around the Inala property. But that is now also expanding and becoming another monster because more and more people are really liking what we're doing with the funding. So that's now expanded to the plants. A lot of the plant conservation projects that we do, we involve the Inala Foundation, because they fit very well with the Foundation. And we've also got the capacity to use the Foundation as a source of getting funding. A lot of the funding has to go through a not-for-profit organisation, so that's where the Foundation can come in and be very handy and know that it's all going to be not-for-profit. It would be very weird to be Inala Nature Tours, or something like that.

That's where it's going. It's expanding, we're doing a lot of other work on Bruny Island as well, and in Tasmania. We're now looking at (with the Nature Tours), I'm looking further afield now. We're doing a lot of international tours: they're got to have a conservation emphasis. So each country that I go to we need to support a conservation cause and it's sort of getting involved more: the Foundation's getting more involved in this global sort of thing. So, for example, when we go to Uganda, mountain gorillas and a bird called the Shoebill is the things that we focus on. So apart from that, local communities and helping local communities and getting a real experience – rather than just staying in big hotels – is what we do.

So the Foundation is getting involved in that sort of thing on a broader scale. There's a lot of critically endangered species out there and the more I travel the more horrified I become. And some of these things you would never hear about.

I've just come back from Bhutan and heard about a heron, which there's maybe 60 left in the wild, and I'm thinking 'Oh no, now I've got to save that.' [Laughs] So, you know, I just figure I can't have something going extinct on my watch. I can't save the world but I can have a crack at what I have the ability to do. So that's my philosophy, but the trouble is when I hear about something, I've got to jump in and 'What can I do?' And that's where the Foundation works perfectly.

35.01 Is the Foundation involved with the protection of the Swift Parrot, where you're growing the *Eucalyptus leucoxylon*?

Yes, that's an interesting one – we're heavily involved in the Swift Parrot and Forty-spotted Pardalote.

The Swift Parrot, the latest modelling has shown that the Swift Parrot could become extinct within 15 years. Now we've traditionally been

planting Blue Gum – *Eucalyptus globulus* and *Eucalyptus ovata* (which is Black Gum) – they're traditionally the food sources of Swift Parrot. They're a migratory parrot that comes to Tasmania to breed every spring and they're the two species that they use before they breed. And they fly round Tasmania and work out where they're going to breed, based on the flowering.

So that's all very well. We're still planting those, but your average Blue Gum probably takes about 20 years to flower. We don't have that much time. So what we've done, and it's actually the Garden's become involved a bit – because we had a *Eucalyptus leucoxylon macrocarpa* (the big flowered form) – that was flowering a couple of summers ago and that supported 12 Swift Parrots over summer. Now the ones that we've been talking about – the traditional ones, the *globulus* and *ovata* – flower over spring, now we're looking at *leucoxylon* which is flowering over a long period over summer, so that's great for bringing up the kids, for bringing up the fledglings. And we're looking at other species. So, we're involved in getting seed and growing those, through the Foundation and through the Garden, to distribute to other landowners. And actually there's a big planting exercise going on today on a neighbour's property, planting for Swift Parrots.

That's one thing we're doing for Swift Parrots. The other thing for Forty-spotted Pardalote – the Foundation's involved in protecting those. We're putting up nesting boxes and we're planting *Eucalyptus viminalis* or White Gum, because that species – Forty-spotted Pardalote – is totally reliant on the White Gum for its survival. So, I've got a colony of Forty-spotted Pardalotes here and I have White Gums on the property and for the last thirty-something years I've been planting White Gums for them.

What we found is that White Gums, when you plant them, after about six years the Forty-spots starts using them to forage, so they use them for takeaways but they're not much use for anything else. And it's upwards of 100 years before they're used to get hollows for nesting – because both the Forty-spotted Pardalote and Swift Parrot are hollow-nesters. So we're fast-tracking that because we can't wait 100 years for a Forty-spot to find a nesting hollow. We're making these little nesting boxes, and they were working beautifully up until (so we put those in 20-odd years ago) about 3 or 4 years ago when we found that Tree Martins and another species, the Striated Pardalote, were moving into those nesting boxes and throwing the Forty-spots out and breeding there.

And instead of, you know, something like 30 nesting boxes full of Forty-spots we then the next year we had 15. The following year we had three breeding, and I thought 'We have to do something.' And we built a specialist platform, 4 metres high, so that people can go up into the canopy and see Forty-spotted Pardalotes, and I actually saw a Striated Pardalote going into a Forty-spot nesting box and that was the point at which I said, 'We have to do something.'

So we've been, traditionally, using nesting hole sizes from 26-30mm – it turns out that's too big, so what we've been doing (and the Inala

Foundation has been funding this) and the Inala property is being used as a research facility, we're putting little cover plates with different sized holes: smaller and smaller. And, as it turns out, 1mm makes the difference. So at 25mm we've excluded all the Tree Martins. 24mm the Forty-spots are going in and out and we've dramatically increased their breeding this year, because this is the first year we've tried it. The Striated, after three weeks, they work out that they can squeeze in if they really try, so now we're making it even harder for them by adjusting the shape of the nesting box and we might even go as low as 23mm. So all of this stuff's being funded through the Foundation.

Inala is being used as a research facility, and it's much easier as a private property, I can just say 'Yes, I agree to this.' And much better than using other land. And the other thing about the property is that because we run tours here, we're running tours here nearly every day, or sometimes several times a day, we can see every day what is happening and we can adjust. Whereas, if the researchers are just doing something in another area they might come back and three weeks later and maybe the Striated Pardalotes have moved in. But when did they move in and how did... So, you really need to have somewhere that we can act immediately.

40.47 That's extraordinary. 1mm makes all the difference.

I know. And who would have thought. But everywhere else people have just been saying 'Well, gee the Forty-spots are disappearing. Isn't that a shame. I don't know what's happening.'

Well, we know what's happening. I mean, it doesn't help that the health of the trees are also suffering – but that's related to climate change and that's another whole other level of interesting.

Yes, talk about that.

So the thing is that what we're now also doing is looking at other – because *viminalis* grows on the mainland of Australia – maybe we need to introduce some Australian mainland *viminalis* to Tasmania because (and again, somewhere like Inala, that's a private property, it's not a reserve), so I don't know if, generally speaking a foreign or interstate gene pool is not considered good. But if Tasmania is going to start warming up we're still going to need *viminalis* and, you know, I'm a firm believer you've got the ideal world, right up here, and then you've got the real world, that you might have to make some compromises. And if those compromises mean that the Swift Parrots and Forty-spotted Pardalotes are still going to be with us in 20, 30, 40, 100 years, then those compromises need to be made.

We're looking at maybe introducing different genetics in, more heat-tolerant or drought-tolerant species. In the case of Swift Parrots, dwarf varieties of *globulus* that people in Hobart can grow in their back gardens because the Swift Parrots don't care where the trees are, and they flower earlier too.

We're looking at all of this sort of stuff and doing (we, being the researchers and doing the work, we sit here (where we're having this interview) and do the brainstorming and I'm always very vocal in my opinions of things [laughs].

Are you meeting resistance to that?

Look, there's a little bit of 'tut tut', that they've always (with the Swift Parrots) they always used *globulus* and *ovata*. And that's very true, but what else do you do? And again, on a private property, in a situation such as a garden, or in a situation like if somebody grows a *leucoxydon* in their back yard in Hobart, I don't think it can hurt. The parrots just need somewhere to feed.

The other thing we've looked at is artificially feeding them, and that's a big job and that's something would be the least line of – that would be a last resort. Because especially with something like a Swift Parrot, it needs a special liquid formula because they drink nectar and there's all sorts of problems with, you know, things that you don't think of at first. 'Yeah, I'll just put out a big thing of honey water.' Well you've got to make sure that it's good for it, that you're not feeding them junk food. That honey water on a hot day can turn – it can go off – or maybe alcoholic and we don't want to make them drunk [laughs].

And the other thing is, lots of bugs grow in there. Lots of bacteria grow in sugar-rich solutions. And then there's the other thing that if you have a regular food source, or something like that where Swift Parrots come down, what's to stop a Brown Goshawk or a feral cat just thinking, well I'll just stop here for breakfast because I know they come down every morning, so I'll just nab a Swift Parrot or three.

So there's a lot of thinking has to go into whatever you do and that's what we do a lot of thinking here at Inala, trying to brainstorm what if we did this and what are the consequences, is this a good idea or shouldn't we touch it? And then we work it out from there.

44.46 Linked to that – it's slightly on a tangent – but I'm interested in some of the work you're doing in terms of developing hybrids of the threatened species. I've read too that you are doing the Leatherwoods, the hybrid producing 'Penwith' was it? And also the *Nothofagus* hybrid. How does that fit into the scheme of things, in terms of biodiversity?

Yes, so we've got to be very careful what we grow in the Garden. There's some plants with a Gondwanan distribution or interesting distribution, such as *Pittosporum* and *Coprosma*. I don't want to touch those things because they've got the potential to go so weedy. You know, some of those New Zealand *Coprosmas* they – people spend hours pulling them out. I know in Melbourne they're growing as weeds. I don't want to be that person that introduces something that's going to be a nightmare in the future, so we've ruled out a number of things.

Coming back to the hybrids: they're an interesting concept, and we're growing those in the Garden to show that even though these lineages

have been separated by, maybe 60 million years, that they still have genetic compatibility to breed with a viable young.

I don't think – we've tried to grow the seed from those and we haven't been successful – and I think with a lot of hybrids you get infertile young, and I'm really hoping that's the case. We actually didn't grow the hybrids here. They've been brought in as demonstration ones of what can happen, but I'm very aware that we've got a wild *Nothofagus* myrtle population there – I should not want to see that hybridised with a South American species or a New Zealand species. So we've got to be very careful there.

The same with this *Eucryphia* 'Penwith', that's a really interesting one too because the same genus – so that's really at quite the pointy end of the taxonomy – the same genus occurs in South America and in Australia. So we've got a hybrid between a South American *Eucryphia* or Leatherwood, and the Tasmanian endemic Leatherwood, and I find that really fascinating. But again, we've just got to be very careful that we don't get a bit too carried away.

But that 'Penwith' can be theoretically, bought anywhere from nurseries. So we've got that other thing that these sorts of things occur anyway. It's not just Inala bringing them in, so even if I said 'No we're not going to have this and that' it's not going to – there's a lot of things in nurseries that probably shouldn't be sold, to be honest, because of their weed potential. But that's another whole story.

48.04 Yes.

We've talked a lot about the collaborations and research and educative work that's taking place at Inala, but we haven't talked about the collaboration with Wakehurst, Kew Gardens, with the King's Holly, growing King's Holly. Do you want to talk about that?

Yes, well the Kew Gardens one is mostly, that's the Myrtle one, but the King's Holly one is an interesting one because *Lomatia tasmanica* is a species that's only found in south-western Tasmania and it's got a very limited distribution.

The King's that did the tin mining down at Melaleuca, they found it, and it's basically, as it turns out, it's a clone. It covers a fair area, but it's one plant that has grown, and some say, that it's genetically very similar to 43,000 year-old fossils of that plant that are found nearby. So, theoretically, it could be that that same plant has existed over that time.

The thing with that that interests me, is it's triploid. So, most organisms have two chromosomes and they split and then that's how they breed: one from the mum, one from the dad, and that forms a new something. When you've got three of them, that's very problematic because they all get tangled up and nothing happens. So it cannot produce seed, it cannot produce sexually at all, the only way that it can exist is by a bit falling off and taking root and that's how it's existed for 43,000 years, or however long that plants existed.

Now again, that area is one major bushfire away from being obliterated. So, that's another cause that we need to leap on to. Thankfully, it grows quite well from cuttings, but it's the very devil to keep because the roots aren't very stable and I know a lot of people have trouble with keeping them alive. So over the years various people have tried to graft them on to other *Lomatia* rootstock, because we've got another two species: *Lomatia tinctoria* and *Lomatia polymorpha*, in Tasmania. They're both endemics as well. The interesting thing that I find is *Lomatia tasmanica* looks much more similar to the South American *Lomatia ferruginea*, or Fuique, than it does to our other Tasmanian species. So I find that fascinating, you know, how can it look so...

We're looking at growing some of these on the *Lomatia ferruginea*, the South American rootstock, because that's a nice robust one. But also we just, fingers crossed, happen to be able to grow them without having any problem with them dying from root rot or anything, so we're hoping to keep that up. We're taking lots of cuttings, and again, it's just a matter of getting enough specimens so if something happens in the wild that we've got – it's all about insurance specimens again.

So we're distributing them. I sent two plants up to the Arboretum in Northern Tasmania, so Phill [Parsons] up there is hovering over those. So far, so good with those.

But yeah, it's a big responsibility, all of this stuff because you know that if – you know these things, we've probably got about a tenth of the world population of *Lomatia tasmanica*. It's a big responsibility and you think, 'Oh, it's terrifying really.' But what's the alternative? You don't touch it and then you've done nothing. So that's why we keep persisting and so far we've been very lucky, that we've managed such a success with all of these critically endangered species.

It's fascinating Tonia.

You've talked about your philosophy, indirectly, all the way through, in terms of your passion. When you say it's almost overwhelming coming back from Bhutan to thinking 'That's another heron I've got to protect,' how do you work through not being overwhelmed?

Yes because I could easily lie in bed awake all night worrying and, you know, I do that on a number of occasions – I'm not a good sleeper [laughs]. But that's when I have my best thoughts too. And I can either worry or I can do something about it and I find if I personally do something about it, that makes me less stressed. I mean, it's stressful in a different way because you've got to do something and then you've got the responsibility and then you've got the likes of Bedgebury and botanic gardens in Sydney sending you these precious things. You know, they're more precious than gold and they're trusting you with this amazing genetic material and you're thinking 'Oh, please don't stuff up, please don't stuff up, please don't die!' But at least I'm doing something, and that's what I advise other people. Instead of worrying about it and saying 'What can I do? I can't do anything. It's all a big doom and gloom.' I think

if everybody did a little something, it would make an awfully big difference.

So that's how I get round it, I just roll up my sleeves and think 'Okay, there's another one. What can we do to help.' Even if it's just to help enable the locals to do something. If you're looking at a country that you go to that isn't very rich, that's subsistence living, a country like Uganda for example, the best thing that I can do for mountain gorillas there is to bring clients to see them because that employs the whole of the local communities there and if they're earning money from the mountain gorillas, then they're not wanting to cut the forests down for bananas and, you know, coffee and things like that. That's the best thing I can do there. So I weigh it up: what can I do to even just help a bit and then I launch into action.

54.34 That is amazing, and you have.

You're quoted somewhere I've read, you said 'We can't have plants without animals and animals without plants', that's part of your philosophy?

That sort of leads to, that's, I think, why I've been so interested in everything, forever, ever since...

Zoology and botany? You can't have one without the other.

Yes, I just don't think you can.

When I do a tour it's supposed to be a birding tour, but I'm not going to ignore the amazing plants or the amazing insects or anything else, so my tours, inevitably, become like 'Look at this, and this, and this', and everything, I think, is linked and that's where I've had the agony when I've been forced to choose, like when I went into my Honours and PhD, I had to choose 'Are you going to do animals or are you going to do plants?' And it's a really difficult one and that's why I didn't last long at it. You know, in academia I did a lot of that, but then I've come back to the grassroots sort of thing. These tours are a way of increasing awareness of the natural world and that's what I want it to be: it's called Inala Nature Tours, not Inala Bird Tours, or Inala Flora Tours, for a very good reason.

And I look at things as a whole, you know, that you need that interaction. And you're trying to overcome this – people talk about plant blindness – and it fascinates me. When I go away and I come back and I see my ferns are wilting and I think 'Why didn't somebody see that that fern needed watering?' I can't, you know, when I'm on the phone I'm poking at the plant – I don't even realise I'm doing it – I'm poking it to see if it needs water and that's the time when I'm on the phone that I water the plants and get rid of all the dead bits and everything. I personally can't understand how somebody could go past a dying plant and not realise it needs water [laughs], so I don't know, it's beyond me. [Laughter]

What a wonderful philosophy.

Now we're coming to the end of the interview, are there things that you'd like to add that we haven't covered?

I think we've covered an awful lot. We've covered the Museum, the Garden, the Foundation. We've covered enough about the Nature Tours: the fact that I have 1500 acres here; I've got two accommodation cottages on the island so people can come and stay on the property, we've got walking tracks on the property, so that I encourage people to come and use the property.

Another of my philosophies is that yes, on paper I own 1500 acres, but I can't get my head around how you can own 1500 acres and all that's on it. I can't imagine how I could own a tree and have the say of whether I chop that tree down or not: it's not for me to be doing that. I figure I'm just passing through, I'm a custodian, and so I really get that Aboriginal philosophy of being part of the land. That fits better with me. Yes, I own the land on paper but, you know, we've got a responsibility to be custodians. I want to leave it in better condition than when I got it: it was a working farm when I got it, I have farmed animals on the cleared bits, now we're re-wilding. I think that that's another part of my philosophy, I just can't get my head around how you can own things that aren't yours [laughter].

I think that pretty much tidies up everything that I'm doing at the moment. But I am an infamous monster creator, so you never know what I'm going to be doing next.

We shall await, with interest, the next chapter, the next monster you might create [laughter].

Well Tonia, thank you so much for contributing to our National Oral History Program for the Australian Garden History [Society]. Your work as a steward and conservationist is absolutely extraordinary and, again, thank you for your contribution.

Thanks Jean and thanks Rhonda for taking the time to come down, it's not exactly on the way to anywhere – the bottom of Bruny Island – thank you.

59.15

Recording ends.

Interview ends.