



# ***ECONOMICS AND GOVERNANCE COMMITTEE***

**Members present:**

Mr LP Power MP—Chair  
Mr RA Stevens MP  
Mr MJ Crandon MP  
Mrs MF McMahon MP (teleconference)  
Mr DG Purdie MP  
Mr A Tantari MP

**Staff present:**

Ms L Manderson—Committee Secretary  
Ms M Salisbury—Assistant Committee Secretary

## **PUBLIC HEARING—INQUIRY INTO THE PREHISTORIC, DINOSAUR AND PALEO TOURISM IN OUTBACK QUEENSLAND**

### **TRANSCRIPT OF PROCEEDINGS**

**Monday, 23 October 2023**

**Brisbane**

## MONDAY, 23 OCTOBER 2023

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### **The committee met at 11.01 am.**

**CHAIR:** Good morning. I declare open the public hearing for the Economics and Governance Committee's inquiry into prehistoric dinosaur and paleo tourism in Outback Queensland. I would like to respectfully acknowledge the traditional custodians of the land on which we meet today and pay our respects to elders past and present. We are extraordinarily fortunate to live in a country with two of the oldest continuing cultures in those of Aboriginal and Torres Strait Islander peoples whose lands, winds about waters we all share.

My name is Linus Power. I am the member for Logan and chair of the committee. With me here today are Mr Ray Stevens, the member for Mermaid Beach and deputy chair; Mr Michael Crandon, the member for Coomera; Ms Melissa McMahon, the member for Macalister, via teleconference; Mr Dan Purdie, the member for Ninderry; and Mr Adrian Tantari, the member for Hervey Bay.

The purpose of today's hearing is to enable the committee to explore with stakeholders the key issues relating to the inquiry's terms of reference. The hearing is a proceeding of the Queensland parliament and is subject to the parliament's standing rules and orders. While the hearing is open to the public to watch, only the committee and invited witnesses may participate in the proceedings.

The proceedings are being recorded and broadcast live on the parliament's website. Media, of course, may be present and are subject to the committee's media rules and directions at all times. You may be filmed or photographed during the proceedings and images may also appear on the parliament's website and social media pages.

Before we commence, I remind everyone to turn their mobile phones to silent mode. I now welcome our first witnesses from Tourism and Events Queensland.

### **BRON, Mr Matt, Acting Group Executive, Commercial and Partnerships, Tourism and Events Queensland**

### **TUTTIETT, Mr Henry, Director, Corporate Affairs and Government Relations, Tourism and Events Queensland**

**CHAIR:** Good morning. Would you like to make an opening statement after which we will commence with questions?

**Mr Bron:** Good morning and thank you very much for having us here today. It is certainly an exciting opportunity to discuss what is happening in Outback Queensland with regard to the development of dinosaur and paleo tourism. In terms of my background, for your knowledge, I have been working in the outback for about 12 years as the director for Outback and country Queensland tourism during which I was based in Central West Queensland, in Longreach, for a number of years.

What I have been able to see and witness in the development of this particular topic is extremely exciting. It represents a unique selling proposition for Outback Queensland that no other outback region has. I think that is a really important point to note. The outback in Australia is vast and broad and many times the experiences are quite similar right across the country. The difference we have in Queensland is this opportunity to advance this prehistoric dinosaur product. We know that young families in particular are very focused on getting their kids out there on road trip experiences.

We have worked very closely with the dinosaur communities which are spread the length and breadth of the outback region. In fact, there is a sort of longitudinal line from Mount Isa and the Riversleigh World Heritage region right down to the south at the Eromanga Natural History Museum location. It is fantastic to be here and I hope I can answer some questions about what it is you are looking to hear.

**CHAIR:** Thank you, Mr Bron. We will now turn to questions. I note the deputy chair, the member for Mermaid Beach, Mr Ray Stevens, has a question.

**Mr STEVENS:** We have been out doing an investigation into the emblem legislation and quite clearly paleo tourism is a big focus for people in those regions. One of the issues they raised with us during that inquiry is the fact that they are looking to expand upon their international tourism. Yes,

they have a drive market made up of young families and mostly the older generation—grey nomads if you like. What they really saw for the future of paleo tourism was the international sector. How is TEQ going to promote that particular sector? What do they see as the answer for that? How would you see that being funded to further TEQ's support for that international paleo tourism expansion?

**Mr Bron:** There is no doubt that what we are discovering in Outback Queensland and what is on display is of international significance. Certainly the story will go far and wide in the international market space when revealed—and it already has. Obviously, we have the world's second largest dinosaur sitting in Australia at Eromanga.

The opportunity to grow internationally is broadly one of outback tourism's issues, not so much directly related to dinosaurs but related to the entire region itself. The number of locations and connectivity into the region, the accommodation opportunities that need to grow I think in parallel with these experiences has to be brought into the picture for that to potentially grow sustainably into the future. The opportunity that we formed with the development of the dinosaur tourism committee of which we have a member here today, who will be speaking shortly, is to tell the world what we have; that is one of their primary roles and primary targets of work.

Another area where I think internationally it can grow is the education market and in particular the business side of palaeontology. Internationally, we know that America, South America and even areas of Mongolia have significant dinosaur experiences that they are growing as well and these are on par with those types of experiences. We can promote as much as possible into the international market, but we still need to connect them with a flight to the region or a long drive to the region and get them into accommodation and into an experience. In order for them to have a great experience it has to coincide with what we are showing with the dinosaurs as well. It is a bigger story of parallel work.

**Mr TANTARI:** In the submission made by Tourism and Events Queensland to this committee you noted the Premier in 2021 launched the Outback Queensland dinosaur road map. I also note that that funding is being used by the Dinosaur Tourism Collective, which I will refer to as the DTC from this point on. In regards to the DTC, it says DTC would lead and facilitate Outback Queensland dinosaur tourism experiences. As part of that you indicate finding efficiencies through collaboration. What do you intend doing there? Can someone explain how you think you might find those efficiencies through that collaboration?

**Mr Bron:** There are absolutely efficiencies that we can see collectively that our different attractions can look towards working with each other on. We were able to undertake a study mission to America to have a look at different clusters of dinosaur products across the international market space. During that period we discovered that there is a real appetite from consumers and tourists to experience an attraction that has a palaeontologist there and someone who is educated in what they are talking about. Areas where Outback Queensland is lacking in the experience is having those people on the ground across our different attractions.

Some of the areas that the road map presented ideas around thinking was working with universities to get graduate or even pre-graduate palaeontologists working through our system of attractions in the outback, rotating through the different regions and getting involved with consumers to add that experience. That is one example.

In terms of other areas, all of the attractions we have out there tend to work in silos with regards to their merchandising. You will find very simple merchandise at the gift shop which just has a non-Australian dinosaur with the name of that town on it. We think there are ways they can work better together to depict merchandise of the actual attractions and bones and things that we are digging up in Australia and potentially buy them in bulk across our different attractions to have an economy similar to that of a co-op with regards to merchandising.

**CHAIR:** Is merchandising a subcommittee of the cooperative dinosaur—

**Mr Bron:** Yes, certainly within the Dinosaur Tourism Collective. I should clarify that we use the term 'road map', which was a bit confusing at first. People thought it was a tourist map to drive. It was not that at all; it was a strategy with regards to these types of issues. Collectively working on a merchandising plan is something that the DTC are actively speaking about within their committee sessions.

**CHAIR:** Sorry I interrupted you.

**Mr Bron:** Not at all. Other areas where we see the collective working closely together is in the tourism distribution and commercialising of these attractions. They are not largely on sale internationally; you cannot buy this product overseas before you get to the country, so there is a lot

of work to do to get these guys collectively set up and packaged to be sold in the international market. That is an area that is lacking right across Outback Queensland in terms of having product that has commissions built into their sales price, joined up with accommodation and with transport so you can easily book this experience. At the moment you would have to find it all out individually through different itineraries and blogs to make your way out there. That is another area they are working on, which is all identified within the road map as things to progress.

**Mr TANTARI:** Further to that, I was also interested in your submission to us that the DTC also talks about increasing investment in dinosaur experiences. How do you actually see that occurring given the state government has already invested in the three-year strategy? What do you see as the potential for increasing investment in dinosaur experiences? How does the DTC see that?

**Mr Bron:** It is absolutely a key area that the committee and the executive manager will work towards to ensure their sustainability as a group. The DTC, as a cluster of tourism bodies coming together, is modelled very closely on the Tourism Australia Signature Experiences of Australia program. Within that you have Luxury Lodges of Australia, Great Golf Experiences of Australia—all like-minded product working together and investing in themselves through a marketing co-op. This particular opportunity is similar to that. There are a number of pursuits that the group will look into federally, state and also philanthropic which can support the development of this.

Crucially, the committee are committed to ensuring that they do not approach or attempt to find other funding sources that are only useful for an individual product. They are working as a cooperative and they will work on looking for funding that will develop and benefit the better-for-all approach. It is a crucial piece of work. The committee only officially formed in June this year. They have a new chair on board, a man called Mr John Fitzgerald. He has been a CEO of Tourism Sunshine Coast and has recently been CEO of Tourism Tasmania. He is highly regarded and will really be helpful when it comes to exploring opportunities with the committee.

**Mr CRANDON:** We went out there and looked around, but we focused on the dinosaurs and fossils. Does the fascination with dinosaurs, fossils and the like translate to other prehistoric offerings or are they looking for it to translate that way? We have a big outback. If we are trying to attract international tourists and we are just focusing on the dinosaur paleo experience, we are attracting a group that are only interested in that. If we had a broader scope—and I have brought this up with the committee several times—if we looked at including the volcanoes, the lava tubes—

**CHAIR:** I thought you were talking about Ray. I thought that was what the set-up was.

**Mr CRANDON:** No. I was going to reflect on the chair but I thought I better not. There is also the Aboriginal and Torres Strait Islander offering up through Central Queensland and into North Queensland and beyond. Is there any thought around that? If I am travelling somewhere in the world, I do not just want to look at one thing. I look at what else I can do and what else is there. Is there any thought about bringing those things together as a package for the international tourists?

**Mr Bron:** That is a fantastic question. You are absolutely 100 per cent correct. Dinosaurs are a unique selling proposition, as we call it—a USP—that is unique to Queensland's outback. On top of that, Queensland's outback is full of other rich experiences which you no doubt witnessed while you were out there—just a bite size, no doubt. Some of the locations, the majesty, the gorges—all of that builds into the mystique of this whole story. We absolutely do promote all of the history and heritage of the outback. There is the feeling you get on a family road trip in the outback. The people of the outback are some of the most heart-warming and often become the hero of the entire trip that people have.

I was previously the general manager for the Outback Queensland Tourism Association, the regional tourism organisation. What we noted back in those days when we were marketing the region when dinosaurs were there but not a huge focus was that getting people to the outback was our first chore. Then we had a 50 per cent return rate because typically people find out what they do not know when they get there. It is really hard to convert people to the outback initially, but once you have them we grow and grow and grow because the repeat is so high.

The Aboriginal and Torres Strait Islander cultures are rich and getting better and better through development. The Year of Indigenous Tourism that we had a couple of years ago has helped us immensely in that space. As I understand, you went to Muttaborra as one of the locations. Just a little further afield in the Barcaldine shire is an amazing Aboriginal experience that is being developed on a station not far from where you were. I would have loved for you to see that. There are etchings in the sandstone there of marine fossils. No doubt the bones were found many thousands of years ago and have been etched into the stories. We have an opportunity I think to use dinosaurs as a conversion tool or an excitement tool but then we add more—plus more.

**Mr CRANDON:** Or it could be the other way around. You could use the Aboriginal and Torres Strait Islander history going back thousands of years and then—

**Mr Bron:** Plus dinosaurs.

**Mr CRANDON:** Plus dinosaurs and plus the lava tubes—I have to keep on reminding everyone.

**CHAIR:** I think Michael is saying that we have to go back to see them as we missed out.

**Mr Bron:** It is an exceptional experience. I have done the night summer tour at the lava tubes. The trick is to not look up because there are snakes in the trees eating the bats as they come out. The guide puts the light on and sure enough there they are—all of these night tigers, which are just beautiful green tree snakes. They are not going to hurt you but they are all above you. That is a summer product that no-one knows about.

**Mr CRANDON:** I did not see the snakes but I did do the night-time tour.

**Mr STEVENS:** Obviously young people are very much interested in the dinosaur experience and dinosaurs themselves at the Queensland Museum. That is a big part for families moving forward with dinosaur tourism. In Winton there has been a major injection of funds by one of the Gold Coast schools—the AB Paterson College. They have put \$4.5 million into an Outward Bound facility for schoolchildren to visit. That is open, as I understand it, to schoolchildren from all places, not just from AB Paterson College. What would TEQ see as a future direction in their interaction with the Department of Education to encourage the department—maybe through the minister or through the department—to embrace paleo tourism in the school curriculum, given that that wonderful facility is available for visitation by Queensland schools?

**Mr Bron:** This is a particular passion point for the newly formed Dinosaur Tourism Collective chair. In particular, John Fitzgerald has talked about this heavily as an opportunity to pursue. As far as Tourism and Events Queensland is concerned, for close to the past 10 years now we have run and controlled a small subsidy program called the Outback Queensland Education Experience Program. It is modelled very similarly on the PACER schools program, which takes kids to Canberra to see the experiences in Canberra.

**Mr CRANDON:** There are dinosaurs down there.

**Mr Bron:** Exactly. You are correct. We worked very closely with AB Paterson College in the very early days on this. Currently we do subsidise the cost of school excursions to the outback. Each child can receive up to \$130 off the cost of their trip based on the distance and kilometres they travel from their home school.

Again, there are issues around accommodation in the region. AB Paterson College identified this. Through a very close partnership with the then late mayor Butch Lenton, they were able to secure the land and build that on behalf of their namesake—the town of Winton and the story of Banjo Paterson. We continue that program and we work with the Department of Education and also the Department of Tourism, Innovation and Sport to deliver that small subsidy.

There is a similar program to get boats to the reef to have a reef experience, and that is also run by the department of tourism. Potentially I would love to see opportunities for those programs to grow by way of doing a reef and outback experience and then building into the curriculum, as you say, the story of Australian dinosaurs. They are learning but they are learning about international dinosaurs—the good old famous T-rex, which we have not unearthed in Australia yet. I have no doubt they are there. We are just in a different time period. I think Dr Hocknull will be able to answer the scientific questions far more on that.

**Mr STEVENS:** Thank you. I did not know we had a T-rex.

**CHAIR:** We do not yet.

**Mr Bron:** I said we might have one one day.

**Mr STEVENS:** Mr Bron said they are there.

**CHAIR:** If Mr Bron says they are there, we have you here as—

**Mr Bron:** They did take millions of years to discover, so please hold me to that.

**Mr TANTARI:** Generally, how does dinosaur related tourism in Outback Queensland compare with other states in Australia?

**Mr Bron:** Do you mean our dinosaur experiences compared with other states?

**Mr TANTARI:** Yes.

**Mr Bron:** We are light years ahead which is the fantastic side of this story. This is what represents our differentiation from other outbacks. You do see beautiful gorges and history and heritage right through outback Australia, but you do not see the level of experience that we have for dinosaurs. The spread is exceptionally positive for us as well. They are right up in the north at the Riversleigh World Heritage site and right down in the south around Eromanga and Eulo and everywhere in between. It is the dispersal that that represents for travellers. One of the opportunities that I could have mentioned before is that the group are working on a potential collector series of merchandise that you only get if you visit each and every one of the locations. They would be worth quite a lot. They would be quite rare. There are all these different things to connect—the dispersal message and the story as well.

We are ahead of other regions but they are gaining on us. The Flinders Ranges region in South Australia has some of the earliest ever documented fossils in Australia—from the beginning of time sort of thing. Broome has what they are calling the dinosaur highway, I think, where they have some fossils out that way but none are clustered in such a thick presence and with such advanced work being done, as you would have seen on your visit—from the very basic out there at Muttaburra, where no doubt you enjoyed a toastie from the roadhouse and then went across to the site, to the advanced products that we see in Richmond, Winton, Eromanga and Hughenden.

**CHAIR:** One of the things we are looking at is increasing accommodation and infrastructure. How and where to do that and how to do that in a sustainable way is a challenge, I think. One of the challenges with sustainability is the seasonal nature of tourism visits. How do we broaden the season to add to the return on investing in accommodation and infrastructure? What strategies could we adopt to do that?

**Mr Bron:** I think the dinosaur road map again alludes to the opportunity to build shoulder seasons through events. An event gives a point in time in a calendar to visit, so it is fantastic for conversion. There are a number of different events from dinosaur digs right through to festivals of moon rock throwing that they used to do in Richmond, but they were not all tied together and they were not in any specific order. The strategy speaks to how they could be pushed to the shoulder seasons to extend length of stay. Typically in the outback you would see that by the end of November-December it is really just the locals out there, and that goes right through to February. We have seen it lengthened closer to Christmas—

**CHAIR:** We did hear that some internationals are less seasonal which is interesting.

**Mr Bron:** Particularly the Germans.

**CHAIR:** They like the heat.

**Mr Bron:** They do. At the moment domestic tourists represent about 98 per cent of all of those visiting. There is around two per cent from the international market, so it is very light on. It has been like that since I have been working with the outback region. We have done a number of stories into the German and European markets. They definitely like the heat. They are often on pushbikes riding around the country. They are extreme tourists, I would suggest. You might have seen some stories of them losing their way and being found again. By way of large groups of internationals, we just do not see that. It is hard because we cannot accommodate them sometimes.

Getting back to the question, by using a strategy to develop periods of low visitation around certain events that the different cluster groups could work towards, we might be able to fill some of those gaps. With the education market with these kids travelling out west, they tend to go in winter because they do not want the kids getting too hot. There are safety reasons. We do see that all the school groups tend to cluster in June, July, August and September. We are looking at university level—more graduate level—education options as well where they can go outside of those periods.

**CHAIR:** Thank you very much, Mr Bron and Mr Tuttiett. Thank you for the time you have given us and for the information you have provided. We have not taken any questions on notice. Thank you very much for your contribution. I now invite representatives from Dinosaur Experiences Australia to the table.

**RICHARDS, Mr Corey, Board Member, Dinosaur Experiences Australia**

**SELLARULO, Ms Ingrid, Program Manager, Dinosaur Experiences Australia**

**Ms Sellarulo:** Thank you for giving us the opportunity to talk about the wonderful work the collective is doing as we come together and work collaboratively to elevate the message of paleo tourism globally. Hailed by Sir David Attenborough as one of the wonders of the palaeontological world, Outback Queensland is also home to the best preserved cretaceous marine and reptile fossils and the only known preserved Dinosaur Stampede on the planet. To promote our world-class discoveries under one banner, a collective of dinosaur tourism operators with funding and support from Tourism and Events Queensland and the Queensland Department of the Premier and Cabinet have come together to form Dinosaur Experiences Australia.

Dinosaur Experiences Australia was incorporated on 14 June. The collective has convened with four founding members: Eromanga Natural History Museum, which is down south; Riversleigh Fossil Discovery Centre up north; Kronosaurus Korner; and Flinders Discovery Centre. The collective is also supported by Winton Shire Council. Our current committee is a group of attractions that work collaboratively and are supportive of each other's individual business goals but who share the same united vision to be global leaders in dinosaur experiences. Matt spoke about our chair, John Fitzgerald. He is a senior member of the tourism industry who has a plethora of tourism, product development and destination marketing expertise to bring to the committee. Having been the CEO of Visit Sunshine Coast, Tourism NT and Tourism Tasmania, with John we have a strong chair at the helm.

Our purpose is to create and execute experiences that align with passion points for those visitors who love science, dinosaurs, palaeontology and, in essence, have a curiosity to learn. It is all about the citizen science movement. Each member curates or is in the process of creating projects and experiences that provide visitors with the unique opportunity to travel back in time as part of history. The role of the collective is to elevate the message of paleo tourism using the unique selling point of dinosaurs to create a halo effect across the outback. This will benefit everyone: communities, social infrastructure and employment throughout the regions.

We do this by accelerating demand and facilitating leads and opportunities for members of the Dinosaur Tourism Collective for product development experiences. We raise the profile of the dinosaur collective and the experiences on offer in Outback Queensland to key markets, both domestically and internationally, through trade, media, consumer PR and marketing initiatives. We connect the dinosaur collective with new audiences while expanding on the family market, the fanatics market—as we call them—and the education market. We do this through itinerary development and experience packaging. We are looking for long-term sustainability and self-generated revenue streams which we work collectively on. We are excited to be leading the concept of science and tourism working hand in hand. More tourism equals more science, and more science puts Australia on the map to be the leaders in paleo. It is a partnership that works hand in hand.

We would like to thank you for the opportunity to update the committee on the wonderful work we are doing. We are just getting started, working as one voice to elevate the message of paleo tourism in the outback. Both Corey and I are really happy to take any questions that you may have.

**CHAIR:** I think after our trip the whole committee is in the fanatics group.

**Mr STEVENS:** One of the reasons I am a chief fanatic is that *Kronosaurus queenslandicus* was found on my family property in 1926.

**Ms Sellarulo:** That is amazing!

**Mr STEVENS:** I do not remember the dig.

**CHAIR:** Back when you were a teenager!

**Mr STEVENS:** But I did go up and down gullies looking for another one on my motorbike while I was mustering sheep. That is probably why we did not get a successful muster that day. Dinosaurs have been part of my heritage since I was a little boy—one of the first things I can remember. I am very keen on this new tourism aspect, particularly now that I have grandchildren who are very keen on T-rex. I am pleased that, as Mr Bron said earlier, it is guaranteed there is one available.

In the written briefing material the committee received, the department and TEQ highlighted the expectation that Dinosaur Experiences Australia will be self-funded within three years of inception. The committee recently did a trip to the northern area, and the chair has suggested we make another trip next year to look further into paleo tourism opportunities, which is a wonderful step by the chair in terms of taking the committee into other areas. What program or what opportunities have you seen

in terms of philanthropic issues to support your fundraising activities, particularly through major investments in the resource industry that will have an opportunity to invest in the wonderful burgeoning tourism of paleo tourism and the history of Australia? Have you pursued any programs through the big companies, for instance?

**Ms Sellarulo:** At this stage, having only been formed in the past few months, we are yet to get to that point. At the moment we have been working on international distribution, which I heard you talk about before. We have had some excellent opportunities already just with the focus on having someone talking to the individual distribution chain to represent paleo. In terms of philanthropic—not yet, but it is certainly something we will be looking out for and looking at ways we can develop programs to harness the excitement and enthusiasm around citizen science. We think that could be a nice potential way of creating some funding through a program of such.

**Mr STEVENS:** We currently have a bill before the House, which we investigated, that the Muttaborrasaurus be the emblem for Queensland. Is that a position your group is comfortable with? As I understand it, there was another Muttaborrasaurus found in New South Wales. Does ours have a maroon skin and theirs a blue skin or something? From the collective's point of view, are you comfortable with the Muttaborrasaurus going forward?

**Ms Sellarulo:** I have spoken to a number of the committee members, and it does feel like there is a general consensus that we are all happy with that as an outcome.

**Mr Richards:** Yes, as a collective we discussed this when it came up. Of course we all had our own individual campaigns for that as well.

**Mr STEVENS:** So did I: the Kronosaurus, to be honest with you.

**Mr Richards:** The consensus was we all felt that the Muttaborrasaurus is well represented in Brisbane in the Queensland Museum, which is great. The other thing is that it is one of our earliest finds in the regions, so we feel that it is a wonderful representation. It also a very sizeable animal as well, and I know when I was at school that the only Australian dinosaur I ever knew about was the Muttaborrasaurus.

**CHAIR:** A lot of the committee was a bit gutted when the Premier made that decision. We wanted the 'Raymondosaurus' but we could not get our way either.

**Mr STEVENS:** That is the one from Richmond that has not been named.

**CHAIR:** Muttaborrasaurus was second best.

**Mr TANTARI:** We have had previous presenters here, and particularly during our tour it has been expressed to us as a committee that there are a number of constraints and challenges in developing dinosaur tourism in Queensland. In your submission you mentioned the fragmentation of tourism promotion. What do you mean by 'fragmentation' and what do you see as the key challenges?

**Ms Sellarulo:** The fragmentation is everyone trying to work solo. When you pool your funds, when you pool your IP, when you pool everything that you have, you are able to elevate that message so much stronger and it will ripple out so much further. We have seen, as Matt spoke about before, the model of how the Signature Experiences of Australia has worked. It has worked successfully in that model, and we are taking that model and working with that as a program and following the leads of those programs that have already been successful that have come before us.

**Mr TANTARI:** Is there anything in particular in those models that would be challenging for Queensland?

**Ms Sellarulo:** No. I think the challenges we have are what you spoke about before, which is distance, time and accommodation. We have a team of different attractions that have big dreams and big opportunities. It really is about the time and how long it takes and the funding and being able to support that. I do not have any other challenges that I can think of at the moment.

**Mr CRANDON:** We spoke earlier, and indeed you are sort of talking around my question, and that is to do with silos. You used that terminology yourself. You have just formed. Are you doing any work to bring others outside of the dinosaur paleo fraternity in? What are you planning in that regard? The fact that you have just started, it is the ideal time.

**Ms Sellarulo:** Absolutely. We know there are lots of other wonderful opportunities to work with other products that represent historic experiences. We will be forming our first—

**Mr CRANDON:** Outback experiences as well. The AB Paterson College has their facility out there because the museum is out there, so there is that aspect as well.



**Ms Sellarulo:** Yes. From an international perspective, I have been talking to destination management companies and international ITOs, international tourism offices, and we have been talking about how we add on an outback experience into a two-week program. We have been working through that and we have come up with a few different opportunities or three different programs which an ITO can add onto an FIT, just individual visits. On the other side, we are working with other tour companies globally that have clientele who want to come and do this. We are working with them in a way that they will not just do paleo: they will do Brisbane, they will do Cairns, they will do wildlife, they will do Indigenous experiences, they will do marine experiences. We do know that the traveller who has a curiosity for science, a curiosity to learn, is also interested in wildlife, Indigenous experiences and that sort of thing.

**Mr CRANDON:** My experience with international guests coming to visit is that they tend to have a very short window—you mentioned a couple of weeks—whereas when we go overseas we think that because it is such a long way we end up going for a month if we can. Is there any research on the length of time people from overseas are spending when they come to our shores?

**Ms Sellarulo:** Absolutely. There is a lot of research around that and it is all very market specific: the eastern market versus the western market. Each of the markets has different requirements. That is why we are talking individually to the international markets and also working with the DMCs who know this information. It is part of their business to know. For example, we had a Canadian company that I have sourced out that is already doing paleo trips in Canada and the USA, and I have invited him to open up his trips to Australia which he is very excited to do. We are looking at moving that forward to 2024. We are looking at working with an ITO. I have collaborated with them so they can start managing what that two weeks would look like with a paleo component. It is very much market driven and market specific. There is a whole range of research that I can definitely share with you, but I will need to take that bit on notice.

**Mr CRANDON:** Could we, Chair?

**CHAIR:** If you wanted to provide a supplementary submission that had some of that information we have discussed, we would be very appreciative of that.

**Mr CRANDON:** Would that detail be broken down by international market, as in would it be Europe, the US?

**Ms Sellarulo:** That sort of information will come from the research that TEQ and Tourism Australia do. I will source that for you.

**CHAIR:** Remembering at this stage it only represents a tiny percentage. We are hoping to expand that, especially in the off season which might be quite different than what we have right now.

**Mr CRANDON:** You have just mentioned something that has come to my mind. You were talking about the off season. Are there any issues around the wet season? The off season tends to spill into the wet season. Are there any issues around that that might stifle the opportunities there?

**Ms Sellarulo:** If you could talk to the wet season that would be great.

**Mr Richards:** Of course the outback is quite a vast area. We break it down into multiple regions—the north-west, central west, south-west and far west. We have different climatic factors, depending on where we sit in the regions. Down in our area in the south-west we do not get a wet season as much as perhaps the north-west does, but what that actually means is that we find that we can tailor our marketing to people and visitors, especially the FIT that are travelling out of season, to visit almost on a circuit, you could say. There are peak times. Of course, post wet season indicates that we are going to have possibly good wild flowers and things like that which falls in as well and then because all of our museums often are not just fossils, they do have natural history collections as well, we are grabbing people on the variation in the season. We see that we get people coming and visiting more post wet season because they want to see what the country looks like after the rain, but then we also see a whole different market who are coming to see the desert to see its dryness and vastness. We do have quite strong repeat visitation which is good. We are finding out domestic Queensland visitors are the repeat visitation on the wider shoulders.

**Mr STEVENS:** One of the presenters we had at Muttaborra suggested that one of the lesser promoted experiences was actually the fossil fossicking. Obviously after the wet season there are going to be bigger chances to find a T-rex or whatever is out there. It was a young person. What are we looking at from your group to utilise the fossicking dinosaur experience? Is that part of your promotions?

**CHAIR:** You talk about citizen science, but hands-on citizen science.

**Mr STEVENS:** He said it was a wonderful experience that got him involved in dinosaurs.

**Ms RICHARDS:** What is quite interesting is we find that the good thing about our collective is that through collaboration we have different hands-on experiences on offer at different attractions. The other thing is that we have them for different demographics as well. Places like Eromanga Natural History Museum or Age of Dinosaurs and even Kronosaurus Korner at Richmond, all offer quite high-value opportunities for people to come and have a full immersion, but then Richmond also offers something quite exceptional where they can go and fossick in the public areas. You just get a permit. That is quite wonderful as well. It is more about communicating that back to our markets that are visiting. For our family market, we have family specific products as well. For example, we have a product called the Family Preparation Program. It is open to everyone. It is not specific for families. On our research and experience with past visitors we find that families are very fanatical and usually driven by the children to come and visit, and kids only have quite a short attention span so we do a shorter version of preparation and digging and things like that so that they get to experience it but in bite-sized pieces. We find that our repeat visitation has increased significantly as a result of that. We often see our young market—children, teenagers and young adults—are the ones who are coming to inspect and also see if this is an opportunity for a career as well. They can have this bite-sized experience. The other thing is that it is accessible. They often come back and do a dig when they can and have the means.

**CHAIR:** You have undertaken to give us a further submission with some of that information that the member for Coomera asked about. We are going to be taking a reasonably long look at this so if there is any further information you want to give in a supplementary submission we would certainly welcome that to help inform our findings. We did not formally take it as a question on notice, but we welcome your further submission.

## **HOCKNULL, Dr Scott, Palaeontologist**

**CHAIR:** Welcome. Would you like to make an opening statement before we start our questions?

**Dr Hocknull:** Thank you, committee, for the invitation. I am delighted to provide my insight as a palaeontologist who has worked in Queensland for over 30 years. As background, my scientific expertise is firmly related to two of Queensland's key palaeontological records that span 250 million years. This period of time is divided into two: the age of dinosaurs which we call the Mesozoic and the age of megafauna or the Cenozoic and we will relate to that in that, yes, the dinosaurs are a component of it, but Riversleigh, for example, is from the age of megafauna.

I am passionately dedicated to the development of Queensland's palaeontological sciences, but equally passionate in seeing these remarkable discoveries activated across Queensland to the benefit of the whole community. This has given me the privilege of being intrinsically linked to many of the new regional museums and dinosaur and megafauna attractions. I started my palaeontological career in Queensland as a teenager, publishing my first paper in high school on a fossil from Ipswich. The advice I was given back then as a youngster was if I wanted to study dinosaurs I had to go overseas to do so. Well, 30-odd years later this could not be further from the truth. It is a fantastic reflection of the rapid rise in discoveries not just in Queensland but across Australia as a whole.

Over my career, I have been the scientific lead on many of the new dinosaur and megafauna discoveries, including those from Australian Age of Dinosaurs, Eromanga Natural History Museum, Capricorn Caves, Mount Etna and so on. This has been in various capacities, either as an employee of the Queensland Museum as a scientist and curator or as a volunteer working for these organisations in an honorary capacity either as a board director or simply an adviser.

Queensland is definitely well positioned as the jewel in the crown for Australian palaeontology. However, other states and territories are making exciting new discoveries and movements in this area and they are looking at linking development in the regions as well. Many of my colleagues from interstate and I recognise the value of an Australia-wide paleo trail that links fossil hotspots throughout the country. Many have looked to see what Queensland is doing in response to the wealth of these discoveries and how we manage these impacts and what impacts they have on the communities in which they are occurring.

Palaeontology impacts more than just academic research and museums. Our field informs and influences the creative industries, culture, education and, to be quite so bold as to say that it is part of our national identity. We have our own dinosaurs and our own megafauna unlike anywhere else on earth and I might put a point of clarification for Mr Stevens that, no, we do not have *Tyrannosaurus rex* in Australia and it is very unlikely we will find one. You will find something better.

**Mr STEVENS:** I will cross that off the list. We have a *Kronosaurus*.

**Dr Hocknull:** Yes, indeed we have a *Kronosaurus* and we certainly have the opportunity to find some of the biggest meat-eating dinosaurs in the world because we have one of the biggest plant eating dinosaurs in the world, *Australotitan*, from Eromanga and the dinosaurs from Winton. Importantly, we cannot predict where or when the next big discovery will be made in Queensland, but we can say that the potential occurs over the entire state. Regional museums and paleo tourism attractions usually are anchored on a single discovery or a handful of fossils, but as they grow more research and more discoveries are made. Each Queensland region has a unique piece of Australian pre-history and each provides a stepping stone from one region to the next for travellers on their way across Queensland. We can also not predict who will find these fossils and be the next big discoverer, but we can say from the past that this requires members from the entire community, from property owners and their kids especially, to traditional owners in particular, amateur fossil collectors, commercial dealers, citizen scientists, schoolkids or just someone literally on holiday, which was very recently. This marks the key advantage of palaeontology over other sciences: that anyone can make the next big discovery and leave their perpetual mark on the state, just like Doug Langdon did with *Muttaborrasaurus langdoni*.

Fossils are the gift that keeps on giving. The initial investment in their discovery, study and display pays off over a much longer time frame and they become part of our society's fabric inspiring generations of children. From my perspective, the strength of Queensland palaeontology is great across the entire state and has global and national impact. Thank you very much. I am happy to take questions.

**CHAIR:** Thank you, Dr Hocknull. As I said, we are getting more and more excited. We may have come to it later than you—we were not in Ipswich as a kid—but we are pretty excited. Deputy Chair, do you have a question?

**Mr STEVENS:** I do, Chair, but I think I had my interest in dinosaurs long before Dr Hocknull was born. Thank you very much, Dr Hocknull. I know that you are closely involved with David Elliott out there, and you have also confirmed certain finds et cetera around there as being the real deal, as it were, and there is a lot more to be found. How important is the promotion of the tourism industry to having a significant effect on the scientific history of Australia—in fact, even of the world—how important is tourism to furthering that interest in making history more known to more people?

**Dr Hocknull:** An excellent question. Tourism is an integral part of the whole life cycle, from the scientific discovery, through the research, all the way through to the final display, and then imparting that exciting new discovery onto the public, whether it is a local, national or international traveller, and word by mouth, when they see amazing experiences and they see something they do not see in any other museum, that is the key. What I find exciting, though—and this is something that we engendered right from the start with the excavations—is the citizen science role, the role that anyone in the state, whoever they are, or outside of the state—any individual—can come along and be part of that discovery, and they literally get their hands dirty, and they are literally part of developing our natural history. That is something they are giving of themselves. Whether it is a paid experience, whether it is a tour, whether it is literally just volunteering their time, they are giving of themselves to this amazing story. Because the palaeontological heritage of Queensland and Australia in general is massive, but very little known, there is a great opportunity for us to continue to do this, and tourism in a significant part in promoting that; to be able to get into the brains and into the minds of everyone that when you go west or when you go north or any part of Queensland, there is an opportunity to be a major player or a major discoverer in dinosaurs and prehistoric animals in Queensland.

**Mr STEVENS:** Getting back to the *Kronosaurus queenslandicus*, it was offered way back. As my father tells me, he was a 9-year-old watching the people from Harvard University dig out the bones and pack it up and send it back to Harvard University, where the chair viewed it on a personal basis, I understand. The problem back then was that there was not the interest from, as I understand it, the Sydney Museum to come up and retrieve it. What opportunity is there, or is there any opportunity, to bring the *Kronosaurus queenslandicus* back to its home in Queensland, even if it is a major project from the Queensland Museum? Is there any chance of that happening?

**Dr Hocknull:** That is an interesting question. There are probably a couple of different perspectives I would bring on this. One is that the Harvard specimen, which I have seen as well, is a *Plasterosaurus*. So, not to be downtrodden on the actual specimen, it is a nice specimen, but it is not the best. The best is actually on display at *Kronosaurus Korner* right now, which is a Toronto *Krono*. That is a Queensland Museum specimen which is now on display in *Kronosaurus Korner*. In essence, the original *Kronosaurus queenslandicus* type specimen is a piece of jaw. It is only about this big.

**Mr STEVENS:** And the rest of it is plaster?

**Dr Hocknull:** That resides at the Queensland Museum. The actual original piece that Heber Longman described is only a small piece of jaw. He was a phenomenal palaeontologist who was able to see this tiny piece of jaw and understand this animal as *Kronosaurus queenslandicus*. Subsequently, the discovery of the *Kronosaurus* specimen which ends up in Harvard is one of several individual specimens that have been found since the original description. As I say, the Toronto *Krono*, which we like to call it, because it is from Toronto Station, is better, in my opinion and probably most palaeontologists' opinion, than the one in Harvard.

To your question of asking for things back, I think there is a significant opportunity to discuss this with international museums because there is a significant movement internationally on repatriation of material that has gone to other places. I might also add that there are some challenges in all of this, and not just internationally, but even interstate. There are dinosaur skeletons that are in the South Australian Museum that are from Queensland. There are marine reptiles that are from Queensland that are in Museums Victoria, and so on. Essentially, there is a challenge that we have and that is around fossil ownership, the custodianship of fossils, the legislation around what happens when a fossil is discovered and the integration of the Aboriginal Cultural Heritage Act. There is a number of different things that have created a level of uncertainty around what that ownership really means. I think it is worth investigating and it is something that I think will give a lot of the regional areas and the Queensland Museum a lot more certainty around how we can deal with these historical and current situations.

**CHAIR:** Building on that, from a tourism and citizen science perspective, having them end up in museums in different places, we can use that as a kind of encouragement and legitimacy about the nature and the specialness of the fossils that we are finding within Queensland as well.

**Dr Hocknull:** Yes, thank you. If I can refer you to the map that I have provided—this is, sorry, a bit of a rush job; I am happy to provide a better map—the dots on the map essentially represent a very small snapshot of specimens that have been discovered in Queensland from the age of dinosaurs and the age of megafauna. Basically what that shows is that, as I was saying in my first remarks, the fossils are found all over the state. Who finds those fossils? It could be anyone. It is about being able to provide certainty to the individuals who find fossils, right through to the regions and even to the state about what happens to them once they are discovered and how we can better develop all of these opportunities moving forward, because at the end of the day every community and every individual has a connection with those discoveries and, as we are already seeing here, it is generational. That is the exciting thing about regional-based paleo tourism is that the people who were there originally are usually still there and it is an ongoing thing, so it is a significant part of the pride in the local community.

If you can impart that pride onto visitors, especially from metropolitan areas, you start to develop this amazing fabric where you get kids from the country and from the metropolitan areas interacting on digs, being able to provide opportunities to be scientists and so on. Out west, when maybe you think the priority is in the cities, there is a lot of opportunity to engage and interact in this way. By spreading it out and by having the museums spotted all over the state, or attractions—and paleo tourism can be anything from literally a sculpture of an extinct animal that was found in the area that tells you something, all the way through to a natural history museum; paleo tourism is a vast, nebulous area—it is exciting because any part of that gives you an opportunity as a stepping stone, as a traveller. As a parent now of a 14-month-old boy who just did the trip up to the Capricorn Caves, and did the trip out to Eromanga Natural History Museum, I now get a clear indication of what these stepping stones should be and how they should work.

**Mr TANTARI:** Dr Hocknull, when I read through your bio, I was interested to see you have done a lot of work in 3D digitisation and virtual technology. From my generation, the first time I ever saw a dinosaur was in a dusty old museum somewhere, and obviously with the advent of CGI, how *Jurassic Park* movies have put dinosaurs in the focus of the world basically for many decades, I would be interested to hear from you how you believe it can contribute to paleo tourism. Given that with virtual technologies and the 3D digitisation now, you can actually bring something that has been dead for millions of years to life and the attraction really there is to stimulate the tourism area, particularly for the younger generations whose whole world is in the virtual world for a lot of them. That is something I am interested to hear from you and where you think that will go, and where can we hang our hat on potentially maximising that?

**Dr Hocknull:** Excellent question, and I appreciate the fact that you have read my bio. 3D technology is really a game changer for what we are doing here in palaeontology. Palaeontologists tend to play around with technology because we are dealing with fragmentary evidence of life and we like to apply as much as we can to it. I am very proud to be a leader in that world in Queensland. I invite the committee to come to the Dinosaurs Unearthed exhibition at the Queensland Museum to see how I have translated that. If we can, I would love to show you the nuts and bolts, literally.

Queensland has a fantastic creative industry and has a great virtual gaming industry. There are fantastic opportunities for virtual tourism. There are technology companies that are Queensland-based, born and bred and developed here, that could actually blow the whole thing wide open, where you could literally visit it from anywhere in the world. I note the exceptional opportunity for international tourism, but in a virtual way. If we are talking about things like shoulder seasons and off seasons, virtual tourism investment in that could potentially be a way to augment or supplement those down seasons where we have digital technology that can provide new and exciting experiences where the individuals who may be based physically out west are transported virtually into the classrooms, or the museum, sister museums or what have you elsewhere around the world. That is another way where you can literally cut through the middle man and say, 'Let's go and start shaking things up in museums around the world.'

I note that Australian Age of Dinosaurs and the Eromanga Natural History Museum are all starting with A B Paterson with virtual schooling and so on, but it is a bit more than in that 3D technology, animation and gaming provides a world that you can actually live in and work in. What is cool about that and what we are trying to deal with, with the technology, is taking real fossils, real objects, scanning them in three dimensions and presenting them to the public as they are, not some

sort of CGI, completely recreated *Jurassic Park* avatar of that object, but the real thing, the real deal. There is technology available to do that. It is so lifelike that you can hold the real fossil in your virtual hands and peel away the layers and reconstruct the dinosaurs and so on and so forth.

**Mr TANTARI:** It is a bit of a conundrum, isn't it? On the one hand, you want people to go out and experience the real thing, but on the other hand, we have the issues that have been raised by many presenters, and when we are on tour to have a look, that the tyranny of distance creates problems for people to get there, whereas I see 3D virtual technology as having an ability to be able to close that gap on people getting interested in paleo tourism.

**Dr Hocknull:** Correct.

**Mr TANTARI:** It is just another arm or another enhancement to paleo tourism, but you do not want to detract or take away from people getting out and seeing it in real life?

**Dr Hocknull:** Correct. Nothing beats the real deal. Absolutely nothing beats the real deal, but there is an accessibility issue there, and it is not just accessibility of being able to physically get out there. For those who may never go out of a particular place—maybe they have no capability of doing so—this is where you bring that world to them. There are a lot of kids in hospitals, as an example, where a virtual excursion to a dinosaur experience would be mind-blowing, would be transformative for them. We have had some forays into this. I can bring a virtual dinosaur into the room, if you like, on an iPhone and so on and so forth. The technology is fantastic, and it is getting better. Queensland is actually leading it, from the point of view of the technology that is based here and the investment that is already in the creative industries. Marrying those together, I think, is fundamentally important.

The other thing I would mention is that *Jurassic Park* is a point in time. It is almost like a geological blip where after *Jurassic Park* there was a long period of people like myself and families that have grown up where dinosaurs are the thing and what is exciting about that is that they are the next retirees, they are the next grey nomads, they are the next ones who are going out west, so this generational thing is going to continue to be almost a renewable resource. Investment in the science and investment in discovery and the placement of all of these things across the state really gives us an opportunity that we have not had before.

**Mr CRANDON:** You have almost answered my question actually with what we have been talking about there, but you mentioned the Harvard specimen. You have seen it?

**Dr Hocknull:** Yes.

**Mr CRANDON:** Was there much around it about the detail of the location that it came from and then the broader offering, for want of a better word, that could be available for people? You were saying, 'We've got that there and then we've got some in Victoria and South Australia.' Is there an opportunity here to say, 'Here's the taster. If you really want to see something special, then go to Queensland and do the trail' et cetera? Is there an opportunity to partner, if you like?

**Dr Hocknull:** My immediate answer would be travelling exhibition. We have just had the Dinosaurs of Patagonia at the Queensland Museum. This was from a regional museum in Patagonia. Yes, it has amazing fossils. They have created replicas of these fossils and they sent original dinosaur bones with skeletons all over the world at the same time, and everything points back to that one museum. My answer, I suppose, is, yes, there are opportunities to partner with other museums worldwide or even travelling exhibitions, but the investment in creating an Australian dinosaur megafauna travelling exhibition that travels the world and literally points the finger back at Queensland would be your greatest advert, because you would include the virtual and you could have that travelling exhibition 'try before you buy' sort of thing. You would have real fossils, you would have replicas of giant dinosaurs and all sorts of things such as megafauna.

This is what I should mention: the Queensland record is so unique and the Australian record is so unique because we have been in isolation for hundreds of millions of years that no-one sees this. There are a few *Muttaburrasaurus* replicas in museums around the world. There are a few *Kunbarrasaurus* replicas, and I take your point. I could guarantee you that if you went to those museums they would probably have a map of Queensland with a little dot, but there is not going to be any paraphernalia around that says, 'Go to this website and book your trip.'

**Mr CRANDON:** Even that would be better, wouldn't it?

**Dr Hocknull:** Yes, exactly: 'This is where we're going.'

**CHAIR:** Having a barcode to book the Winton motel.

**Dr Hocknull:** Correct, exactly: 'In you go. Here's your virtual tour.' So these are all opportunities that can be invested in, absolutely.

**CHAIR:** One of the other things I was interested in was David Elliott was so passionate about all of the samples. We are looking at it from a tourism point of view, so the finding of a large carnivore or even the smaller carnivores with the hook claws are very tourist friendly whereas people like yourself and David can see a broken half shell of something that is out of place.

**Dr Hocknull:** Get fired up about it, yes.

**CHAIR:** That is equally exciting, and he even had a coprolite there. Is there a tension between that science and the tourist product in a way, or are they complementary?

**Dr Hocknull:** Very much complementary and it is all about interpretation. We do have to take a cold shower when it comes to the preservation of some of our fossils. This is mostly because of two things. One is we are very new to our dinosaur rush or our fossil rush whereas countries overseas have been doing it for hundreds of years. Secondly, it is hard work. The fossils in Australia—it does not make a difference where you go—are always embedded in really hard rock. They are surrounded by things called concretions whereas I have been to Alberta, I have been to China and I have been to South America. I have been to these places where you can literally walk along and go, 'There's a dinosaur bone. Let's dig it out. Let's put it on display,' whereas it takes years in Australia to do it. It is harder work to get to that final 'beautiful, aesthetically interesting, I can immediately interpret that'.

As technology has advanced we are using scanning technology and 3D technology to augment these discoveries so that the science that is true—it is not make believe; this is legit—can change with new science and new discoveries and build up that picture for people to see. I suppose the key thing there is what you are looking at. When you are going to age dinosaurs and you see the Australovenator wintonensis or Banjo type specimen and there it is laid out, yes, it is cool, but it ain't a T-rex skeleton all up in its armature and every single specimen. But do you know how many T-rexes there are around the world that have actually been found? There are about a dozen. How many Australovenator wintonensis have been found? One. This is the thing. This is the key issue that we have—that is, everything that we are finding there is pretty much only one of, and they are slowly getting better. We are slowly finding more and more and more, but we do not have the badlands of Utah, we do not have the badlands of Canada, we do not have it like they have it in China where you have 200 skeletons just all lined up where you can go and excavate them out and see them the next day.

Yes, it is harder work but it is a much more unique story. In the end, yes, we have to take a cold shower as far as the tourism product is concerned as far as the fossils—the bones—but if we use 3D technology and augment everything else we have a really interesting in-context experience that you do not get anywhere else and I think that that is the important part, and a number of people have mentioned the 'in context'—where the thing literally came from, whether it is in the ground or in a museum in relation to the fossils. The Dinosaur Stampede National Monument is a great example—beautiful trackway sequence considered to be a stampede to begin with. Other researchers have suggested that they are swimming dinosaurs. I am using 3D technology to look at it and suggesting that it is probably migration of dinosaurs, so there are different ideas. There are different scientific interpretations and I think that is interesting from a point of view of education to be able to teach the scientific method, to help transition and change and update the tourism product and to include this interpretation side of things. Paleoart is a really big industry worldwide where artists can recreate these entire environments, so, yes, there is a lot of opportunity there.

**Mr STEVENS:** In your international travels and experience, how big is the tourism industry in these international places like China and America and Canada that you have mentioned? Do they have a big tourism industry built around the dinosaurs?

**Dr Hocknull:** Yes, it is kind of mind blowing and it makes you sit up and listen. With China, there are unbelievably huge exhibitions with golden gates walking into massive areas of dinosaurs reconstructed and then aisles and aisles of dinosaur bones such as Zigong and Liaoning. They have the lion's share of amazing things. You always get bitter and twisted about it, but that is okay. In South America it is the same sort of deal.

**CHAIR:** Do they have any Muttaburrasaurus though?

**Dr Hocknull:** They do not have any Muttaburrasaurus because they were all done. So, yes, the international experiences are there, but what is interesting though is that, say, in Canada and in North America in the US they have dinosaur trails. They already have these in-built things where almost every museum works with other museums to help promote and basically develop up the trails, so when you go there it is not just one thing you are going to see; it is all part of a journey that you are taking, and they offer the experience based digs and so on. What is interesting about that is it is different. It is just different. In Canada my partner and I went on an experienced dig. We did not tell

them who we were or what we were doing and just went to have an experience and it is very academic. It is very focused on academia. It is very focused on the actual bits and pieces. That is fine and that is great, but it is totally different to a dinosaur dig out in Winton or Eromanga or Richmond where you are right in there amongst all of the locals and you are really just a part of a team and suddenly you go from being an individual who has come because maybe they loved it as a kid to now having long-time friendships that are built up and repeat, repeat, repeat. So I expect that will continue to grow because, as I say, the JP generation are going to want to have that tangible experience.

**CHAIR:** Fantastic. Thank you very much, Dr Hocknull. Either I myself or possibly we as a committee might do some follow-up to look at what the Queensland Museum has and do some informal talks with you later. I do not think there were any questions taken on notice.

**Mr TANTARI:** Can I just say, Chair, that the doctor's presentation here was very inspiring. You can see in you your love of paleo—just the passion in it. Thank you for coming along.

**Dr Hocknull:** My pleasure, and I am happy to tell each and every one of you about the amazing fossils in your own electorates.

**CHAIR:** You could not have said it better; thank you, member for Hervey Bay. Thank you for appearing before this committee and providing your evidence.



**HERNE, Dr Matt, Palaeontologist (via videoconference)**

**CHAIR:** I now welcome Dr Matt Herne, who is participating via videoconference. Welcome, Dr Herne. I invite you to make an opening statement and then members will definitely have questions for you.

**Dr Herne:** Thank you very much for the invitation to speak at this inquiry. As a little bit about my background, I have a PhD in vertebrate palaeontology and evolution from the University of Queensland and more recently I was a postdoctoral fellow at the University of New England in Armidale and I more specifically work on ornithomimid dinosaurs, so my speciality is in ornithomimid dinosaurs of Australia. I have named two small bodied ornithomimid dinosaurs from Victoria—Galleonosaurus and Diluvicorsor. At the University of New England I had the opportunity of carrying on more research on Muttaborrasaurus which is a topic of great interest and I am very pleased that Muttaborrasaurus has now been proposed as the fossil emblem of Queensland, not least because I actually do research on Muttaborrasaurus but I can tell you from my research—and this is in collaboration also with the Queensland Museum and Dr Hocknull—that Muttaborrasaurus is a simply amazing dinosaur with a lot of secrets held in its anatomy and its skeleton. We are delving deep into the anatomy and into the bones using new technology to try and decipher more about Muttaborrasaurus and its ecology, which is of great importance.

In terms of some of my other background, I was invited by the Barcaldine Regional Council to curate the Muttaborrasaurus Interpretation Centre which opened in 2021, and that has significance to one of the terms of reference which is value of prehistoric dinos and paleo tourism to the Outback Queensland economy. Since the opening of that centre, I hear that visitors to Muttaborra are staying longer and they are staying overnight. Where visitors used to just travel right through the town in a blink, they now stop and they go and look at this centre and they are really pleasantly surprised. They go to the pub and they have a meal and then they go, 'Well, we'll stay the night.' There are other museum attractions in Muttaborra that they then go and visit. That really has aided the economy of Muttaborra.

I have assisted with and conducted paleo projects in Western Queensland since 2003 so I have some experience in palaeontology in Western Queensland. More recently, I have taken on the role as the Curator of Palaeontology at the Australian Age of Dinosaurs museum. That is the position I currently hold.

I am not really going to talk very much in this opening statement about tourism. Of course, that is ultimately important to everything. The tourist dollar is what allows all of these regional museums to operate and to stay open and to work. They cannot survive without tourism. Therefore, tourism is ultimately important.

What I wish to address and what I wish to state is that something that is slightly forgotten in all of this is research—research on new finds and discoveries by palaeontologists. Palaeontologists require funds to carry out research and funds are very hard to find. Most times when discoveries are made, as far as the Age of Dinosaurs goes, in past times the research work was done by people such as Dr Hocknull from the Queensland Museum. Specimens were also given to researchers in other universities as part of their studies, including students, academics and post-docs to do research on those specimens. I wish to make a few remarks about that.

I will firstly talk about the Australian Age of Dinosaurs. It is an amazing museum. I started in my position in February so I have not been there for all that long, but I have come to realise that the collection is absolutely outstanding. We have at least 4,200 specimens and many more specimens are yet to be registered or are awaiting registration. We have three unique species of dinosaurs: Australovenator, Diamantinasaurus and Savannasaurus. We also have a pterosaur called Ferrodraco and a crocodylian called Confractosuchus. It is a museum that is really doing well in unique species of dinosaurs and other animals. I am sure and Dr Hocknull has also made the point that with further work more will be discovered and named in the future, which requires the work of palaeontologists.

At the museum we allow visitors to get up very close to the original specimens and view them very closely and take in all the amazing detail of them. We have a prep lab, the Prep-A-Dino program with 12 prep stations. This is quite amazing. We also offer the Dig-a-Dino experience. In this sense, the museum allows for citizen science. We have preppers who have been coming for years and they are called 'honorary technicians'. They are encouraged back to the museum to do preparation on all of our specimens. It is through those volunteers that we actually can have new material to describe and to present eventually on display.

I have prepared this statement very hurriedly so I am sorry if it is a little disjointed. The main point I would like to make is that the Australian Age of Dinosaurs museum holds its own as far as things go like staffing, operations, facilities, insurance and all of those things. However, there are no funds internally for research. Research is almost a luxury. We give materials out to other institutions to do research—to students, academics and so on. Research by those institutions is also difficult because researchers and research academics rely on Australian Research Council grants to conduct their research. Students also require funds to carry out research so they are a bit limited. The Australian Research Council funds are diabolically difficult to obtain.

In the future, I would hope that at some point state funds will be made available for research within these museums so that they can conduct research internally. I think the thing that is forgotten is that research activities and new finds and discoveries and descriptions go hand in hand with tourism and paleo tourism growth goes hand in hand with research. Thank you for allowing me to speak. I look forward to answering your questions.

**Mr STEVENS:** Dr Herne, in your statement you said you did not want to talk too much about the tourism aspects but more on the scientific aspects. However, are you aware of the important nexus between the promotion of dinosaur tourism and expanding significantly on our tourism opportunities for Queensland with that tourism product and the fact that it will contribute to and allow, most likely, significant amounts of funding to go to more research, which would then enable more scientific discovery, et cetera, lifting the tourism product, which is what we are about, really?

**Dr Herne:** That is a very important question. I am completely aware of that. The two are in a circular motion, in a way. Tourism funds add value and the ability of the museum to even operate. However, to actually grow the museum, its collection and the importance of its collection, things—objects, specimens—need to be described and preferably and hopefully new species named. That is where the research and paleo scientific researchers come in. It is a small catch 22 in that you need those guys to do that work but then they need the museum to fund it. That is why I make the point that it would be incredibly helpful if there was some extra assistance from state funds to actually kick that off and allow that little synergy to occur more regularly.

**Mr STEVENS:** I get that it is a bit of a chicken and egg situation or should I say a Muttaborrasaurus and egg situation. I am told that the egg is the holy grail of palaeontology.

**CHAIR:** And chickens are dinosaurs too, but go on.

**Mr STEVENS:** You have engaged a lot of work internationally through your role as a chief palaeontologist. How do you think our Australian museums and sites compare to international ones? How does our paleo tourism market compare to the resourcing and marketing of the paleo experiences overseas?

**Dr Herne:** Firstly, I cannot answer the question totally on paleo tourism either here or overseas because that is not actually my sphere of knowledge so I would probably talk myself into a little hole to even try to address that. However, I can talk from my experience of visiting museums in Canada, Argentina and even in Spain.

In Canada, there is a very famous and great museum called the Royal Tyrrell Museum of Palaeontology. It is a provincial museum, in other words, it is a state museum. It is a fantastic tourist attraction. It feeds itself because people hear about it and they come in droves. I curated a new remote museum in northern Alberta called the Philip J. Currie Dinosaur Museum. It is a bit difficult because it is off the beaten track, but it also was starting to get pretty good numbers after opening.

For some of the smaller museums I have been to in Spain and Argentina, tourism is not to the degree or the amount that I see in Western Queensland. I think Western Queensland is offering fantastic opportunities for visitors in tourism and its promotion, compared to those places.

**Mr TANTARI:** Dr Herne, you have advised us about the whole research area. From your experience, what sort of research courses are available? How many people are interested in palaeontology? How many people have you seen and do you get a lot of students coming to your museum to be involved in this area? Could the whole research area grow or is there a lack of students wanting to be involved in it?

**Dr Herne:** Thank you very much for that question because it is very close to my interests. Yes, more and more every year, university courses are taking in postgraduates in palaeontology. I have seen that grow. The University of New England, particularly, has been taking in more and more doctorate and master's of science students. Those students go through and do fantastic work, but then what you will find is that when they finish their studies they often cannot get employment in palaeontology. Historically, palaeontology is a difficult area to actually find employment. Generally,

palaeontologists either get a job as an academic in a university or as a curator in a museum and those jobs are really few and far between. There are a lot of graduates and, as I said, there are more and more graduates coming out because of the heightened interest and that they are able to do these studies, but they cannot find work.

The Australian Age of Dinosaurs museum does take in interns from the University of Queensland. We have taken in interns to do museum studies and we are increasing that space more and more. We have postgraduate students often coming to the museum to study specimens and this is occurring more and more. Also, the museum is in active collaboration with students and research academics in that space.

**Mr TANTARI:** Dr Herne, you effectively told the committee that the lack of funding creates some of those issues in research but, at the same time, it is about the chicken and egg, again. It really is the case that more funding would provide more opportunities for more research and more study in the area, creating more positions for individuals to take up palaeontology.

**Dr Herne:** Exactly. I do not see funding necessarily going to the museums such as the Age of Dinosaurs, but I see funding opportunities for, particularly, students who are doing postgraduate studies to have some funds, extra funds, to be able to carry out study because, in the end, we have so many new specimens that are potentially new species to science.

I can tell you that from my experience in Western Queensland—actually, Australia as a whole but particularly Western Queensland at the moment—we have not even scratched the surface. There is so much to find; it is such a vast area. It is remote; it is difficult to access. We are going to find remarkable new species, but what we need is more researchers who are encouraged to participate—particularly new up-and-coming career researchers—so this is where a few funds would help. I can give you an example.

When I worked on the Muttaborrasaurus Interpretation Centre, Barcaldine Regional Council gave me some funds, which I can say was \$8,000, towards my research and to use in whatever way I saw fit. They had the vision. Giving me that amount, which was not a great amount of money really, actually allowed me to pay for food, fuel and accommodation in the region. I have made some new discoveries because of it, and you will see that appear in the next while. I can directly attribute their funds to some new discoveries I have made. A small amount of funds can go a long way.

**Mr CRANDON:** We know that the process of excavation can take a significant time, and when new dinosaurs are found they are often not scientifically described until sometime later. Can you please talk us through the excavation and interpretation process and the extent to which there may be constraining factors for discovery and progressing our discoveries to the point where they can be displayed and enjoyed by the public?

The second part of the question is: is there capacity to expand the use of tourists on digs to help fund this work but also resource its undertaking, and to what extent can tourists contribute under supervision?

**Dr Herne:** In answer to the first question, yes, excavation does take a lot of time and a lot of effort. At the Age of Dinosaurs and the Museum of Natural History I run the Dig-a-Dino program. We have on average 40 paying participants per year. We have two back-to-back digs. There are four digs altogether of one-week duration each and we had at least 40 participants. These are people with a lifelong dream to go and dig a dinosaur. Yes, it costs money and they save up for whatever they do, but they do come along and experience it. It takes time. Some of these sites we go back and work over several years. An individual dinosaur can take several years to actually excavate. Most of the excavation is done by a team of people, including Dig-a-Dino experience visitors who pay money. After the discovery is made quite often we jacket dinosaur fossils in plaster jackets. That is how we actually remove them. We take them back to the lab. These jackets can sometimes weigh up to a tonne or more. It takes time and resources to move these things into the lab. Then we have our Prep-A-Dino experience. Largely, all our Prep-A-Dino participants are volunteers and some paying visitors who want to prep a dino, and that can take years as well. There are often quite a number of years just in that process. Describing a new species to science takes an enormous amount of effort on the part of researchers and can also take many years. After the discovery of Muttaborrasaurus in 1963 it was not actually named until, I think, 1981, so it can take an awfully long time. In answer to your second question, that was about the capacity of tourism and tourists to help.

**Mr CRANDON:** Yes, I think you have touched on it. The capacity to expand the use of tourists on digs to help fund this work but also resource its undertaking, and to what extent could tourists contribute under supervision. I think you have pretty much covered that aspect of it. I suppose the aspect you have not covered is the point where they can be displayed and enjoyed. What are the constraining factors around that?

**Dr Herne:** Firstly, I will just address the capacity of paying tourists and visitors. We would probably take on more paying tourists to help. We have a large waitlist of people who would like to be on these programs, but we cannot do it because of staff and logistics and all the rest. That could definitely be expanded into the future, so we will look at that.

In relation to the display of things found, let's say a dinosaur specimen is found. There is no use putting dinosaur bones, any vertebrate fossil or, for that matter, any other biotic fossil found on display unless it is actually named or at least identified down to an existing species, so it requires research to actually get to that point before display.

**CHAIR:** There being no further questions, we thank you very much for your contribution here today. I pass on that the whole committee really enjoyed the museum. What is out there was really eye-opening to us. We note there were no questions taken on notice. Thank you for appearing before the committee today and providing your evidence. As I have said to others, this inquiry is ongoing, so if there are any further submissions you want to make to the inquiry we would appreciate them. That concludes this hearing today. Thank you to everyone who has participated today. Thank you, of course, to our Hansard reporters, who will dutifully work to have a transcript of these proceedings available on the committee's webpage in due course. Thank you to Lucy, Melissa and the committee who will be sending around emails of those transcripts for you to check. With that, I declare this public hearing closed.

**The committee adjourned at 12.51 pm.**