

PART C

DINGO CONTROL

A study of the history and legacy of dingo control in Australian ecological and cultural heritage

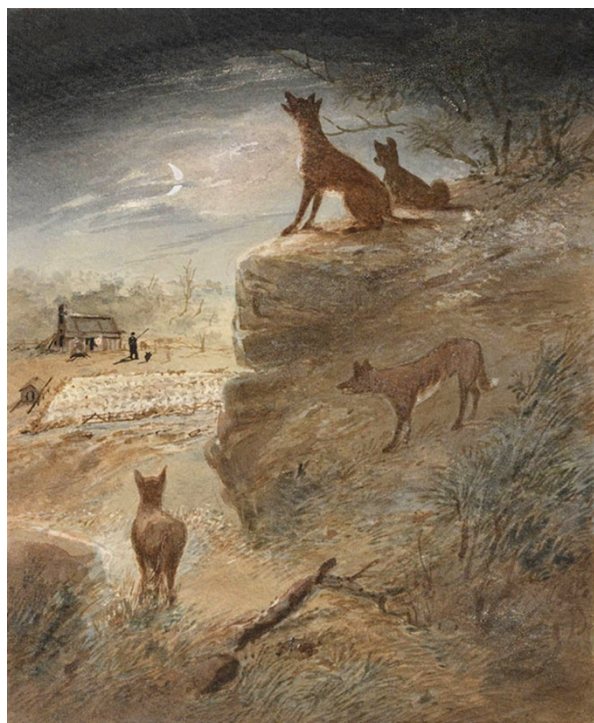


Figure C: Dingoes, or wild dogs of the Bush prowling round the sheep fold, 1862 Source: Dr. Doyle's sketchbook / John Thomas Doyle & Samuel Thomas Gill. Mitchell Library/State Library of NSW

14 THE INSTITUTIONALIZATION OF POISON

14.1 Introduction

The first settlers were enthusiastic poisoners. Everything that seemed at all likely to be troublesome was poisoned – the wombat, the rat kangaroo, the wedge tailed eagle, any species of hawk, the raven, the dingo (which certainly could not have been lived with), the native cat and the tiger cat for poultry raiding and the goanna for egg-eating (Rolls, 1969, p. 18).

A comprehensive historical record of the emergence of poison in dingo control, and subsequently as an all-purpose pest management tool in Australia, is long overdue. This chapter provides a chronological record of the use of poison since the first instance was recorded – using arsenic – to target dingoes, in 1814 (*Sydney* [a], 1814 p. 2). The discovery of strychnine crystals in 1818 transformed farming practices in the antipodes, and by the mid 1800s the partnership between agricultural expansion and the application of environmental poisons had become a powerful ecological force. This environmental history is documented and interrogated throughout this chapter, drawing from data in 19th century government and media reports, original documents and published literature relating to the systematic ‘destruction of the dingo’ [note: a search on that headline brings up 26,091 articles on Trove, the National Library of

Australia online newspaper archive 1832-1999].

14.2 Sydney, 1804

The dingo became marginalized early in the history of Australian colonization, and they were described in newspapers as far back as 1804 as ‘noxious vermin’ (*To the Printer of the Sydney Gazette* 1804, p. 2), and further – ‘remorseless depredators’ (*Postscript*, 1804, p. 4), deserving of fitting punishment for their attacks on livestock, and complicity with Aboriginal resistance (*Sydney*, 1805). Equally, shepherds charged with the care of the livestock, were commonly described as negligent ‘indolent herdsmen’ if the sheep or lambs were attacked by the wild canines. The punishment for convicts charged with the duty of shepherding (usually with no livestock experience), was 100 lashes, close to a death sentence. Some chose not to return to the settlements rather than face the penalty (Atkinson & Quartly, 1987, p. 161):

Dingoes, commonly known as native dogs, often harassed the sheep, particularly in heavily timbered country ... at times men were not vigilant and if the sheep wandered away and were lost the punishment for convicts could be up to 100 lashes, administered back within the settlements – ‘inside’ as the men called it ... Occasionally a shepherd took to the bush rather than submit to this punishment.

The first ‘Plan for the Destruction of the Native Dogs’ was announced in Sydney, 18 January 1811. On offer was the generous bounty of one gallon of spirits or one pound sterling, in return for each complete skin of a fully grown native dog, and half a gallon of spirits or ten shillings sterling, for a pup skin. A fund of £80, equating to 80 gallons of spirits, had been raised (*Notice*, 1811, p. 1). The Reverend Samuel Marsden – clergyman, magistrate, landowner, and stockbreeder, was the main instigator of the project (Sidney, 1852, p 72).

Canines were not the first force of nature that colonial society had to contend with. For two months after initially arriving in Australia, the first fleet had to battle high winds, electrical storms and torrential rain did not let up for weeks, leaving the convicts and marines awash in camps under the storm water. A significant number of livestock were killed when the tree they were sheltering under, was struck by a single bolt of lightning (Collins, 1798, Vol 1):

In the night of the 6th February, six sheep, two lambs, and one pig,

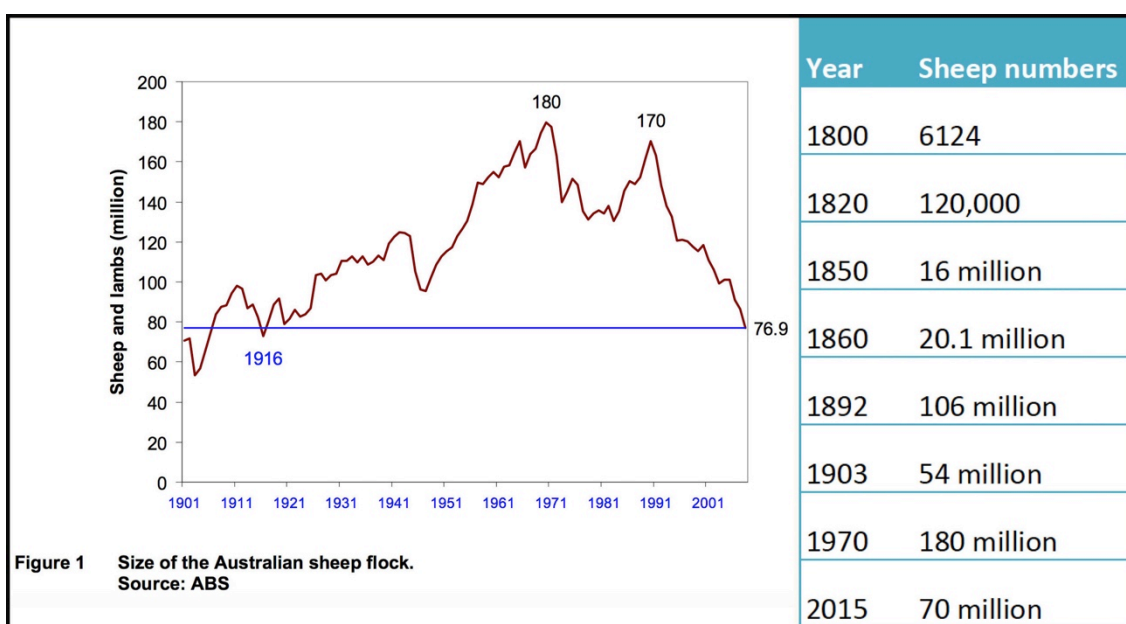
belonging chiefly to the lieutenant-governor, having been placed at the foot of a large tree, were destroyed by the lightning.

It was many months before the dingo was seen as a force to be reckoned with, but eventually they stood accused of taking stock and faced the death penalty along with any convicts that were caught red-handed (Atkinson & Quartly, 1987).

The first record of using poison to combat the dingo-livestock conflict, was published in 1814. An unnamed farmer, “A Gentleman who has extensive stock at the Nepean” reported that he had successfully managed to eradicate a pack of dingoes from his property, by applying arsenic to the carcass of an oxen (*Sydney*, 1814, 26 November p. 2). This was considered a dangerous undertaking in the penal colony, however the technique gathered a quiet following (*Sydney*, 1814, 3 December, p. 2) – see p. 200-201. The discovery of strychnine crystals in Paris 1818 (Buckingham 2008), provided a safer option (being more difficult to conceal as a murder weapon), and strychnine was widely for sale in the colony by 1832 (*Advertising*, 1832 p. 4)

The invention of the wire fence, the availability of poison, and the expansion of livestock holdings across Australia proceeded at such a pace that by 1893 Australia was carrying a national flock of 100 million sheep (this was reduced by half, from the impact of a drought over the following 10 years, see Table 1).

Table 1: Size of the national sheep flock 1800 to 2015, Australian Bureau of Statistics (2011).



The availability and application of poison became an essential component in the

Australian agricultural tool-kit, as will be examined in the following chapters. With intensification of agriculture, poisons were distributed in increasing quantities, by increasingly efficient means; dispensing machines eventually replaced the horse and cart, and in 1946 the application of poison took to the sky (Chapter 14).

14.3 Pesticides

The intention of using applied toxicology as an environmental architect in Australia, was primarily to increase yield on agricultural landholdings, and it has been very successful in providing widespread economic and productivity gains. *Hayes' Principles and Methods of Toxicology* documents the process, summarizing:

The use of pesticides to help feed a growing population by controlling unwanted plants and animals has resulted in increased food production and subsequent better nutrition and health and longer life expectancy ... humans are using toxic compounds in a useful fashion to control their environment to their benefit (Hayes & Kruger, 2014).

Contraindications to the use of poison in pest control are difficult to quantify, with possible (and many proven) risks to human health, in addition to impacts on non-target species, secondary poisoning, environmental uptake, stress/disruption to surviving populations, and extreme suffering to the target species. However, the moral imperative prevails, and while animal cruelty is considered wrong, society can tolerate it if the benefits of the action are believed to outweigh the costs (see 'moral order', Glossary p. v). Another theme at work within the poison narrative, I will argue, is a fossilization of ideas concerning its safety and efficacy. Sociologist Serge Moscovici describes this process of social representation, as losing the knowledge of where the concept originated from. "... the more its origin is forgotten, and its conventional nature ignored, the more fossilised it becomes" (Farr & Moscovici 1984, p. 13) – this underlines an assumption 'that we have always used poisons, so they must be OK' ... Thirdly, there is an invisibility factor that comes into play when dealing with animals that have been labeled as pest species; people can fail to see what is before their eyes – as though sight and perception has been dimmed making some social groups invisible, Moscovici explains (1984, p. 4):

This invisibility is not due to any lack of information conveyed to the eyeball, but to a pre-established fragmentation of reality, a classification

of the people and things which comprise it, which makes some of them visible and the rest invisible”

Additionally lethal controls take place a long way from settled areas, with often no witnesses to their suffering. Alternatively, the species may have been so demonized in the public imagination that they are believed to be deserving of harsh treatment (see Guidebooks p. 169-170). First I will look at the history of poison and its application in pest control, to examine the precedent for these controls.

14.4 Pierre-Joseph Pelletier

Pierre-Joseph Pelletier was born in Paris, 22 March 1788 (Buckingham, 2008), a year described by Tom Griffith “as one of the most momentous dates in the world’s ecological history” (Griffith & Robin, 1997). Just as the arrival of the British marines, convicts, livestock and pathogens transformed the course of Australian history, Pelletier’s discoveries were to transform environmental management in Australia. The impact on dingo populations and ecological function were significant.

In 1818, in collaboration with the chemist Joseph-Bienaimé Caventou. Pierre-Joseph succeeded in extracting *beautiful but sinister crystals* from the plant *Nox vomica* (Buckingham, 2008, p. 51). This discovery revolutionized toxicology – it enabled mass production of a highly toxic, stable and cheap poison, and the crystals were soon to be exported *en masse* around the world. Pierre-Joseph became director of his own chemical plant in Clichy on the outskirts of Paris. Factories were soon launched in England, the export and demand for the crystals appeared inexhaustible.

The poisonous substance, known as strychnine, became the basic component of the Australian farmers tool kit (Trollope, 1873). Strychnine was the main ammunition in the frontier war against Australia’s intractable wildlife – targeted mainly towards the dingo, as landholdings and agricultural production expanded across the continent (Trollope, 1873):

The squatter attempts to rid himself of the dingo by poison, and consequently strychnine is as common in a squatters house as castor oil in the nursery. On many large runs, carts are continually being taken round with baits to be set on the paths of the dingo. In smaller establishments the squatter or his head-man goes about with strychnine in his pocket and lumps of meat tied up in a handkerchief.

The quantities of poison produced for environmental use worldwide were staggering, with hundred of tons of *Nox vomica* seeds being imported each year to the United Kingdom in the 1890s (Buckingham, 2008). At the turn of the 20th century, Britain was producing over five tons of pure strychnine per annum. That is sufficient to poison 100 million people. Medical doctor and author John Buckingham (2008, p. 209) asked the question in *Bitter Nemesis* – ‘Where did it all go?’

14.5 Pest Control from 1814

The dingo was initially the main target for the use of poison as a pest control agent in Australia, however poison is indiscriminate – its application allows for remote but imprecise lethal control of the ecosystem. Many species were vulnerable to the meat baits laced with strychnine that became government issue, with the use of baits mandatory from the 1850s (see p. 202) – birds of prey, carnivorous reptiles, smaller carnivorous marsupials and omnivores, and those that fed on the poisoned carcasses – including members of the Aboriginal community whose traditional bush food included all of the non-target species as detailed in this account, *Round the Zoo*, (1892):

A day or two later the distended body of a poisoned dingo lay in the track, and from its interior crawled a loathsome iguana...The blackfellows eat this reptile, and when cooked over the embers, the flesh certainly looks white and firm. When, however, you have seen one slink out of a dingo’s poisoned carcass you would pass the dish.

Before the development of strychnine, the use of poison in the penal colony had been largely curtailed due to the fear of the deadly substances falling into the wrong hands (*Sydney* [a], 1814 p. 6). However, arsenic was first trialed against the dingo in 1814. The *Sydney Gazette* published the first report in the media, with a detailed account of a ‘Gentleman farmer’ with a large landholding and stock in the Nepean district, who discovered an ailing oxen in the grips of a pack of dingoes. The farmer drove off the dingoes and laid out the body of the oxen, by then deceased. He made slices into the carcass, and rubbed arsenic into the exposed flesh and joints. After leaving the carcass out overnight, it was evident the next morning that the dogs had taken the bait. On the following night, a few remaining dingoes left rows upon rows of footprints in the sandy soil surrounding the carcass, but they did not touch it. By the third night both the footprints and the dingoes had vanished and they were not seen again (*Sydney* [a], 1814, p. 6):

...the inference to be drawn from which is, that the whole of the brood infesting that spot had received the poison, and perished in their recesses. The carcass was afterwards buried, lest any useful dog should be attracted by it, and also become its victim. In this Colony we believe the above experiment to be novel.

The farmer's use of poison and his technique of deception caused concern in the settlement, many worried (justifiably) that in the wrong hands, any access to the deadly substance could backfire on the colony (*Sydney* [a], 1814, p. 6):

Its efficacy cannot be well called into doubt; but there are at the same time such powerful objection to its obtaining as a fixed practice, that it would be hard to give an opinion whether the remedy might not be attended with as great or greater evils than the disease itself .

A week after the article was published, the *Sydney Gazette* reported that the experiment had been considered a success, and that local livestock-breeders were looking for supplies of arsenic. The newspaper was in support of the action and advised the readers (*Sydney* [b], 1814, p. 2):

[Arsenic] can at this time be purchased in Sydney at the rate of 10s per lb, and half a pound be found sufficient to poison all the dogs in any one single neighbourhood. Any Proprietor of stock wishing to know, by line or otherwise, where it is to be obtained, will find the information they require at the Gazette Office.

Arsenic (**As**, number 33 on the periodic table) is a metal, the lethal element often used in insecticides and vertebrate poisons. It has an ancient history; professional poisoners had come into existence in the early days of Christianity and by the 17th century there were specialized schools teaching the deadly arts (Hayes & Kruger, 2014). Popes, emperors and kings had a long tradition of keeping their personal cup bearers close at hand, to avoid an untimely death, and instructions in the “toxicology and mutual improvement in the art of marital removals” became a concern to the church by this time (*The Beaten Track*, 1929, p. 8). Throughout the 19th century an estimated one third of all criminal cases that involved poison, used arsenic – it was readily available and (at that stage) any residues were hard to detect (Acocella, 2013). The discovery of strychnine in 1818 provided a safer alternative for the new colony to employ.

14.6 The Sheep Flock Increases

The pace of the agricultural revolution in Australia was rapid; from the time that fine wool became the recognized as the major export product for NSW in 1822, until 1850, the national flock numbers increased from 120,000 to 16 million (Table 1, p. 208).

The expansion of agricultural holdings across the country was closely tied to technological developments, primarily a partnership between lethal controls and fencing (Chapter 16). Strychnine was commercially available by 1832, with advertising dating from 21 August that year in Hobart (*Advertising*, 1832, p. 4).

Between 1830 and 1840 there was a shortage of labor in the colonies, and squatters were moving on to larger properties – as a result, shepherds were expected to care for vast sheep flocks. Where previously less than 3000 sheep per shepherd was normal, by the 1850s, 4000 sheep per shepherd was the common practice. (Parsonson, 1998, p. 70).

In 1836, George Russell established a sheep run near Geelong – introducing 3000 sheep to the area where there had been a ‘serious problem’ with native dogs. The dingoes were effectively eradicated using cheap and plentiful strychnine baits – the sheep numbers on the property rose from 3,000 to 70,000 by 1850. Baiting the dingo became embedded in law (Parsonson, 1998, p. 243):

By 1852, the dingo, or native dog, had become a menace to sheep farmers. An act (16 Victoria No.44) was passed which encouraged destruction of the dingo and allowed people to lay poison along mutual boundaries, the cost to be shared by neighbours.

The introduction of fencing at this time coincided with a shortage of skilled workers and shepherds, after gold was discovered near Ballarat, 1851 (Parsonson, 1998). Mining offered better prospects for lower paid workers, and they flooded to the gold fields. New markets for meat and produce emerged, and Victoria prospered.

This rapidly changed farming practices to meet supply and demand. Sheep had been subjected to savage attacks from dingoes, so protecting the flocks was paramount (Parsonson, 1998, p.169):

Now there were few shepherds and fences were gradually replacing them, but new controls were also required to curb the dingo menace.

This was achieved through the use of poison baits (strychnine). Once the dingo menace had been eliminated, sheep no longer needed to be guarded, and the change from shepherds and folding systems to permanent paddocks, yards and sheds for handling sheep meant great cost reductions in wool production.

The changes to the landscape were rapid, farming practices and advances in technology evolved side by side, developing an industry irreversibly dependent on poison to control pests species – with the target species moving from predators to super-abundance of herbivores over time. Labilliere (1878) wrote that by 1959:

Kangaroo and emu were also numerous in the neighborhood in the early days, but had almost completely disappeared before the time to which the writer's recollection reaches back. Dingoes, or native dogs continued for some years to be destructive, but were finally exterminated by means of strychnine ... The writer well remembers when, in order to protect sheep from being attacked by dingoes, it was indispensable to have them folded at night, and for the shepherd to sleep beside his flock, in a movable wooden structure, called a watch-box, built on wheels, so that it might be moved when the hurdles of the fold were changed to fresh ground, as they were every day or two.

The implications of the Australian pest control project will be explored further, and the outcomes were unpredictable. Having affectively eliminated the dingo from extensive areas, Australian ecological and cultural systems were disrupted. The extent of the impacts, and the economic opportunities that arose out of the dingoes marginalization, are not possible to understand without an examination of the history of the rabbit and the rabbit industry – an industry that existed in conflict with the graziers from the 1890s until 1950. This is detailed in the following section.

14.7 The Rabbit (*Oryctolagus cuniculus*)

Despite numerous attempts to introduce rabbits to Australia, along with other species favored by the acclimatization societies, it was not until 1859 that the rabbit population managed to get a stronghold on the country. This occurred not far from Russell's sheep run, in the Geelong district where the dingo population had been successfully eradicated in the previous decades (p. 202 this thesis). Thomas Austen famously released his rabbits after they had made port on Christmas day 1859, having

survived the journey from England along with five hares, 72 partridges and a number of sparrows aboard the brig the *Lightening* (Cooke, 2014, p. 29).

The property was Barwon Park, Victoria; 8 years later the rabbit population was so well established that Prince Albert managed to bag 416 rabbits on the property in less than 4 hours shooting (Cooke, 2014). Rapidly the fences, strychnine and rabbits transformed the landscape. Without regulation, the market drove up the sheep flock sizes while driving down the profit margins, pressuring the farmers to increased production while reducing labor costs, as reported in *The Age (Pastoral Improvements, 1863)*:

Some of our sheep farmers are about to let their flock run loose, after having enclosed their runs by wire fence. This will dispense with the necessity of hiring shepherds excepting in lambing down time, and the cost of sheep farming will thus be greatly reduced. There is another advantage, which is this – that it is found by allowing sheep to run loose and roam about that the runs will carry twenty-five per cent more sheep. The margin for profit on sheep has now become so narrow that flockmasters must curtail their expenses to expect a fair return for their capital. Strychnine appears to have settled the dreaded dingo

In South Australia, *The Advertiser* recorded the rabbit history alongside the poisoning of the predators with some regret as early as April 1877 (*The Rabbit Question*, p. 4):

Owing to the dingo and the native cat, the rodents [rabbits] made no headway for a very long time, but as strychnine did its work, and the dogs and cats disappeared, the rabbits increased enormously, and then it was seen what an evil had been imported and established in our vast territory ... The rabbit was thought a most desirable addition to our wild animals, affording fresh game for the sportsman and an additional article of food for the community ... We have destroyed the balance of nature in two ways simultaneously, by destroying the carnivore and introducing a new herbivorous animal of immense reproductive powers. The kangaroo nuisance in various portions of the province has been caused by the destruction of the wild dogs, and the dying out of the natives, who now rarely hunt the larger marsupials.

In 1883, rabbits had joined the dingoes on the list of serious pests, and the “Rabbit Nuisance Act of 1883” was established. The rabbit is still described as “Australia’s

most widespread and destructive environmental and agricultural vertebrate pest” 133 years later (*European Rabbit*, 2011)

14.8 A Proposal For Alternative Methods Of Livestock Protection

Adopting alternative methods to poison to protect sheep flocks from predation was suggested as early as the mid-1800s. Using guardian animals was proposed in 1856. The following account was published in the North British Agriculturalist and the Colonial Times (*The Wools of NSW*, 1856, p 2):

Besides the use of strychnine in poisoning the dog, it is a question which experience can alone determine, how far the practice in South America of training dogs to remain with the sheep night and day, and to protect them from the attacks of all wild animals, may be adopted in Australia. The dogs used for this purpose are early trained. When pups, they are taken to the sheep runs, a nest of wool is made for them, and they are regularly fed and kindly treated. The result is that they remain with the stock, and upon the appearance of any danger, the sheep range up behind the dog, which gives battle manfully to all intruders. This breed of dogs, originally imported by the Spaniards from the Pyrenees, is the sheep dog of the north of Spain, and south of France, They are a large, rough looking animal – color generally black and white. In the Pyrenees, these dogs protect sheep from wolves, and generally from bears. They are more than a match for the wolf ... These dogs could be easily introduced into Australia, as they can be obtained with great facility in the South of France.

Another protection for sheep is goats. In some parts of Asia Minor, and elsewhere, the goats which graze along with the sheep, generally resist any attack made upon the flock. They are also sometimes trained to keep all the stray sheep from wondering beyond the line, which they form on the skirts of the herd. By this means they obtain the freshest food...In Australia, where growths of brushwood prove such a serious loss to the stock master, goats would tend to keep the trees in check.

Landholders found the birdlife, flying foxes and grazing marsupials problematic to ground crops, and elimination appeared to be the only strategy considered to combat the problem. The poisons were redirected increasingly towards this new group of

‘thieving rogues’ and pest control is described to have moved from ‘pragmatic to apocalyptic’ over the course of the century (*Experiments on Flying-Foxes with Explosives*, 1890).

14.9 Rat And Mice Plagues

Another unanticipated environmental disruption, that appears to have coincided with the widespread application of poisons for dingo control, was the emergence of regular rat and mouse plagues. In 1847 a rat plague was first recorded after record levels of rainfall (Rowe, 2011), and many are mentioned after 1870, including South Australia 1871; Queensland 1880; central west Queensland 1883, central Queensland 1887; Alice Springs 1904. Records indicate a rat or mouse plague has occurred every four years on average since 1900 south of the dingo fence (*FAQs about Mouse Plagues*, CSIRO 2003) – the indicator level being an excess of 1000 mice per hectare. This regularity of plagues is unique to just two environments – Australia and the north-western plateau of China. From records it appears that the plagues are commonly the northern rat (*Rattus rattus* and *R. norvegicus*), and house mice (*Mus domesticus*), but there are also 64 species of native rodent in Australia. The house mice “frequent the highly modified agricultural habitats not used by native mice” (*FAQs about Mouse Plagues*, 2003, p. 2) perhaps making them more susceptible outbreaks.

Rat plagues were known to have occurred prior to European arrival in Australia (Anon. 1871), however they were rare events, without the severity and frequency of those recorded since 1847, as can be ascertained from both Euro-Australian records and those of the local Aboriginal people.

The Ballarat Courier, 27 April 1871, published the following report from a region north of Port Augusta, South Australia (Anon, 1871, p. 2):

The army of rats appears to have spread over a large portion of the North, and Mr GL Debney, writing to us from Mundowadana, on 12th April, remarks that they are in swarms infesting every waterhole and spring, The creatures are of the common brown variety, aboriginally termed my-ar-roo, and by the [Aborigines], who consider the visitation as a windfall, are regarded as a great dainty. The natives state that they seldom visit that part of the country, the latest instance having been many years ago, and before whites settled in the Far North. On the last-

remembered occasion they came from the east and north-east, destroying all the feed, and after staying about six months left as suddenly as they arrived. In some places their tracks cover the ground for miles. Our present informant remarks that they seem chiefly to attack the grass roots, and although he has been more than ten year in the North, this is the first time he has seen them.

The use of poison to successfully eradicate the dingo from the landholdings was now applied to curb the rodent and herbivore plagues. A report of a rat plague published *The Telegraph* in 1883, indicates the scale of the disruption. This account is from Vindex station, not far out of Winton, central west Queensland (*Messrs. Griffith and Dickson's Tour*, 1883, p. 5):

Among the stories told about the place is one to the effect that three years ago there was a terrible rat plague on the station. The rats appeared in thousands, destroyed all the vegetables in a garden on the bank of the creek, hamstrung young lambs just after they were dropped, ate the hair off peoples heads while they were asleep, consumed boots while the owners of them peacefully slumbered unconscious of the depredations being committed at their bedside, ate or damaged saddler or harness, and then vanished as suddenly and mysteriously as they came.

Plagues increased in frequency, reportedly encouraged by monocultural environments such as the southern wheat-lands (Olsen, 1998). Throughout the 19th and 20th century, rodents have thrived in the altered agricultural landscapes, with the main influence on their populations being, until recently, weather (more details in Chapter 15, and for the Dingo Barrier Fence see Chapter 16).

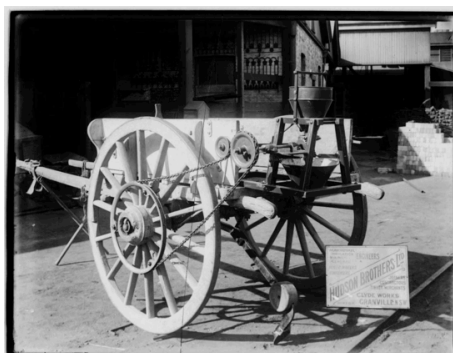


Figure 14-1 Hudson Brothers Ltd. poison cart 1893, Reg. 2009/24/1-12.
Source: Powerhouse Museum Sydney.

14.10 Drought, Depression and Distribution Carts

Sheep distribution in northern Australia reached its largest dispersion on record by 1883, and from the end of the 1880s, it began contracting to the current level of distribution – exacerbated by droughts, the depression of the 1890s, poor markets, transport costs, lack of water sources, and the difficulty of controlling wild dogs on the remote land holdings (Parsonson, 1998). By the early 20th century, the dingoes were wise to the traps, poisons and guns of the Euro-Australians and were becoming increasingly difficult to kill. The following account was from northeast Victoria, 1917 (*Myrtleford Mail*, 24 May):

... the animals are swift, extremely shy, and cunning beyond belief. The average man, try as he will, has no chance of poisoning the average dingo. Out of this region an expert poisoner enjoys as much fame as a great footballer or brilliant lawyer.

Increasingly sophisticated machinery was making distribution of poisons more widespread, efficient and deadly. Figures 14-1, 14-2 and 14-3, show horse drawn poison carts; these carts were designed initially to dispense dingo baits around the periphery of the large land holdings, with the newer carts designed primarily to target rabbits. The first patented device was in 1887 by Lascelles and Anderson and by 1920 the carts were being used in the thousands – the ‘Australian Pastoral Company’ had twelve poison carts working continuously on the Southern Queensland Stations (Rolls, 1969, p. 137). Strychnine, phosphorous and arsenic were dissolved and poured over crushed oats, pollard and syrups to curb the rabbit population. A noted problem was the imprecise nature of the poison and indiscriminate killing that took dogs, goannas, foxes, and dingoes – all naturally occurring predators of the rabbits (Wilkinson-Flicker, 2010)



Figure 14-2 "Toxicon" rabbit poison distributor, made by The Clyde Engineering Co. Ltd, Granville, New South Wales, Australia, 1900-1945. Reg. 88/297-578. Source: Powerhouse Museum

The prize winning IXL Fortescue patented machine was the most popular machine of the day and won many prizes in the field trials; pictured in Figure 14-3, this machine was mounted on a cart and plough, and cut a shallow trench, dispensing the baits along the pathway – phosphate poison mixed with molasses and bran. It was believed to be safe from stock as the poison was lightly buried.



Figure 14-3 Trade catalogue advertisement for the IXL poison dispensing cart, 1905
 Source: National Library of Australia, Rabbit control ephemera collection

Phosphorous was highly flammable and was eventually banned as a pest control agent by 1949, by then already superseded by 1080 poison. The obituary for AJ Fortescue, responsible for the design and distribution of the IXL Great Automatic Patent Pollard Distributor, stated that more than 10,000 of the machines had been produced at his factory in Arncliffe, Sydney. The photos and ephemera are held at the Powerhouse museum; the photo object (Record 88/297-578) reads: "The photographs are also significant in their illustration of the important contribution made by Clyde Engineering to the social fabric of New South Wales."

14.11 Industry Wars

The elimination of the dingo launched an unanticipated (and unconventional) industry in competition with the British farming industry. From the 1890s through to the end of World War 2, rabbits provided a thriving trade in meat and fur for Australia. The industry receives very little acknowledgement given that it managed to prosper through times of drought, war, and economic downturns – events that severely impacted on the sheep and cattle industries and resulted in decades of hardship for pastoralists (Eather & Cottle, 2015). At the time that the rabbit industry was first expanding, the national sheep flock decreased from 106 million to 54 million (1892 to 1904).

Rabbit canning factories and processing plants were established in NSW and Victoria, and the industry provided opportunities to make a good living to those without land title, as well as supplementary income for those with permanent land holdings (Eather & Cottle, 2015).

At Longwood in north-east Victoria, a large canning factory began operations in 1891, and within twelve months was employing 75 men at the processing works with a further 150 men engaged in trapping the rabbits (Eather & Cottle, 2015). On a good day, the factory could turn out 4000 tins of rabbit, with meat from about one and a half rabbits per tin. Trappers were paid four pence per pair of rabbits. By 1898, the factory had closed down largely due to competition from the rising export trade in frozen rabbits. The rabbit exporters paid double the money for rabbit carcasses and the canning factory could not compete.

Brian Coman's monograph *Tooth and nail : The story of the rabbit in Australia* (2010) records the turbulent history in detail (pp. 102-103);

Demand for rabbit meat greatly increased during World War I and, by 1917, trappers were receiving as much as a shilling a pair. This was three times the price paid in the 1890s. Early in 1917, the commonwealth government, acting on behalf of the British government, purchased large numbers of carcasses for the army...There was some agitation to suspend all poisoning of rabbits in Australia so that the trappers could operate more efficiently and keep up with the heavy demand. The rabbit control authorities stood their ground and poisoning continued.

Many trappers were able to invest in property with their profits from the rabbit industry, and no one in Australia went hungry during the war years, with the endless supply of rabbit meat at hand (Edwards, 2014). “In 1929 the rabbit industry was reported to be Australia’s largest employer of labor” (Eather & Cottle, 2015, p. 1). Over 20,000 trappers worked full-time trapping for carcasses or skins, or poisoning for skins. Thousands were employed in numerous freezer works located in rural towns and capital cities; grading, sorting, packing, skinning and transporting carcasses by the tens of millions.

In addition there were thousands employed in the fur industry, and selling rabbit meat directly to the public through street stalls and shops, making felt hats out of the rabbit skins (Eather & Cottle, 2015). Even the ‘scraps’ went into fertilizer, animal feed, and to make gelatin. Each rabbit carcass – trapped or poisoned- was worth money and rabbiters worked independently as suppliers, earning good money.

Around four billion rabbit skins were exported between 1904 and 1947. An estimated 27 million rabbits were consumed by Australians each year during the 1940s (ABC, 2015). Australian soldiers in World War 2 marched into battle wearing slouch hats made of rabbit skins – ten rabbits per hat, and Australia produced 5,500,000 hats during the war (O’Brien, 1947).

Wool remained the nation’s major export earner but income from wool ended up in relatively few hands, while the rabbit industry provided cash on a daily basis to thousands of trappers and workers. The profits from the industry stayed in the local economy, and “unlike other rural industries, the rabbit industry prospered during war, depression and drought”(Eather & Cottle, 2015). In a study of the industry published in 1982, *Last of the Lantern Swingers. A story of the rabbit industry in Sunraysia*, historian G B Eggleton concluded that “the industry was a far better solution to the rabbit problem than either poisoning or myxomatosis.”

Competition between the rabbit industry and the sheep industry played out during the first half of the 20th century, in a war between landowners, government, itinerant trappers and others involved in the rabbit harvest (Coman, 1999). It was fuelled by the increasingly sophisticated machinery of the poisoners, working in opposition to the lucrative rabbit meat and fur market.

14.12 Conclusion

The history of dingo baiting can be dated back to 1814, and offered great benefits to pastoralists on the expanding Australian landholdings. By the mid-1800s the systematic clearing of native flora and fauna, including the elimination of the top order predator, relied on an inseparable partnership between the agricultural and poison industries. This eventually enabled the turning out of sheep for long periods of time unsupervised on the runs, and the vast expansion of agricultural zones, driving up the high stocking numbers on the land.

Negative impacts of what is now recognized as a substantial environmental intervention, were poorly documented over the last 200 years, even though there was recognition of the costs to native ecology, as cited in the media reports. Removing the dingo from the native environment altered population dynamics, allowed for native herbivore populations to increase dramatically. Mouse and rat plagues also followed. Wild herbivore populations exploded followed by more poisoning, and extinctions of the most vulnerable fauna.

The introduced rabbit population became established in the absence of an effective terrestrial predator in 1859, and became a prolific agricultural pest – at the same time as providing a lucrative economic market for itinerate workers – essentially it functioned as a democratic industry, a resource available to all, affording social mobility to marginalized communities, at direct cost (in lost revenue) to the livestock industry. The damage caused to the environment by rabbit populations was substantial, however it would be necessary to estimate the impact of sheep and cattle production on native ecology before drawing conclusions about which ‘industry’ is responsible for the most damage.

The following chapter details the next phase in pest control, where the poison baits took to the sky in 1947, and traces the impact of this on remote populations of dingoes and other marginalized native species.