

AUSTRALIAN NATURAL HISTORY SERIES

DINGO



BRAD PURCELL



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CONTENTS

Preface	vii
Acknowledgements	ix
1 Introduction	1
2 The dingo in Australia	7
3 What is a dingo and how does it differ from a domestic dog?	15
4 Dingo characteristics and biology	41
5 Hypercarnivory, sociality and territory inheritance	59
6 How do dingoes see Australian landscapes?	69
7 The role of a hypercarnivorous predator	101
8 Competition between humans and dingoes	115
9 Conserving dingoes in Australian landscapes	125
10 Order in the pack	135
References	142
Index	157



A dingo walks behind a hidden trap, in front of a hidden camera, and appears distracted by something at the nearby waterhole.

PREFACE

‘No dog’s allowed in here, son!’ said the storekeeper to Roland Breckwoldt in a supermarket in Port Augusta.

‘That’s not a dog,’ claimed Roland in reply ... ‘it’s a dingo!’

‘That’s okay then.’

Such is life for this Australian icon. Friend and foe. We want to keep them ... but we also want to kill them. We want to hear their lonesome chorus in the evening, but we want to hear the trapper say, ‘I killed that dog that was pestering your sheep.’

Roland Breckwoldt was the first to publish the science and the speculation about both sides of the argument. After all, the dingo that killed the sheep deserves defence since it was possibly acting much like the sheep farmer and trying to provide food for its family. It is this competition that drives the controversial culture about dingoes, and it is only we humans that can make the choice to kill dingoes or to conserve them.

Two questions: 1) ‘did the dingo take the Chamberlains’ baby?’ and 2) ‘are there any pure dingoes left?’ are the most commonly asked by people when they find out I research dingoes. It is unfortunate, however, that after 40–50 years of dingo research in Australia those answers are all people seek, and that a simple ‘yes’ or ‘no’ is unavailable for both questions. I wasn’t born until exactly one year after the baby incident had hit the newsstands on 18 August 1980 so I can only provide comment using available literature about the event. The most plausible explanation for the first question, however, is that a wild dingo had become habituated in the area due to the frequency of human visitors. Azaria Chamberlain, the baby, was possibly murmuring or crying in the tent and one of the local dingoes seized her in the same way that they would if they found a lone or injured joey. Aborigines may have had similar experiences with thylacines and dingoes over millennia, thus creating the rule for their children to carry a firestick with them when they left the campfire at night. Apparently they would tell their kids that it would protect them from evil spirits, and in totemistic religions, evil spirits may take the form of an animal, much like the dingo.

Question two, however, has to be answered rhetorically: ‘What *is* a “pure” dingo?’

Ninety per cent of the time, a pure dingo apparently is a sandy coloured animal with white paws and a white tail tip. The other 10% of the time the questioners either listen with interest whilst I explain the problems when using coat colour, skull measurements or genetics to define ‘purity’, or they agree with my question: ‘yeah ... what is “pure”?’ Adolph Hitler once attempted to create a pure race of humans based on the colour of their hair and eyes, and this eventually helped to cause World War II. So what basis do humans have to define any animals as pure? The most ironic part about Hitler’s definition of pure is that the pure gene for blue eyes was a genetic mutation that occurred between 5000–6000 years ago. Does that make ‘purity’ a genetic mutation? If it does, is not the concept of purity an illusion?

This book has been written to provide a new understanding of the dingo, Australia’s wild dog. Records of dingoes prior to those referred to in this book were generally limited, anecdotal and potentially biased diary entries from European settlers that have remained influential in dingo and wild dog management programs. Dingoes are trapped between the stature of being: 1) an infamous pest animal; 2) a spiritual totemic creature; and 3) a potential keystone species and tool to reverse some impacts of European colonisation on Australian fauna and flora. These three points encapsulate the controversial existence of dingoes. If the dingoes in question are causing problems, then they are referred to as wild dogs and have to be controlled (the politically correct way to say killed or culled) under Australian legislation. Alternatively if the wild dogs or dingoes in question are useful or hail from an iconic stature, then they are referred to as dingoes and afforded a level of protection by legislation and the public. Since only Dr Doolittle and Dr Harry Cooper can talk to the animals, then it is all the more important for society at large to have an understanding of the dingo because we can’t expect them to understand us.

Ultimately Roland summarised the role of the dingo most aptly at the conclusion of his foreword:

‘Perhaps knowing and accepting the dingo is but part of reaching a much larger understanding of our place in the Australian environment.’

I hope that this book can help to do just that: show what the dingo is or has become, and show what we can learn from its story.

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The University of Western Sydney deserves many thanks for the research opportunities, intercontinental experiences and logistical support to write this book. My PhD project originally was envisaged in 2004 as a flagship project for the then new animal science degree and this book is credit to the foresight at the time, of the Dean of the College of Health and Science, Professor Mick Wilson and the Head of School, Robert Mulley. Thanks also to Professor John Bartlett, technical officer Sue Cusbert and the friendly and supportive staff and postgraduate colleagues, especially Jack Pascoe.

Research of this nature could never work without collaboration from stakeholders. Therefore I am grateful to the NSW Parks and Wildlife Division of the Department of Environment, Climate Change and Water, the Sydney Catchment Authority and the Cumberland Livestock Health and Pest Authority for funding and in-kind contributions including field accommodation, aerial services and boat services. The enlightened perspectives and enthusiasm of Andrew Glover, the man who conceived the idea for the dingo project in the Blue Mountains, became the backbone of its stability. Duncan Scott-Lawson, Andrew Simson, Glenn Meade, Brian Waldron, Kim de Govrik, Chris Banffy, Loretta Gallen, Steven Mills and Geoff Ross are just few of the staff I wish to thank personally. Thanks for the valiant efforts of dog trappers Bill Morris, Mick Davis and Andrew McDougall.

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Brad Purcell

1

INTRODUCTION

Australia is a continent of contrasts with extreme weather patterns and many varied landscapes, ecosystems and animals. The dingo *Canis lupus dingo* is one of few Australian species to inhabit the entire mainland, because others are limited in their ability to adapt to the different environments. Unlike Australian marsupials, however, dingoes are a placental mammal and a canid, and canid species are landscape specialists. Following the introduction of the dingo to Australia 4000–5000 years ago, canids were the first terrestrial carnivore to be unsurpassed in world distribution. Like most large carnivores, dingoes sometimes come into conflict with humans and managing dingoes can often be controversial.

Large carnivorous species are probably the most revered in all of nature. In ancient human civilisations, some carnivores were seen as spiritual totems, such as the gray wolf *Canis lupus lupus* by American Indians, and the dingo by Australian Aborigines. In modern European civilisations, however, these two species in particular were portrayed in fables such as *Little Red Riding Hood* and *Wombat Stew* as murderous villains or as cunning impostors respectively. The fear that carnivores instil in their prey and in their competitors has created numerous defensive behaviours throughout

Dingo

evolution. Although only one-third the weight of its ancestor, the 60 kg gray wolf, the dingo is not exempt from being feared as a deadly predator. Kangaroos form large mobs where sentinel animals appear to position themselves at vantage points around the mob to keep watch for any terrestrial predators like the dingo. Competing species such as humans, have invented methods as simple as fences or as elaborate as poisons to not only deter but to destroy other carnivores.

Coming to understand an animal like the Australian dingo is more challenging than simply reading about them or seeing them in a zoo. Dingoes after all are an iconic Australian mammal, similar to kangaroos and koalas. They may be depicted on postcards and stamps, on instant lottery scratchies, in brochures, children's books and even on television and in movies. In contrast, dingoes are persecuted daily by many present-day Australians for both being a higher order predator and for killing introduced domestic herbivores fenced by sparse wire adjacent to dingo habitat (see Figure 1.1). If dingoes are not being shot at, trapped or poisoned, they are being caged



Figure 1.1 Leghold traps are usually set in the humus layer of soil under a scent post. Dingoes unknowingly stand on the treadle when they move in to refresh their scent and are shot by the trapper. Image: Lee Parker

or isolated in zoos and breeding sanctuaries. Millions of dollars are spent annually to control the effects of dingoes and other wild dogs on livestock enterprises. Dingoes were seen as such an immediate threat to livestock production in Australia that the dingo barrier fence, the longest fence on earth, which extends approximately 5400 km through Queensland and South Australia and stands 1.8 m tall, was built between 1880 and 1885 to exclude dingoes from preferred livestock grazing areas in the south-east.

Apart from livestock predation, dingoes have also been blamed for the extirpation of the thylacine *Thylacinus cynocephalus* and the Tasmanian devil *Sarcophilus harrisii* from mainland Australia, and for stealing babies! Although that controversial murder trial in the 1980s received international recognition, dingoes continue to attract tourists to places like Fraser Island off the coast of Queensland, where nine-year-old boy Clinton Gage was killed in 2001. Dingo control programs to protect livestock enterprises, and people, are now being coordinated at federal, state and local levels of government because: a) dingoes may freely travel between states; and b) control programs have never completely fulfilled their duty to actually control some populations. In two studies, livestock predation by dingoes actually increased after control programs had been implemented and no known economic benefit to nearby livestock enterprises could be quantified by the researchers. The information presented to this point, however, says less about dingoes and more about how humans interact with dingoes.

Understanding the Australian dingo or any animal for that matter requires some on-ground experience ... and a little intuition. When I began my research on dingoes in the Burragorang Valley in the Blue Mountains, one of the caretakers at the ghost town known as Yerranderie told me that he once had that instinctual feeling when walking to one of the old silver mines. So he turned and looked at the ledge behind him where a dingo was watching him walk past. Then in August 2005, I was on a short field trip with Fairfax media photographer Jon Reid and had a similar experience. We had staked out at the top dam, a spot that was frequented by two or more dingo packs, from about 1 pm until around 3 pm when three dingoes and four pups strolled past. Once they had finished drinking, playing and had walked out of the area, we tracked them back to their den and tried our hardest to sneak up on the pack but they saw us before we could get a clear photograph. Nevertheless we walked to the den, an ex-wombat burrow, and were standing on the edge when Jon said, 'I swear we're being watched'.

So I looked around and noticed that the dominant female, *Makileiko*, was sitting on an embankment less than 15 metres away watching us. Once we had made eye contact, she slowly slinked away up the hill and out of sight without so much as a whimper.

Previous to that experience, *Makileiko* was the first dingo that I had *the* fleeting glimpse of in the wild. It is known as *the* fleeting glimpse because it is about all most people get to see of a wild dingo. Her name means ‘eyes’ in *Gundangarra*, the local Aboriginal language, aptly so because she always appeared to be making observations when photographed by our hidden motion-sensing cameras. *Makileiko* was a perfect ginger colour with symmetrical front white paws and a black muzzle that was characteristic of ‘the valley dogs’ as locals called them. The dominant male in that pack was named *Gnamaiko*, meaning ‘heart’. He was sable (German shepherd colour) and subsequently identified as the heart of the project, notwithstanding his apparently off-colour, he looked and acted exactly like a dingo and epitomised our study. While observations of *Makileiko* and *Gnamaiko* were made on numerous occasions either directly or through the eyes of our hidden cameras between 2004 and even the last official data collection field trip in April 2007, we never trapped them. We did, however, trap the yearling/subordinate female in their pack during April 2005. She was the first classic tan dingo-coloured animal that we trapped so I named her *Mirri*, one of the *Gundangarra* words meaning ‘dingo’ (see Figure 1.2). *Mirri* also was observed on the last field trip in April 2007. Unlike *Makileiko* who looked in much poorer condition then, than on previous occasions, *Mirri* was pregnant. During my project, these dingoes and others they travelled with were identified as *the dingo pack*.

The subjects of our study were the dingoes living in one of the first dingo conservation zones designated in Australia. The main aim of the study was to document as many aspects as practicable about the dingoes in the Blue Mountains so we could understand their functional role in this landscape better. To do that, we divided the aim into five main objectives:

- 1 to assess the genetic ‘purity’ of the population and to assess the genetic relatedness of individuals and packs;
- 2 to compare their morphometric measurements (body size and shape) and colour with those previously reported for dingoes in other studies;
- 3 to identify diet and seasonal dietary shift;



Figure 1.2 Two of the dingoes studied in the Burratorang Valley, *Mirri* and *Makileiko*, at the top dam during an afternoon walk in September 2005.

- 4 to assess changes in activity and abundance of dingoes and their prey and interactions between dietary data and activity/abundance data; and
- 5 to assess seasonal and short-term patterns of movement and how packs organised themselves spatially in the landscape.

Between 2005 and 2007, we trapped a total of 47 dingoes in the southern section of the Greater Blue Mountains World Heritage Area and saw many more. For one week every month for 24 months I would rake 50 sand plots and collect as many dingo scats (faeces) as possible with volunteers for data on dingo abundance/activity and their diet. We often drove more than 1000 km per field trip and sometimes hiked through dense scrub for hours or days on camping expeditions to retrieve GPS data-logging or VHF telemetry collars. Hours were spent in the NSW National Parks and Wildlife

Dingo

Service helicopters and Cessna aeroplane to locate telemetry collars and retrieve GPS data. The rest of my time between 2004 and 2008 was spent reading, writing and documenting as much information as possible about dingoes and the larger species in the family Canidae. That helped form the content of this book.