

Environment and Planning Committee
Inquiry into Ecosystem Decline in Victoria

30 August 2020

Dear Committee Members,

I am making a submission to the Inquiry into Ecosystem Decline in Victoria, as I'm deeply concerned about the degraded health of Victoria's environment. All of us depend on a healthy environment for our own health and wellbeing, and it's vitally important for MPs from all parties and the Victorian Government to take action to protect and restore our environment. My focus will be on Australia's ONLY top land predator, the dingo (*Canis dingo*, Smith et al. 2019), and how this unique, native canid is inextricably linked to a healthy environment. I've spent almost 4 years working with dingoes and have created 'Dingo Whiskers', a community education service. Our future generations - school students - are so proud to learn about our native canid, but they become deeply saddened when they realise that they are not protected in the wild. I will briefly discuss the importance of top predators, the ecosystem services dingoes can provide for us, some of the flaws of lethal control and the term 'wild dog', as well as provide suggestions moving forward and relevant peer-reviewed publications for further reading.

Globally top predators are recognised as keystone species, as they are instrumental in not only maintaining biodiversity, but also act as 'buffers' against the many environmental issues we are facing today (Estes et al. 2011, Ripple et al. 2014). We know that the more biodiverse an ecosystem is, the more resilience it has in our dynamic world. However, the degradation of environmental connections and functions (such as the loss of a top predator), creates a domino effect of consequences, known and unknown, that negatively affects our health. The dingo, a totem species of some Traditional Custodians, is one of Australia's solutions to restore ecosystem health. In Victoria, alpine dingoes (Cairns et al. 2018) are our solution to restore balance between native herbivores and introduced mesopredators. Once granted proper protection, dingo reintroductions should be considered and discussed with relevant experts (Ritchie et al. 2012, Newsome et al. 2015).

Dingoes provide us with ecosystem services simply from their functional role in the environment. We know that dingoes can naturally influence the behaviours and numbers of herbivores (i.e kangaroos and wallabies) and mesopredators (i.e. foxes and cats). However, lethal control of dingoes via 1080 poison baiting, and bounty hunts involving trapping and shooting, compromises their functional role (e.g. Colman et al. 2014, Leo et al. 2018). In areas where dingoes are lethally controlled, farmers tend to have long term issues with an overabundance of kangaroos, which compete with their livestock for grass. The removal of dingoes can even impact soil quality, in heavily grazed landscapes (Morris & Letnic 2017). Kangaroo grazing in the absence of dingoes can also cause a decrease in the availability of grass seeds, impacting the diversity and presence

of small granivorous birds (Rees et al. 2017). We know that the removal of our top predator causes mesopredator numbers to increase (i.e. foxes and cats), which then leads to a decrease in the biodiversity of native animals (Johnson et al. 2007, Letnic et al. 2009, Gordon et al. 2015). Mesopredator behaviour can also be heavily influenced by the presence of dingoes. In areas where dingoes are lethally controlled, an increase in cat activity has been observed (Brook et al. 2012). Cat activity and behaviour changes in areas where dingoes are common. Co-existence of dingoes with other threatened species can potentially reduce the predatory impact of mesopredators. Malleefowl (*Leipoa ocellata*) and yellow-footed rock-wallaby (*Petrogale xanthopus xanthopus*) - both threatened species - co-occur with dingoes (Wallach et al. 2009). Malleefowl nests were found to be scent marked by dingoes, which could deter predation from foxes.

Scientific evidence also shows that lethal control is not solving the conflict between farmers and dingoes - it's making the issue worse. Firstly, no management decisions should be made when there are insufficient scientific data regarding population numbers. We do not know how many dingoes there are in Victoria. Conservationist, Aldo Leopold, once said, "To keep every cog and wheel is the first precaution of intelligent tinkering". In other words, we need to have scientific evidence first, before any management decisions are made, to prevent unintended negative consequences. Secondly, despite the fact that dingoes are considered *threatened* under the Flora and Fauna Guarantee Act 1988, the term 'wild dog' has been used as a loophole to allow for lethal control of dingoes (van Eeden et al. 2020). Genetic research on lethally controlled 'wild dogs' revealed that only 0.6% in NSW (Cairns et al. 2019) and 0.2% in Victoria (refer to 'Victorian Dingo Ancestry' graphic) had no dingo ancestry (i.e. feral domestic dog, *Canis familiaris*). Thirdly, lethal control destabilises dingo family dynamics. Destabilisation opens up the territory for new dingoes that unfamiliar with the local landscape to enter, or for infiltration of foxes and cats. The former often leads to an increase in breeding and hybridisation, which can increase the incidence of conflict with farmers (Glen et al. 2007).

Our farmers need help too, but it's not in the form of lethal control. We know that lethal control disrupts the function of our top predator, which in turn is one major contributory to the degradation of our ecosystems. To avoid this, there are many non-lethal tools that can be used to allow co-existence between farmers and dingoes (Bommel & Johnson 2012, Smith and Appleby 2018). Globally, researchers have found that non-lethal tools have the potential to not only benefit farmers, but also top predators and their respective ecosystems (Stone et al. 2017, van Eeden et al. 2018). In an ideal world, the funding used for lethal control would be redirected into non-lethal research, production of tools, and jobs. We could supply 'non-lethal packages' to every farmer in conflict with dingoes. 'Non-lethal packages' would be of course tailored and set-up/supported by either 'trained co-existence employees' or even farmers themselves (who could also be paid). Predator-friendly farming utilising non-lethal tools is the way forward (Johnson & Wallach 2016, Wallach et al. 2017, van Eeden et al. 2019).

As you undertake this important inquiry into Victoria's extinction crisis, I urge you to:

Strengthen our state environmental laws and close the loopholes that allow for exploitation of nature. Given the latest genetic research, the 'wild dog' loophole has no ground to stand on. Dingoes need to be legally protected in the wild, and where appropriate, reintroductions of dingoes should be considered.

Transition away from practices of the past. Lethal control of top predators is not a panacea, we have global evidence of this now. Dingo lethal control needs to end. Stop the use of 1080 poison, especially given the fact it has been banned globally, except for Australia and New Zealand. It's unethical, inhumane and impacts non-target species.

Ensure that Traditional Custodian rights and interests are recognised in all aspects of land and water management, as well as decision-making in relation to their traditional lands, including protection of one of their totem species, the dingo.

Guarantee scientific data/expertise and community rights when governments are making environmental decisions. This includes the right to engage, the right to access relevant information, the right to challenge environmental decisions and the right to transparency in government decision making.

Protect forests for all Victorians to enjoy now and into the future. This includes the creation/maintenance of wildlife habitats (i.e. cores (large protected areas of habitat) and corridors (connect cores, in order to allow for movement and genetic variation)), as well as plans for recovery of threatened plants and wildlife, like the dingo, are implemented urgently and properly resourced.

The Victorian Government has an incredible opportunity to become renowned for our biodiverse, and healthy ecosystems, and not what we are currently known for - degraded landscapes and a lack of science-based management decisions. People come from all over the world to see dingoes, and there are many global researchers who conduct non-invasive studies on dingoes. Imagine what they think when they realise that the only place a dingo is fully protected is in captivity. We have an opportunity to do better. We must do better - for future Victorians, for our health, and to be recognised globally, as a state that has a deep respect and understanding of our ecosystems.

Thank you for your consideration of my submission, and supporting material that has been included in my email. I am happy for my submission to be made public.

Sincerely,
Shennai Palermo

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