



# Inquiry into ecosystem decline in Victoria - dingoes

Dr. Kylie Cairns



UNSW  
SYDNEY



@dingogenetics on Facebook  
@dr\_cairns on Twitter

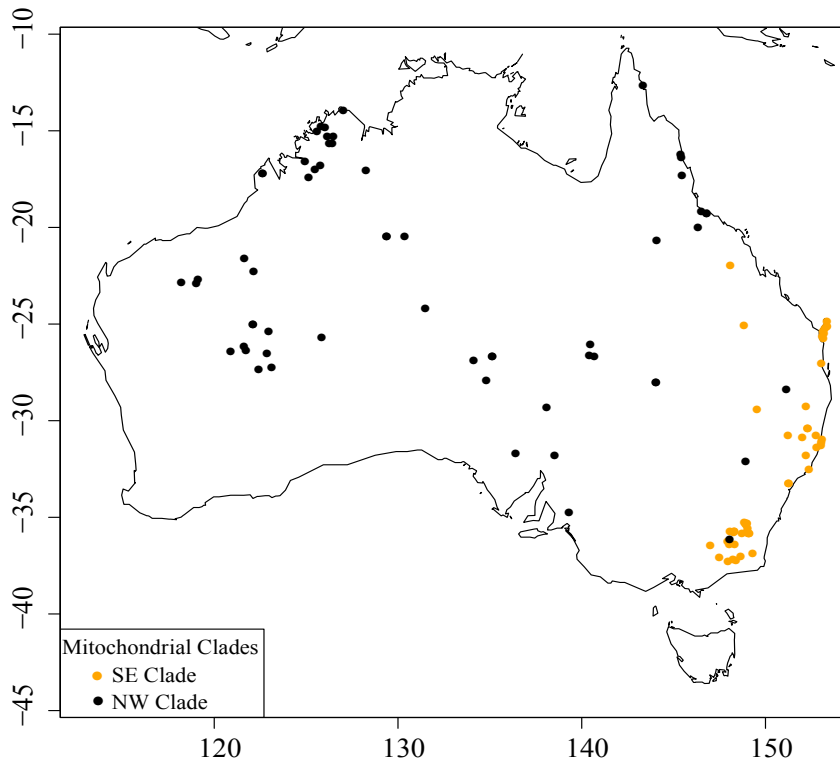
Thanks to Dingo Discovery Sanctuary and Research Centre for photo

# Australia's top land predator: dingoes

- Trophic downgrading across earth due to the loss of predators
- Dingoes play an essential role in:
  - regulating large herbivores (ie kangaroos)
  - suppressing invasive predators (ie foxes & cats)
- High cultural value to First Nations People



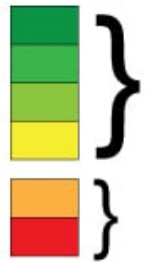
# Dingoes are a listed threatened species in Victoria



- Listed since 2008
  - Major threats include habitat loss, lethal control and dingo-dog interbreeding
  - Priority objectives included
- Increased conservation priority
  - Dingoes in Victoria are specific ecotype only found in southeastern Australia

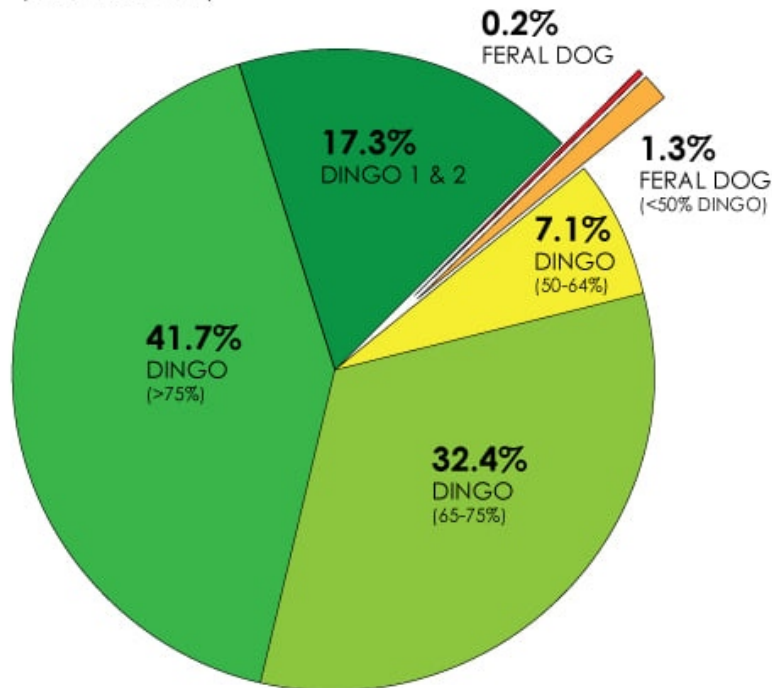
# The wild dog myth

## VICTORIAN DINGO ANCESTRY<sup>1</sup>



**98.5% DINGO**  
(PURE DINGOES + >50%)

**1.5% FERAL DOG**  
(DOG + <50% DINGO)



- DNA testing across Victoria demonstrates that a majority of animals are >75% dingo
- Less than 1.5% of wild canids are feral dogs (ie a pest species)

Wild dingoes either pure or carrying dog ancestry should be referred to as dingoes

1. Raw data Stephens et al. (2015)

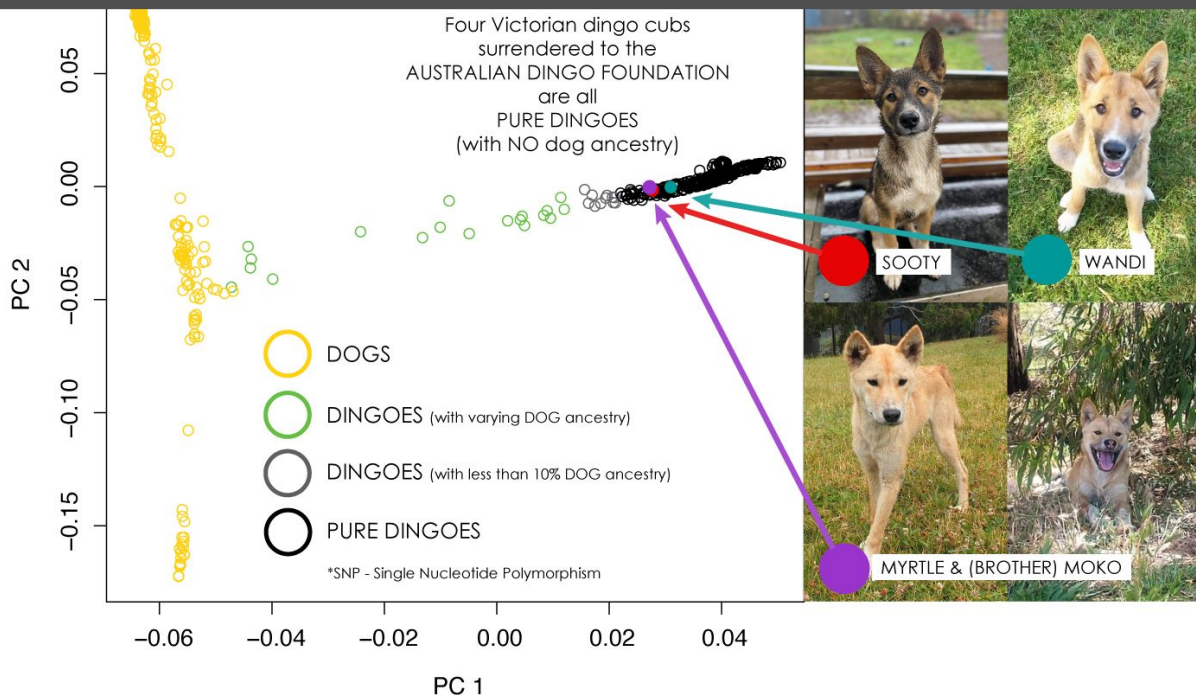
Score	Description	No.	%
1	Dingo 1 (dingo with no dog ancestry)	7	1.1
2	Dingo 2 (likely dingo with no dog ancestry)	101	16.2
3	Dingo with dog ancestry 1 (>75% dingo)	260	41.7
4	Dingo with dog ancestry 2 (65%-75% dingo)	202	32.4
5	Dingo with dog ancestry 3 (50-64% dingo)	44	7.1
6	Feral Dog with dingo ancestry (<50% dingo)	8	1.3
7	Feral Dog	1	0.2
		<b>623</b>	

# The wild dog myth

- New research (unpublished) suggests prevalence and extent of dingo-dog hybridisation in Victoria likely overestimated

## Victorian Wild-born Orphaned Dingo Cubs

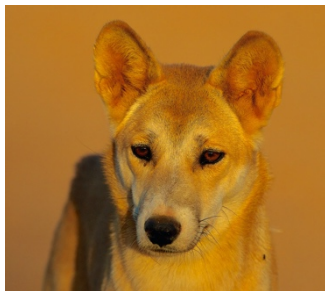
SNP\* DNA Test Results to 300,000 Markers (2019-2020)



Urgent need for updated genetic surveys of dingoes across the state

# The wild dog myth

- There is little difficulty visually distinguishing dingoes from most dogs
- It can be difficult to distinguish between 'pure' dingoes and those carrying dog ancestry
- (legislative) Distinction between 'pure' dingoes and dingoes with dog ancestry is unwarrantated
  - No scientific evidence that ecology is altered in dingoes carrying dog ancestry



Photos from Michelle Brown, Angus Emmott and Dr Dan Hunter (The Natural History Unit)

Photos from Angus Emmott and Kylie Cairns

# Is Victoria legislation conserving dingoes and their ecosystem role?

- Order In Council (2018) unprotects dingoes on all private land in Victoria and public land within 3 km of a private land boundary
  - Active \$120 'wild dog' scalp bounty
  - Aerial and ground 1080 baiting inside National Parks (within the 3km buffer)
- Aerial baiting increases the risk of dingo-dog hybridisation
  - fracturing pack structures and altering demographic
- Mesopredator release of invasive predators has been demonstrated following aerial baiting of dingoes (wild dogs) in Victoria

# Recommendations

- Cease use of the term wild dog – not transparent or accurate
- Urgent genetic survey of wild dingoes in Victoria
- Protect dingoes and their ecological role
  - Include dingoes with >75% dingo ancestry under threatened species listing
  - List all dingoes, as wildlife under Wildlife Act, including those with dog ancestry
- Explore reintroduction (or recovery) of dingo populations in regions where they have become locally extinct
- Increased consultation about land management and conservation with Traditional Owners