

**Submission
No 397**

INQUIRY INTO DINGOES IN NATIONAL PARKS IN NEW SOUTH WALES

Name: Mr Paul Bourne

Date Received: 21 July 2026

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21 July 2026

The Chair
Legislative Council Animal Welfare Committee
Parliament House
Sydney NSW 2000

Dear Committee Chair,

Submission: Legislative Council inquiry into dingoes in NSW national parks

Firstly, thank you to the NSW Government for facilitating the establishment of this inquiry. Thank you also for extending the submission date to today's date.

Attached hereto, please find my submission to the inquiry, which may be publicised as part of the Committee Report.

Thank you.

Yours faithfully,

Paul Bourne

Attachments:

- Annex 1. Statutory power to control dingoes in NSW national parks
- Annex 2. Images of Australian dingoes and other dingo-like canids
- Annex 3. When and how did dingoes arrive in Australia
- Annex 4. Paul Bourne bio

Paul Bourne Submission: Legislative Council inquiry into dingoes in NSW national parks

This submission presents the following recommendations to the Animal Welfare Committee in relation to each of the terms of reference forming the basis for the subject inquiry. Following the recommendations is the rationale upon which they are based.

(a) The genetic status of dingoes, the distinction between dingoes and dogs and recent research into the genetic profile of NSW dingoes

DNA profiling has revealed that dingoes are genetically distinct from domestic dogs and that so-called *wild dogs* are in fact pure dingoes, or possess a high percentage of dingo DNA. Researchers report that phylogeny and ancient DNA research estimate that the dingo lineage diverged from other early dogs 8000–11,000 years before present (YBP) and that it is not appropriate to use the term *wild dog* when referring to dingoes due to their distinctiveness from domestic dogs.

That, in line with Smith (2026) it is recommended that the NSW Government adopt the name *Canis dingo* to refer to dingoes, and that all National Parks and Wildlife Service (NP&WS) staff be informed accordingly, and be instructed to amend any relevant publications/media in line with the decision.

(b) The legislative, regulatory and policy frameworks governing the management of dingoes in New South Wales in national parks

i) A) That the NSW Government amend Schedule 5 of the *Biodiversity Conservation Act 2016 No 63 (NSW)* to remove the words *and not including dingoes*, such that the Schedule will read: **mammals**—mammals of any species (including aquatic or amphibious mammals ~~but not including dingoes~~).

B) That the NSW Government task the NSW Scientific Committee to review and update *Schedule 4 Key Threatening Process of the Biodiversity Conservation Act 2016 No 63 (NSW)* **Predation and hybridisation by Feral Dogs, *Canis lupus familiaris*** in light of current scientific knowledge and information presented to this Inquiry.

ii) That in light of 1) A) the NSW Government immediately exclude lethal control for dingo management in NSW national parks and amend any relevant publications accordingly.

iii) (A) That, in consideration of the inhumaneness of the use of 1080 for animal control, which constitutes a criminal offence under the provisions of the *Prevention of Cruelty to Animals Act 1979 (NSW)*, the NSW Government immediately ban the use of the poison *sodium fluoroacetate* (1080) for any purpose within NSW national parks.

(B) Additionally, that the NSW government legislate to ban the use of 1080 for any purpose in NSW.

iv) In light of DNA evidence relating to dingo ancestry, and evidence relating to the longevity of dingo presence in Australia, that the NSW Government review all publications relevant to dingo management in national parks such that dingoes are referred to as a *native animal*.

v) That the NSW Government, within the limits of its statutory powers, immediately instruct all relevant persons* to remove any reference to dingoes being classified as a *pest* in any statute, regulation, code, policy document, guideline, standard operating procedure, management strategy or any other document pertaining to the management of dingoes. In addition, any such document referencing dingoes as *wild dog* or *Canis familiaris/Canis lupus familiaris* be amended such that dingoes are not included within such categories, and are referenced only as *Canis dingo*, common name *dingo*. As part of this initiative, the web page: www.environment.nsw.gov.au/topics/animals-and-plants/pest-animals-and-weeds/pest-animals/wild-dogs , and any similar web pages, should be taken down.

* Relevant persons is to include all NP&WS staff and any other agency or person relevant to dingo management in, but not limited to NSW national parks.

vi) With reference to v) above, that the NSW Government repeal or amend all statutes, regulations, codes, policy documents, guidelines, standard operating procedures, management strategies or any other document pertaining to the management of dingoes which are purposed for lethal control of dingoes, whether named as such or referred to as *wild dogs* or *Canis familiaris/Canis lupus familiaris*. Given that DNA analysis reveals that most wild dogs are in fact dingoes, and that wild dogs are regarded in negative terms, such as *exotic predators* (*Land Management (Native Vegetation) Code 2018 - Schedule 3*), it is recommended that all documents with authority enabled for *wild dog management* be repealed or amended. It is recommended that *Border Fence* statutes and regulations be reviewed, and modified as required such that dingoes are conserved and protected, and any reference to provisions of the *Wild Dog Destruction Board* be removed.

vii) Notwithstanding the scope of the terms of reference of this inquiry, the recommendations herein have much broader applicability, to *NSW Department of Primary Industries, Local Land Services NSW, Crown Lands NSW, Water NSW and Forestry NSW* managers and to other persons responsible for any other land. Accordingly, it is recommended that the Committee urge the NSW Government to apply these recommendations statewide.

(c) The ecological role of dingoes in national parks

In conjunction with actions from (a) and (b) above, that the NSW Government task a suitable organisation to compile a *Fact Sheet on the ecological role of dingoes in the natural environment* (which will include, but not be limited to, national parks). The document should cover, but not be limited by, the context of the dingo - how long it has been part of the Australian natural environment, the different groups of dingoes in Australia, its trophic status and importance of same, its Indo-Pacific relatives, the importance of land management practices to embody dingo protection, and future directions for dingo protection (and hence the continuance of the ecological role of the dingo).

(d) The cultural significance of dingoes for First Nations communities

That the NSW Government adopt the principles contained in the *First Nation's Dingo Declaration* which resulted from the National First Nations Dingo Forum held in September 2023, with the clear message that: *Lethal control (of dingoes) should never be an option.*

That the NSW Government task a suitable organisation to compile a *Fact Sheet on the cultural significance of dingoes for First Nations communities* (which will include, but not be limited to, national parks).

(e) The impact of current government policies and programs for the management of dingoes in national parks

That, in recognising the ecological role of dingoes, their importance to First Nations peoples, and affording their protection in all national parks, the NSW Government supports the farming sector where predation by dingoes on livestock is an issue.

That the NSW Government place a high priority on the provision of assistance to NSW farmers for the application of electric fencing, and other proven strategies, in order to minimise the impacts of dingo predation on livestock, and to provide mental health support services for any farmer in need.

(f) Dingo management including opportunities for incorporation of Indigenous knowledge and leadership in dingo conservation in national parks

It is recommended that the NSW Government liaise with First Nations organisations to develop of strategy for the inclusion Indigenous knowledge and leadership in dingo conservation in national parks.

(g) Any other related matters

That, in consideration of the continued inhumane use of 1080 poison for pest animal control, the NSW Government implement the recommendations of the June 2020 NSW Legislative Council *Select Committee on Animal Cruelty Laws in New South Wales*, and in particular, Recommendations 3, that **the NSW Government move responsibility for animal welfare matters out of the Department of Primary Industries**, and 14, that **the NSW Government establish an independent statutory body, the *Independent Office of Animal Protection*, to oversight the animal welfare framework.**

That the Committee share relevant information with those tasked with the current review of the *NSW Biosecurity Strategy**.

* <https://www.dpi.nsw.gov.au/dpi/biosecurity/managing-biosecurity/nsw-biosecurity-strategy-2022-2030>

That, in consideration of the above recommendations, the NSW Government seek to liaise with its counterparts in other states and territories in Australia, with a view to revising a national approach to dingo conservation, protection and management which does not include lethal control, and,

That, in consideration of the inhumaneness of the use of sodium fluoroacetate (1080) for pest animal control, the NSW Government advocate for banning the use of the poison Australia-wide, and,

That consideration be given for recommending that *humaneness* is included in the AGVET codes, such that the APVMA is bound to consider *humaneness* when assessing a product for registration in Australia.

1 June 2026 was the release date of the publication *Canis dingo – Understanding Australia’s Apex Predator*, authored by Bradley P. Smith. It is recommended that all members of the Committee use this book as a guide prior to finalising the report into dingoes in NSW national parks.

Additionally, in July last year the book *Dingo*, by Roland Breckwoldt was released. It provides considerable value as a compendium of the issues relating to dingo management in Australia, from the perspective of someone who has had so much to do with dingoes in his lifetime.

Rationale

The rationale for the above recommendations is provided for each of the terms of reference as follows:

(1) That the Animal Welfare Committee inquire into and report on the treatment and the cultural and ecological significance of dingoes in national parks in New South Wales, and in particular:

(a) the genetic status of dingoes, the distinction between dingoes and dogs and recent research into the genetic profile of NSW dingoes

Since DNA profiling has become possible, a number of researchers have examined the genome of *dingoes* and *wild dogs*. Cairns *et al.* (2023) undertook genome-wide SNP DNA analyses and modelling based on the DNA of 402 wild and captive dingoes from across Australia and then carried out comparisons to domestic dogs. The researchers then performed ancestry modelling and biogeographic analyses to characterise population structure in dingoes and investigate the extent of admixture between dingoes and dogs in different regions of Australia. The researchers also found that there are at least five distinct dingo populations across Australia and limited evidence of dog admixture in wild dingoes. Souilmi *et al.* (2024) analysed genome-wide data from nine ancient dingo specimens and found that the continent-wide population structure observed in modern dingo populations had already emerged several thousand years ago. Their research found that the ancestry of dingoes from the east coast of Australia has resulted from at least two waves of migration from source populations with varying affinities to New Guinea singing dogs, and additionally, that modern dingoes derive little genomic ancestry from post-Colonial hybridization with other domestic dog lineages, instead descending primarily from ancient canids introduced to Sahul thousands of years ago. Cairns *et al.* (2023) noted that phylogeny and ancient DNA research estimate that the dingo lineage diverged from other early dogs 8000–11,000 years before present (YBP). The research findings strongly support the on-going use of genome-wide SNP genotyping as a refined method for wildlife managers and policymakers to assess and inform dingo management policy and legislation. The researchers concluded that at a minimum, the definition of dingoes in conservation policy and legislation should include historical dingo backcrosses using a genetic threshold of 93% dingo ancestry. Based on their findings, the researchers recommended that wild canids in Australia be referred to as *dingoes* (for those derived from dingoes) and *feral domestic dogs* (for those derived from domestic dogs) in policy and legislation (although the

prevalence of free-ranging domestic dogs in Australia was found to be very low, with less than 1% of samples identified as feral dogs).

Smith (2026) explores the matter of dingo taxonomy at some length, making the point that the distinctiveness of the dingo, and its ancestry, warrant its distinct classification, and makes a convincing case for dingoes to be named as *Canis dingo*. It would seem that it is now time for the NSW Government to acknowledge the science and the importance of dingoes and assign to it appropriate nomenclature.

Just how long dingoes have actually lived with first nations peoples is not known. Humans have been recorded as living with dogs for a very long time. In Central Turkey researchers found three dog puppies placed in a pit directly above a human burial were dated at 15,800 YBP, although archaeologists have unearthed much older suspected dogs (Grimm, 2026).

Research has determined that Australian dingoes and *New Guinea singing dogs* share almost identical DNA, and the lineage of both can be traced back through the Malay Archipelago to Asia (Wikipedia, 2026NGSD). For the interest of the Committee and others who may choose to access the submissions to the Inquiry the submitter has provided images of various canids in the Pacific and Asia (Annex 2) and the possible pathways by which dingoes may have arrived in Australia, and when (Annex 3).

(b) the legislative, regulatory and policy frameworks governing the management of dingoes in New South Wales in national parks

Management of national parks in NSW generally must be consistent with the objects of the *National Parks and Wildlife Act 1974 80 NSW* (Annex 1), which relate to this inquiry, and which include the conservation of nature, including, but not limited to, the conservation of habitat, ecosystems and ecosystem processes, as well as biological diversity at the community, species and genetic levels. Dingoes have been part of Australian ecosystems for thousands of years (Cairns *et al.*, 2023), and this reality, together with their unique genetic profile, warrant their conservation and protection, concurrent with their recognition as Australia's apex land predator, and an end to their persecution.

NSW NP&WS has stated that statutory powers/responsibilities/obligations are conferred upon it under the general provisions of the *Biosecurity Act 2015 (NSW)* (Annex 1). In relation to dingo management in NSW, the Environment NSW website states:

About wild dogs

A wild dog is any dog (*Canis familiaris*) living in the wild, including dingoes, other feral dogs and their hybrids. Wild dogs pose a significant biosecurity risk through:

- predation and harassment of livestock and some native fauna
- the spread of disease

As a result, they have been identified as a priority pest animal under all [11 regional strategic pest animal management plans](#) developed by Local Land Services. It is therefore necessary to manage wild dogs under the general biosecurity duty of the *Biosecurity Act 2015*.

The general biosecurity duty requires any person dealing with a biosecurity matter (such as wild dogs), who knows or ought to know of the biosecurity risks posed by that biosecurity matter, to take measures to prevent, minimise or eliminate the risk as far as is reasonably practicable.

This means that the occupier of lands (both private and public) is required to take all practical measures to minimise the risk of any negative impacts of wild dogs on their land or on neighbouring lands.

(Source: www.environment.nsw.gov.au/topics/animals-and-plants/pest-animals-and-weeds/pest-animals/wild-dogs)

The *Biosecurity Act 2015 No 24 (NSW)* (Annex 1) is about what a person on a Sydney Metro Mariyung train might expect it to be about – biosecurity matters such as varroa mite, red imported fire ants, H5 bird flu, exotic wildlife and checks at ports of entry. They would not expect a dingo poisoning program in NSW national parks to be a matter for the *Biosecurity Act*, and they would have a point, as it seems that the Act bestows no such statutory duty/powers/responsibility/obligation upon NP&WS or any other person. To understand the relevance (or not) of the Act to dingo management requires following a rather convoluted pathway from Section 15 of the Act, to the Regulation 2017, then back again to two parts of Schedule 3 of the Act, which results in the apparent non-listing of dingoes as declared pests. It should be noted that the Act (S.7) defines *non-indigenous animal* to mean an animal *not native to Australia before European settlement*, the corollary of which is that dingoes, because they were present in Australia before European settlement, are *native indigenous animals* (which is at odds with *Schedule 5 of the Biodiversity Conservation Act 2016 (NSW)* (Annex 1) in the listing for *mammals*, which specifically excludes dingoes).

The Environment website page above refers to 11 regional strategic pest animal management plans, one of which is the *Greater Sydney Regional Strategic Pest Animal Management Plan 2024-2028*, which states:

1.4 What is considered a pest animal?

Pest animals can be considered as any species (other than native species) that present a biosecurity risk.

Whilst the *NSW Biosecurity Act 2015* does not define pest animals, there are specific activities that are permitted under the Biosecurity Order (Permitted Activities) that would otherwise be prohibited (such as keeping exotic animals in captivity).

It is the responsibility of individuals to ensure they discharge their general biosecurity duty to manage the biosecurity risks posed by pest animals. The *Biosecurity Regulation 2017* outlines mandatory measures for pest animal management in NSW. General control and management of pest animals outlined in this plan can be considered mechanisms for individuals to meet their general biosecurity duty and land managers and community members should work with identified stakeholders for ongoing implementation of pest animal management practises.

(Source: <https://www.nsw.gov.au/departments-and-agencies/local-land-services/resource-library/regional-strategic-pest-animal-management-plans>)

The Strategy (above) may be construed as misrepresenting the wording of the *Biosecurity Act 2015* by a) disregarding the definition of non-indigenous animal, where dingoes fall into the category of native indigenous animal by default, and b) by stating that the Act does not define pest animals, when in fact it does, and lists them in the Schedules, and c) mis-represents the meaning of the *mandatory measures* attributed to the *Biosecurity Regulation 2017*. In relation to wild dog management, the Strategy claims a statutory duty (and authority) which it may not have. The Strategy, in Section 5.5, contributes useful information, although the disease transmission factor in relation to wild dogs might explain that many animals can transmit tapeworm, including kangaroos and wallabies (Victorian Government, 2026), and that Neosporosis, whilst associated with canids, is also transmitted by other animals, including birds (Wikipedia, 2026N). Minimising interactions between wild canids and stock animals through the use of exclusion fencing (electric) will both reduce dingo attacks on farm animals and reduce transmission potential with regard to disease.

In correspondence to the submitter in relation to a proposed 1080 baiting program to control wild dogs and foxes, NPWS stated that wild dog management activities focus control where dingo (wild dog) risks to agriculture and threatened animals are high. Researchers acknowledge (and referenced herein) that the dingo has co-existed within our natural areas for thousands of years, and is an integral part of maintaining ecosystem balance and should not be considered as a risk to threatened animals. It does appear that the real driver for 1080 aerial baiting is agricultural interests. (It is noted that copyright for the *National Wild Dog Action Plan 2020-2030* is held by Australian Wool Innovation Ltd).

In arguing the use of 1080 poison for wild dog control, NP&WS have stated that *Many Australian native animals have a high tolerance to 1080, as the active ingredient occurs naturally in a range of native plants*. Whilst this statement is partly correct, in NSW no such plants occur naturally (Twigg & King, 1991; Leong *et al.*, 2017), thus making the statement quite deceptive. It should be noted that Local Land Services NSW is also promulgating the argument of resistance to 1080 due to the occurrence of the chemical in native plants on their website, which states:

Sodium fluoroacetate occurs naturally in 82 species of native Australian trees and shrubs, primarily found in Western Australia, the Northern Territory and parts of central Queensland. Because native Australian animals have evolved alongside these plants, many species have developed a higher natural tolerance to 1080 than introduced animals.

(Source: <https://www.nsw.gov.au/regional-and-primary-industries/biosecurity/pest-animals/vertebrate-pests/using-1080-baits-nsw#toc-how-1080-works>)

In NSW there are no native plants in which Sodium fluoroacetate (1080) occurs naturally, and despite this, the Local Land Services website still seeks to use the idea of resistance to help justify 1080 use without providing evidence that fauna in the state have evolved such resistance.

Baiting with 1080 poison (*sodium fluoroacetate*) is classified as a **non-humane** method of pest animal control by RSPCA (2023). Victims of 1080 poisoning suffer a painful, distressing and lingering death (Sherley, 2007). 1080 does not discriminate on which species it will kill. Strategies have been developed (such as bait burial and ejectors) to minimise risk to **non-target species**, however there will always be a

risk to certain non-target species from 1080 baiting because of the various pathways for ingestion, such as direct consumption and consumption of poisoned carcasses, vomit or faeces. Aerial baiting increases the risk to non-target species as the baits are simply dropped onto the ground surface. Justine Philip (2021) examined 1080 aerial baiting programs between 1946 and 2019 and was scathing in calling out the practice for being flawed and deceptive.

The report concludes that the impact of aerial baiting is essentially incalculable, and potentially environmentally hazardous. The risks of these programs have been greatly understated in published reports and reviews over the past 70 years.

It is disconcerting that NP&WS 1080 program documentation is biased. For example, NSW NP&WS justifies aerial baiting via the document *Environmental Risk Assessment - Aerial baiting with sodium fluoroacetate (1080) for wild dog and fox control 2022–2027* (NP&WS, 2022) (the ERA). NSW does not condone cruelty to animals, and *The Prevention of Cruelty to Animals Act 1979* (the PCA) spells this out (S.3a). If someone is cruel to an animal, they are liable to prosecution under the Act, and the Act binds the crown. Additionally, S.389 of the *Biosecurity Act 2015 No 24 NSW* states: *This Act or an instrument made under this Act does not authorise the contravention of the Prevention of Cruelty to Animals Act 1979*. For NP&WS, and any other person, to avoid liability for prosecution under the Act, they would need to demonstrate reasonableness, necessity or justification for inflicting pain, suffering or distress upon an animal. The ERA fails to mention the PCA in its list of Legislation (or anywhere else), nor *cruelty*, *humane* or *RSPCA*. The ERA has chosen to be blind to the cruelty associated with 1080 use and the intent of the PCA. The ERA also fails to refer to the Philips study, which pre-dates the publication date of the ERA, the omission itself adding weight to the conclusion reached by Philip.

The *Rural Lands Protection Act 1998 No 143 (NSW)* (in relation to a pest control order made by the Minister) expressly states (143 (4)) that *an order must not specify any method of eradication in relation to a pest that would constitute an act of cruelty committed upon an animal within the meaning of the Prevention of Cruelty to Animals Act 1979* (Annex 1).

Alternatives to 1080 baiting are available, such as cage trapping, electric fencing and guardian animals, are available to address the issues relating to agricultural activities.

The Blue Mountains community, through its elected members of council, unanimously resolved to not use 1080 in its operations, and to encourage other agencies to do the same (Resolution 21/17060). It is very clear, the wishes of the community, through its elected representatives, have unanimously opposed the use of 1080. And, the people of NSW, through their elected representatives, and the enabling of the *Prevention of Cruelty to Animals Act 1979 (NSW)*, have made it clear that being cruel to an animal is not acceptable, and any offender (including the Crown) will be liable for criminal prosecution. NP&WS in the Blue Mountains should respect the resolved wishes of the community, and for NSW, respect the law of the state with respect to being cruel to animals.

The conflict of interest between protecting animals from cruelty and land management practices was recognised by the June 2020 Select Committee on Animal Cruelty Laws in New South Wales. Among other things, the Committee recommended that the NSW Government move responsibility for animal

welfare matters out of the Department of Primary Industries, and establish an independent statutory body, the *Independent Office of Animal Protection*, to oversight the animal welfare framework. These recommendations were rejected by the government, via the then Minister for Agriculture (the same Minister who, to *napalm* the mouse plague, purchased the highly toxic Bromadiolone prior to approval for use – APVMA approval was not given, due to the high risk the chemical posed to the environment.

The Biodiversity Conservation Act 2016 No 63 NSW lists, in **Schedule 4 Key threatening processes**, Predation and hybridisation by Feral Dogs, *Canis lupus familiaris* (Note: the NSW Scientific Committee, established by the *Threatened Species Conservation Act*, listed *Predation and Hybridisation by Feral Dogs (Canis lupus familiaris)* as a Key Threatening Process in Schedule 3 of the Act. The listing was provided for by Part 2 of the Act). The findings of this Inquiry may well have implications for this KTP, prompting the need for review by the NSW Scientific Committee.

(c) the ecological role of dingoes in national parks

Dingoes have been a part of Australian ecosystems for thousands of years. When settlers arrived in Australia, ecosystems were in trophic balance. Because dingoes adapted their predatory menu to include introduced animals (sheep, poultry etc.) they were persecuted, and this is still the case today in many parts of Australia, and certainly has been the case until now in NSW national parks.

Apart from maintaining trophic balance, dingoes also help to suppress introduced pest species. Hunter and Letnick (2022), in a study in forests of south-eastern Australia, suggest that **removal of dingoes by baiting may be counter-productive for biodiversity conservation because it may lead to higher activity of foxes.**

Boronyak and Jacobs (2023), in exploring pathways to coexistence with dingoes across Australian farming landscapes, described how lethal control has high costs to carnivores in terms of injury, death, disruptions of social groups, or loss of access to resources, and cascading ecological consequences for other species and ecosystem services. In light of the escalating biodiversity crisis, the time has come to modernise and democratise Australia's approach to wildlife management. The researchers initiated an engagement process that included in-depth interviews with Australian livestock producers, ecologists, conservation and animal welfare NGOs, livestock grazing industry representatives and policy makers, as well as field observations and document analysis. The result was a model of transformative change that examines human-dingo coexistence in rangeland grazing systems in Australia. The researchers believe that system transformation to coexistence would restore the role of dingoes as apex predators to regulate introduced species and contribute to healthy rangeland ecosystems. The mainstream adoption of *Predator Smart Farming* as an integral part of sustainable agriculture has the potential to enhance biodiversity, landscape resilience, food security, and livelihoods for livestock producers.

Crowther *et al.* (2021) investigated the impact of hybridisation between dingoes and domestic dogs, and the subsequent introgression of domestic dog genes into dingo populations. The researchers found that the effects of hybridisation and resultant introgression from domestic dog genes appear to have little effect on aspects of the functional morphology or ecological role of the dingo. **Accordingly, introgression does not diminish the conservation status of the dingo.**

(d) the cultural significance of dingoes for First Nations communities

The views of First Nations communities were made clear in the National First Nations Dingo Forum held in September 2023, which resulted in the signing of the *First Nation's Dingo Declaration*, an extract of which reads: *We do not, and have never, approved the killing of Dingoes. Killing Dingoes is killing family. We demand an immediate stop to this 'management' across Australia. Lethal control should never be an option* (Woods, 2023).

Both Brekwoldt (2025) and Smith (2026) provide valuable information on the importance of dingoes to first nations Australians. After reading these accounts, the question arises: who are we to be persecuting the dingo the way we traditionally have? The answer is very clear – **we need to stop, NOW, and respect the cultural importance of the dingo to First Nations people.**

(e) the impact of current government policies and programs for the management of dingoes in national parks

Based on the evidence, it is clear that the driver for NP&WS policies and programs for the management of dingoes in national parks is farming interests. The principle means of *managing* dingoes in areas of national parks which are anywhere near farmland is to poison them using the inhumane means of 1080 baiting.

(f) dingo management including opportunities for incorporation of Indigenous knowledge and leadership in dingo conservation in national parks

The Draft NSW Biosecurity Strategy Consultation Paper is currently being reviewed. The review provides an opportunity for increasing the part played by First Nations communities in dingo protection and management. Issues under consideration in the review include:

Aboriginal culture and heritage: *The physical and non-physical elements which are significant for Aboriginal people and contribute to Country and community wellbeing. Three of these are:*

- **Animal health and welfare** - The safety and wellbeing of vertebrate animal species including mammals (not humans), birds, reptiles, amphibians and fish.
- **Biodiversity and ecosystems** - Native flora and fauna, their habitat, diversity, and ecosystem functions and services, and their ability to recover, survive and thrive in the long term.
- **Strategic Deliverables** - Partnerships are established with Aboriginal organisations and communities to enhance biosecurity risk management and decision making, which will: *Strengthen engagement and partnership to help understand and manage biosecurity risks.*

Land managers and communities need a shared understanding of the risks and impacts, and their roles and responsibilities, as well as education and training to protect against pests and weeds. One focus will be working across government to look for opportunities to **uplift engagement and partnerships with Aboriginal people, organisations and communities**, including Local Aboriginal Land Councils, native title groups, and Traditional Owners. This engagement will aim to support Aboriginal landowner and manager involvement in on-ground invasive species management, and ensure Aboriginal cultural heritage, traditional ecological knowledge, traditional land management and other cultural practices are appropriately recognised and prioritised in asset and regional planning processes and pest and weed programs.

The consultation process will involve a **review and evaluation of the effectiveness of the Biosecurity Regulation 2017** to ensure it complements other relevant legislation and strategic planning processes, including the *Biodiversity Conservation Act 2016* and *NSW Plan for Nature*.

This Inquiry should establish a relationship with those involved in the Biosecurity Strategy Review with a view to achieving consistent outcomes for both dingo management in national parks and the part that dingoes may play, or not play, regarding biosecurity.

(g) other related matters

Much of the effort to control dingoes in national parks is driven by the perceived duty to reduce potential predation on stock located outside national parks. If stock animals can be protected from dingo attack using alternatives to lethal control, then that must be the way of the future.

The concerns of some graziers will be serious, where dingoes live nearby. The dingo has been part of the Australian environment for a very long time, and as such has played an important role in maintaining ecosystem balance. The dingo is also very much a part of first nation culture. When Europeans arrived in Australia, and began grazing sheep, the dingo became a target, and that is how things are today, more or less. To disregard the dingo's right to exist is not right, and in NSW, now is the time to correct past injustices. For farmers, the matter of stock protection is one which deserves attention, but without lethal control of dingoes as a consideration.

Wilkinson (2024) reported on the findings from an internet survey on predation of livestock conducted by Agriculture Victoria, based on responses from 523 Victorian farmers. The survey aimed to gauge the beliefs and behaviours of those who have experienced livestock predation. Slightly more than half of respondents stated that they had seen or heard wild dogs or dingoes around their property in the last five years, and over that period half had also said that they had lost livestock to wild dogs or dingoes. Most losses reported were of sheep, but a substantial minority (24%) reported losses of cattle (mostly calves). The most common method of lethal control was shooting, followed by 1080 poisoning. The various non-lethal control methods for wild dogs or dingoes were mostly seen as ineffective, with only **stand-alone electric fencing, installing infrastructure such as lambing sheds and night pens, and guardian dogs such as Maremmas were seen as effective**. Respondents regarded lethal control as effective and they would like to maintain their right to use it. The report recorded the impacts of stock losses caused by dingo or wild dog attacks, which included financial, feelings for the animals killed and mental health.

Paul Gibb (2023) described a very successful program facilitated by the Central Tablelands Local Land Services whereby assistance grants were offered to sheep farmers to trial electric fencing. The grant scheme was fully subscribed. After three years not a single sheep was lost due to dingo predation, even though evidence of dingo presence was observed. The cost of the fencing was recoverable over 3 - 4 years, and the benefits were not only related to zero stock losses but also to improved mental health. Properties in the area without electric fencing continued to suffer sheep losses due to dingo predation. Moreover, the exclusion of wild dogs from participating farms has totally removed the need to lay poison baits and set traps, while at the same time helping people remain as sheep producers in their respective local communities.

1080 aerial baiting budget allocations: A detailed break-down of the NP&WS budget allocation for the region for all 1080 baiting programs (aerial and ground) for the past financial year and for the 2026-2027 financial year would be useful information to ascertain potential budget availability for implementing alternative strategies to prevent predator impacts on stock. In the event that the Committee recommends, and the NSW Government adopts, a total ban on 1080 baiting, then any funds budgeted for such programs could be automatically re-assigned to non-lethal management programmes such as electric fencing, guardian animals and cage trapping (in certain scenarios).

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Annex 1. Statutory power to control dingoes in NSW national parks

Excerpts from Acts and Regulations

1. National Parks and Wildlife Act 1974 No 80 NSW
2. Biodiversity Conservation Act 2016 No 63 NSW
3. Biosecurity Act 2015 No 24 NSW
4. Biosecurity Regulation 2017 NSW
5. Biosecurity Act 2015 No 24 NSW – Schedule 3
6. Prevention of Cruelty to Animals Act No 200 NSW
7. Rural Lands Protection Act 1998 No 143 NSW

1. NATIONAL PARKS AND WILDLIFE ACT 1974 NO 80 NSW

Current version for 10 June 2026 to date (accessed 14 July 2026 at 19:59)

2A Objects of Act

- (1) The objects of this Act are as follows—
- (a) the conservation of nature, including, but not limited to, the conservation of—
 - (i) habitat, ecosystems and ecosystem processes, and
 - (ii) biological diversity at the community, species and genetic levels, and

2. BIODIVERSITY CONSERVATION ACT NO 63 2016 NSW

1.3 Purpose of Act

The purpose of this Act is to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development (described in section 6(2) of the *Protection of the Environment Administration Act 1991*), and in particular—

- (a) to conserve biodiversity at bioregional and State scales, and
- (b) to maintain the diversity and quality of ecosystems and enhance their capacity to adapt to change and provide for the needs of future generations, and
- (c) to improve, share and use knowledge, including local and traditional Aboriginal ecological knowledge, about biodiversity conservation, and
- (g) to regulate human interactions with wildlife by applying a risk-based approach, and

Schedule 4 Key threatening processes

Predation and hybridisation by Feral Dogs, *Canis lupus familiaris*

(**Note:** The Scientific Committee, established by the *Threatened Species Conservation Act*, has made a Final Determination to list Predation and Hybridisation by Feral Dogs (*Canis lupus familiaris*) as a KEY THREATENING PROCESS in Schedule 3 of the Act. Listing of Key Threatening Processes is provided for by Part 2 of the Act).

Schedule 5 Protected animals

Note: Some protected animals specified in this Schedule may also be a threatened species or a part of a threatened ecological community. Provisions of this Act relating to the protection of protected animals generally also apply to animals that are a threatened species or a part of a threatened ecological community.

Any of the following that are native to Australia or that periodically or occasionally migrate to Australia (including their eggs and young)—

mammals—mammals of any species (including aquatic or amphibious mammals **but not including dingoes**)?

3. BIOSECURITY ACT 2015 No 24 NSW

2. BIOSECURITY ACT 2015 No 24 NSW

PART 1 - PRELIMINARY

3 Objects of Act

(1) The primary object of this Act is to provide a framework for the prevention, elimination and minimisation of biosecurity risks posed by [biosecurity matter](#), dealing with [biosecurity matter](#), carriers and potential carriers, and other activities that involve [biosecurity matter](#), carriers or potential carriers.

(2) The other objects of this Act are as follows--

(a) to promote biosecurity as a shared responsibility between government, industry and communities,

(b) to provide a framework for the timely and effective management of the following--

(i) pests, diseases, contaminants and other [biosecurity matter](#) that are economically significant for primary production industries,

(ii) threats to terrestrial and aquatic environments arising from pests, diseases, contaminants and other [biosecurity matter](#),

(iii) public health and safety risks arising from contaminants, non-indigenous animals, bees, weeds and other [biosecurity matter](#) known to contribute to human health problems,

(iv) pests, diseases, contaminants and other [biosecurity matter](#) that may have an adverse effect on community activities and infrastructure,

(c) to provide a framework for risk-based decision-making in relation to biosecurity,

(d) to give effect to intergovernmental biosecurity agreements to which the State is a party,

(e) to provide the means by which biosecurity requirements in other jurisdictions can be met, so as to maintain market access for industry.

PART 2 - INTERPRETATION, KEY CONCEPTS AND PRINCIPLES

Division 1 - Interpretation

7 General definitions

In this Act--

"non-indigenous animal" means an animal not native to Australia before European settlement.

(Note: The corollary of which is that an animal native to Australia before European settlement is a native indigenous animal)

Division 2 - Key concepts

15 Pests

(1) A **pest** means a [plant](#) or animal (other than a human) that has an adverse effect on, or is suspected of having an adverse effect on, the environment, the economy or the community because it has the potential to--

- (a) out-compete other organisms for resources, including food, water, nutrients, habitat and sunlight, or
- (b) prey or feed on other organisms, or
- (c) transmit [disease](#) to other organisms, or
- (d) cause harm to other organisms through its toxicity, or
- (e) otherwise reduce the productivity of agricultural systems or the value of agricultural products, or
- (f) damage infrastructure, or
- (g) reduce the amenity or aesthetic value of [premises](#), or
- (h) harm or reduce biodiversity, or
- (i) do any other [thing](#), or have any other effect, prescribed by the regulations.

(2) A **pest** includes any [thing](#) declared by the regulations to be a [pest](#) for the purposes of this Act.

PART 23 – MISCELLANEOUS

389 Cruelty to animals not authorised

This Act or an instrument made under this Act does not authorise the contravention of the [Prevention of Cruelty to Animals Act 1979](#).

4. BIOSECURITY REGULATION 2017 NSW

- Made under the [Biosecurity Act 2015](#)
- As at 31 October 2025
- Reg 232 of 2017

PART 1A - DECLARED PESTS

4A Declared pests

Each of the [animals](#) listed in **Division 1 of Part 2 of Schedule 3** to the Act and **Part 3 of Schedule 3** to the Act is declared to be a pest for the purposes of the Act.

Division 4 - Animal pests and diseases

Subdivision 2 - Other animals

[17B](#). Prohibition on dealings with camels, deer, pigs, rabbits and foxes **(Note: dogs, dingoes or wild dogs are NOT included in this listing)**

(4) An occupier of land is taken not to be engaging in a dealing for the purposes of subclause (2)(a) in relation to [animals](#) on the land unless the occupier has actual (rather than deemed) possession of the [animal](#).

5. BIOSECURITY ACT 2015 - SCHEDULE 3

SCHEDULE 3 – Prohibited dealings

[\(Section 151\)](#)

Part 2 - Non-indigenous animals--all dealings prohibited

Division 1 - Animals to which Part applies

2 Non-indigenous animals to which Part applies

Any dealing with a non-indigenous amphibian, bird, mammal or reptile including the following animals **(but not an animal specified in Division 2)** unless the dealing is for [permitted pest animal incursion program purposes](#).

(Under **Mammalia**, dingoes, dogs and wild dogs are **NOT** listed in this **part** of the Schedule)

Division 2 - Animals to which Part does not apply

3 Non-indigenous animals to which Part does not apply

This Part **does not** apply to dealings with the following--

(c) any of the following animals—

Under **Mammalia**, among other animals, are listed cattle, **dog (*Canis familiaris*)**, goat, guinea pig, deer, donkey, horse, cat, hare, mouse, rabbit, sheep.

Part 3 - Non-indigenous animals--dealings other than exhibition or research prohibited

Any dealing with any of the following animals, unless the dealing is for [permitted exhibition purposes](#), is for [permitted research purposes](#), is [ancillary to permitted research purposes](#) or is for [permitted pest animal incursion program purposes](#)--

(Under **Mammalia**, dingoes, dogs and wild dogs are **NOT** listed in this part of the Schedule)

6. PREVENTION OF CRUELTY TO ANIMALS ACT 1979 NO. 200 NSW

3 Objects of Act

The objects of this Act are—

(a) to prevent cruelty to animals, and

4 Definitions

(1) **pain** includes suffering and distress

- (2) For the purposes of this Act, a reference to an act of cruelty committed upon an animal includes a reference to any act or omission as a consequence of which the animal is unreasonably, unnecessarily or unjustifiably—
 (d) inflicted with pain.

5 Cruelty to animals

- (1) A person shall not commit an act of cruelty upon an animal.

[Note: Maximum penalty—

- (a) for a corporation—2,000 penalty units, or
 (b) for an individual—400 penalty units or imprisonment for 1 year, or both.

33B Permitting or failing to prevent commission or continuance of offence

- (2) A person who owns or occupies land on which an animal is located and who—
 (a) knowingly permits an offence against this Act or the regulations to be committed on the land in respect of the animal, or
 (b) fails, without reasonable excuse, to prevent the commission or continuance of such an offence,

is guilty of an offence against this Act.

- (3) The maximum penalty for an offence against this section is the maximum penalty under this Act for the offence permitted under subsection (1) (a) or (2) (a) or not prevented under subsection (1) (b) or (2) (b).

33C Complicity and common purpose

- (1) A person who aids, abets, counsels or procures the commission of an offence against this Act or the regulations by another person is taken to have committed that offence and is punishable accordingly.

- (2) For the person to be found guilty—

- (a) the person's conduct must have in fact aided, abetted, counselled or procured the commission of the offence by the other person, and
 (b) the offence must have been committed by the other person.

- (3) A person cannot be found guilty of aiding, abetting, counselling or procuring the commission of an offence if, before the offence was committed, the person—

- (a) terminated his or her involvement, and
 (b) took all reasonable steps to prevent the commission of the offence.

- (4) A person may be found guilty of aiding, abetting, counselling or procuring the commission of an offence even if the principal offender has not been proceeded against or convicted for the offence.

33D Attempts

A person who attempts to commit an offence for which a penalty is provided under this Act or the regulations is guilty of an offence and liable to that penalty.

35A Act binds Crown

(1) This Act binds the Crown in right of New South Wales and, so far as the legislative power of Parliament permits, the Crown in all its other capacities,....

7. RURAL LANDS PROTECTION ACT 1998 NO 143 NSW

Part 11 Pests

142 Part binds Crown

This Part binds the Crown, not only in right of New South Wales but also, so far as the legislative power of Parliament permits, the Crown in all its capacities.

Division 2 Pest control orders

143 Minister may make pest control orders

(4) An order must not specify any method of eradication in relation to a pest that would constitute an act of cruelty committed upon an animal within the meaning of the *Prevention of Cruelty to Animals Act 1979*.

Annex 2. Historical Australian dingoes and dingo-like canids of PNG, Viet Nam, Vanuatu and Nepal

All photos taken by the submitter, unless otherwise indicated.



A. 1772 *Portrait of a Large Dog* by George Stubbs, from a pelt and notes from Cook's voyage - ArtDaily.com, Public Domain, <https://commons.wikimedia.org/w/index.php?curid=25732360> (Accessed 2 July 2026)



B. *Canis dingo, Dingo* by John & Elizabeth Gould (1863-1868) Mammals of Australia (1845-63) in *The Mammals of Australia* The Public Domain Review: <https://publicdomainreview.org/collection/john-gould-mammals-of-australia/> (Accessed 2 July 2026)



C. 1966 coastal village dog, Rigo District, Central Province, PNG.



D. 1967 Chuave, Chimbu District, PNG.



E. 1970 Ningerum area (near the border with Indonesia and the Star Mountains, Western District PNG (note white tip of tail))

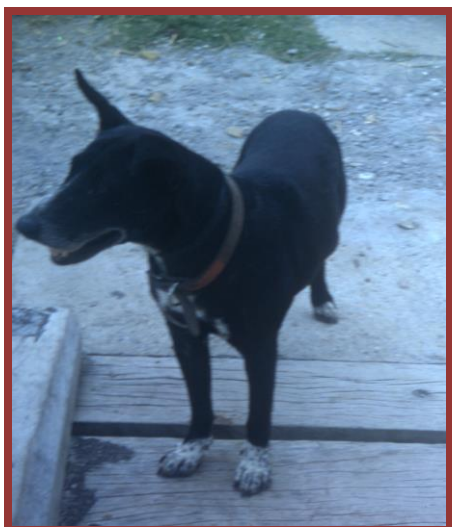


F. 1970 Dogs teeth necklaces (*auwunbutag*) & bailer shell headpiece, Ambaga and Kungim villages (close to Indonesia border), Nth Ok Tedi CD, Ningerum, WD PNG. Note that bailer shells come from the sea, which is 400 km to the south.

Note: A type specimen of a NGSD described by Ellis Troughton in 1957, based on two specimens collected in Hela Province (prev. Southern Highlands), and observed at Taronga Park Zoo, notes a white tip on the tail (Wikipedia, 2026NGSD).



G. 1972 Daru, Western District, PNG – *Hymes* cooling off while on patrol with the submitter.



H. 1976 (about) Misima Is., Milne Bay Province, PNG



I. 1977 Nov - Two dogs, Misima Is. (house flattened by TC Tom). Note white-tipped tail and paws.



J. 1982 (about) Boiu village, Misima Is., MBP, PNG (Photo: D. Isako)



K. 1978 Laiagam, Enga Province, PNG.



L. 1979 Laiagam, Enga Province, PNG.



M. 1979 Maraumanda, Omara R (headwaters of the Korosameri R) Net area, E.Sepik Province, PNG.
Note white paws, muzzle and possibly tip of tail on middle dog.

N. 1983 Kupiano, Central District, PNG.





O. 2015 *Mun* at Bien Hoa, HCMC, Viet Nam. *Mun* was a rescue dog with a wild nature and quite edgy, partly as the result of persecution by two larger Phu Quoc Ridgebacks who also lived on the property. Note Mun's claws.



P. 2015 12 19 *Ro* at Bamboo Village, Ben Cat Town, Binh Duong Province HCMC, Viet Nam.



Q. 2018 Aug – At camp site, high ash plain, Ambrym Is., Vanuatu.



R. 2026 06 13 Tabwemasana Ecotourisme Village dogs, west coast Espirito Santo, Vanuatu (Photo: Martin St-Hilaire Facebook).

A photograph showing three dogs of different breeds (black, tan, and brown) sleeping in a row on a concrete sidewalk next to a red metal shutter. The dogs are lying down, and the scene is brightly lit, suggesting a sunny day.

[illegible]

U. 2020 Street dog story, Dhaulagiri Jagaran Daily, Baglung, Gandaki Province, Nepal.

Annex 3. When and how did dingoes arrive in Australia?

Knowing when and how dingoes arrived in Australia will inform considerations as to the *nativeness*, or otherwise, of the dingo.

Archaeological evidence of dingo presence in Australia comes from sites in southern Australia, which yield dingo bones dated to 3,000 to 4,000 YBP (years before present) (Smith, 2026). DNA analysis of wild and captive dingoes (Cairns *et al.*, 2023) indicates that dingoes diverged from the ancestors of Asian street dogs around 11,000-8,000 YBP. During the last ice age, which lasted from around 65,000 to 8,000 YBP, sea levels were up to 120m lower than they are now. During this time PNG was connected to Australia via the Sahul Shelf (Fig. 1), Australia's coastline was seaward to what it is now, and in some areas, considerably, and Lutruwita/Tasmania was connected to the Australian mainland until about 14,000 YBP (Kennedy *et al.*, 2025).

Kennedy *et al.* (2025) report that the earliest known archaeological evidence for human habitation in Lutruwita/Tasmania is dated at 38,800–41,050 cal BP, inferred evidence of human habitation from landscape burning records within sediment cores is dated at c. 41,600 YBP, and research by the team modelled sea level change and determined that the sea retreated from Bass Strait between 42,000 and 41,000 YBP, thereby supporting the other evidence. The researchers also estimated the rate of lateral re-flooding of Bass Strait at approximately 130 m/yr (or approx. 15km in a person's lifetime), which may have had serious implications for groups or individuals who had planned to return to the other side some time in the future, only to find the route flooded. The western part of Bass Strait would have been inundated approximately 15,000 YBP and the eastern side about 14,000 YBP. If dingoes had been free-roaming or accompanying first nations peoples in southern Australia before these dates then dingoes, or evidence of dingoes, should be present in Lutruwita/Tasmania. The fact that this is not the case suggests that if dingoes had arrived in Australia prior to this time, it must only have been long enough for dingoes (wild or accompanying people) to make it from entry points in the north and across the continent to the south.

Figure 1 shows a generalised pathway of human movement to and within Australia and land extent 65,000 YBP, as well as archaeological sites with dates of early occupation. Bird *et al.* (2019) describe two broadly accepted routes, being *Southern*, via the Lesser Sunda Islands to East Timor and on to NW Australia and *Northern*, being from Sulawesi through Halmahera/Moluccas into NW New Guinea and thence via the Sahul shelf land bridge across Torres Strait into northern Australia (Fig. 2).

The first peoples arrived in Australia some 65,000 YBP, either intentionally by rafts or sailing/paddling canoes or other type of watercraft, or by accident, via natural rafts of pumice beds, vegetation or structures dislodged by tsunamis or washed into the sea by flooding associated with tropical cyclones. The cyclone season in the southern hemisphere (November to May) is the time of the NW (monsoon) prevailing winds, which would assist those departing from islands to the west of Australia to make the crossing. New Guinean populations initiated their settlement in the lowlands 49,000 YBP and established permanent settlements in the highlands 20,000 YBP (Andre *et al.*, 2021), although the northern route wave may have taken place as early as 60,000 YBP, and which continued onward to the Bismarck Archipelago and Solomon Islands soon after landing in Sahul (Cockerill, 2025).

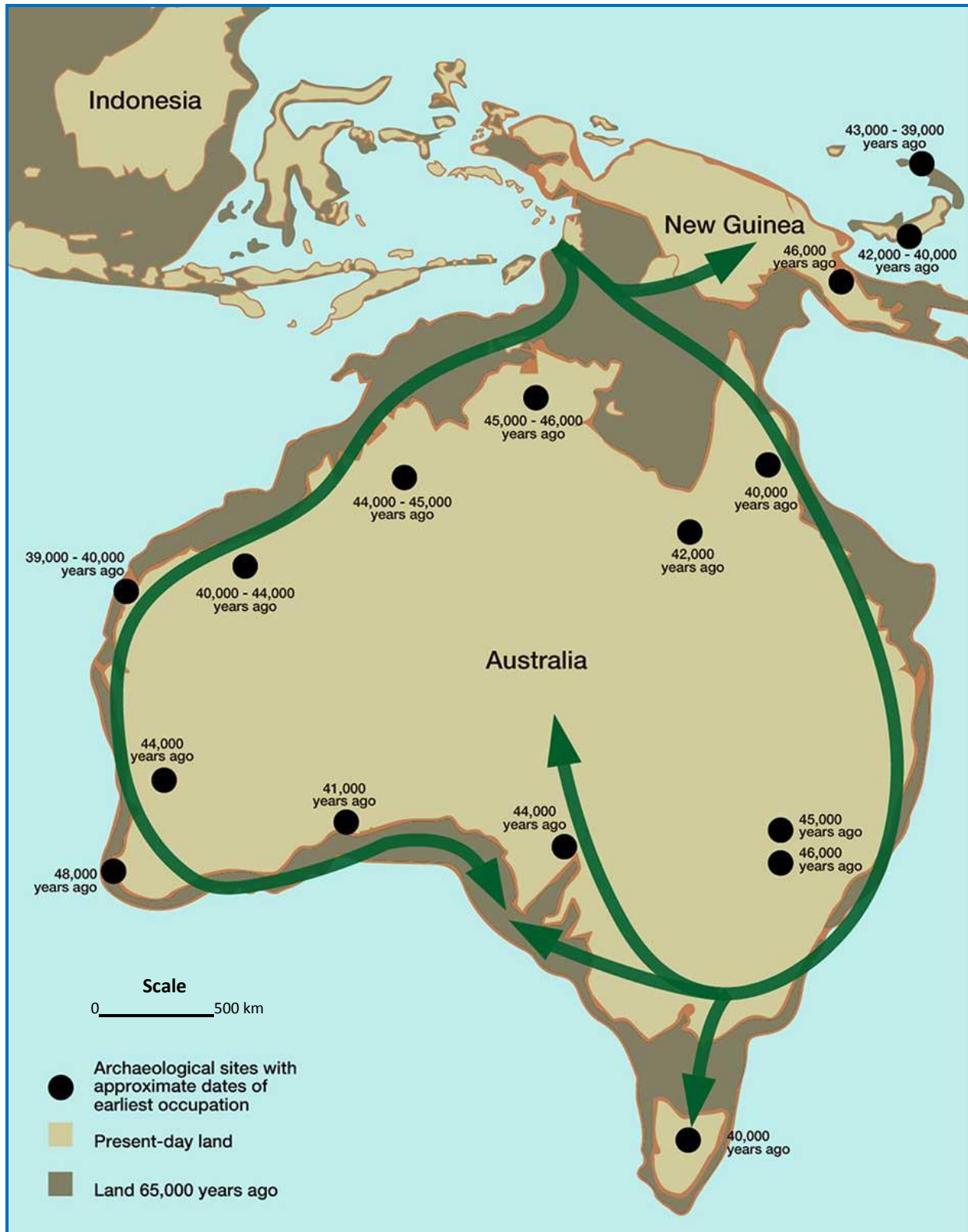


Fig. 1. Modified map of Sahul and Sunda as they were approx. 65,000 yrs ago (Source: Monash, 2026).

Bird *et al.* are of the view that an intentional crossing of Wallacea (the 100 km or so wide water area separating Sahul and Sunda) was more likely than an accidental crossing, and point out that anatomically modern humans had the capacity to plan and make open-sea voyages lasting several days by at least 50,000 years ago.

It seems reasonable that peoples of long ago who were living next to rivers or the sea would have devised rafts or canoes to transit these waterways. It also seems quite reasonable that they would have sought to use some kind of sailing rig to assist them. Horridge (1995) is of the view that the first Australians may have arrived from Indonesia by sailing rafts, if at that time suitable stone tools for canoe-making were not available. The presence of Vietnamese *Dong S'on* drums on

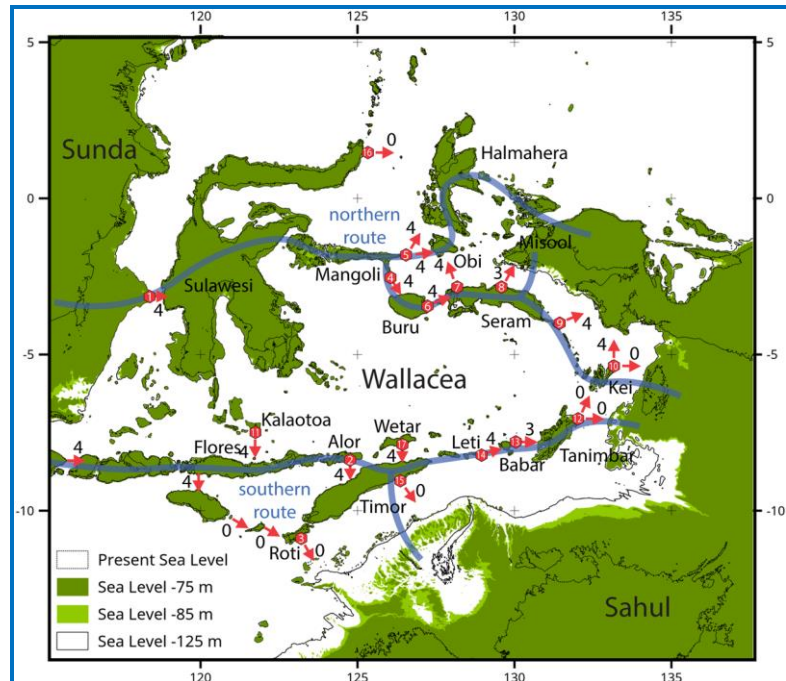


Fig. 2. Wallacea and surrounds with sea levels at -75 and -85 m, with potential northern and southern routes indicated by blue lines. Site numbers used in this study are indicated in red hexagons, red arrows indicate the directions of modelled crossings. Numbers beside each red arrow indicate the number of scenarios with visibility. 4 = visibility across all scenarios (inner and outer, -75 and -85 m sea levels; see methods for definitions); 0 = no visibility for any scenario. (Source: Fig. 1 from Bird *et al.*, 2019).

Timor, and knowing that the Vietnamese make woven bamboo boats, which they seal with a mixture of cow dung and tree gum, provides another possibility for ancient sea travel. Some stone tools present in the Western Province of PNG in the early 1970s are canoe-making tools (Fig. 3), but how long has this stone tool-making technology been present?

Fig. 3. Stone axe and adze heads, large hand axe and sago hammers with stone heads from Western Province, PNG, in the early 1970s.



There are a number of possible incentives for early peoples to journey to Australia. If they were aware that there were other islands nearby, they could assume it would continue eastwards, and head off

during the NW season to investigate. Another incentive might have been to avoid conflict. Ancient groups may have experienced problems (e.g. rivalry, marriage, breach of custom) resulting in a split and the formation of a new communities elsewhere. *Moving away* may have necessitated *looking for another island*. It is likely that if they had a dog they would have taken it with them because of attachment and because they help in hunting and to warn of intruders (these traits were valued by the forest-dwelling family units in the upper reaches of the Fly River of PNG at least until the 1970s).

How plausible might it have been for wild canids to get to Australia by crossing Wallacea *without* human assistance, bearing in mind that at least a pair would have to travel together to establish a lineage in the new land? Piersol (2016) looked into the feasibility of floating islands conveying hominins across water bodies and found that rafting substrata composed of almost any material, including wide sections of coastlines consisting of large floating mats of vegetation (Fig. 3) and pumice rafts (Fig. 4), resulting from natural disasters is possible.

Indonesia lies at the intersection of three major tectonic plates, and their interactions give rise to considerable volcanic activity, earthquakes and tsunamis. And considering the frequency of tropical cyclones, and associated storm surges, the possibility that dingoes travelled unassisted to Australia cannot be ruled out.

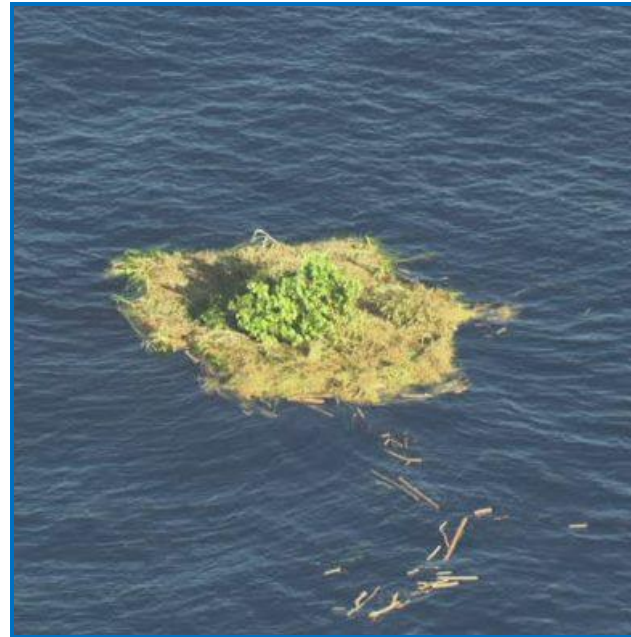


Fig. 4. Vegetation raft. (Source: <https://media.gettyimages.com/id/477189469/video/aerial-track-over-and-around-raft-of-floating-vegetation.jpg?s=640x640&k=20&c=ILxm4ISB-kM3qwylep8XJmDQq9Bgn8VVL41EXUzsVQ=>).

Fig. 5. Floating Pumice island 480km long and 48 km wide, formed by the submarine eruption in 2012 of the Havre caldera in the Pacific Ocean and reported by HMNZC Canterbury (Source: Piersol, 2016). Could such rafts of pumice drift ashore, become colonised with local flora and fauna over time, and with another disaster event, become a floating *ferry*, complete with wild canids?



How long it might take for a raft, canoe or vegetation/pumice raft to cross the 100/150 km wide Wallacea sea-way will depend on sea conditions, currents and wind. An account of a tragic drifting event near Misima Island in Milne Bay Province PNG will give some idea.

At 2pm on Monday 7 November 1977 four men set out by sailing canoe from Awaibi on the south coast of Misima Island in the Milne Bay Province of PNG bound for Motorina Island due south, via Rara Island in the Redlick Islet chain. The weather turned nasty as tropical cyclone Tom tracked into the area. The sailors almost made it to Rara Island, but the seas became so ferocious that their canoe was swamped and disabled. 28 year old Frank Laiasia of Motorina Island, the only survivor of the journey, was saved by drifting to Alcaster Island in the Woodlark Island group, some 160 km from where they dropped sails (Map 2) and a distance equal to or greater than the width of the Wallacean Archipelago during the last ice age. By nightfall on the day of the disaster the sailors were within sight of Rara Island, but then the wind and waves were so intense that they lowered their sails and mast. At around midnight the intensity of the elements caused their canoe to break up. The four decided to cling to the outrigger as the canoe was too badly damaged. One by one the sailors succumbed to the elements and disappeared, with only Frank, the youngest, making it to Alcaster Island three days after setting-out.



Fig. 6. The single-outrigger sailing canoe used by those in this tragedy may have been similar to this Misima canoe, but with a cloth sail (Source: Govt. Office of Information PNG – 1978 calendar).



Fig. 7. The planned and actual route of the sailing canoe, and the estimated drift path of the travellers (Source: P. Bourne)

The tragedy began in wild cyclonic conditions, with strong winds and waves continuing until Thursday morning, when seas were calm. Frank had drifted 160km in three days, hanging onto an outrigger.

Seafarers of southern PNG

The Austronesian derived peoples of the Milne Bay and Central provinces of PNG, and the Kiwai people of the coastal areas of the Western Province of PNG, are renowned for their sea-faring skills. They use different styles of sailing canoes, with the Austronesian Misima people of the Louisiade Archipelago using single-outrigger sailing canoes (Fig. 6), the Austronesian peoples of southern Papua using large double canoes called *lakatoi* (Fig. 8), and the Papuan Kiwai people of the Fly river delta and nearby coastal communities using large double-outrigger sailing canoes known as *mota mota* (Fig. 9). The Misima and Kiwai canoes use a base dugout canoe with planked sides to substantially increase freeboard.

Did the ancestors of these seafarers play a part in the dispersal of the dingo/New Guinea singing dog?



Fig. 8. 1983 Double-hulled *lakatoi* motoring home, sail-assisted, from a fishing expedition. Kupiano, Central Province, PNG.



Fig. 9. 1973 Double outrigger *mota-mota* canoe construction, Sigabaduru, Western Province, PNG. Note the double-masted *mota-mota* in the background.

Annex 4. Paul Bourne Bio

About the submitter

Worked in PNG between 1966 and 1979 as a Patrol Officer, posted to Gumine and Chuave in Chimbu Province, Ningerum, Kiunga (LGC advisor), Lake Murray (OIC) and Daru in Western Province, Kikori (LGC advisor) in Gulf Province, Esa'ala and Misima in Milne Bay Province and Laiagam in Enga Province (OIC). Responsibilities included general administration and patrols to villages, police and magisterial duties, advice to local government and outstations management and agency representation.

Worked in PNG between 1980 and 1983 as Fisheries Station Manager, Kupiano, Central Province. Responsibilities included managing the operation of the fisheries station, marketing of product and investigating resource availability and cottage industries.

Graduated with a degree in Applied Geography (BSc (Hon 1) UNSW).

Worked in Sydney between 1990 and 2006 in environmental management as regulator with the NSW government (Department of Water Resources/DLWC/DIPNR/DNR (now Environment)).

Between 2012 and 2020 worked as an environmental advisor, as part of the Australian government overseas aid program, in Viet Nam, the Philippines and Nepal, and in logistics in Vanuatu.