

Our ref: eA199962 Obj ID: A6001444 Receipt: 18266619

The Hon Clare Scriven MLC

The Hon Nicola Centofanti MLC Member of the Legislative Council Parliament House ADELAIDE SA 5000

Dear Ms Centofanti Nicola,

#### Determination under the Freedom of Information Act 1991

I refer to your application made under the *Freedom of Information Act 1991* received by the Office of the Minister for Primary Industries and Regional Development, Minister for Forest Industries on 4 September 2023 requesting access to the following:

"A copy of all correspondence and meeting documents, including but not limited to hard copy or electronic briefings, minutes, emails, letters, meeting agendas, and any other correspondence between the Minister for Primary Industries and Regional Development and Dr Kylie Cairns regarding Feral Species Control between 21/03/2022 to 04/09/2023."

Accordingly, the following determination has been finalised.

I have located two documents that are captured within the scope of your request.

#### **Determination**

I have determined that access to the following documents is granted in full:

Doc No.	Description of document	No. of Pages
1	Email from Dr Kylie Cairns to the Minister for Primary Industries and Regional Development dated 08/08/2023 re Dingo Management Policy in SA	2
1a	Attachment to Document 1 - Joint letter from 25 Australian Scientists dated 08/08/2023 re SA Dingo Policy 2023	11

If you are unhappy with this determination you are entitled to exercise your rights of external review with the Ombudsman SA. Alternatively, you can apply to the South Australian Civil and Administrative Tribunal (SACAT). If you wish to seek a review, you must do so within 30 calendar days of receiving this determination.

For more information about seeking a review or appeal, please contact the Ombudsman SA on telephone (08) 8226 8699 or SACAT on 1800 723 767.



Should you require further information or clarification with respect to this matter, please contact Ms Rachael Colegate on 8226 2931 or email: Minister.Scriven@sa.gov.au.

Yours sincerely

Hon Clare Scriven MLC

Mare Deswen/

MINISTER FOR PRIMARY INDUSTRIES AND REGIONAL DEVELOPMENT MINISTER FOR FOREST INDUSTRIES

18/9 /2023

### Gonos, Anthea (PIRSA)

From: Kylie Cairns <k.cairns@unsw.edu.au>
Sent: Tuesday, 8 August 2023 3:57 PM

**To:** PIRSA:Minister Scriven; Office of the Deputy Premier

**Subject:** Joint letter regarding needed changes to dingo management policy in South Australia

**Attachments:** SA\_dingo\_policy\_2023\_final\_signed.pdf

Follow Up Flag: Follow up Flag Status: Completed

Categories: Corro - General

You don't often get email from k.cairns@unsw.edu.au. Learn why this is important

Dear Deputy Premier Close and Minister Scriven,

**Please find attached** a joint letter from 25 Australian scientists regarding the need to urgently recalibrate current dingo conservation and management policy in South Australia following significant advances in our knowledge of dingo ecology, evolutionary history and identity.

New DNA research has challenged previous knowledge about the threat of dingo-dog hybridisation in Australia, but particularly in South Australia. It is critical that evidence-based dingo policy is adopted in South Australia. Public policy needs to acknowledge that dingoes are a native species of high cultural and ecological importance to the South Australian environment, First Nations people and the public. Whilst dingoes can have negative impacts on agriculture, dingoes are a native animal not an invasive species.

We urge the South Australia Government to:

- Revoke the requirement that all landholders follow minimum baiting standards, including National Parks, organic producers or those not experiencing stock predation
- Revoke permission for aerial baiting of dingoes (incorrectly called "wild dogs") in all NRM regions including within National Parks
- Cease the use of inappropriate and misleading language to label dingoes as "wild dogs"
- Proactively engage with First Nations peoples regarding the management of culturally significant species like dingoes

We welcome future opportunities to brief and engage with the Minister/s regarding updates to our scientific knowledge of dingoes and the necessity for changes in how dingoes are being managed in South Australia as detailed in our letter.

Signatories of the letter include Professor Mike Letnic, Professor Chris Dickman FAA, FRZS, Professor Euan Ritchie, Professor Corey J. A. Bradshaw, Professor Chris Johnson, Associate Professor Mathew Crowther, Associate Professor Justin W Adams, Associate Professor Melanie Fillios, Associate Professor Georgette Leah Burns, Dr Neil Jordan, Dr Kylie M Cairns, Dr Bradley Smith, Mr Rob Appleby, Ms Zali Jestrimski, Mr Kevin D Newman, Dr Barry Traill AM, Dr Jack Tatler, Dr Daniel Hunter, Dr Loukas Koungoulos, Dr Holly Sitters, Dr Louise Boronyak, Dr Gabriel Conroy, Dr Damian Morrant, Dr Angela Wardell-Johnson, Dr Linda Van Brommel.

Sincerely,

Dr Kylie M Cairns

## Dr Kylie M Cairns

Research Fellow - Canid and Wildlife Genetics Evolution & Ecology Research Centre (E&ERC) and Centre for Ecosystem Science (CES) School of Biological, Earth and Environmental Sciences UNSW Australia Sydney NSW 2052 M: 0414601553

E: kylie@kyliecairns.com E: k.cairns@unsw.edu.au 08 August 2023

The Honourable Dr Susan Close MP, Deputy Premier & Minister for Climate, Environment and Water, South Australia OfficeoftheDeputyPremier@sa.gov.au

The Honourable Claire Scriven MLC, Minister for Primary Industries and Regional Development, South Australia Minister.Scriven@sa.gov.au

#### RE: PUBLIC POLICY IN SOUTH AUSTRALIA REGARDING DINGOES

Dear Minister/s,

In light of new genetic research on the identity of 'wild dogs' and dingoes across Australia, the undersigned wish to express concern with current South Australia Government policy regarding the management and conservation of dingoes.

Advanced DNA research on dingoes has demonstrated that dingo-dog hybridisation is much less common than thought, that most DNA tested dingoes had little domestic dog ancestry and that previous DNA testing incorrectly identified many dingoes as hybrids (Cairns *et al.* 2023). We have serious concerns about the threat current South Australian public policy poses to the survival of the 'Big Desert' dingo population found in Ngarkat Conservation Park and surrounding areas.

We urge the South Australian Government to:

- Revoke the requirement that all landholders follow minimum baiting standards, including organic producers or those not experiencing stock predation.
   Specifically:
  - a. Dingoes in Ngarkat Conservation park (Region 4) should not be destroyed or subjected to ground baiting and trapping every 3 months. The Ngarkat dingo population is a unique and isolated lineage of dingo that is threatened by inbreeding and low genetic diversity. Dingoes are a native species and all native species should be protected inside National Parks and conservation areas.
  - b. Landholders should not be required to carry out ground baiting on land if there is no livestock predation occurring. Furthermore, landholders should

be supported to adopt non-lethal tools and strategies to mitigate the risk of livestock predation including the use of livestock guardian animals which are generally incompatible with ground and aerial 1080 baiting.

- Revoke permission for aerial baiting of dingoes (incorrectly called "wild dogs") in all NRM regions including within National Parks. Native animals should be protected in National Parks and conservation areas.
- Cease the use of inappropriate and misleading language to label dingoes as "wild dogs". Continued use of the term "wild dogs" is not culturally respectful to First Nations peoples and is not evidence-based.
- Proactively engage with First Nations peoples regarding the management of culturally significant species like dingoes. For example, the Wotjobaluk nation should be included in consultation regarding the management of dingoes in Ngarkat Conservation Park.

Changes in South Australia public policy are justified based on genetic research by Cairns et al. (2023) that overturns previous misconceptions about the genetic status of dingoes. It demonstrates:

1. Most "wild dogs" DNA tested in arid and remote parts of Australia were dingoes with no evidence of dog ancestry.

There is strong evidence that dingo-dog hybridisation is uncommon, with first-cross dingo-dog hybrids and feral dogs rarely being observed in the wild. In Ngarkat Conservation park none of DNA tested animals had evidence of domestic dog ancestry, all were 'pure' dingoes.

2. Previous DNA testing methods misidentified pure dingoes as being mixed. All previous genetic surveys of wild dingo populations used a limited 23-marker DNA test. This is the method currently used by NSW DPI, which DNA tests samples from NSW LLS, NPWS and other state government agencies. Comparisons of DNA testing methods find that the 23-marker DNA test frequently misidentified animals as dingo-dog hybrids. Existing knowledge of dingo ancestry across South Australia, particularly from Ngarkat Conservation park is incorrect; policy needs to be based on updated genetic surveys.

### 3. There are multiple dingo populations in Australia.

High-density genomic data identified more than four wild dingo populations in Australia. In South Australia there are at least two dingo populations present: West and Big Desert. The West dingo population was observed in northern South Australia, but also extends south of the dingo fence. The Big Desert population extends from Ngarkat Conservation park in South Australia into the Big Desert and Wyperfield region of Victoria.

4. The Ngarkat Dingo population is threatened by low genetic variability.

Preliminary evidence from high density genomic testing of dingoes in Ngarkat
Conservation park and extending into western Victoria found evidence of limited
genetic variability which is a serious conservation concern. Dingoes in Ngarkat
and western Victoria had extremely low genetic variability and no evidence of
gene flow with other dingo populations, demonstrating their effective isolation.
This evidence suggests that the Ngarkat (and western Victorian) dingo
population is threatened by inbreeding and genetic isolation. Continued culling
of the Ngarkat dingo population will exacerbate the low genetic variability and
threatens the persistence of this population.

It is important to emphasise the importance of dingoes in South Australian ecosystems. Dingoes are the sole non-human land-based top predator on the Australian mainland. Their importance to the ecological health and resilience of Australian ecosystems cannot be overstated, from regulating wild herbivore abundance (e.g. various kangaroo species), to reducing the impacts of feral mesopredators (cats, foxes) on native marsupials (Johnson & VanDerWal 2009; Wallach et al. 2010; Brook et al. 2012; Letnic et al. 2012; Letnic et al. 2013; Newsome et al. 2015; Morris & Letnic 2017; Geary et al. 2018; Mitchell et al. 2023). Lethal control of dingoes in South Australia facilitates population increases in mesopredator (cat and fox) and herbivore (kangaroos, feral goats, feral pigs, etc.) populations that are currently managed as pests. Many of South Australia's threatened mammals still hang on in areas where dingoes are present and continued baiting of dingoes is likely to trigger trophic cascades that will be detrimental to their persistence.

Over the past two decades, ecological research in Australian ecosystems, and elsewhere in the world, has increasingly demonstrated the importance of conserving medium- to large-sized predators for ecosystem health and the preservation of biodiversity. Diminishing predator populations tend to be associated with ecosystem instability and native species decline. The extinction of a diverse suite of large

carnivorous marsupials thousands of years ago (and the more recent local and functional extinctions of quoll species across much of Australia) has already simplified the structure of wildlife communities in Australia. The dingo is a keystone species that benefits small animals and plant communities by suppressing and changing the behaviours of mammalian herbivores and smaller predators (including introduced foxes and feral cats) (Johnson & VanDerWal 2009; Wallach et al. 2010; Brook et al. 2012; Letnic et al. 2013; Newsome et al. 2015; Morris & Letnic 2017; Geary et al. 2018). Their presence adds a stabilising influence and provides ecosystem resilience for species only found in Australia.

Lethal control of dingoes to minimise livestock predation should be targeted, evidence-based, and balanced against the need to maintain ecological resilience and animal welfare. There is considerable evidence that haphazard, broad-scale baiting can increase livestock predation (Allen & Gonzalez 1998; Allen 2015). Modelling also suggests that the presence of dingoes can in fact increase livestock profits by reducing the density of competing kangaroo populations (Prowse et al. 2015). Livestock producers should be assisted with the help of PIRSA to seek alternative stock protection methods such as electric fencing, livestock guardian animals, changes to animal husbandry, etc., before resorting to lethal control. On the balance of scientific evidence, protection of native dingoes in Australian landscapes should be enhanced rather than diminished. Landholders should be supported to seek new measures of stock protection

# Inappropriate use of the term "wild dog" when referring to dingoes

It is important to clarify to the South Australian Government that continued use of the terminology 'wild dog' is not justified because wild canids in Australia are dingoes and high conservation value dingo backcrosses, not feral domestic dogs. Using the term "wild dog" misleads the public about the identity of animals being killed in South Australia, implying that the animals targeted are invasive pests when in fact they are native predators (Smith et al. 2019). Nor is using the term "wild dog" respectful of the high value and significance of dingoes to many First Nations peoples across Australia.

Furthermore, it is not accurate to refer to dingoes, or dingo backcrosses, as invasive species. Dingoes are a native species according to all Australian federal and state legislation. Prior to European arrival dingoes were present across the entire Australian mainland. A native species cannot be invasive within their own natural range. While feral dogs might be considered an invasive species, extensive genetic surveys indicate that domestic dogs have not established free-living populations in Australia, so they are unlikely to be a priority for invasive species management.

**Action:** South Australian public policy and legislation should adopt use of the term *dingo* to refer to animals which are either pure or majority dingo ancestry and *feral dog* to refer to free-ranging or roaming domestic dogs. This shift in terminology aligns with calls from Australian First Nations people to acknowledge and respect dingoes as a native and culturally significant species.

# Eradication of dingoes is not culturally acceptable or appropriate

The current public policy of the South Australian Government to eradicate dingoes south of the dingo fence is not culturally appropriate nor acceptable. Despite acknowledging the important role that dingoes play in Indigenous culture, public policy seeks to eradicate dingoes from all landholdings (private, public or under native title) south of the dingo fence. This biased targeting of dingoes south of the fence directly threatens a unique population of South Australian dingoes found in Ngarkat Conservation park, which extends into western Victoria where dingoes are a listed threatened species. Surveys of the public suggest that lethal management of dingoes is not widely supported (van Eeden et al. 2019, 2020) and does not fit with society expectations to protect and conserve the natural environment.

There is limited evidence that the South Australian Government has actively and meaningfully engaged with First Nations peoples regarding the management of dingoes, especially south of the dingo fence.

**Action:** We ask that the South Australian Government enact measures to protect and conserve dingo populations across public lands, balancing the need to mitigate risks to livestock with conserving dingoes across the landscape. The most important step the Government could take would be to introduce a moratorium on aerial and ground 1080 baiting, trapping and shooting programs targeting 'wild dogs' in National Parks and conservation areas. More active engagement with First Nations peoples south of the dingo fence should be a priority.

# Current South Australian "wild dog" public policy is not evidence based

While current South Australian Government policy recognises the ecological and cultural importance of dingoes north of the dingo fence, it aims to eradicate all dingoes south of the dingo fence including in Ngarkat Conservation Area. Mandatory baiting densities/frequencies (south of the dingo fence) and use of aerial baiting is not in

keeping with scientific knowledge of the importance of maintaining healthy dingo populations across the landscape for ecosystem resilience. Dingoes provide a net benefit to landholders (particularly those with cattle) by suppressing kangaroo, pig, wombat and goat abundance (Pople et al. 2000; Letnic & Koch 2010; Letnic et al. 2012; Allen 2014, 2015; Moseby et al. 2019), thereby increasing pasture productivity (Prowse et al. 2015). Dingoes only pose a marginal risk to cattle and baiting has been observed to increase calf losses (Allen & Gonzalez 1998). The net productivity and ecosystem benefits of dingoes substantially outweigh the risk that dingoes pose to livestock; risks that can be managed with appropriate animal husbandry practices, non-lethal measures (ie livestock guardian animals and electric fencing) or targeted lethal control (shooting and trapping).

Action: Re-allocate funding for lethal control programs targeting dingoes in National Parks and conservation areas to assist primary producers directly with the impacts of dingoes including employing expert trappers to target problem animals, education of landholders about the use of livestock guardian animals (van Bommel & Johnson 2012, 2023) anand the provision of funding opportunities for landholders to improve livestock fencing, husbandry, adopt predator smart deterrents and protection measures on private land as part of Predator Smart Farming (Boronyak et al. 2023; Boronyak and Jacobs, 2023).

# Summary

We strongly urge the Minister to reconsider current public policy regarding dingoes in South Australia and to protect a vulnerable dingo population in Ngarkat Conservation Park. We also urge the Minister to adopt public policy concerning the dingo that affirms their status as a native species, including the development of a conservation strategy that preserves and protects dingoes in the South Australian landscape. On the balance of scientific evidence, ethical reasoning and society-wide expectations, protection of dingoes should be enhanced rather than diminished.

Signed:

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#### <u>References</u>

Allen LR (2014) Wild dog control impacts on calf wastage in extensive beef cattle enterprises. Animal Production Science, 54, 214-220.

- Allen LR (2015) Demographic and functional responses of wild dogs to poison baiting. Ecological Management & Restoration, 16, 58-66.
- Allen LR, Gonzalez A (1998) Baiting reduces dingo numbers, changes age structures yet often increases calf losses. In: 11<sup>th</sup> Australian Vertebrate Pest Conference.
- Boronyak, L., Jacobs, B. and Smith, B (2023). Unlocking lethal dingo management in Australia. Diversity, 15(5), p.642.
- Boronyak, L. and Jacobs, B., 2023. Pathways to coexistence with dingoes across Australian farming landscapes. Frontiers in Conservation Science, 4, p.1126140.
- Brook LA, Johnson CN, Ritchie EG (2012) Effects of predator control on behaviour of an apex predator and indirect consequences for mesopredator suppression. Journal of Applied Ecology, 49, 1278-1286.
- Cairns KM, Crowther MS, Parker HG, Ostrander EA, Letnic M (2023) Genome-wide variant analyses reveal new patterns of admixture and population structure in Australian dingoes. Molecular Ecology, 32, 4133-4150
- Geary WL, Ritchie EG, Lawton JA, Healey TR, Nimmo DG (2018) Incorporating disturbance into trophic ecology: fire history shapes mesopredator suppression by an apex predator. Journal of Applied Ecology, 55, 1594-1603.
- Johnson CN, VanDerWal J (2009) Evidence that dingoes limit abundance of a mesopredator in eastern Australian forests. Journal of Applied Ecology, 46, 641-646.
- Letnic M, Baker L, Nesbitt B (2013) Ecologically functional landscapes and the role of dingoes as trophic regulators in south-eastern Australia and other habitats. Ecological Management and Restoration, 14, 101-105.
- Letnic M, Koch F (2010) Are dingoes a trophic regulator in arid Australia? A comparison of mammal communities on either side of the dingo fence. Austral Ecology, 35, 167-175.
- Letnic M, Ritchie EG, Dickman CR (2012) Top predators as biodiversity regulators: the dingo *Canis lupus dingo* as a case study. Biological Reviews of the Cambridge Philosophical Society, 87, 390-413.
- Mitchell DR, Cairns SC, Koertner G, Bradshaw CJA, Saltré F, Weisbecker V (2023) Differential development rates and demographics in red kangaroo (*Osphranter rufus*) populations separated by the dingo barrier fence. Journal of Mammalogy, doi:10.1093/jmammal/gyad053.
- Morris T, Letnic M (2017) Removal of an apex predator initiates a trophic cascade that extends from herbivores to vegetation and the soil nutrient pool. Proceedings of the Royal Society B: Biological Sciences, 284, 20170111.
- Moseby KE, Crowther MS, Letnic M (2019) Ecological role of an apex predator revealed by a reintroduction experiment and Bayesian statistics. Ecosystems, 22, 283-295.
- Newsome TM, Ballard G-A, Crowther MS, Dellinger JA, Fleming PJS, Glen AS, Greenville AC, Johnson CN, Letnic M, Moseby KE, Nimmo DG, Nelson MP, Read JL,

- Ripple WJ, Ritchie EG, Shores CR, Wallach AD, Wirsing AJ, Dickman CR (2015) Resolving the value of the dingo in ecological restoration. Restoration Ecology, 23, 201-208.
- Pople AR, Grigg GC, Cairns SC, Beard LA, Alexander P (2000) Trends in the numbers of red kangaroos and emus on either side of the South Australian dingo fence: evidence for predator regulation? Wildlife Research, 27, 269-276.
- Prowse TAA, Johnson CN, Cassey P, Bradshaw CJA, Brook BW (2015) Ecological and economic benefits to cattle rangelands of restoring an apex predator. Journal of Applied Ecology, 52, 455-466.
- Smith BP, Cairns KM, Adams JW, Newsome TM, Fillios M, Déaux EC, Parr WCH, Letnic M, Van Eeden LM, Appleby RG, Bradshaw CJA, Savolainen P, Ritchie EG, Nimmo DG, Archer-Lean C, Greenville AC, Dickman CR, Watson L, Moseby KE, Doherty TS, Wallach AD, Morrant DS, Crowther MS (2019) Taxonomic status of the Australian dingo: the case for *Canis dingo* Meyer, 1793. Zootaxa, 4564, 173-197.
- van Bommel L, Johnson CN (2012) Good dog! Using livestock guardian dogs to protect livestock from predators in Australia's extensive grazing systems. Wildlife Research, 39, 220-229.
- van Bommel L, Johnson CN (2023) Still a good dog! Long-term use and effectiveness of livestock guardian dogs to protect livestock from predators in Australia's extensive grazing systems. Wildlife Research, doi:10.1071/WR23008.
- van Eeden LM, Newsome TM, Crowther MS, Dickman CR, Bruskotter J (2019) Social identity shapes support for management of wildlife and pests. Biological Conservation, 231, 167-173.
- van Eeden LM, Newsome TM, Crowther MS, Dickman CR, Bruskotter J (2020) Diverse public perceptions of species' status and management align with conflicting conservation frameworks. Biological Conservation, 242, 108416.
- Wallach AD, Johnson CN, Ritchie EG, O'Neill AJ (2010) Predator control promotes invasive dominated ecological states. Ecology Letters, 13, 1008-1018.