

# TRANSCRIPT

## LEGISLATIVE COUNCIL ENVIRONMENT AND PLANNING COMMITTEE

### **Inquiry into Ecosystem Decline in Victoria**

Melbourne—Wednesday, 24 February 2021

#### **MEMBERS**

Ms Sonja Terpstra—Chair

Mr Clifford Hayes—Deputy Chair

Dr Matthew Bach

Ms Melina Bath

Dr Catherine Cumming

Mr Stuart Grimley

Mr Andy Meddick

Mr Cesar Melhem

Dr Samantha Ratnam

Ms Nina Taylor

#### **PARTICIPATING MEMBERS**

Ms Georgie Crozier

Mr David Davis

Dr Tien Kieu

Mrs Beverley McArthur

Mr Tim Quilty

**WITNESS**

Dr Ernest Healy, Secretary, Association for Conservation of Australian Dingoes.

**The CHAIR:** I declare open the Environment and Planning Committee public hearing for the Inquiry into Ecosystem Decline in Victoria. Please ensure that mobile phones have been switched to silent and that background noise is minimised.

I would like to begin this hearing by respectfully acknowledging the traditional custodians of the various lands each of us are gathered on today and pay my respects to their ancestors, elders and families. I particularly welcome any elders or community members who are here today to impart their knowledge of this issue to the committee or who are watching the broadcast of these proceedings. I would also like to welcome any members of the public who are watching via the live broadcast today.

I also acknowledge my colleagues participating today and thank those who have provided an apology. At this point in time I will just take the opportunity to introduce the committee members who are here today. My name is Sonja Terpstra. I am the Chair of the Environment and Planning Committee. On my left I have Mr Clifford Hayes, who is the Deputy Chair; Dr Samantha Ratnam; appearing via video link is Stuart Grimley; Mrs Bev McArthur; Mr Andy Meddick; Dr Matthew Bach; and Ms Melina Bath.

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With all of those formalities out of the way, if I could ask you to please commence your opening contribution but please keep it to a maximum of 10 minutes, and that will allow us to ask questions.

**Dr HEALY:** Thank you very much. I am Ernest Healy. I am representing the Association for Conservation of Australian Dingoes Incorporated. Yesterday Dr Kylie Cairns highlighted the now substantial body of ecological research which shows that the dingo, as apex predator, is an important native keystone species. The current Victorian government has been repeatedly approached by environmental experts to improve apex predator protection, and I have provided a copy of the most recent joint scientific letter to the government along those lines, so that is available to members of the panel.

**Visual presentation.**

**Dr HEALY:** Australian governments are slow to recognise this ecological reality, however, resulting in continued persecution of Australia's native apex predator as an invasive pest. The policy distinction between dingoes and wild dogs in current policy is false—an environmentally irresponsible fiction that has been repeated so often and over such a long period of time that it has come to be accepted as fact. The net effect of wild dog rhetoric has been to define the dingo out of existence as an indigenous taxon. Without ecological or taxonomic justification the dingo is discursively reconstituted as an invasive exotic pest, allegedly threatening both agriculture and Victorian ecosystems.

In practice the dingo receives no more protection today than it did prior to its listing under the *Flora and Fauna Guarantee Act*. The dingo is still officially unprotected in those areas of Crown land which were most lethally controlled prior to the threatened species listing—that is, the 3-kilometre buffer. Indeed since the dingo was listed lethal control has intensified through the introduction of aerial baiting and the wild dog bounty. In Victoria a threatened native taxon has a bounty on its head. Recreational hunters can still hunt dingoes with virtual immunity, including in those parts of public land where the dingo is notionally protected, where even government controllers are not permitted to operate. That is the current reality.

My key focus today is briefly on some of the cultural and institutional barriers blocking policy reform on dingo governance, evidence which challenges the myth that wild dogs present a significant threat to farm stock, the excessive degree of lethal control deployed and some key areas of reform. It is well known, I think, that the anti-dingo mindset took hold as European colonisers rapidly transformed an unfamiliar Australian environment,

in many cases for sheep grazing. Anything that stood in the way of this process was deemed expendable, often by lethal means, and from this time dingoes were demonised. It is still common to hear demonising and exaggerated claims of dingo predation on farm stock. One quote from 2010 stated:

... wild dogs are taking over Victoria's high country and cutting a bloody swathe through native animals and livestock.

Now, that sort of statement ignores the fact that in Victoria dingoes or—in inverted commas—'wild dogs' are not killed because they are considered a biodiversity threat to native animals. That is not the policy reality. This is often stated—that they are a threat to biodiversity—but that is not current policy. Lethal control is deployed solely for the protection of farm stock, not for any notion of biodiversity conservation. That is a point that needs to be made very clear.

The inherited discourse which demonises dingoes as wild dogs is routinely lent institutional endorsement from sections of the Victorian government bureaucracy unfortunately. In many ways Agriculture Victoria continues to legitimise this essentially 19th century mindset. The Victorian agriculture bureaucracy enforces the ecologically false dingo-wild dog distinction. It asserts that wild dogs kill and maim livestock, force farmers to direct resources to less productive activities and impact on human health. The escalation of lethal control is its primary policy and practical response.

This intransigence on the part of the Victorian agriculture bureaucracy to the ecological merits of apex predator conservation is currently a significant barrier to whole-of-government policymaking. Without too much exaggeration but to illustrate the point, there is something like trench warfare going on at the moment between the agriculture bureaucracy and the environment bureaucracy. Cooperation at times is minimal and often imperfect. Often one side undertakes actions and develops narratives without sufficient communication with the other silo. That is a serious problem to whole-of-government outcomes in Victoria on this issue.

What is more, there is now a convergence of inherited historical prejudices and the fact that killing dingoes and wild dogs has become big business. It is a multimillion-dollar-per-year enterprise. There is now a number of linked private sector business entities that comprise the lethal control industry, including well-funded industry representative organisations, poison manufacturers and distributors, and lobbyist organisations. These organisations have a strong vested interest in promoting the continued use and escalation of lethal control, mainly through poisons, by governments and landholders regardless of stock loss levels. There is the constant push to escalate lethal control regardless of the stock loss levels. This has taken on really quite an independent dynamic.

The influence of the private sector lethal control advocates upon the Victorian government departments and policymaking and on how the dingo is defined and how alleged wild dogs are managed is disproportionate and disturbing in my organisation's view. The most influential private sector document in this regard is the *National Wild Dog Action Plan*. It is a private sector document. It has not been drafted by government bureaucrats or by governments. The plan's definition of 'wild dog' unashamedly includes dingoes and their hybrids, yet Agriculture Victoria's own wild dog management plan largely reflects and mirrors the policy prescriptions of the private sector *National Wild Dog Action Plan*. That is just a statement there that people can look at at their leisure which illustrates the point I just made.

To get down to the nuts and bolts of the issue, my organisation sought through Victorian freedom of information a dataset from the Victorian government on stock losses in Victoria. There is a line chart there. What you see there is the chart covers the period 2000 to 2017. The blue line shows the size of the Victorian sheep flock in millions from 2000 to 2017. In the year 2000 it is about 22 million sheep. It is currently about 15 million sheep. The zigzag orange line shows from the government's own data the number of sheep recorded lost to predation, wild dog predation, on a year-by-year basis, and over that whole period, 2000 to 2017, the number of sheep lost per million—I will say that again, the number of sheep lost per million—in the Victorian sheep flock has varied between one and 200. Between one and 200 sheep lost per million—this is the government's own data. This is the best data that the Victorian government has to base its current policies on.

Significantly, the data indicate that the introduction of aerial baiting in Victoria in 2014 did not have a significant impact on stock loss numbers, which were within the range of 3200 to 2200 between 2014–17. That is between 193 and 157 sheep in every 1 million sheep—between 193 and 157 parts per million, if you like. Quickly the chart there just shows those parts per million or sheep lost per million over that longer period, 2000 to 2017.

There is an opportunity cost argument put forward by lethal control advocates, and this is that because of the predation threat to farm stock near to public land, farmers are forced to under-utilise land to its full potential—to give up, in some cases, on sheep farming, thus incurring an opportunity cost. The most commonly made claim in this regard, including by government agencies, is between \$13 million and \$18 million a year. There are some serious deficiencies with this argument, and our view is that in all modern societies competing vested interests, whether personal or corporate, are often constrained relative to one another through legislative, regulatory or customary restraints for the common good. In this case the calculation of opportunity cost at the expense of responsible environmental management is unacceptable, especially given that the apparent stock losses are so low. Why should any group feel it is legitimate to claim a cost from being prevented from destroying the natural world, even if they have gotten away with it in the past?

The conclusion here is that the scale and intensity of ‘wild dog’ lethal control bears no relation to the size of the problem, and a big part of this dilemma is unrealistic landholder expectations. A widely held view within sections of the farming community is that any stock loss from predation whatsoever is unacceptable and that large amounts of public money should be routinely spent in an attempt to eliminate what is in reality a marginal issue. Firstly, it is doubtful that zero stock losses could be met in practice in any case, and further, given the environmental damage incurred from apex predator destruction, this expectation is ethically indefensible.

So we have a situation where we have escalating lethal dingo control driven by a commercial and ideological dynamic detached from any practical purpose, virtually. There are big dollars to be made and private and public sector careers perpetuated. Strong bonds of collegiality exist between lethal control professionals across the public and private sectors—functioning, I believe, as a self-conscious unitary class of people. This presents problems for good governance when some of those professionals are government officers who should be operating at arm’s length, objectively—certainly knowing about and surveying various stakeholder interests but at the end of the day operating with independence and giving frank and fearless advice to government. I do not believe that is happening in the case of Agriculture Victoria. It is very, very close to powerful private sector interests and takes policy cues in many cases from them.

I am just going to present quickly now some data. There is a first table—that next slide. This just gives us an idea of just the scale of lethal control that goes on to respond to those small numbers I showed you earlier on. There is three years data there, from 2015–16 through to 2018–19. Looking at the 2015–16 data as an example, there were 19 full-time wild dog controllers deployed. In terms of trap night capacity—trap nights is the number of traps set by the number of nights deployed—there were nearly 60 000 in 2015–16. There was nearly 2300 linear kilometres of ground baiting, and at 10 baits per kilometre that is nearly 23 000 baits. The last column refers to community wild dog control targets, baiting programs where landholders and other private citizens are encouraged to take part in baiting on private land. The expected number of baits to be laid in the coming period at that stage was about 33 500 baits.

It is worthwhile saying a little bit more about the community baiting programs. These programs are promoted by Agriculture Victoria as a means of building positive public relations with farming communities. These—

**The CHAIR:** Sorry, Dr Healy, I will just let you know we are running short on time, so I just wanted to let you know that we will have to end soon.

**Dr HEALY:** Thank you. I am nearly there. These are promoted by Agriculture Victoria as a public relations program. Their commencement really followed a period of very poor relations between agricultural authorities and landholder communities. So they are promoted as a form of community building and a public relations exercise to sort of build good relations between the department and landholders or historically to rectify poor relations. There is a problem with this in that public relations and community building rationale can operate independently of and become dissociated from any concrete need for stock protection from dingo predation. They can take on a life of their own, and I argue, given the small numbers I showed you previously, that is precisely what has happened.

If we can move to the bar chart, thank you. The ‘wild dog’ bounty commenced in 2011–12. The blue bars show the number of dingo scalps handed in year by year after that. It did not operate in 2015–16, but you are looking at over 2000 dingo scalps handed in over that period. The bounty is currently \$120 per dingo scalp. To get that in perspective, recent research by the Arthur Rylah Institute has shown that the density of dingoes in eastern Victoria is somewhere around 2.6 per 100 square kilometres—2.6 per 100 square kilometres. There are not that many dingoes out there, and that is exactly what you would expect from an apex predator. It is like lions in Africa; there are not a lot of lions in Africa. They are at the top of the food chain, and compared to the antelope

and buck that they eat, there are a very small number of them—and this applies to dingoes in Victoria. So 2000-odd scalps handed in over just several years can potentially have a massive impact on the dingo population in Victoria and its environmental function as apex predator. The bounty is seriously problematic. Again, it puts a bounty on the head of a listed threatened species, for one thing. Compliance requirements are weak. Eligible dingo scalps are only allowed to be taken from within a 3-kilometre buffer zone at the interface of private lands, and there is no way of checking this. Scalps could be from anywhere—they could be from interstate even—so it is wide open for fraud.

Agriculture Victoria's online information on where scalps can be legally taken is seriously misleading. It is so crudely misleading that any reasonable observer may wonder if in fact it is deliberate. I am not saying it is deliberate but that it is an open question. Eligible scalps taken from within the 3-kilometre buffer—it is not obvious from the departmental map, the online map, that this is the case. Here is the online map, and we see these are the areas indicated where dingo scalps can be legally taken from. Well, that is an extremely misleading map. The following map is much more accurate. If you can see on that map, there is a wiggly blue line that runs around the outside edge of the large green area. That is the 3-kilometre buffer from within which scalps can be legally taken—that ribbon around the edge of those green areas, not this blue area that we saw before. I have in fact raised this with the department before, quite a time ago, and nothing has changed. So there is a fundamental policy reset required here.

Some of the key recommendations we put forward are in line with Dr Cairns's recommendations yesterday: to broaden the definition of the dingo under the *Flora and Fauna Guarantee Act* threatened species listing so that animals that test between 75 and 100 per cent pure are listed under that threatened species listing and to recognise high conservation value dingo hybrids as wildlife under the Victorian *Wildlife Act*—that means those testing between 50 and 75 per cent pure. There is actually nothing much in Victoria under 50 per cent pure dingo. There are very few feral dogs, domestic dogs, running wild—very, very few—and there is hardly anything out there less than 50 per cent dingo in terms of genetic make-up.

The recreational hunting of dingoes and dingo hybrids on Crown land should be prohibited and there should be requirements put in place to maximise and support landholder reliance on non-lethal farm stock protection measures. There is a lot the government could do to actually aid and assist farmers in this regard. We are not unsympathetic to farmers. Any trauma to farm stock is serious and it is traumatic and we understand that; we do not deny that. We call for an experimentation with or the introduction of a system of financial compensation to farmers for verified stock loss as an alternative to lethal control, not something in addition to it. We support exploring options for the reintroduction of dingo into appropriate habitats where historically they have been extirpated—for example, the Murray-Sunset National Park and the Gariwerd lands, the Grampians.

Building on what I have said to this point, we call for an independent public inquiry into the now excessive industry-based influence within the Victorian agriculture bureaucracy with regard to pest animal policy and lethal control programs. The influence there I think is beyond what is healthy. Thank you.

**The CHAIR:** Ms Bath.

**Ms BATH:** Right. Well, I feel like we have all had a slap between the eyes. That is the way it has come across for me. Thank you for your presentation; most illuminating. I guess I take the position that I have been and sat with farmers in Swifts Creek who have been out night after night trying to protect their stock, and I found your comment, 'Unrealistic expectations of stock losses'—now, I take all your points up there, but I think you saved it for me in the last breath when you said, 'We're not unsympathetic to farmers', because I felt this whole presentation was quite unsympathetic to farmers. My interest will be to have the VFF respond to some of your commentary.

**The CHAIR:** Do you have a question?

**Ms BATH:** Yes. When you mentioned powerful private sector interests, I just failed to understand who exactly they are. Powerful private sector interests—do they have a name and a place?

**Dr HEALY:** Yes, they do. Some of them, for example, include Australian Wool Innovation, the Centre for Invasive Species Solutions, Animal Control Technologies Australia—that is the company that actually develops and markets the poisons—and there are other industry organisations. So it is a coming together, if you like, of organisations which have a direct commercial interest in the development and marketing of poisons on an industrial scale. And these industry-based organisations at the same time as Victorian and national peak

farming organisations—landholder organisations—continually promote and buy into this false distinction between dingoes and wild dogs. They perpetuate that false dichotomy, if you like. And there is Agriculture Victoria. Now, my experience is that these different entities are in constant and quite intense communication with one another in perpetuating the sort of false ecological narrative I have pointed to and in promoting the continued escalation of poisons in the landscape, regardless of the evidence of very low stock losses. So they are the sorts of organisations I am referring to.

**Ms BATH:** A very quick one: I was taking notes on my laptop yesterday, and when I asked Dr Cairns about a similar discussion around a Gippsland farmer who was out protecting his sheep, I think—and I typed two words down, so I am happy to be standing corrected if it is not quite accurate—it was something along the lines of, ‘The farmer should shoot dingoes eating sheep’.

**Dr HEALY:** You are quoting Dr Cairns?

**Ms BATH:** Yes.

**Dr HEALY:** Well, under current legislation they have a right to do that. I think it is fair to say. I mean, I am not here to advocate the shooting of dingoes, but if an animal is caught, you know, in the process of mauling and attacking sheep, then that may be permissible. But what I am saying is my key point is that on the basis of the best evidence so far— anecdotal evidence and stories aside—stock losses are extremely low. Now, in the very few cases where that does occur, if an instance is discovered of a dingo in the act doing this, then it is arguable that the farmer should be able to do that. But I am pointing to a bigger picture than that. I am talking about the way dingoes and apex predators are governed more generally across the state, including on Crown land within their own habitat.

**Ms BATH:** Okay.

**The CHAIR:** Mr Grimley.

**Mr GRIMLEY:** Thanks, Chair. I have no further questions, thanks.

**The CHAIR:** Thank you. Dr Bach.

**Dr BACH:** Thanks. Thanks, Dr Healy, for being with us today. I enjoyed your presentation. Now, you seem like a dog guy. I like dogs very much as well. I confess I do not really like cats. And we have heard evidence—the answer to my question may be obvious—from others over the last couple of days that when it comes to invasive animals there is a far greater threat from feral cats than from feral dogs, dingoes. Would you agree with that proposition?

**Dr HEALY:** Cats versus dingoes?

**Dr BACH:** Yes, dogs.

**Dr HEALY:** Oh, absolutely.

**Dr BACH:** Right.

**Dr HEALY:** And it is really sort of an incorrect comparison. Dingoes are a native animal and are an integral part of Victorian ecosystems, and that was the case when Europeans arrived. Cats are more recently introduced and are clearly sort of an invasive exotic species. That is a fundamental distinction in my mind. But as to your question, I think that certainly at the moment foxes and cats are a very, very serious threat to our biodiversity.

**Dr BACH:** Thank you. And I ask the question—that is right, because we heard evidence from others, but also you made the point that your very strong view is that government agencies have their focus wrong when it comes to invasive creatures and should not be focusing so strongly on wild dogs, dingoes, but rather should be focusing elsewhere.

**Dr HEALY:** Yes.

**Dr BACH:** Again, given the organisation that you represent you may be somewhat biased on this question, but I would not mind your views—thinking again about cats—regarding what we should do there, given that we have heard from so many witnesses, you as well, that feral cats are such a significant threat. One witness

even said to us—and I do not think they even had their tongue in their cheek—that we should ban cat ownership.

**Dr HEALY:** Well, banning cat ownership in domestic circumstances, I am not going to go there, but I think an important issue here is—and I think it was touched on yesterday in Dr Cairns’s discussion—given that cats and foxes are the biggest problems we have in biodiversity loss, how do we manage them and don’t we poison them? I think there is no simple, straightforward answer to that in that I think what has probably begun to happen in eastern Victoria is that the use of 1080 poison to kill foxes has killed foxes. It has knocked back the fox population and released cats, because the cats tend not to eat the poison used to kill the foxes. Once the cat population explodes because you have suppressed foxes—because foxes do suppress cats, so once you take away the foxes the cats explode and run riot on small native species.

Now, as an example, perhaps the spot-tailed quoll has disappeared across the face of Victoria, but eastern Victoria especially, in the relatively recent past, and this has coincided with the intensification of fox baiting through the Southern Ark program. There has been research done, and some very recently, arguing that the 1080 poison does not affect quolls directly. So if you take that at face value, you might say, ‘Well, the 1080 poison has not killed the quolls. What’s killed the quolls?’. Well, one hypothesis that I have heard discussed from a prominent environmental scientist in Victoria is that killing the foxes has released the cats. The cats can then potentially either kill quoll young or compete for the same food sources as the spot-tailed quoll. So with the best intentions, in trying to manage one animal you have amplified the negative effects of another predator.

So we are in this sort of round-robin situation where we are on a merry-go-round. I think the 1080 poison is used so intensively and continually on a landscape scale we are not really sure what the full ramifications of using that poison in the environment are, particularly in relation to sublethal doses. They gauge the doses to kill the target animal, and many other animals, from lace monitor lizards to birds to all sorts of creatures, eat the poison—eat the baits—but often the dosage is sublethal for them. The problem there is there is not a lot of research on what the longer term sublethal implications are for all of those different taxa that digest the poison—what the longer term impact may be in terms of their survivability, their fertility and whether there are any long-term flow-ons. We know that in many cases they are not killed, but the impact of the longer term slow burn on the environment, if you like, from using these toxins in an often well-intentioned but cavalier way, we do not know the outcomes. And the quoll hypothesis is a big question we do not know the answer to. It may be that the use of 1080 poison has inadvertently helped wipe out the quoll population. That is something that would have to be tested, but it is a plausible hypothesis.

**The CHAIR:** Thank you. Mr Hayes, a question?

**Mr HAYES:** Thanks, Chair. I would rather ask Dr Healy questions about human population growth and its effect on ecosystem decline rather than dingoes. I believe you are a bit of an expert on that.

**Dr HEALY:** I have worked a bit on that.

**Mr HAYES:** I will leave the dingo questions to others. If you would like to make a comment.

**Dr HEALY:** Yes. Well, as a personal view I think that, despite sometimes the best efforts to mitigate the impacts of population growth on the natural world, there is no doubt really that the size of population relates directly to impact on the natural world—the way we either extract resources directly from the natural world or take away the natural world to build cities and suburbs and the many other things we do where we have to clear land for urban development et cetera. Some of the things that could be done to mitigate it that are quite obvious things are not really done well enough. We could do things better. There is some relativity to it, but I tend to agree with the basic observation that rapid population growth and city building and urban development have been a major source of ecosystem loss and decline. It is very significant. I agree with that.

**Mr HAYES:** Thank you.

**Dr RATNAM:** I just have a question. Thank you very much for your presentation, Dr Healy. I ask this question: we spoke on this a bit with Dr Cairns yesterday as well, in terms that it is quite clear that we need more research to understand this a lot better. I think Dr Cairns also suggested potentially a trial related to dingoes. I just wanted to ask you: would that be something that you, too, would recommend, to do some more research and a trial, and what kind of location would be suitable for that?

**Dr HEALY:** For reintroduction?

**Dr RATNAM:** Yes.

**Dr HEALY:** Well, I think the current proposal for the reintroduction of dingoes into the Gariwerd lands is one that cannot be ignored, especially given the Indigenous groups that have been involved in the development of the co-management plan for the Gariwerd lands, or Grampians. One of their key aspirations, expressed by them in the draft management plan, has been the reintroduction of a number of extirpated native species that are important for their spirituality and spiritual connection to their land. And amongst those animals, of course, is the dingo. A very similar thing has happened in central Victoria with the Dja Dja Wurrung people. There are a number of small national parks, and essentially the same sort of demand has emerged.

Now, there are a number of issues. The practicalities of reintroducing an apex predator, once it has been extirpated from environment, are something that would—and I do not think many people would disagree with me—have to be managed as part of a properly developed, comprehensive, scientifically managed plan. You just do not let them go and hope for the best. It is scientifically monitored. I think, as Dr Cairns said, there would have to be a number of scientific research projects set up around that to continually monitor. You would have to engage the surrounding landholders and get them onside and get them engaged and make sure that they feel that they would be sufficiently compensated for any losses that did occur. It would even be a good opportunity to trial the idea of a financial compensation scheme for verified stock loss. If that works, and that situation becomes acceptable to the landholders, then that might be something could be run with more widely.

I think that in terms of the Indigenous dimension of that, it is something that simply cannot be ignored. I mean, you go to Indigenous groups and say, ‘Look, as part of a process of reconciliation we are going to engage with you directly in the care and management of your traditional lands’. And they say, ‘Well, we want this or that spiritual animal back’. And you say, ‘Oh, no. Sorry. That’s out of bounds. Sorry’. You know, what sort of a political game would that be? They simply have to be taken seriously, and it cannot be tokenistic.

Again, I think that the Gariwerd lands—it is a big parcel of land. The other opportunity of course is the Murray-Sunset National Park in the far north-west of the state. It had dingoes. There are virtually no dingoes there at the moment. It is absolutely full of goats, and the vegetation is degraded. The dingoes would take care of the goats, believe me. And it is a fairly remote area. There is not much sheep grazing up in the north-west. There is a bit, but not a lot of sheep grazing; they are turning to grain cropping, so the sort of resistance, if you like, to trialling this sort of thing in that part of the state—the reaction would not be as great as it might be in, say, the east of the state.

**Dr RATNAM:** Thank you.

**The CHAIR:** Mr Meddick?

**Mr MEDDICK:** Thank you, Chair, and thank you, Dr Healy, for your submission and your presentation today. I want to come back to a couple of issues specifically on 1080 baiting, around national parks particularly. The aerial baiting program is a particular concern to me, because it seems to me very much like—and I would like you to confirm this or not—in many instances what we are actually doing is we are dropping one of the mega poisons that is used in the world, in fact the poison that is banned in almost every single country around the world. In fact, New Zealand and Australia are the two largest users of that product, and everybody else has abandoned it because of its innate cruelty.

Look, my concern there is that with aerial baiting as opposed to burying baits, for instance—not that I am condoning that under any circumstances—under a buried baiting program landowners are required to map where they have put those baits and return and pick up any unused baits, those sorts of things, but in aerial baiting there is no such thing. It is indiscriminate, and often it is done in areas that are inaccessible to humans—very much away—so you cannot tell where a bait has landed. Therefore how can we possibly tell that the baits are even targeting the very animal that they are supposed to be targeting, that other animals—like you mentioned before—such as quolls et cetera, are not consuming baits and dying in a most horrendous way and then that raptors, for instance, are not feeding on them and dying from secondary poisoning? Because there is no monitoring. These baits are just dropped, as I understand it, and left to go. Is that correct?

**Dr HEALY:** Yes, I agree with that. Part of the logic or the rationalisation for aerial baiting is that it is deployed in very remote mountainous areas that are difficult and impossible to access by road. The ‘wild dog’ controllers cannot go in and lay the baits themselves, so they fly along in a helicopter or plane and drop them.

They have shown that they can drop them fairly accurately, but because the baits are on the ground and not buried I think you are quite right: there is no way of knowing—you are not sure what is going to take the bait. Out of every 1000 baits dropped the number of baits actually taken by a dingo might be a very small proportion of that, and I think the Arthur Rylah Institute has done some research on this in the past and showed that a very small proportion of baits are in fact taken by the target species. Birds often pick up baits, fly off with them and drop them somewhere else. They are sometimes dropped on private people's land, and the loss of domestic dogs on private land is not uncommon as a result of baits being moved around by birds and so forth. So yes, my additional point to yours is that there is no doubt in my mind that the introduction of aerial baiting was really a political decision. It was not the result of any great spike in stock loss due to dingo predation or so-called 'wild dog' predation. There was a lot of lobbying, a lot of pressure brought to bear upon the then Victorian government and I think it was adopted as a political decision, not really a practical decision. It was to satisfy a particular political constituency.

**Mr MEDDICK:** Thanks for that answer; it covers that off very neatly. I want to return as well to the role of dingoes as apex predators and return to some points that Dr Cairns made as well, and I know that others have made these points—academics who are far and beyond my limited understanding of these scenarios. It is my understanding that in our natural environment on land, just as it is in the ocean, food chains exist and when we remove a particular species from a food chain we run an extraordinary risk of causing what is known as a trophic cascade. So generally speaking, in the ocean that is removal of a particular species done by, say, a trawler. Then there is a cascade downwards and upwards where there is this whole collapsing of that particular environment and that causes what they call 'dead seas' areas, so nothing grows. It affects seagrasses et cetera. Everything just is reduced to nothing. And it is my understanding that the same thing potentially is occurring, and the observation and the scientific observation seems to back this up—that when we remove the dingo from these areas as that apex predator that is exactly what is happening.

I did a little bit of research on a place called Mount Rothwell, where I think they did exactly this. They returned some familial packs of dingoes to a particular area where there were introduced species such as goats and rabbits et cetera—but it was also overrun with weeds and things like that—and by returning them they not only got rid of those introduced species but there was a rebalancing of that other part of the environment, you know. By returning the apex predator perhaps what we are doing is we are returning imbalances in the ecosystem that we have actually interfered with, and we can return things pretty much to where they should be. Is that a fair sort of a comment to make?

**Dr HEALY:** Yes. My understanding of it as well is that once you remove apex predators there are sort of unforeseen irregularities and disruptions that sort of flow through. It is like sort of a wave through a pond right down to the very bottom levels of the ecosystem. Dr Mike Letnic from New South Wales has done good research on looking at the habitat on both sides of the dingo fence. On one side dingoes have been virtually extirpated, on the other side they still exist—and the habitats on each side of the fence are quite different. He has done other research which has shown that the removal of dingoes alters and affects the natural world, right down to not only small vegetation but soil chemistry.

**Mr MEDDICK:** I guess that leads me to—because the experience that I quote from at Mount Rothwell was a fenced-in experiment, and it continues today. The obvious question that leads on from that is: has that been actually replicated out in the natural environment? I have read numerous articles about that exact situation—I was wondering if you can expand on this—where wolves, for instance, have been reintroduced into places like Yellowstone National Park and various places in the north of America, and that very same situation has been experienced on a macro level out in that environment. Is that correct?

**Dr HEALY:** Well, that is what the best research to date has shown in the US with the reintroduction of wolves. It sort of pegged back the size of the wolf prey populations, elk and deer, and there was then less pressure on the vegetation. Much of the overgrazed vegetation revived and was restored. Even in the rivers you find beaver coming back. There were these flow-on effects right through the ecosystem, so it really put to bed this sort of simplistic idea that, well, you can take certain animals out of an ecosystem because it is economically expedient to do so, or convenient, and somehow get away with it and all the rest will somehow stay the same. It is simply not like that. When Dr Cairns talked about dingoes being a keystone species—keystone species are species that have particularly large ramifications, influence, over the whole trophic structure. It is a species that if you take out its negative effects or disruptive effects are particularly large.

**Mr MEDDICK:** So we do not have to reinvent the wheel, then, in terms we have been talking about over the last two days. Certainly when I spoke about it yesterday I was asking Dr Cairns about the Gariwerd

proposed experiment there—which is being led by our First Nations people, I might add, which is wonderful to see. In terms of scientific data, like a study to back that up, it certainly seems to strike my mind as well—whether it goes into Gariwerd, if that is what ends up happening, if it all, or it goes into the Murray, as you were saying—that we would need that scientific data, but the model is there. But it strikes me as well that what we would have to do absolutely, no matter where that takes place, is that for the period of that survey at least all 1080 poison should be banned from that particular area—would that be correct?—for a period not just from the point of the survey start to the finish but from a period beforehand so that we can start from a clean slate, if you like, and then see where we end up at the end.

**Dr HEALY:** Yes. I think from a scientific point of view that would have to be a given. If you are going to conduct a study where you reintroduce an apex predator and you do want to see how that may help restore ecological balance and turn a partially degraded natural environment into something more resembling an earlier environment, then you would have to eliminate all extrinsic factors that may be influencing the outcome. Clearly—I think you are right—you would have to cease or not begin 1080 poisoning. If there is poisoning already going on for foxes or anything else, you would have to cease that, because that is too great a variable and would confound any other observations you might make. It confounds your interpretation of the influence of reintroducing the apex predator.

**The CHAIR:** Now, we are running short of time. One very quick question for Mrs McArthur and then we have got to finish.

**Mr MEDDICK:** Thank you, Chair. Thank you, Dr Healy.

**Mrs McARTHUR:** Thank you, Chair. Mr Meddick has had several questions, so—

**The CHAIR:** But you have too. You have had a fair crack today as well.

**Mrs McARTHUR:** There we go. So I am interested in: when does a domesticated dog that escapes or is released into public land become a dingo, and how well do dingoes crossbreed with domesticated dogs?

**Dr HEALY:** Well, feral domestic dogs will never become dingoes. They will always be domestic dogs running wild.

**Mrs McARTHUR:** So are they wild dogs?

**Dr HEALY:** Well, you could refer to them as wild dogs, but part of the dilemma we have at the moment, the policy problem we have at the moment, is that we are applying the term ‘wild dog’ to animals that are still really dingoes. The research that Dr Cairns referred to yesterday from a big genetic sample right across Australia, which includes some 600 samples from Victoria, indicates that, despite popular opinion for a very long time, there are actually very few genuine feral domestic dogs in the Victorian environment. It was around 1.7 per cent or something like that. What we do have in the Victorian environment are dingoes and very high conservation value dingo hybrids that are predominantly dingo in their genetic makeup.

**Mrs McARTHUR:** So dingoes can crossbreed?

**Dr HEALY:** Oh, they do, and so do wolves. You could cross a wolf with a poodle if you wanted to. That is nothing new or extraordinary.

**Mrs McARTHUR:** Great.

**The CHAIR:** I would just like to say if you have any other questions, you can always submit them on notice to Dr Healy, and if anyone else has any other questions as well, we can submit them on notice and you can provide answers as well. Thank you very much for your contribution today, Dr Healy.

**Committee adjourned.**